

THE
HISTORY and ART
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PARTI. containing
I. A Concife Hiftory of the Art from its Invention to the prefent Time; with the feveral Charters granted to the Company of Stationers.
II. Specimens of Printing Types of all Sizes, and various Languages, Mufic Types, Flowers and Ornaments. -

PART II. treating of
I. The neceffary Materials made ufe of in a Printing Office-Of the different Founts of Letter, their Properties, Size, and Application ; with Tables to fhew the Difference there is between the feveral Bodies of Letter, and how one gets in or drives out more than another.-Of Points, Quadrats, Spaces, Rules, Braces, Quotations, Flowers, \&c. \&c.
II. Of Printing Preffes, their Conftruction and Ufe particula 1 ty defcribed, with a Drawing of a Prefs, and of its feveral Parts, cut in Wood.
III. Of Wetring Paper, Knocking up Balls, Pulling, Printing different Colours, and other neceffary Rules and Directions for the Prefsman.
IV. Of the Compofitor's Bufinefs, viz. Drefling of Chaces, Compofing, Spacing, Tying up Pages, Impofing, \&c. with a great Variety of Examples and ufeful Tables.
V. Of Correctors and Correcting, with Directions to Authors how to mark Corrections in their Proof Sheets.
VI. Of Cafting off Copy.
VII. Alphabets and Characters of various Languages and Sciences.
VIII. Of the Bufinefs requifite to be done in the Warehoufe, and the Duty of the Warehoufeman.
IX. An Explanation of Technical Terms ufed in Printing.

The Whole forming a more intelligible and complete Introduction to the Art of Printing than has been hitherto attempted, and containing a great Variety of Inftructions and Examples that are not to be found in any other Performance.

By P. L UCKOMBE, M. T.A.
L O N D O N:
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## $\mathbf{P} \cdot \mathbf{R} \quad \mathbf{E} \cdot \mathbf{F} \quad \mathbf{A} \quad \mathbf{C} . \mathbf{E}$.

Life of Cicero，p．136，and 137，＂Nor was he（fpeaking of Cicero）lefs eager in making a collection of Greek books，and forming a library，by the fame opportunity of Atticus＇s help． This was Atticus＇s own paffion，who，having free accefs to all the Athenian libraries，was employing his flaves in copying the works of their beft writers，not only for his own ufe，but for fale alfo，and the common profit both of the flave and the mafter；for Atticus was remarkable，above all men of his rank， for a family of learned flaves，having fcarce a foot－boy in his houfe，who was not trained both to read and write for him， By this advantage he had made a very large collection of choice and curious books，and fignified to Cicero his defign of felling them；yet feems to have intimated withal，that he expected a larger fum for them than Cicero would eafily fpare；which gave occafion to Cicero，to beg of him in feveral letters，to referve the whole number for him，till he could raife money enough for the purchafe．Pray keep your books，fays he，for me，and do not defpair of my being able to make them mine； which，if I can compafs，I fhall think myfelf richer than Craflus，and defpife the fine villa＇s and gardens of them all．＂ Again，＂Take care that you do not part with your library to any man，how eager foever he may be to buy it；for I am fetting apart all my little rents to purchare that relief for my old age．＂In a third letter，he fays，＂That he had placed all his hopes of comfort and pleafure，whenever he fhould retire from bufinefs，on Atticus＇s referving thefe books for him．＂ Again，in p．453，＂Atticus lent him two of his librarians to affift his own，in taking catalogues，and placing the books in order；which he calls the infufion of the Soul into the body of his houfe．

And among other writers on this fubject，Mr．Wation，in his Hiitor：of Printing，tells us，from an epiftle of Antonius Bononia Becatellus，furnamed Panorme，to Alphonfus king of Naples and Sicily，Lib．j．Epif．Significaffi mibi nuper ex Florcintia，

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Florcntia, \&c. "You lately wrote to me from Florence, that the works of Titus Livius are there to be fold, in very handfome books; and that the price of each book is 120 crowns of gold : therefore I intreat your majefty, that you caufe to be bought for us Livy, whom we ufe to call the king of books, and caufe it to be fent hither to us. I Mall in the mean time procure the money, which I am to give for the price of the book. One thing I want to know of your prudence, whether I or Poggius have done beft; he, that he might buy a countryhoufe near Florence, fold Livy, which he had writ in a very fair hand; and I, to purchafe Livy, have expofed 2 piece of land to fale : your goodnefs and modefty have encouraged me to alk thefe things with familiarity of you. Farewell, and triumph." There are feveral paffages which thew the great' value and efteem of manufcripts, and that the manner of their conveyance was by notaries, as lands, \&c.

Nor was it in Italy only that books were fold at this enormo price, but in France alfo, as appears by what Gaguin wrote to one of his friends who had fent to him from Rome to procure a Concordance for him: " I have not to this day found out a Concordance, except one, that is greatly efteemed; which Pafchafius, the bookfeller, has told me is to be fold, but the owner of it is abroad; and it may be had for a hundred crowns of gold."

The late Mr. Ames had a folio manufcript in French verfe called, Romans de la Rofe (from whence Chaucer's tranflation) on the laft leaf of which is wrote, Ceft lyair cofta au palas de Parys quarante coronnes dor, fans'mentyr; that is, This book coot at the palace of Paris 40 crowns of gold, without lying. (About 331. 6s. 6d. fterling.)

Galen fays, in his Commentary upon the Third of the Epidemicks, and upon the Firt Book of the Nature of Man,

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that "Ptolemeus Philadelphus gave to the Athenians fifteen talents, with exemption from all-tribute, and à great convoy of provifions, for the Autographs and Originals of the Tragedies of Efchylus, Sophocles, and Euripides.

Brafficanus fays, "The emperor Frederick III. knew no better gratuity for John Capnion, who had been fent to him on an embafly by Edward of Wittemberg, than by making him a prefent of an old Hebrew Bible. Upon the whole, Manufcripts, or rather Books, were fo fcarce in thofe days, that they were not fold but by contracts; upon as good conditions and fecurities as thofe of an eftate : among many other inftances of the like kind these is one in the library of the Coilege of Laon, in the city of Paris, made in the prefence of two notaries, in the year 1332. In thofe times the opulent only could procure books, the poor being entirely debarred by their execive price; ; whereas now, by the art of Printing, books may be procured on every fcience, and the inventions and improvêments of every art may be attained by people of fmall fortunes.

Another inflance of the high eftimation in which books were held in old times, is to be feen in the front of the Manufcript Gofpels belonging to the public Library of the Univerfity of Cambridge, written in an old hand in Latin and AngloSaxonic, given to the Univerfity by the learned Theodore Beza. "This Book was prefented by Leofric, Bifhop of the Church of St. Peter's in Exeter, for the Ufe of his Succeffors." This Leofric was Chancellor of England in the reign of Edward the Confeffor, and died in 1071 or 1072 ; and by his bequeft may be clearly perceived its value.

About the time of king Henry II. the manner of pubbifling the works of authors was to have them read over for three days fuccefively before one of the univerfities; or other judges, appointed
appointed by the public; and, if they met with approbst copies of them were then permitted to be taken, whieh werd ufually done by monks, fcribes, illuminors and readers, brought or trained up to that purpofe for their maintenance.

At the time that Printing was introduced, and a little after, the fcribes ufed their utmoft efforts to excel, being willing to keep their places, and would fay, fuch a book was old and would add unprofitable; but fuch an one was new, neat, elegantly wrote, eafy to be read, \&c. which method of proceeding, by the way, may have occafioned the lofs of many a good compofition. Indeed, before this noble art of Printing by feparate types made of metal was found out, there were but few authors in comparifun to the great increafe of learned men fince. But as the method of increafing and propagating books by writing was exceffively tedious and expenfive, fo that few could encourage it but fovereign princes, or perfons of great wealth, the bulk of mankind was in a manner deprived of thofe truly valuable advantages refulting from books; which alone fufficiently fhews, how greatly we are indebted to the inventors of that ufeful, or, as it may juflly be faid, divine art of Printing. We have now no occafion to wait the flow refult of the tranfcriber, but with a little/labour and eafy expence may ftore our libraries with all the knowledge of our learned progenitors ; and have it in our power, with a little ftudy, to be mafters of thofe arts, which they only attend to with the greateft labour and induftry. And if any one would be at the trouble to compare the prefent body of our people, in regard to literature and their capacities in affairs, with thofe of our anceftors, who flourifhed 400 years ago, when there was no printing, they will readily acknowledge, that this curious art hath not a little contributed to the benefit and improvement of mankind.

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Thefe proceedings for the advancement of learning and knowledge alarmed the ignorant and illiterate monks; infomuch that they declaimed from the pulpits, "There was a new language difcovered called Greek, of which people fhould beware, fince it was that which produced all the herefies: that in this language was come forth a book called the New Teftament, which was now in every body's hands, and was full of thorns and briers: that there was alfo another language now ftarted up which they called Hebrew, and that they who learned it were turned Hebrews." Here in England, the great Erafmus tells us, his publifhing the New Teftament in its original language met with a great deal of clamour and oppofition, that one college in the Univerfity of Cambridge, in particular, abfolutely forbad the ufe of it. "Thefe, fays he, objeft to us the feigned authority of fynods, and magnify the great peril of the chriftian faith and the danger of the church, which they pretend to fupport with their fnoulders, who are much fitter to prop a waggon. And thefe clamours they difperfe among the ignorant and fuperfitious populace, with whom, having the reputation of being great divines, they are very loth to have their opinions called in queftion, and are afraid that when they quote the Scripture wrong, as they often do, the authority of the Greek and Hebrew verity fhould be caft in their teeth, and that by and by appear to be a dream, which was by them given out for an oracle." Accordingly the Vicar of Croydon in Surry is faid to have expreffed himfelf to the following purpofe in a fermon which he preached at Paul's Crofs about this time, "We muft root out Printing, or Printing will root out us."

The difcovery of Printing contributed greatly to the production of learned men in Europe. Lord Herbert, in his Life of King Henry VIII. p. 147,' fuppofed that Cardinal Woolfey ftated the effects of this Art to the Pope thus: "That his holinefs could not be ignorant what diverfe effects this new

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invention of printing had produced: for, it had brought in, and reftored books and learning; fo together it hath been the occafion of thofe fects and fchifms, which daily appeared in the world, but chiefly in Germany; where men begin now to call in queftion the prefent faith and tenets of the Church, and to examine how far religion is departed from its primitive inftitution. And that, which particularly was moft to be lamented, they had exhorted lay and ordinary men to read the Scriptures, and to pray in their vulgar tongue; and if this was fuffered, befides all other dangers, the common people at laft might come to believe, that there was not fo much ufe of the clergy. For if men were perfuaded once, they could make their own way to God, and that prayers in their native and ordinary language might pierce heaven as well as Latin ; how much would the authority of the mafs fall? For this purpofe, fince printing could not be put down, it were beft to fet up learning againit learning ; and by introducing able perfons to difpute, to fufpend the laity between fear and controverfy. This at worft would yet make them attentive to their fuperiors and teachers."

It may fhew upon the whole, the notions which prevailed, and what the contenders had to fay, for the fpace of 120 or 130 years; which takes in a period of time the molt remarkable of any which our annals aford, a period when Britannia roufed herfelf from amidft various fuperfitions, and fat down on the feat of liberty, where fhe now remains. Befides which, the Art of Printing had no fmall hare in the glorious Reformation. The Holy Scriptures were printed in our mother tongue; and the people themfelves faw the impofitions of the monks, \&c. This art in its infancy was patronized by the learned and great; and they encouraged pur firft printer, William Carton, to begin and carry on fo laudable and ufeful an undertaking, and he gratefully and honeftly owned it in his books.

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The ufefulnefs of the art is fo univerfally acknowledged, it needs no proof; every one knows, without the invention of this Art, the productions of great men would have been confined in the poffeffion of a few, and of no utility to pofterity. In fhort, What would the Moderns know of the fciences, did not Printing furnith them with the difcoveries of the Ancients? All the elogiums we can beftow on the invention, and the honours we pay it, are far deficient of its merit ; and, we believe, few will deny it when they confider the vaft expences which our forefathers were at to procure manufcripts, of which we have given a few inffances.

We have endeavoured to make this book as ufeful as the limits that an Octavo Volume will admit of, by concifely thewing the Origin, Progrefs, and gradual Improvements of this Art. In our account of the moft eminent men, we have added all their privileges, licences, patents, \&c. which were granted to them; together with the name of the place, and fign at which they dwelt; the encouragements and difcouragements they met with; as alfo the charter of the company of Stationers.

## THE EDITOR.



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THE ORIGIN.
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 of Wood, and what is generally fuppofed to have been in ufe among the Chinese many ages before the prefent method was introduced into Europe.

The prefent Art is but three hundred and thirty years old; and it long remained an undetermined point between the city of Mentz in Germany, and the city of Haerlem in Holland, concerning the place where, and the perfon by whom, this divine art was firft invented and practifed; but, at this

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this time the majority of voices have determined the difpute in favour of Mentz ; however, we fhall give both their pleas.

It is faid to be Firf attempted at Mentz, between the years 1440 and 1450, by John Fust or Faust, John Meydenbuch, and John Genesteisch furnamed Guttemberg. It was long a controverted queftion, by many learned antiquarians, whether Guttrmberg or Faust was the Inventor of that Art, till happily the original infrument was found; wherehy it appears, that the latter only affociated the others with him for the fake of their purfes, he not being able to proceed without, on account of the great expences attending the cutting of the blocks of wood; which, after they were once printed from, became entirely ufelefs for any other work. This inftrument, which is dated Nov. 6, 1455, is decifive in favour of Guttemberg ; but the honour of fingle types, made of metal, is afcribed to FAUST, wherein he received great affiftance from his fervant and fon-in-law Рeter Schoeffer, who devifed the puncheons, matrices, and moulds, for cafting them, on which account he was taken into partnerfhip by his father-in-law, who, in 1455, had a quarrel with, and feparated from, Guttemberg. Thofe who have afferted that Faust was the firt inventor of printing, have given for a reafon, that they have never feen any book with Gurtemberg's name to it ; without confidering, that their firft effays in printing, both by blocks and moveable types, being fold for manufcripts, were anonymous, the invention being by them intended to be kept fecret; nor was it divulged till their difagreement, by which time Faust had made himfelf mafler of the art, and Gutremberg was not able to proceed in it alone, owing to his circumftances.

The inhabitants of Haerlem affert that Laurensz Jansz Koster of that city was the inventor of Printing, about the year 1430 s but that, in the infancy of the invention, he ufed wooden blocks, yet after fome time he left off that method and cut letters on fteel, which he funk in copper matrices,

## THE HISTORY OF PRINTING. 3

 and fitting them into iron moulds, he caft fingle letters of metal in thofe matrices. They affert alfo, that his companion and affifant, John Gutremberg, fole away his tools while he was at church, and with them went to Mentz, where he fet up and practifed the art. They fay much of a book intitled De Spiegel, printed at Haerlem, in Dutch and Latin, which is there yet to be feen; and infift on that book to have been the firt that ever was printed, but yet, as it has no date, there are no pofitive proofs to ground their affertion on.The learned Dr. Willis, of Oxford, made a ftudious inquifition into the Origin of this invention, and in the following concife manner delivered his opinion: "About the year 1450 the Art of Printing was invented and practifed in Germany, but whether firft at Mentz or HaERLEM is not determined; for it appears upon an impartial inquiry, that thofe who had it in confideration before it was brought to perfection, difagreeing among themfelves, feparated company, and fome of them at Harrlem, and others at Mentz, purfued the practife of their forser employ, at one and the fame time."
There is at Mentz, on the front of the houfe wherein Gutfemberg lived, the following infcription, which was put ap in the year 1507.

## JOANNI GUTTEMBERGENSI MOGUNTINO,

## QUI PRIMUS OMNIUM LITERAS $\not \mathbb{E R E}^{\text {R }}$

 IMPRIMENDAS INVENIT, HAC ARTE DE ORBE TOTO BENE MERENTI; YVO VINTIGENSIS HOC SAXUM PROMONUMENTO POSUIT.Jo. Chbist. Seiz's blind partiality to Hollanb has led him into fo many miftakes in his Hiftorical Narrative of the Invention of Printing, which is little more than a revival of the old legend of Adrian Junius, and fo ftuffed with forgeries and calumnies, tending to deprive both Guttemberg

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and Faust of the honour of being the firt inventors of the Art of Printing, the æra of which he carries as far back as the year 1428, attributing it, without the leaft foundation, to one Laurensz Jansz, furnamed Koster of Haerlemg that it may with fafety be rejected.

The firft printed book upon record is The Book of Pfalms, by John Faust, of Mentz, and Peter Schobffer, in 1457, on the $14^{\text {th }}$ of Auguf. However, after this firf effay, they are fuppofed to have printed Durand's Rationale Divinorum, in 1459, and the Latin vocabulary, intitied Catholicon, in $1 q 60$ : but what fignalized Faust; and his art mof, was the firt printed Bible, which he began in 1450 , and finihed in 1460 ; when $\mathrm{F}_{\mathrm{AUS}} \mathrm{T}$, carrying a parcel of printed copies of it to Paris, and offering them to fale as Manufcripts, had the misfortune to be imprifoned, under fufpicion of dealing with the Devil; becaufe the French could not otherwife conceive how fo many books fhould fo exa,lly agree in every letter and point; nor could he obtuin his liberty till he had difcovered the method by which they were done. In 1466 he printed a quarto edition of Tully's Offices, and the year following another edition of the fame book, as may be feen in the catalogues of the fcarce and curious books beionging to the Libraries of both our Univerfities.

From Hafrem it pafed to Rome, in :467; and in 1468 it was carried to Venice and Paris. Hitherto the proficient in this new art had proceeded no further than in the common alphabet, fuited to the vulgar and Latin tongues. The Gothic aiphabet, as it moft refembled the Manufcripts of thofe times, was the firft attenipt; then fome of the Italian princes introduced the Roman alphabet; and, in a fhort time, brought it to that perfection, that, in the beginning of the year 1474, they caft a letter not much inferior to the beft types of the prefent age; as may be feen in a Latin grammar, written by Omnibonus Leonicenus, and printed at Padua, on the $14^{\text {th }}$ of January, 1474 ; from whom our grammarian Lilly has taken the entire fcheme of his grammar, and tranicribed the gieatelt part there-
of, without paying any regatd to the memory of this anthor. At laf, the Italic alphabet came much in vogue : but there were ro Greek types till about the year 1476 , when the Italian printers caft them upon the fame principles as they had done the other alphabets : yet we are not able to afcertain, whether this was firt introduced by the Venetians, Milanefe, or Floreatines, each of thiem olaiming the reputation of that improvement: tho' it is aniverfalls allowed that two Jewifh Rabbins; Jofhua and Mofes, were the firft who publifhed the Hebrew character in feparate types at Saccino, a little city in the duchy of Milan, in the year 1480.

About the end of the 16 th century, the Vatican and Paris printers introduced the Syriac, Arabian, Perfian, Armenian, Coptic or Egyptian characters; which, with feveral other Chinefe and Indian types, have been improved and publifhed by the printers in London.

This art has alfo paffed from Burope to Goa, and the. Philippine iflands in Afia; to Lira, Mexico, Bofton, New York, \&c. in America, and to Morocco in Africa. Befides, amongft other curiofities, and pieces of antiquity, a reverend Clergyman has convinced us of the vulgar error, which reports, that Printing is rigoroully prohibited throughout the Turkif empire, by fhewing the "Capitulations and Articles of Peace between the King of Great Britain and the Sultan of the Ottoman empire, printed at Conftantinople; by Abraham Gabai Chafnahat, Anno 1663."

Thus we have briefly fhewn where, and by whom, the Art of Printing with feparate types was invented; and, allo, how it was at firft difperfed: we fhall therefore proceed to the account of the Practice of this Art in England.

In what uncertainty the hiftory of the firf ufe of Printing in England is, may be feen by the following imperfect detail. Some of our Almanac makers tell us that Printing was firt ufed in England, A.D. 1443, about feven years bèfore it was practifed, cr, about three years after it was firf thought of:

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others fay, not till after 1459. The workmen of the Printingprefs, at the Theatre in Oxford, in a paper printed by them Auguft 23, A.D. 1729, affirm, that the noble Art and Myftery of Printing was fitf invented in' the year 1430, and brought into England in the year 1447; a miftake, perhaps, for 1474. The learned Mr. Collier affures us, that the Myftery of Printing appeared ten years fooner at the Univerfity of Oxford, than at any other place in Earope, Haerlem and Mentz excepted; which fixes the introduction of it there fo early as 1457 : fince it is certain, that it appeared at Rome, and elfewhere in Europe, in 1467; though by the date, put in the margin, he feems willing to have had it thought, that it did not appear at Oxford before 1464. The diligent collector of the Annals of Printing, fuppofes this Art firf brought into England in 1460; and Mr. Bailey implicitly follows Atkyns's romance of the introduction of it in King Henry VIth's reign, or before 1460. But the generality of our Englifh chroniclers, who mention it, tell us, that Printing was firft practifed by Mr. Caxton, in 1471, at Weftminfter, under the patronage of the Abbot.

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mestan he late learned and ingenious Dr. Conyers
INTRODUCTION OF THE ART
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Mipdleton, Principal Librarian of Cambridge, printed in 1735, a curious Differtation concerning the Origin of Printing in England, from whence we have extracted the following account. It was a conftant opinion delivered down by our Hiftorians, That the Art of Printing was introduced and firft practifed in England by William Caxton, a Mercer and Citizen of London; who, by his travels abroad, and a refidence of many years in Holland, Flanders, and Germany, in the affairs of trade, had an opportunity of informing himfelf of the whole method and procefs of the art; and by the encouragement of the great, and particularly of the abbot of Weftminfter, firft fet up a prefs in that Abby, and began to print books foon after the year 1471 .
This was the tradition of our writers; till a book, which had fcarce been obferved before the Reftoration, was then taken notice of by the curious, with a date of its impreffion from Oxford, anno 1468, and was confidered immediately as a clear proof and monument of the exercife of printing in that Univerfity, feveral years before Caxton began to practife it. a fmall volume of forty－one leaves in quarto，with this titie： ＂Epeficio Sancti Jeronimi in Simbolum Apoftolorum ad ＂Papam Laurentium：＂and at the end，＂Explicit expoficio， ＂\＆c．Impreffa Oxonie，\＆finita An．Dom．m．eccc．ixviif． ＂xvir die Decembris．＂

The appearance of this book has robbed Caxton of a glory that he had long poffeffed，of being the Introducer of Printing to this kingdom ；and Oxford ever fince carried the honour of the firft prefs．The only difficulty was，to account for the filence of hiftory in an event fo memorable，and the want of any memorial in the Univerfity itfelf，concerning the eftablifhment of a new art amongft them，of fuch ufe and benefit to learning． But this likewife has been cleared up，by the difcovery of a record，which had lain obfcure and unknown at Lambeth－ Houfe，in the regifter of the fee of Canterbury，and gives a narrative of the whole tranfaction；drawn up at the very time．

An account of this record was firft publifhed in a thin Quarto volume，in Englifh；with this title，＂The Original and Growth ＂of Printing，collected out of Hiftory and the Records of this ＂kingdom：wherein is alfo demonftrated，that Printing apper－ ＂taineth to the Prerogative Royal，and is a Flower of the ＂Crown of England．By Richard Atkyns，Efq；London， ＂ 1664 ．＂

It fets forti in fhort；that as foon as the Art of Printing made fome noife in Europe，Thomas Bourchier，Archbihop of Canterbury，moved King Henry VI．to ufe all poffible means to procure it to be brought into England：the King approving the propofal，difpatched one Mr．Robert Turnour，an officer of the robes，into Flanders，furnifhed with money for the pur－ pofe；who took to his affiftance Wililam Caxton，a man of Abilities，and Knowledge of the Country；and thefe two found means to bribe and entice over into England one Frederick Corfellis，an Under－workman in the Printing－Houfe at Harlem， where John Guttemberg had lately invented the Art，and was then perfonally at work：which Corfellis was immediately font down to Oxford under a guard，to prevent his efcape，and to

From the autherity of this record, fome later writers declare Corfellis to be the firt printer in England, viz. Mr. Wood, the learned Mr. Mattaire, Palmer, and one Bagford, an induftrious man, who publinhed Propofals for an Hiftory of Printing. But it is frange that a pisce fo fabulous, and carrying fuch evident marks of forgery, could impofe upon men fo knowing and inquifitive.
For firtt; The fact is laid quite wrong as to time; near the end of Henry the VIth's reign, in the very heat of the civil wars; when it is not credible that a prince, fruggiing for life as well as his crown, fhould have leifure or difpofition to attend to a project that could hardly be thought of, mach lefs executed, in times of fuch calamity. The Printer, it is faid, was gracioufly received by the King, made one of his fworn fervants, and fent down to Oxford with a guard, \&c. all which muft have pafled before the year 1459: for Edward IV. was proclaimed in London, in the end of it, according to our computation, on the $4^{\text {th }}$ of March, and crowned about the Midfummer following; and yet we have no fruit of ail this labour and expence till near ten years after, when the little book, before defcribed, is fuppofed to have been publified from that prefs.
Secondly; The filence of Caxton, concerning a fact in which he is faid to be a principal actor, is a fufficient conifutation of it: for it was a conitant cuftom with him, in the prefaces or conclufions of his works, to give an hiforical account of all his labours and tranfactions, as far as they concerned the publihing and printing of books. And, what is ftill ftronger, in the Continuation of the Polychronicon, compiled by himfelf, and carried down to the end of Henry the

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VIth's reign, he makes no mention of the expedition in queft of a printer; which he could not have omitted had it been true: whilft in the fame book he takes notice of the Invention and Beginning of Printing in the City of Mentz.

There is a further circumftance in Caxton's Hiftory, that feems inconfiftent with the record; for we find him ftill beyond fea, about twelve years after the fuppofed tranfaction, learning with great charge and trouble the Art of Printing; which he might have done with eafe at home, if he had got Corfellis into his hands, as, the recorder imports, fo many years before: but he probably learnt it at Cologne, where he refided in 1471, and whence books had been firt printed with a date the year before.

To the filence of Caxton, we may add that of the Dutch writers: for it is very ftrange, as Mr. Chevillier obferves, if the ftory of the record be true, That Adrian Junius, who has collected all the groundlefs ones that favour the pretenfions of Haerlem, fhould never have heard of it.

But thirdly; The moft direct and internal proof of its forgery, is its afcribing the Origin of Printing to Haerlem; where John Guttemberg the Inventor, is faid to have been perfonally at work, when Corfellis was brought away, and the Art itfelf to have been firft, carried to Mentz by a Brother of one of Guttembetg's workmen: for it is certain, beyond all doubt, that Printing was firt invented and propagated from Mentz. Caxton's teftimony feems alone to be decifive; who, in the Continuation of the Polychronicon, fays, "About this time (viz. anno 1455,) the crafte of emprynting was firft found in Mogounce in Almayne, \&c." He was abroad in the very country and at the time, when the firft project and thought of it began, and the rudeft effays of it were attempted; where he continued for thirty years, viz. from 1441 to 1471 : and, as he, was particularly curious and inquifitive after this, new art, of which he was endeavouring to get a perfect information, he could not be ignorant of the place where it was firlt exercifed.

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This confutes what Palmer conjectures, to confirm the credit of the record; That the Compiler might take up with the common report, that paffed current at the time in Holland, in favour of Harlem; or probably receive it from Caxton himfelf: for it does not appear that there was any fuch report at the time, nor many years after; and Caxton, we fee, was better informed from his own knowledge: and, had Palmer been equally curious, he could not have been ignorant of this teftimony of his in the very cafe.
Befides the evidence of Caxton, we have another contemporiary authority, from the Black Book, or Regifter of the Garter publiked by Mr. Anftis, where, in the thirty-fifth year of Henry VI. anno 1457, it is faid, In this year of our mof Pious King, the Art of Printing Books firft began at Mentz, a famous City of Germany.
Fabian alfo, the writer of the chronicle, an author of good credif, who lived at the fame time with Caxton; tho' fome years younger, fays, This yere (viz. 35 th of Henry VI.) after the opynyon of dyverfe wryters, began in a Citie of Almaine, namyd Mogunce, the Crafte of empryntynge Bokys, which fen that tyme hath had wonderful encreaif. Thefe three teftimonies have not been produced before, that we know of; two of them were communicated by Mr. Baker, who of all men was the moft able, as well as the mof wiliing, to give information in every point of curious and unncommon hiftory.
We need not purfue this queltion any farther; the teftimonies commonly alledged in it, may be feen in Mr. Mattaire, Palmer, \&c. and thall only obferve, that we have full and authentic evidence for the caufe of Mentz, in an edition of Livy from that place, 1518, by John Schoeffer, the fon of Peter, the partner and fon-in-law of John Fauft: where the patent of privilege granted by the Emperor to the Printer, the prefatory epifte of Erarmus, the epittle dedicatory to the Prince by Ulich Hutten, the epille to the reader of the two learned men who had the care of the edition; all coucur in afferting the

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Origin of the Art to that City, and the Invention and firft Exercife of it to Fauft: and Erafmus particulatly, who was a Dùtchmañ, would not have decided againft his own country, had there been any ground for the claimi of Harlem.

But to return to the Lambeth Record: as it was never heard of before the publication of Atkins's book; fo it has never fince been feen or produced by any man; though thé regifters of Canterbury have on many occafions been diligently and particularly fearched for it. They were examined without doubt very carefully by Archbinop Parker, for the compiling his Antiquities of 'the Britifh Church; where, in the life of Thomas Bourchier, though he congratulates that age on the inoble and ufeful Invention of Printing, yet is filent as to the Introduction of it into England by the Endeavours of that Archbiftiop; nay, his giving the honour of the invention to Stratiburg, clearly fhews; that he knew nothing of the flory of Corfellis conveyed from Harlem, and that the record was not in being in his time. Palmer himfelf owns, That it is not to be found there now; for that the late Earl of Pembroke affured him, that he had employed a perfon for fome time to fearch for it, but in vain.

On thefe grounds we may pronounce the record to be a forgery ; yet all the writers above-mentioned take pains to fupport its credit, and call it an Authentic Piece.

Atkins, who by his manner of writing feems to have been a bold and vain man, might poffibly be the inventor; for he had an intereft in impofing it upon the wiorld, in order to confirm the argument of his book; that Printing was of the Prerogative Royal; in oppofition to the company of fationers, with whom he was engaged in an expenfive fuit of law, in defence of the King's pateits, under which he claimed fome exclufive powers of printing. For he tells us, that upon confidering the thing, he could not bitt think that a Publick Peifon, more eminent than a Mercer, and a Public Purfe muft needs be concerned in fo Publick a Good; and the more he confidered, the morewarmth that he fhewed in profecuting it, would induce him tofwallow for genuine, whatever was offered of the kind.

We have now cleared our hands of the record; but the book ftands firm, as a monument of the exercife of printing in Oxford fix years older than any book of Caxton with date. The fact is ftrong, and what in ordinary cafes paffes for certain evidence of the age of books; but in this, there are fuch contrary facts to balance it, and fuch circumftances to turn the fcale, that to fpeak freely, makes the date in queftion to have been falfified originally by the printer, either by defign or miftake, and an $x$ to have been dropt omitted in the age of its imprefion.
Examples of the kind are common in the courfe of Printing. It has been obferved that feveral dates have been altered very artfully after publication, to give them the credit of greater antiquity. They have at Harlem, in large quarto, a tranflation into Dutch of Bartholomæus de proprietatibus rerum, printed anno m.cccc.xixxy, by Jacob Bellart: this they fhew to confirm their claim to the earlicft printing, and deceive the unfkillful. But Mr. Bagford, who had feen another copy with a true date, difcovered the cheat; by which the $L$ had been erafed fo cunningly, that it was not eafy to perceive it. But befides the frauds of an after-contrivance, there are many falfe dates originally given by the printers ; partly by defign, to raife the value of their works, but chiefly by negligence and blunder. There is a bible at Aufburgh, of ann. 14.49, where the two laft figures are tranfpofed, and hould fand thus, 1494:

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Cheviller mentions three more, one at Paris of ann, 1443; another at Lyons; 1446 ; a third at Bafil, 145 a; though printing was not ufed in any of thefe places till many years after. Orlandi defcribes three books with the like miftake from Mentz: and Jo. Koelhoff, who firft printed about the year 1470, at Cologn, has dated one of his books anno m.cecc. with a $\mathbf{c}$ amitted ; and another, anno 1458; which Palmer imputes to defign rather than miftake.

But what is mof to our point, is a book from the famous printer, Nicolas Jenfon; of which Mr. Mattaire gave the firft notice, called Decor Puellarum; printed anno m.cecce. Lxi. All the other works of Jenfon were publifhed from Venice, between ann. 1470 and 1480 ; which juftly raifed a fubfription, that an x had been dropt from the date of this, which ought to be advanced ten years forward; fince it was not credible, that fo great a mafter of the art, who at once invented and perfected it, could lie fo many years idle and unemployed. The fufpicion appeared to be well grounded from an edition of Tully's Epiftles at Venicè, the firt work of another famed printer, John de Spira, anno 1469 ; who, in the four following verfes, at the end of the book, claims the honour of being the firft who had printed in that city.

> Primus in Adriaca formis impreffit acnis
> Urbe libros Spirâ genitus de firpe Fobannes.
> In reliquis fit quanta, vides, fpes, Lector, babenida, Quum labor bic primus calımi fupcraverit Artem.

It is the more current opinion, confirmed by the teftimonyof contemporary writers, that Jenfon was the Firft Printer at Venice: but thefe verfes of John de Spira, publifhed at the tine, as well as the place, in which they both lived, and in the face of his rival Jenfon, without any contradition from him, feem to have $a$ weight too great to be oper-ruled by any foreign evidence whatfoever.

Thefe

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Thefe inftances, with many more that might be collected, Thew the poffibility of my conjecture; and, for the probability of it, the book itfelf affords fufficient proof: for, not to infint on what is lefs material, the neatnefs of the letter, and regularity of the page, \&c. above thofe of Caxton; it has one mark, that feems to carry the matter beyond probable, and to make it even certain, viz. the ufe of fignatures, or letters of the alphabet placed at the bottom of the page, to fhew the fequel of the fheets and leaves of each book: an improvement contrived for the direction of the book xbinders \& which yet was not practifed or invented at the time when this book is fuppofed to be printed : for we find no fignatures in the books of Fauft or Scheffer at Mentz, nor in the more improved and beautiful imprefions of John de Spira, and Jenfon, at Venice ; till feveral years later. There is a book in the Public Library at Cambridge that feems to fix the very time of their invention, at leaft in Venice; the place where the art itfelf received the greateft improvements: Baldi lectura fuper Codic. \&c. printed by. Jo. de Colonia and Jo. Manthen de Gherretzem, anno m.cccc.lxxinir. It is a large and fair volume in folio, without fignatures, till about the middle of the book, in which they are firf introduced, and fo continued forward: which makes it probable, that the firft thought of them was fuggefted during the time of the impreffion. They were ufed at Cologn, anno 1475; at Paris, 1476; by Caxton, ${ }^{\text {not }}$ before 1480; but if the difcovery had been brought into England, and practifed at Oxford twelve years before, it is not probable that he would have printed fo long at Weftminfter without them.
Mr. Palmer indeed fays, that Anthony Zarot was efteemed the Inventor of Signatures; and, that they are found in a Terence printed by him, at Milan, in 1470, in which year he firft printed. Allowing them to be in the Terence, and Zarot the inventor, it confutes the date of our Oxford book, as effectually as if they were of later origin at Venice; as there is reafon to imagine from the teltimony of all old books.

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What further confirms the opinion is, that from the time of the pretended date of this book, anno 1468, we have no other fruit or production from the prefs at Oxford for eleven years next following; and it cannot be imagined that a prefis eftablithed with fo much pains and expence, could be fuf, fered to lie fo long idle and ufelefs: whereas, if a conjecture be admitted, all the difficulties that feem infuperable and inconfiftent with the fuppofed æra of Printing there, will vanifh at once: For allowing the book to have been printed ten years later, anno 1478; then the ufe of fignatures can be no objeftion; a foreign printer might introduce them ; Caxton follow his example; and the courfe of Printing and fequel of books publifhed from Oxford will proceed regularly.
Expoficio Sancti feronimi in Simbolum Apoffolorum, Oxon. 1478 Lconardi Aretini in Arif. Ethic. Comment, ———ib. 1479 Egidius de Roma, छc. de peccato originali. - ib. 1479 Guido de Columna de Hiforia Trojana, per T. R. ib. 1480 Alcxandri ab Hales, छ'c. expofitia Super 3 Lib.'de Animà per me Tkeod. Rood. - - ib. 148s Franc. Aretini Oratoris Pbalaridis Epift. eGraca in Latin. Vorfio. Hoc opufculum in Alma Univerfitate Oxonia, a natali Cbriftiano ducentefina $)^{\text {O }}$ nonagefima fiptima Olympiade feliciter imprcfum eft. That is, ann. 14.5 Hoc T'beodoricus Rood quem Collonia mifit Sanguine Germanus nobile preffit opus. Atque fibi focius Thomas fuit Anglicus Hunta Dii dent ut Venetos exuperars queant, 2uam ffyfon Venetos dociuit Vir Gallicus artems Ingcnio didicit terra Britannia fuo Celatos Veneti nobis tranfmittere libros Cedite, nos aliis vendimus, $O$ Veneti . 2ue.fuerat vobis ars primum nota Latini. Eft cadem nobis ipfa repcrta premens. Quamvis fejunctos toto canit orbe 'Britannos Virgilius placet bis lingua Latina tamen,

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Thefe are all the books printed at Oxford, before 1500, that have hitherto made their appearance, and we have any certain notice of. We have inferted the colophon and verfes of the laft, becaufe they have fomething curious and hiftorical in them. We know of but another inftance of the date of a book computed by Olympiads; Aufonii Epigrammaton libri, \&c. printed at Venice, 1472, with this defignation of the year at the end; A Nativitate Chrifti ducentefima nonagefrime quinte Olympiadis anno 2; where the printer, as in the prefent cafe, follows the common miftake, both of the ancients and moderns, of taking the Olympiad for a term of five years complete; whereas it really included but four, and was celebrated the fifth; as the Luftrum likewife of the Romans. In our Oxford book the year of the Olympiad is not diftinguifhed, as in that of Venice, fo that it might poffibly be printed fomewhat earlier, and nearer to the reft, in order of time: but as the 7 th verfe feems to refer to the Statute of the ift of Richard III. prohibiting the Italians from importing and felling their wares in England by retail, \&c. excepting books, written or printed ; [This act fays, " Provided always, that this act, or any parcel thereof, or any other act made, or to be made in this faid parliament, fhall not extend, or be in prejudice, difturbance, damage, or impediment, to any artificer; or merchant ftranger, of what nation or country he be, or thall be of, for bringing into this realm, or felling by retail, or otherwife, any books written or printed, or for inhabiting within this faid realm for the fame intent, or any fcrivener, illuminor, reader, or printer of fuch books, which he hath, or flall have to fell by way of merchandize, or for their dwelling within this faid realm, for the exercife of the faid occupations; this act; or any part thereof notwithftanding,'] which act paffed 1483 ; fo that this book of Rood's could not be printed before that year. . The third verfe refcues from oblivion the name of an Englifh Printer, Тноmas Hunte, not mentioned before by any of our Englifh writers,

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nor difcovered in any other book. But what is the moft remarkable, and worthy the greateft frefs, is, that in the fixth verfe, the Art and Ufe of Printing is affirmed to have been firft fet on foot and practifed in this ifland by our own Countrymen; which mult confequently have a feference to CaxTON, who has no rival of thic country to difpute the honour with him. And fo we are furnifhed at laft from Oxford itfelf, with a teftimony that overthrows the date of their own book:

Theod. Rood, we fee, came from Cologne, where 'Caxton had refided many years, and inftructed himfelf in the Art of Printing, 1471 ; and being fo well acquainted with the place; and particularly the Printers of it, might probably be the inflrument of bringing over this or any other printer, a year or two before (if there really was any fuch) to be employed at Oxford ; and the obfcure tradition of this fact gave rife to the fiction of the record. But however this be, it feems pretty clear, that Caxton's being fo well known at Cologne, and and his fetting up a prefs at home immediately after his return from that place, which could hardly be a fecret to Rood, muft be the ground of the compliment paid to our country, and the very thing referred to in the verfes.

There is another book, in the Public Library at Cambridge, without the name of Printer or Place; which, from the comparifon of its types with thofe of Rood, is judged to be of his printing, and added to the catalogue of his works : but the identity of the letter in different books; though a probable argument, is not a certain one for the identity of the prefs.

Befides this carly Printing at Oxford, there are feveral proofs of the ufe of it likewife, about the fame time,' in the city of London, much earlier than fome writers have imagined, with the names of the firt Printers there, who are not taken notice of by them ; viz. John Letteu and Will. de Machlinia. Their productions were on a rude and coarfe Gothic charater, more rude than Caxron: and, from both thefe Printers in partnerfipip, may be feen the firf edition of the famous Little-

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ton's Tenures; printed at London, in a fmall folio, without date; which his great commentator, the Lord Chief Juftice Coke, had not feen or heard of: for in the preface to his Inflitutes, he fays, That this work was not publifhed in print either by Judge Littleton himfelf, or Richard his fon; and that the firft edition, that he had feen, was printed at Roan in Normandy ad inftanciam Richardi Pynfon, printer to King Henry VIII. They have this edition alfo in the Library at Cambridge, but it is undoubtedly later by thirty or forty years than the other we are Speaking of; which, as far as we may collect from the time noted above, in which Joh. Lettour printed, was probably publifhed, or at leatt put to the prefs by the author himfelf, who died ann. 1481.

We fhall now return to Caxton, and fate as briefly as we can, the pofitive evidence that remains of his being the Firft Printer of this kingdom: for what has already been alledged, is chiefly negative or circumftantial." And here, as before hinted, all our writers before the Reftoration, who mention the introduction of the Art amongft us, give him the crodit of it, without any contradiction or variation. Stowe, in his Sarvey of of London, fpeaking of the 37 th year of Henry VI. or ann. 1458, fays, the noble fcience of printing was about this time found at Magunce by Joh. Guttemberg 2 Knight; and Wilifam Caxton, of London, Mercer, brought it into England, about the year 1471, and practifed the fame in the Abby of Weftminfter. Truffel gives the fame account, in the Hiftory of Henry VI. and Sir Richard Baker in his Chrenicle : and Mr . Howell, in his Londinopolis, defcribes the place where the Abbot of Weftminfter fet up the firft prefs for Caxton's ufe, in the Almonry or Ambry. As a confirmation of this opinion, Mr. Newcourt in his Reportorium, tom. i. pag. 721 , has it thus: "St. Ann's, an old chapel, over againft which the Lady Margaret, mother to king Henry VII. erected an alms-houfe for poor women, which is now turned into lodgings for finging-men of the college. The place, wherein this chapel and alms-houfe ftood, was called the Eleemofinary or Al-

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monry, now corruptly the Ambry, [Aumbry] for that the alms of the Abby were there diftributed to the poor; in which the Abbot of Weftminfter erected the firtt prefs for bookprinting, that ever was in England, about the year of Chrit 1471, and where William Caxton, citizen and mercer of London, whe firl brought it into England, practifed it." This chapel was in 2 retired place and free from interruption, and from this, or fome other chapel, 'tis fuppofed the name of Chapel has been given to all Printing-houres in England ever fince. But above all, the famous Joh. Leland, library-keeper to Henry VIII. who by way of honour had the title of the Antiquary, and lived near to Caxton's own time, exprefsly calls him, the Firt Printer of England, and fpeaks honourably of his works: and as he had fent fome time in Oxford, after having firf fudied and taken a degree at Cambridge, he could hardly be ignorant of the Origin and Hiftory of Printing in that Univerfity. We cannot forbear adding, for the fake of a name fo celebrated, the more modern teftimony of Mr. Henry Wharton, who affirms Caxton to have been the firft that imported the Art of Printing into this kingdom. On whofe authority, the no lefs celebrated M. du Pin files him likewife the Firf Printer of England.

To the atteftation of our hiftorians, who are clear in farour of Caxton, and quite filent concerning an earlier prefs at Oxford, the works of Caxton himfelf add great confirmation: the rudenefs of the letter, irregularity of the page, want of fignatures, initial letters, \&e. in his firt impreffions, give a prejudice at fight of their being the firft productions of the Art amongft us. But befides thefe circumftances, notice has been taken of a paffage in one of his books, that amounts in a manner to a direct teftimony of it. Thus end I this book, \&c. and for as moche as in wrytyng of the fame my penne is worn, myn hande we.y, and myn cyen dimmed with overmoche lokyng on the whit paper-and that age crepeth on me dayly -and alfo becaufe I have promyfid to dyverce gentilmen and

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to my frendes to adreffe to hem as haftely as I myght this fayd book, therefore I have practyfed, and lerned at my grete charge and difpenfe to ordeyne this fayd book in prynte after the maner and forme as ye may here fee, and is not wreton with penne and ynke as other bokes ben to thende that every manmay have them attones, for all the books of this thorye named, the Recule of the hiftoryes of Troyes, thus emprynted as ye here fee, were begome in oon day and alfo finifhed in oan day, \&c. Now this is the very ftile and language of the firft pristers, as every body knows, who has been at all converfint with old books. 'Fauft and Schoeffer, the inventors, fet the example in their firft works from Mentz; by advertifing the publick at the end of each, that they were not drawn or written by a pen, (as all books bad been before) but made by a new Art and Invention of Printing, or ftamping them by characters or types of metal fet in forms. In imitation of whom, the fusceeding printers, in moit cities of Europe, where the Art was new, generally gave the like advertifement; as we may fee from Venice, Romie, Naples, Verona, Bafil, Aufburg, Louvain, \&c. juft as our Caxton, in the inftance above.

In Pliny's natural hifory, printed at Venice, we have the following verfes:

Quen modo tam rarum cupiens vix lector baberet;
2uiq; etiam fraitus pane legendus cram:
Reffituit Venetis me nuper Spira Fobannes;
Exficripfitq; libros are notante meos.
Feffa manus quondam, moneo, calamufiq; quiefcat:
Namq; labor foudio cefit Eึ ingenio. м.cccc.ıxviari.
At the end of Cicero's Philippic Orations:
Anfer Tarpcii cuftes Fovis, unde, quod alis
Conftreperes, Gallus decidit; Ultor adijf
Uldricus Gallus: ne quem pofantur in ufum,
Edocuit pernis nil opus effe tuis.
Imprimit ille die, quantum non fivibitur anno. Ingenio, baud nocbas, omnia vincit bomo.

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In a Spanifh Hiftory of Rodericus Santius, printed at Rome:
De mantato R.P.D. Roderici Epifcopi Palentini Aucteris bujus libri, cgoUdalricus $G_{\text {allu }}$ fine calamo aut pennis eatid. librum impreff.

In Eufebius's Chronicon, printed in Latin at Milan :
Omnibus ut pateant, tabulis impreffit abenis
Utile Lavania gente Pbilippus opus.
Hactenus boc toto rarum fuit orbe volumen, Quod vix, qui ferret tedia, firiptor erat.

## Nune ope Lavania numerofa volumina nofiri

Ere perexiguo qualibet urbe legunt.
As this is a ftrong proof of his being our Firf Printer; fo it is a probable one, that this very book was the firft of his printing. Caxton had finifhed the tranflation of the two firft books at Cologne, in 1471 : and having then good leifure, refolved to tranllate the third at that place: in the end of which, we have the paffage recited before. Now in his other books tranflated, as this was, from the French; he commonly. marks the precife time of his entring on the tranflation, of his finifhing it, and of his puting it afterwards into the prefs: which ufed to follow each other with little or no intermiffion, and were generally compleated within the compafs of a few months. So that in the prefent cafe, after he had finifhed the tranflation, which mun be in, or foon after 1471, it is not likely that he would delay the impreffion longer than was neceffary for the preparing his materials; efpecially as he was engaged by promife to his friends, who feem to have been prefling and in hafte, to deliver copies of it to them as foon as poffible.

But as in the cafe of the Firf Printer, fo in this of his firft work, we have a teitimony alfo from himfelf in favour of this book: for we have obferved that in the recital of his works, he mentions it the firf in order, before the book of Cheffe, which feems to be a good argument of its being astually the firt.

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Whan I had-accomplifhed dyvers werkys and hyftorys tranllated out of Frenthe into Englythe at the requefte of certayn lordes ladyes and gentylmen, as the recuel of the hyfloryes of Troye, the boke of Cheffe, the hyftorye of Jafon, the hyftorye of the mirrour of the world-I have fubmyfed myfelf to tranflate into Englyfhe the legende of fayntes, called Legenda aurea in Latyn-and Wylyam Erle of Arondel defyred meand promyfed to take a refonyble quantyte of them-fente to me a worfhipfol gentylman-promyfing that my fayd lord fhould durying my lyf give and graunt to me a yerely fee, that is to note, a bucke in fommer and a doo in wynter, \&c.

All this, added to the common marks of earlier antiquity, which are more obfervable in this, than in any other of his books, viz. the rudenefs of the letter, the incorrectnefs of the language, and the greater mixture of French words, than in his later pieces; makes us conclude it to be his firt work; executed when he came frefh from a long refidence in foreign parts. Nay, there are fome circumfances to make us believe, that it was actually printed abroad at Cologne, where he finifhed the tranflation, and where he had been prastifing and learning the Art: for after the account given above, of his having learnt to print, he immediately adds, whiche book I have prefented to my faid redoubtid lady Margrete, Ducheffe of Burgoyne, \&c. and the hath well acceptid hit, and largely rewarded me, \&c. which feems to imply his continuance abroad till after the impreffion as well as the tranilation of the book. The conjecture is much ftrengthened by another fact attefted of him ; that he did really print at Cologne the firft edition of Bartholomæus de proprietatibus rerum, in Latin: which is affirmed by Wynkyn de Worde, in an Englinh edition of the fame book, in the following lines:

And alfo of your charyte beare in remembrance The foul of William Caxton firf printer of this boke,

In Laten tongue at Coleyn himfelf to advance, That every well difpofyd man may thereon loke.

## * THE HISTORY OF PRINTING.

It is certain, that the fame book was printed as Cologne, by Jo. Koelholf, and the firft that appears of his printing, 1.470 ;, .whilf Caxton was at the place and bufying himfelf in the Art : and if we fuppofe hirm to have been the encourager and promoter of the wark, or to have furnithed the expence of $i_{\text {p }}$; he might pofibly on that account be confidered at home as the aathor of it,

It is now time to draw to a conclufion, to awoid being cenfered for fipending too much pains on an argument io inconfiderable; where the only view is to fet right fome points of Hiftory, that has been falfely or negligently treated by our writers, and above all, to do a piece of juftice to the Memory of our worthy Countryman Willinm $\mathrm{C}_{\mathrm{A} x \text { ton; }}$ and not suffer him to be robbed of the glory fo clearly due to him, of having Firft Introduced into this Kingdom an Art of great ofe and benefit to mankind: a kind of merit, that in the fenfe of all nations, gives the beft Title to True Praife, and the beft Ctaim to be commemorated with Honour to poferity : and it ought to be infcribed on his monument, what is declared of ansther printer, Bartholomeus Bottonus of Reggio; Primug zgoin patria modo chartas fere signavig et noves bibliopola fui, \&c.

He had been bred very reputably in the way of trade, and ferved an appreaticefhip to one Robert Large, a mercer ; who after having been Sheriff and Lord Mayor of London, died in 1441, and left by will, as may be feen in the Prerogative Offee, xxiiii marks to his apprentice William Caxton: a confiderable legacy in thofe days, and an early teftimonial of his good character and integrity.

From the time of his Mafter's death, he fpent the following thirty years beyoud fea, in the bufinefs of merchandize; where, in the year 1464, we find hime employed by Edward IV. in a poblic and honourable Negotiation, jointly with one Richard Whitekill, Efq. to tranfact and conclude a Treaty of Comm:erce

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merce between the King and his brother-in-law the Duke of Burgundy, to whom Flanders belonged. The commiffion Iities them, Ambaffiatores, Procuratores, Nuncios, \& Deputos fpeciales; and gives to both or either of them full powers to treat, \&c.

Whoeiver turns over his printed works, muif contrat a reIpect for him, and be convinced that he preferved the fame character through life of an honeft, modett man; greatly induftrious to do good to his country, to the beft of his abifities, by fpreading among the people fuch books as the thought ufeful to religion and good manners, which were chiefly tranflated from the French. The novelty and ufefulnefs of his Art recommended him to the fpecial notice and favour of the Great; under whofe protection, and at whofe expence, the greatelt part of his works were pablifhed. Some of them are addreffed to Edward IVth; his bruther the Duke of Clareace ; and their fifter the Duchefs of Burgundy; in whofe fervice and pay he lived many years, before he began to print; as he oft acknowledges with great gratitude. He printed likewife for the ufe, and by the exprefs order of Henry VIIth; his fon Prince Arthur; and many of the principal Nobility and Gentry of that age: all which confirms the notion of his being the Firf Printer; for he would hardly have boen fo much carefled and employed, had there been an earlier and abler artift all the while at Oxford, who yet had no employment at all for the space of eleven years.
It has been generally afferted and believed, that all his books were printed in the Abby of Weftminfter; yet we have mo affurance of it from himfelf, nor any mention of the place before 1477: fo that he had been printing feveral years, without telling us where. There is one miftake however, worth the correcting, that the Writers have univerfally fallen into, and taken up from each other; that John Ulip was the Abbot who firlt encouraged the Ait, and entertained the artift
in his houfe : whereas you will find upon inquiry, that he was not made Abbot till four years after Caxton's death; and that Thomas Milling was Abbot in 1470, made Bifhop of Hereford a few years after, and probably held the Abby in Commendam in 1485 , in which John Efney next fucceeded: fo that Milling, who was reputed a great fcholar, muft have been the generous friend and patron of Caxton, who gave that liberal reception to an Art fo beneficial to learning.
This hhews how unfafe it is to truft to common Hiflory, and how neceflary to recur to óriginal teftimonies, where we would know the fate of façs with exactnefs. Mr. Echard, at the end of Edward IVth's reign, among the learned of that age, mentions William Caxton as a Writer of Englifh Hiftory; but feems to doubt whether he was the fame with the Printer of that name. Had he ever looked into Caxton's books, the doubt had been cleared; or had he confulted his Chronicle of England, which it is ftrange that an Englifh Hiftorian could neglect, he would have learnt at leaft to fix the beginning of that reign with more exactnefs, as it is remarked before, juft two years earlier than he has placed it.
There is no cleat account left of Caxton's Age: but he was certainly very old, and probably above fourfore, at the time of his death. In the year 1471 he complained, as may be feen, of the infirmities of age creeping upon him, and feebling his body; yet he lived twenty-three years after, and purfued his bufinefs with extraordinary diligence, in the Abby of Weftminfter, till the year 1494, in which he died; not in the year following, as moft who write of him, affirm. This appears from fome verfes at the end of a book, called, Hilton's Scale of Perfection, printed in the fame year.
Infynite laud with thankynges many folde
I yelde to God me focouryng with his grace
This boke to finyshe whiche that ye behoide
Scale of Perfeccion calde in every place

## Whereof th auclor Walter Hilton was And Wynkyn de Worde this hath fett in print In William Caxtons hows fo fyll the cafe, God reft his foule. In joy ther mot it ftynt. Inpreflus anno falutis mecectixxxinint.

Notwithftanding he had printed for the ufe of Edward VI. and Henry VII. there are no grounds for the notion which Palmer takes up, that the firf Printers, and particularly Caxton, were fworn Servants and Printers to the Crown; for Caxton gives not the leaft hint of any fuch character or title : however, it feems to be inflituted not long after his death; for of his two principal workmen, Richard Pynfon, and Wynkin de Worde, the one was made Printer to the King ; the the other to the King's Mother, the Lady Margaret. Pynfon gives himfelf the firft title, in The Imitation of the Life of Chrift, printed by him at the command of Lady Margaret, who had tranflated the fourth book of it from the. French, 1504 ; and Wynkin de Worde affumes the fecond, in The feven Penitential Pfalms, expounded by Bifhop Fifher, and printed in the year 1509 .
For a more particular account of Caxton we muft refer our Readers to the Rev. Mr. Lewis's Life of that worthy man, it being too copious for our infertion.

As a Catalogue of the Books printed by Caxton, and his fucdeffors, would encroach too much on our room, befides its not being in our power to give one as complete as we fhould defire, it obliges us to leave that tafk to fome induftrious collector ; from whofe labours and abilities it may be expected, and to whofe province it more properly belongs, and whofe thirft for honour may prompt him to fo arduous an undertaking, We, therefore, 作静 confine this account only to that which fhall be the firft, or moft remarkable, of their productions.

The firft book known to be printed in Englifh, and by CAxton, is intituled, Recryel of the Hiforics of Tioy; which, notF withftanding

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withtanding it was not printed in England, yet being printed by him, and being full of information, we hegin with it, which we hope will be well received. It was printed in 1471 .

The Game at Cbefs. As this was the firft book printed in England we fhall infert the dedication "To the right noble, right excellent and vertuous prince George, duc of Clarence, erle of Warwick and Salisburye, grete chamberliayn of Englond, and leutenant of Irelond, oldeft brother of kypge Edward, by the grace of God kynge of Englond and of Fraunce, your moft humble fervant $t_{2}$ William Caxton, amonge other of your fervantes, fends unto yow peas, helthe, joye, and viftorye upon your enemeys, right high puyffant and redoubted prince. For as much as I have undertand and knowe, that ye are enclined unto the comyn wele of the kynge, our faid foveryn lord, and his nobles, lordes and comyn peple of his noble royame of Englond, and that ye fawe gladly the inhabitant of the fame informed in good, vertuous, prouffitable and honefte maners, in whiche your noble perfone, wit guydyng of youre hous, haboundeth, gyuyng lyght and enfample unto all other. Therefore I have put me in devoyr to tranlate a lityll booke late comen into myn handes, out of Frenfie into Englifhe, in which I fynde thautorities, diEtes of auncient doctours, philofophers, poetes, and of other wyfe men, which ben recounted and applyed unto the moralitie of the publique wele, as well of the nobles as of the comyn peple, after the g me and playe of the Cheffie, whiche booke, right puyfland and redoubtid lord, I have made in the name, and under the fhadew of your noble protection, not prefumyng to correcte or enpoigne ony thynge agenft your nobleffe; for, God be thanked, your excellent renome flyyneth as well in ftraunge regions as within the royame of Englond, glorioully unto your honoure and laude, whychę God multeplye and encrefe. But to thentent that other of what eftate and egrefe they ftand in, may fee in this faid lityll booke, that they governed themfelf as they ought to doo; wherefor for my right dere redoubuid lord, I requyr and fupply

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your good grace not to defdaygne to refeyve this fayd lityll booke in gree and thanke, as well of me your humble and unknowen fervant, as of a better and greater man than $I$ am, for the right good wylle that I have had to make this. lityll work in the beft wife I can, ought to be repated for the fyat and dede ; and for more clerely to precede in this fayd booke, I have ordyned that the chapiters been fete in the beginning, to thende that ye may fee more playnly the matter wherof the booke treteth,". \&c.-The contents begin thus: "This booke conteyneth iiii traytees, the firt traytee is of the invencion of this play of the cheffe, and conteyneth iii chapiters," \&c, and ends thus: "And cherfore, my right undoubted lord, I pray Almighty God to fare the kynge our foverain lord, and to give hym grace to yfue as a kynge, and tabounde in all vertues, and to be affifted with all other his lordes, in fuch wyfe, that his noble royame of Englond may profper, and habounde in vertues, and that fynne may be efchewid, juftice kept, the royame defended, good men rewarded, malefactors punyishid, and the ydle peple to be put to laboure, that he, wyth the nobles of the royame, may regne glorioully in conqueringe his enheritaunce, that verray peas and, charity may endare in both his royames, and that merchandife may have his courfe, in fuch wife that every man enchew fynne, and encrece in vertuous occupacions, prayinge your good grace to reffeyue this lityll and fymple booke, made under the hope and fhadowe of your protection, by hym that is your moft humble fervant, in gree and thanke. And I thall pray Almighty God for your long lyf and welfare, whiche he preferve, and fend yow thacomplifshment of your hye, noble, joyous and virtuous defires, amen. Fynyfshid the laft day of Marche, the yer of our Lord God a thofaund foure hondred and Lxxinin." In the firt edition of this book there were no cuts, but in the fecond there are; and in the fecond and third chapters it is faid, This game was invented by Philometer the philofopher, for the correction and inftruction of a wicked king.

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All our Writers on Printing obferve, that Caxton diftinguifed the books of his printing by the following particular device, confifing of the initial letters of his name, with a cypher between, which they interpret to ftand for 74, and to refer to the firft year of his Printing in England; but it was the opinion of Dr. Middleton, that he began to ufe this cypher neear the end of his life, and in his lateft works ; The Boke of Eneydos, printed in 1489 , being the firft it appeared in, and . it generally appeared in thofe he afterwards publifted.


Mr. Caxton's firft performances are very rude and barbarous. He ufed a letter refembling the hand-writing then in ufe. His d, at the end of a word, is very fingular. He ufed the characteriftics which we find in Englifh manufcripts before the Conqueft. Infead of commas and periods, he ufed an oblique ftroke, thus /, which the Dutch printers do to this day, in their Gothic impreffions. His letter was peculiar and eafily known, being a mixtere of Secretary and Gothic. Like other printers of his time, he never ufed any direction or catehword, but placed the fignatures where that now ftands; and rarely numbered his leaves, and never his pages. In mott of his books he only printed, as the cuftom then was, a fmall letter at the beginning of the chapters, to intimate what the initial or capital letter thould be, and left that to be made by the illuminator, who wrote it with a pen, with red, blue, or green ink; but in fome of his books he ufed two-line letters of a Gothic kind. As he printed long before the prefent method of adding the Errata at the end of books was ufed, his extraordinary exactnefs obliged him to take a great deal more pains than can eafily be imazined; for, after a book was printed off, his method was to revire it, and correct the faults in it with

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with red ink. This being done to one copy, he then employed a proper perfon to correct the whole imprefion.

His books are printed on paper made of the pafte of linen rags, very fine and good, and not unlike the thin vellum on which they ufed to write their books at that time. When this was firf invented we have not been able to find; but our learned Dean Prideaux informs us, that he had feen a regiftration of fome atts of John Cranden, Prior of Ely, made on paper, which bears date in the fourteenth year of King Edward II. that is, anno dom. 1320 ; and, that in the Bifhop's Regiftry at Norwich, there is a regifter book of wills, all made of paper, wherein regifrations are made, which bear date fo far back as $\mathbf{1 3 7 0}$; juft an hundred years before the time that Mr. Ray faid the ufe of it began in Germany. As the invention of Paper is of fo early a date, and the author of the method fo uncertain, as well as the time and place when and where it was firft practifed, we therefore fhall make an extract from a. curious French Treatife on that fubject, which we hope will be favourably received by our readers, as being pertinent to our work: the Author fays, "Nature prefents us with a variety of fubtances on which we may write, and which have been ufed as paper at different times and by different people: We fee them have recourfe fucceffively to palmtree leaves, to table-books of wax, ivory, and lead; to linen or cotton cloths; to the inteflines or fkin of different animals; and to the inner bark of plants; but the perfection of the art confifted in finding materials of fufficient quantity and éafy preparation: Such is furely the paper now in ufe, of which we fhall endeavcur to fix its invention. Could a more common fubtance be conceived than the tattered remnants of our cloaths, linen worn-out and otherwife incapable of being applied to the leaft ufe, of which the quantity every day increafes? Could a more fimple labour be imagined than a few hours trituration by the means of mills? We are furprifed in obferving that the difpatch is fo great, that five workmen, in a


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The paper of the Romans never exceeded thirteen fingersbreadths, and this was their fineft and moft beautiful, as that of Fannius. In order to be deemed perfect, it was to be thin, compact, white, and fmooth; which is much the fame with what we require in our rag paper. It was fleeked with a tooth or thell; and this kept it from foaking the ink, and made it gliften.

The Roman paper received an agglutination as well as ours; which was prepared with flour of wheat, diluted with boiling water, on which were thrown fome drops of vinegar; or with crumbs of /eavened bread, diluted with boiling water, and paffed through a bolging-cloth. Being afterwards beaten with a hammer, it was fized a fecond time, put to the prefis, and extended with the hammer. This account of Pliny is confirmed by Caffiodorus, who, fpeaking of the leaves of papyrus ufed in his time, fays, that they were white as fnow, and compofed of a great number of fmall pieces without any junction appearing in them, which feems to fuppofe necefiarily the ufe of fize. The Egyptian papyrus feems even to be known in the tine of Homer; but it was not, according to the tenimony of Varro, till about the time of the conqueft of Ale xander, that it began to be manufactured with the perfections art always adds to nature.

Paper made in this manner, with the bark of this Egyptian plant, was that which was chiefly ufed till the tenth century; when fome invented the making of it with pounded cotton or reduced into a pulp. This method, known in China feveral ages before, appeared at laft in the empire of the Eaft, yet without any certain knowledge of the author, or the time and place of its invention.

In the fixth volume of the Memoirs of the Royal Academy of Infcriptions and Belles-Lettres, there is a Differtation of Father Montfaucon, which. proves, that cottun paper began to be ufed in the empire of the Eant about the ninth century. There are feveral Greek manufcripts, both in parchment or vel-
lum and cotton-paper, that bear the date of the year they were written in ; but the greateft part are without date. From the dated manufripts a furer judgment may be formed by comparing the writings of that age with thofe that are not. The moft ancient manufcript in cotton-paper, with a date, is that in the King's Library, written in 1050: another in the Emperor's Library, that bears alfo its date, is one of the year 1095 ; but, as the manufcripts without a date are incomparably more numerous than thofe which are dated, Father Montfaucon, by comparing the writing, difcovered fome of the tenth century; among others, one in the King's Library. If the fame fearch was made in all the Libraries, both of the Eaft and Weft, others perhaps might be found of the fame time, or more ancient. Hence it may be judged, that this bombycine or cotton paper was invented in the ninth century, or at lateft in the beginning of the tenth. Towards the end of the itth, and the beginning of the 12 th, its ufe was common throughout the empire of the Eaft, and even in Sicily. Roger, King of Sicily, fays, in a Diploma written in 1145, and quoted by Rocchus Pyrrhus, that he had renewed on parchment a charter that had been written on cotton-paper, ' in charta cuttunea,' in the year 1102, and another dated in the year 1112. About the fame time, the Emprefs Irene, confort of Alexis Comnenes, fays, in her rule drawn up for the Nuns fhe had founded at Conftantinople, that fhe leaves them three copies of the Rule, two in parchment, and one on cotton paper. Since this time, cotton paner was ftill more in ufe throughout the whole Confantinopolitan empire.

As to the origin of the paper we now ufe, nothing can, with certainty, fays Father Montfaucon, be affirmed concerning it. Thomas Demficr, in his Gloffary on the Inflitutes of Jufinian, fays, that it was invented before the time of Accurias, who lived in the beginning of the 13 th century. Notwithfanding he there fpeaks of bombycine paper, there

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is reafon to believe he alfo comprehends under that name the linen-rag paper, which is pretty like cotton-paper. In fome countries both were equally ufed $;$ as in Sicily, the State of Venite, and perhaps others. Several editions of Aldus Manutious, made at Venice, are on cotton paper: the proximity of Greece had; no doubt, introdiced the ufe of it there; Demfter ferms cherefore to fpeak of both. But we have a more ancient and exprefs paffage lineth-rag paper in Petrus Mauritius, called the Venerable, a cotemporary of St. Bernard, who died in 1153. "The books we read every day, fays he, in his Treatife againft the Jews, are made of theep, goat, or calf Kkin; or of Oriental plants, that is, the papyrus of Egypt; or of rags:" "Ex rafuris veterum pannorum." Thefe laft words fignify undoubtedly the paper, fuch as is now ufed : there were therefore books of it in the 12 th century ; and, as public aets and diplomas were written on the Egyptian paper till the itth, it is probable that linen-rag paper was invented about the fame century, and that it occafioned the difufe of the Egyptian paper in the Weft, as that of cotton did in the Eaft. Petrus Mauritius tells is, that there had been already, in his time, forme books of the linen-rag paper; but they muft have been very fcarce: for, notwithtanding the moft diligent fearch of the learned Antiquary Montfaucon, both in France and Italy, he could never find a book or leaf of paper, fluch as is now ufed, before the year 1270 ; fo that there is no hope of finding an exaet date to this difcovery.
We thall, in our next divifion, give a lift of the Foreign Places and Printers; where, and by whom, it was practifed during the life-time of Caxton, and then proceed with fuch Englifh Printers or Bookfellers, and infert fuch anecdotes as thall appear either applicable to them or relative to the Art of Printing; and then inform the Reader, at what places in England, and by whom, it was practifed, either at, or foon after, its Introduction.

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The Editor of, this Work prefumes to add, That he is not fo vain as to imagine: he fhall be free from Inaccuracies, that his Opinion is always, right, or his Abilities equal to the ufeful tafk he has undertaken; but hopes he fhall be. treated with Candor, It is a true and neceffary obfervation, made by a learned and excellent Writer, that "It. is of": fending againft the Laws of Juftice and Charity, and eyen "Decency and common Civility, to be pleared with, the difco", very of, miftakes of Authors, when committed through in", advertency and multiplicity of concerns, It, is the. hatrdeft. "c, tafk in nature; nay, it is impofifible to pleafe all, however. " defirous and agreeable it mighs be, or let his intentions " be ever fo praife-worthy."
We thall beg leave to tranfcribe the Words of the learned: Edieor of the Regitter of the Moft Noble Order of the Garter, and very fkilful Antiquary, as ferving to apologize for this Work, as well as for himpelf; "It is hoped that thofe "Extracts which the Reader will find here made from the "writings of Caxton and others will not be difrelifhed be"caufe they are inferted in their primitive Spellings and ob" folete terms, which, like the precious Ruft of Medals, are ", the Marks both of their Antiquity and Genuineff. "


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Paris, in 1469 , engaged Martin Crantz and Michael Friburger or de Columbaria or Colmar, in Alface, to fet up Preffes there, being the firft in France, except that of Tours.

Cologne; in 1470, received it by Conrard Winters.
Milan, in 1470, by Anthony Zorat, the inventor of fignatures.

Strasburgh in 1473 , the bifth place of Guttemberg, had it introduced by John Mentel.

Bolodna, in Italy, had the Art conveyed to it by a native called Balthezar Azzoguidi, in 1471 .

Treviso, in 1471, by Gerard de Lifa.
Ratisbon, in 1471, but it is not known by whom.
Amberg, in 1471 , the Printer alfo unknown.
Colle, in 1471, likewife unknown, notwithftanding their works are extant.

Naples, in 147 $^{1}$, by Sixtus Ruffinger.
Florence, in 1471 , by Bernard Cennini.
Ferrara, in $1471^{\circ}$; by Andreas Gallus.
Nurbmbergh, in 1742, by Anthony Koburger.
Verona, in 1742, by John de Verona.
Parma, in 1742, by Stephen Corali.
Mantua, in 1742, George and Paul de Burfchbach.
Derventer, in $\mathbf{1 4 7}^{2}$, Printer unknown.
Padva, in $147^{2}$, by Bartholomew de Val de Zochio.
Louvain, in 1743 , by John de Weftphalia.
$U_{\text {LM, }}$ in 1473 , by John Zeiner.
Utrecht, in 1473, the Printer's name unknown, Turin, in 1475, by John Fabri and John de Peter. Genoa, in 1474, by Matthias Moravus'and Michael Monk.
Brescia, in 1474, by Henry de Cologne and Statius Gallicus.

Alost, in 1474, John de Weftphalia, and Theod. Martin. Basil, in 1475, Printer's name unknown.
Esling, in 1475, by Conrard Fyner.
Pracentia, in 1475, by John Peter.

Pignerol, in 1475 , by James de Rouges or Rubeis. Vincenza, in 4475 , by Herman Lichtenftein. Lubec, in 1475, by Lucas Brandis de Schafz. Valentia, in 1475, but the Printer unknown. Rostoch, in 1475, Printer unknown. Bruges, in 1475, by Colard Manfion, Delph, in 1477, Printer unknown. Spire, in 1477, by Peter Drach. Lyons, in 1477, by Bartholomew Buyer. Genbia, in 2478, the Printer not known. Brussels. in 1478, the Printer alfo unknown, Coscenza, in 1478, by Octavian Salamonio. Pavia, in 1478, by Francis de St, Petro. Gouge, in 1479, by Gerard de Leen. Swox, in 1479, the Printer unknown. Carn, in 1480, alfo the Printer unknown. Genzano, in 1480, by a Printer not named. Quilembourga in 1480, without a Printer's name. Ligitit, in 148!, unknown.
Regio, in 1481, Profper Odoard.
Mont -Royal, in 1481, by Dominic de Nivaldis. Wartsburg, in 1481, the Printer not known. Pisa, in 1482, by Gregory de Gente. Aquila, in 1482, by Adam de Rotwill. Errord, in 1482, by an unknown Printer. Gaunt, in 1483, the Printer unknown.
Memining, in 1482, without the Printer being known.
Soncino or Soccino, in 1484, where the firt Hebrew boaks were printed by Jofhua and Mofes, two Jewifh rabbins.
Leipsick, in 1484, by Mark Brandt.
Vienna in Dauphiny, in 1484, by Peter Schenk.
Urbino, in 1484, by an unknown Printer. Antwerp, in 1485, by Gerard Leu, or De Leeu. Heydelberg, in 1485, the Printer unknown.
Cremona, in 148f, by Bernardina de Mifenti.

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Toledo, in 1486, by an ohkrowa Printer.
Rimaxo, in 1486, by a Jew who printed Hebrew only.
Munster, in 1486, by John Limburgh,
Mrssina, 1486, by William Sconberger.
Modena, in 1487, by Dominic Rocociola.
Boisleduc, in 1487, unknown by whom.
Tubingen, in 1488, by Frederick Meynberger.
Roven, in 5488, by John le Bourgois.
Gaeta, in 1488, by Mafter Juftus.
Tholouse, in 1488, by John James Colomiez.
Sienna, in 1489, by Sigifmund Rot.
Hagenaw, in 1489 , by John de Garlandia.
Lisbon, in 1491, a Hebrew book, by David Kimehi.
Sevile, in 1491, by Paul de Colonia.
Dole, in 1492, by John Hebertin.
Ingoldstad, in 1492, by Peter Appian, who was fo great an aftrologer that the Emperor Charles V. made him a prefent of 5030 crowns of gold for writing Opus Cäfaruin Aftronomicum.

Lunexburgh, in 1493, by John Lace.
Magdeburgh, in 1493, by an anknown Printer.
Thessalonica, in 1493, a Hebrew book, Printer unknown.
Fribueg, in 1493, by ——Kilian.
Anglouseme, in 1493, by a Printer unknown.
Lyra, iu 1494, a Hebrew work, the Printer unknown.
Madrid, in 1494, by an unknown Printer.
Barcelona, in 1494, Printer unknown.
Grenada, in 1496, by aq unknown Printer.
Mifandula, in 1496, whofe Printer alfo is unknown.
Pampelina, in 1496, by William de Brocario.
Avignon, in 1497, by Nicolas Lepe.
Leyden, 1497, the Printer unknown.
Provins, in the county of Brie, in France, in 1497, by William Tavernies.

Brigamo, in 1498. the Printer unknown.
Bemberg, in 1429 , by John Pfeil.
Having

Haping given a lif of the places where, and by whom firt introduced, in: Karope, we flall: now obferve that it extended itfelf; to Africa and America, not indeed at the invitation of the natives, efpecially or America, but by means of the Europeaninand particularly of the Spanilit miffionaries; wha carried it to the latter for their ends, where it has made fome. progrefs. Printing houfes being fet up in the cities of Goan Rachol, \&x, in the country of, Salfetta; Manilla, the metropolis of the Philippine illands, \&f, from whence there have been feveral productions that have found their way to Europe. We find alfo that feveral Printing-houfes were erected very. early in the city of Lima, capital of the empire of Peru, and in fequeral cities, of the kingdom of Mexico. We thall ouly add, that fome Danih miffionaries, fent to the coall of Tanquebar, who had good fuccefs there in converting a great. number of the natives, had fent to them the whole apparatus of a'Printing-houfe, with proper workmen ${ }_{0}$ and large quantities of paper, which enabled them to produce a fine quarto New Tefament, Prayer-books, Catechifms, \&c. in Portuguefe and feveral Eaftern languages and characters, for the promoting. of their pious defigns.

The Art was not introduced into Ruffia till the year 1560 y when it was made known to them by a Ruffian merchant, who conveyed thither the materials of a Printing-houfe, with which many neat editions were printed. But, as they are a very fuperftitious nation, and apt to raife fcruples without any foundation, fome of them hired feveral fellows to deflroy the materials, apprehending that Printing might make fome confufion or change in their religion; to repair which injury there was not the leaft attempt made, nor any enquiry made after the perpetrators of the fact. However, fince that time they have admitted it, into Mofcow and Peterlburg, where they make but a flow progrefs with their productions.

Our knowledge is very imperfect of thofe remote parts of Africa called Abyfinia, and even thofe which are neater, as Morceco,

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Morocco, Fez, \&c. we can only fay, that 'tis certain they received the art early from their neighbours, the Spaniards or Portuguefe, and encouraged it for a confiderable time; yet whatever be the reafon, fearce any footfeps of it now remain, if we believe Mr. S. Olon the French king's ambaffador to the king of Morocco; who, affures us, that there is fcarce one princing houfe in it. He adds, that it is a piece of religion among them not to fuffer any corn, horfes or books to be exported; and that their fondnefs for books is the greater, by reafon of their fcarcity, fince there is hardly 2 prefs in the whole empire.

We read of fome attempts made by the miffionaries in Perfia to introduce printing there; which proved ineffectual. I thall fay nothing here of the kingdoms of China and Japan, nor of their manner of printing.
Before we clofe this part of our work we fhall give a fhort account of what is moft peculiar in the firft production of the Art; which, though a fubject well known by the curious, it is prefumed may not be unacceptable to feveral perfons, into whofe hands this work may chance to fall.

With refpect to their forms, they were generally either large or fmall Folio's, or at leart Quarto's : the leffer fizes were not in ufe.

The leaves were without running title, direqion-word, number of pages, or divifions into paragraphs.

The charater itfelf was a rude old Gothic mixed with Secretary, defigned on purpofe to imitate the hand-writing of thofe times; the words were printed fo clofe to one another, that it was difficult and tedious to be read, even by thofe who were ufed to Manufripts, and to this method; and often lead the inattentive reader into miftakes.

Their orthography was various and often arbitrary, difregarding method.

They had very frequent abbreviations, which in time grew fo numerous and difficult to be undertood, that there was 2

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neceffity of writing a book to teach the manner of reading them.
Their periods were diftinguifhed by no other points than the double or fingle one, that is, the Colon and Full-point; but they a little after introduced an oblique froke, thus, $\%$, which anfwered the parpofe of our Comma.
They ufed no capital letters to begin a fentence, or for proper names of men or places.

They left blanks for the places of titles, initial letters, and other ornaments, in order to have them fupplied by the illuminators, whofe ingenious art, though in vogue before and at that time, did not long furvive the pafterly improvements made by the Printers in this branch of their Art. Thofe ornaments were exquifitely fine, and curioufly variegated with the moft beautiful eolours, and even with gold and filver; the margins likewife were frequently charged with variety of figures of faints, birds, beafts, monfters, flowers, \&cc. which had fometimes relation to the contents of the page, though often none at all : thełe embellifhments were very cofly ; but for thofe that could not afford a great price, there were more inferior ornaments, which could be dane at a much eafier rate.

The name of the Printer, place of his refidence, \&c. \&c. were either wholly neglected, or put at the end of the book, not without fome pious ejaculation or doxology.

The Date was likewife omitted or involved in fome crampt circumftantial period, or elfe printed either at full length, or by numerical letters, and fometimes partly one and partly the other ; thus, One Thoufand CCCC and lxxiiii, \&c. but all of them at the end of the book.

There were no variety of characters, no intermixture of Roman and Italick; they are of later invention; but their pages were continued in a Gothic letter of the fame fize throughout.

They printed but few copies at once, for 200 or 300 were then efteemed a large imprefion; tho' apon the encouragements received proportion.

We fhall here mention fomething concerning their bookbinding, an account of which we find in Scaliger, who tells us, that his grandmother had a printed Pfalter, the cover of which was two inches thick; in the infide was a kind of cupboard, wherein was a fmall filver crucifix, and behind it the name of Berenica Codronia de la Scala. This book feems to have been printed with blocks of wood, but probably bound the fame way of the reft.

We conclude this chapter with an obfervation of Monf. de la Monoye concerning the phrafe, Libri editi, which we hope the curious will be pleafed with: he tells us, that this phrafe was ufed before the invention of Printing, and fignified only books publifhed and difperfed abroad in fome confiderable number, in oppofition to thofe that were writ fair to be fet up in libraries, which were called Libri fcripti. Whether this obfervation be as certain as it is curious, we fhall leave to the judgment of our readers.

 more rude than Caxton's.

Winken, Wyniyn, or Wynandus de Worde, the famous Mafter-printer, was a foreigner, born in the dukedom of Lorrain, as appears by the patent-roll in the chapel of the Rolls. Our firt printer Caxton, when refident abroad, might probably meet with him there, and engage him to come over to England for a fervant or affiftant, like as John Faut at Mentz had his lad, or fervant, Peter Schoeffer, whom they chofe for their ingenuity and promifing parts ; and their after works thew they were not miftaken in their choice.

He continued in fome capacity with Caxton till his mafter's death, 1491 , and printed at his houre in Wefminfter afterwards. Whether he was married or no, or had relations that came over with him, does not appear by his will; yet we find in the church-wardens accounts for St. Margaret's Weftminfter, an entry made in 1498. " Item, For the knell of Elizabeth de Worde vi pence. Item, For iii torches, with the grete belle for her, viiii d." Again, in the year 1500, " Item, For the knelle of Iuliane de Worde, with the grete bell, vi pence." By dwelling with Caxton he naturally fell into the company and acquaintance of the learned and noble of this kingdom, on account of this new art, as foon appeared by the firft woriss he printed, and ftiled himfelf, Printer to Margaret, \&c. the king's grandame. In the 7 th of Henry VII. 1491, he printed the acts of parliament with the king's arms, \&c. and dwelt at his mafter's houre at leaft fix years, as may be feen by feveral books mentioned to be printed by him at Weflminfter, in Caxton's houre, till the acts printed in the 1 ith and 12 th of Henry VII. when he printed at the end, with the fame cut, and a neat one of $2002 ; C$; alfo in Fleet-ftreet, at the fygn of the fonne, by Wynken de Worde.

Afterwards he probably kept both fhops for fome time, where, by himfelf and his numerous fervants, he performed

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all the parts of the bufinefs, and furmifhed others, dwelling in London ; for it may be fuppofed, the moft antient Printers did. every part of the bufinefs belonging to books by themfelves, or under their direction, even to the binding and felling them. His fill in the art is much commended; and at his fetting up for himfelf, his firft care was to cut a new fet of punches, which he funk into matrices, and caft feveral forts of printing letters, which he afterwards ufed; and Mr. Palmer, in his Hiftory of Printing, fays, he printed feveral Latin, as well as Englifh volumes, but no Greck. He continued printing with great applaufe till 1533, if not beyond that time. He was a perfon of great accomplifhments in learning, as well as frictnefs in morals; and though he was the immediate fucceffor to Caxton, the improvements he made were very confiderable; for by his genius, and great fcope of fancy, he formed fuch a variety of forts and fizes of letter, that for feveral ycats after few equalled, none excelled, him therein. If he was the manual operator in cutting and cafting in his own foundery, it is an incredible improvement which he made to the art: nay, if he had his types from abroad, notwithftanding it robs him of the glory of the letter, yet his excellent method of difpofition, compofition, and prefs-work, fhews him to have excelled his mafter, and even to rival any of his cotemporaries abroad. There is one circumftance that induces many to think that he was his own letter-founder; which is, that in fome of his firt printed books, the very letter he made ufe of, is the fame ufed by all the Printers in London at this time; and is imagined to be fruck from his punches. He is the firt Englifh Printer, who introduced the Ronan letter in England, which he made ufe of to diftinguifh any thing remarkable. His letter is different from moft other Printers, and is caff fo true, and ftands fo well in line, as not to be fince excelled. Upon the whole, he was a very curious, laborious and indefatigable Printer. He was the firt who hegan to print the Year-books; Which yere continued by Pinfon,

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Moft of his books now remaining were printed at London, in Fleet-ftreet, in St. Bride's parifh, at the fign of the fun. We have obferved no fign of his while at Weftminfter, unlefs he had the fame Cypher which his mafter William Caxton ufed for a fign, in memory of the year when he brought Printing firt into England. He was a Stationer by company, but we cannot find any charter granted them before that of Philip and Mary, in 1556, which will be inferted in our account of Cawood, who was mafter of the company. Wynkin de Worde was alfo of the brotherhood of our Lady's Affumption. In the year 1471, when Caxton printed the Receuyl of the Hytory of Troye, we may allow him to be about fifteen; if fo, he was feventy eight years old when he died. He made his will, as may be feen in the Prerogative-office, dated the 5 th of June, 1534, and died not long after. He writes himfelf Citizen and Stationer of London. He commends his foul to God and the bleffed St. Mary, and his body to be buried in the parochial church of St. Bride's in Fleet-ftreet, before the high altar of St. Katherine. Item, For tythes forgotten 6 s .8 d . Item, To the fraternity of our Lady, of which I am a brother, 10 s. to pray for my foul. Item, To my maid 3 1. in books. To Agnes Tidder, widow, 40 s . in books. Item, to Robert Darby 31 . in printed books. To John Barbanfon 60 s . in books, and ten marks. To Hector, my fervant, five marks fterling in books. To Wiflin 20 s . in printed books. To Nowel, the book-binder, in Shoe-lane, 20 s. in books. To Simon, my fervant, 20 s . in printed books, To every of my apprentices 31 . in printed books, To John Butler, late my fervant, 61 . in printed books. To my fervant James Ganer, in books twenty marks. And forgive John Bedel, ftationer, all the money he owes me, \&c. for executing this my will, with James Ganer;; and that they, with the confent of the wardens of the parih of St. Bride's, purchafe at leaft 20 s . a year in or near the city, to pray for my feule, and fay mafs. To Henry Pepwell, flationer, 41 in printed books.

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books. To John Gouge forgive what he owes me, and 4t. To Robert Copland, ten marks. And to Alard, book-binder, my fervant, $61.15 \mathrm{s}$.4 d .

Among the great variety of books publifhed by him we fhall give an extract out of only one, viz. Dean Collet's Theology, printed in 1533. "The mayter thall reherfe thefe articles to them that offes their chyldren, on this ways here followinge. If your chyld can rede and wryte Latin and Englifshe fufficiently, fo that he be able to rede and wryte his own leffons, then he fhall be admitted into the fchole for a fcholar. If your chyld after reafonable feafon proved to be here unapte, and unable to learning, than ye warned thereof, thall take him away, that he occupye not here rowme in vayn. If he apt to learn, ye fhall be content that he continue here till he have fome compytant literature. If he be abfent fix days, in that mean feafon ye fhew not caufe refonable (refonable caufe is al only feknefs) then his rowme to be voyde, without he be admitted again, and pay iiiid. Alfo, after caufe thewed, if he continue fo abfent tyll the week of admifion in the next quarter, and then fhew not the continuance of hys feknefs, than hys rowme to be voyde, and he none of the fchole, tyll he be admitted agayne, and pay iiii d.. for wryting of his name. Alfo, yf he fal thryfe into abfence, he fhall be admitted no more. Your chyld thall on Childermas day waite upon the byfhap at Pouwls, and offer there. Alfo, ye fhall find him wax in wynter. Alfo, ye fhall fynde him convenient bokes to hys lerning. If the offerer be content with thefe articles, then let his chyld be admitted."

Richard Pinson, alias Pynson, was brought up under Caxton, as well as Winken de Worde; and being become a good proficient in the bufinefs, went and fet up a prefs of his own at Temple-bar, as the infcription on his firft works fhew. The friendhip which he had contracted with De Worde, whilf thefe two wrought under Caxton, was fo far from being difturbed

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difturbed by any emulation or rivalfhip, that it continued to their death. He is faid to be born in Normandy, and appears to have been an early fervant to our firft printer, Caxton, whom he calls, in his edition of Chaucer's Canterbury Tales, (without a date, and imagined to be his firft printed book) his worhipful mafter; and tells the reader, that this book had been diligently overfeen, and duly examined by his politic reafon and overfight. He was in fuch efteem with the lady Margaret, king Henry the VIIth's mother, and other great perfonages, that he printed for them all his days, and obtained a patent from king Henry VII. to be his printer, as appears in the year 1500, or before; poffibly joined with Guilliam Faques in the fame patent, who was alfo the king's printer the fame year ; but the patent has not yet appeared, notwithftanding it has been diligently fought for. He had a correfpondence, is plain from his employing William Tailleur, a printer at Roan, to print fome pieces of law; as the laws 2 little before that time were made in the Norman French tongue, till the beginning of Henry VIIth's reign. And probably the reafon why he fent them over to be printed, was, that they, underftanding the language better, might be capable of printing it more correctly. However, he had fuch helps afterwards, that all fatutes, \&c. were printed here at home. He printed many books, which were alfo printed by his friend and fellow fervant, Wynken de Worde, who furvived him about fix years. Many books were printed by him and his fervants, and he caufed many pretty devices to be ftamped on their covers.

This great artift ended his life before the year 1529 , when Thomas Barthelet fucceeded him as king's printer.

The firt book, with a date, printed by him, anno 1493, was, $A$ Compendious Treatije Dialogue of Divis and Pauper, wherein is the following remarkable paffage of fair Rofamond: " We rede that in Englonde was a kinge that had a concubyne,

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byne, whofe name was Rofe, and for her graete bowte he cleped hir Rofe amunde, that is to faye, Rofe of the Worlde; for him thought that fhe paffed al women in bewte. It befel that fhe died, and was buried whyle the kinge was abfent, and whanne he came ayen, for grete love that he had to hyr, he would fe the bodie in the graue, and whanne the graue was opened there fat an orrible tode upon hyr brefte, bytween hyr teetys, and a foule adder bigirt hyr body aboute the midle, and fhe ftank fo that the kyng, ne non other, might, ftonde to $f e$ the orrible fight. Thanne the kynge dyde fhette agen the graue, and did write thefe two veerfis upon the graue,
" Hic jacet in tumba rofe mundi non rofamunda.
"Non redolet fed olet quod redolere folet," \&c.
Julian Notary dwelt at feveral places, and as he printed fome time at Weftminfter, in 1500 , we place him next after Pinfon. He printed in France before he practifed in England. In 1503 he dwelt in St. Clement's parif, without Temple-bar, In 1515 he lived in St. Paul's Church-yard, near the Weft Door, by my Lord of London's Palace, at the Sign of the Three Kings.

Guillam or William Faques, was the king's printer, and probably joined in the fame patent with Pinfon. They both printed the act of parliament made in the 19th of king Henry VII. 1503, and filed themfelves in each, Printers to the King. How long he had printed before, or continued after, does not appear, but his. books fhew him to have been' an excellent workman, and lived within St. Helen's.

Henry Pepwell is fuppofed to be only a bookfeller, in St. Paul's Church-yard, and fold foreign books for merchants: and others; for there were many books printed abroad about this time, and a good while after, that were to be had at the fign of the Trinity, in St. Paul's Church-yard. He was a citizen and fationer of London, had a wife and children, and for a fervant Michael Lobley, a printer; of whom we fhall
take notice in another place. He feems to have been attached rigidly to the Roman catholic religion all his days, and a ufeful man for John Stokellaye, bifhop of London, who fucceeded Cuthbert Tunftall. Pepwell's fifft book that he publifhed was in 1502. He made his will Sept. 11, 1539, in which he gives his foul to the blefled lady, Mary mother of Chrift, and his body to be buried in the parifh church of St. Faith's (under St. Paul's), nigh the high aliar ; and to Bermondfey, where he was born, a printed mafs-book, the price of five fhillings, to pray for his foul. He made his wife, Urfula, and his children, executors.

Towards the end of Henry the VIIth's feign, befides the books that were printed at home; there were feveral printed for us abroad, by the encouragement of Englifh merchants, and others, as they found their account in it. Among others was Mr. Bretton, a merchant of London, who encouraged the printing books abroad, for our ufe, but his own profit and advantage. He bore the character of a faithful and honeft man, as appears by the books printed at his expence.

In 1506 there were fold, at the fign of the Trinity in St. Paul's Chureh-yard, feveral of the prayer books in Englifh.

John Sкот, or Scott, for he printed his name both ways, is ruppofed to have learned the Art of Winken de Worde, or Pinfon, becaufe his firft works feem to be printed on the fame letter, and greatly to refemble the prefs-work of Worde and Pinfon, and was publifhed in 1521, when he lixed without Newgate, in St. Pulker's parihh. He removed into St. Paul's Chärch-yard in 1534 . He alfo lived in GeqrgeAlley without Bifhopfgate, in St. Botolph's, parih.

Thomas Goppray, 1510 , dwelt at Temple-bar, printed a great many books without date, and continued in buripers till 1532 .

Joyn Rastell, a genteman brought up in learning, and probably to the law, had his edacation in the Univerfity of Qxiord, was born in London. He took up the employ of printing in $151 \%$, which at that tine was eflermed a profef

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fion fit for a feholar or ingenious main. Being remarked for his piety ant teatring, Ke became intimate with Sir Thomas More, whore fifter Elizabeth hee married; he was zealous for the tatholit caufe, and a great hater of the proceedings of案ing Henty Vilif.

As for the book of law-terms, faid by Bale to be written by thie fame author, is erronious, for they were written bỳ his foh Whiliam, in the gear 1565.
Thas Johin Raftell died at London, in fifeen hundred thirty fix, leaving behind him iffte william Raftell before mentioned, and dotin Raftell, a juiftice of peace, who had a daughter named Elizabeth, the wife of Robert Laugher, sL. D. chancellor of the tiocefe of Bxeter.

There were, it is likely, two families of the Raftells about this time, which makes it difficult, in many places, to aiftugtifin one from the other. It is plain, that William Ratell; of St. Bride's parift in London, in the gear 1530, zind the lifectime of John, was a very noted printer of lawbooks; as will be fhewn in its proper place; and this family exifted a good while before the Raftells mentioned by Mr. Wood.

He printed an Abridgement of the Englifh Statutes, which, being the firt in Englifh, we fhall prefent our Readers with the Preface, as it contains the reafons for it, as follows:

Becaufe that the lawys of this realme of England, as well the flatutes as other jugementys and decreys, be made and Wrytyn moft commynly in the Frenche tongue, dyuerfe men thereof mufe, and have oftimis communycacion and argument confyderyng, that in reafon euery law wherto ahy people fhuld be boundyn, ought and fhalde be wryttyn in fuch manere and fo opynly publisifyd and declaryd, that the people myght fone, wythout gret dyffyculte, have the knoulege of the feyd laws. But the verey caure why the feyd laws of Englond we: writin in the French tonge, fhuld feme to be this: furf, yt yy not unknowyn, that when Wyllyam, duke of Normandy, onely the French tong: and alfo, becaufe the feyd kyng and other grete wyfe men of hys counfel, perfeyuyd and fupofyd that the vulgar tong, which was then ufyd in this realme was, in a manere, but homely and rude, nor had not fo grete copy and haboundaunce of wordys as the Frenche tong than had, nor that vulgare tong was not of yt felff fuffycyent to expown and tu declare the matter of fuch lawys and ordenauncis, as they had determynid to be made for the good governaunce of the people fo effectually, and fo fubftancyally, as they cowd indyte them in the French tong, therefore they orderid, wrot, and indytyd the feyd lawys, that they made, in the French tong. And forthermore, long after the commyng off king Wylyam conquerour, becaufe that the ve of the French tong in this realme began to mynysfh, and be caufe that dyuers people that inhabityd wythin this realme, wich cond nother fpeke the vulgare tonge of thys realme, nother the French tong; therfore the wys men of this realme caufyd to be ordyryd, that the matters of the law, and accions hetwen partes fhuld be 'pledyd, thewyd and defendyd, anfwerd, debatyd and juggyd in the Englifh vulgar tong; and more over, that wryttyn and enteryd of record in the rollys in the latyn tong, becaufe that cvery man generally, and indifferently, myght haue the knolege thereof, as apperyth by a flatute made in the xxxxvi. yere of E. iii. c. vltimo; wherfore, as I fuppofe, for thefe caufis before reherfyd,' which was intendyd for a ryght good purpofe.

But yet, befyde thys now of late days, the moft noble prynce, .our late foverayne lord, kyng Henry the vir, worthi to be caliid the fecond Salomon (which excellyd in polytyk wyledome pall other princes that reinid in thys realme before thys time) coneydering and wel parfeyuyng that our vulgare Englylhitong

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was maruelloufly amendyd and augmentyd, by reafon that dyuers famous clerkis and lernyd men had tranilated, and made many noble workis into our Englifh tong, whereby there was mych more plenty and haboundaunce off Englylh ufyd, than ther was in tymys paft; and by reafon thereof our vulgar tong, fo amplyfyed and fuffycyent of hyt felf to expown any lawys or ordynancys, whych was nedeful to be made for the order of thys realme; and alfo the fame wife prince confideryng, that the vniverfall people of this realme had gret plefur, and gave themfelf gretly to the redyng of the vulgare Englyf tong, ordeynyd and caufyd, that all the flatutys and ordynauncis, whych were made for the commyn welth of this realme in hys days, fhuld be endytyd and wryttyn in the vulgare Englyfh tong, and to be publyfhyd, declaryd, and ymprintyd, fo that then viniverfally the people of the realme myght fone haue the knolege of the feyd ftatutes and ordynauncys, whych they were bounde to obferve, and fo by reafon of that knolege to avoyd the danger and penaltes of the fame flatutys, and alfo the better to lyff in tranquylyte and peafe; whych dyscrete, charytable ànd reafonable order, our moft dred fovereyne lorde that now.ys, kyng Henry the vini. hath continuyd, and folowyd, and caufyd all the flatutys, that haue be made in hys dayes, to be alfo indytyde and wryttyn in our Englyih tong, to the intente that all hys lege people myght haue the knoleg thereof. All whych goodly purpofys and intentys, in my mynde ofte tymys reuoluyde, hath caufyd me to take thys lytyll payne to tranflate out of Frenche into Englishe the abbreviacyon of the ftatutys, which conteyn forfeytours and penaltes, made before the fyrt yere of the reyn of our late fouerein lorde kyng Henry the vir. And alfo thoughe the ftatutys, made as wel in the tyme of the feyde kyng Henry the vir. as in the tyme of our fouerein lorde, that now ys, be fufficyently indytid and writyn in our Englyfh tong, yet to them that be defirous fhortly to knowe the effed of them, they

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 THE HISTORY OF PRINTING．now thore tedyoufe to rede，than though the mater and effect of them were compendyoufly abbreuiat：wherefore now，as farr as my fymple wytt and fmall lernynge wyll extende，I have here takyn upon me to abbregg the effect of them more fhortly in this lyttyll book，befechyng all them，to whome the fyght here of hall come；to accept hyt in gree；and though they fhall fortune to fiynde any thynge mylfeportyd，or omytted by my neglygens，elis by neglygens of the prynters，that $y t$ wolde lyke them to pardon me，and to confyder miy good wyl，which haue intendid $y t$ for a comyn welth，for the caufis and con－ fideracyons before reherfyde；and alfo，that yt fortune them to be in dout in any poynt thereof，yet，yf it pleafe them，they may reforte to the hole ftatute，whereof thys book is but a bregement，and in manere bat a kalender．And forthermore I wyll aduertyre every mon，that fhall forturne to hane any matter in ure，to reforte to fome man，that ys lernyd in the laws of thys realme，to haue his councel in fuch poyntis，which he thinkith doubtfull concernyng thefe feid fatatis，by the knolege wherof，and by the dylygent obferuyng of the fame； he may the better do hys dewte to hys prynte and fouerine； and atfo lyf in tranquilite and peafe wyth his neyghbour， accordyng to the pleafure and commandment of all mighti God， to whom be eternal laud and glori．Amen．

Robert and Wilitam Copland；the firf was fervant to Wyikeri de Worde，as appears by his protogue to the Kinght of the Swan，and by the will of Wynken de Worde，wherein he was a legatee．Whether the was one of Caxton＇s fervants is uncertain；buit be that as it will，he was one of the earlieft printers，befides ftationer and bookfeller，as well as tranflator and author．This may be obferved from feveral of his books； and that he chiefly dwelt in Fleet－ftreet，at the fign of the Rofe Garland，to 1541 ；＇；which year，under Robert Wyen，he is mentioned．He brought up his fon William in the fame Art，who followed the bufinefs in the faite houfe and at the fame fign，and other places．He became one of the fationers

THE HISTORY OF PRINTING. 57 company in 1556, and continued printing for himfelf and others till 1561 . They are mentioned together, becaufe they both ufed the fame mark and letter. The firf production of Robert's was in 1515 .

He printed the Introduction of Knowledge, by Andrew Borde, phyfician, which treateth of the natural difpofition of an Englifhman, and of the moncy then uied. In it is a cut of an Englifhman, fomewhat refembling King Henry VIII. hat naked, holding a piece of cloth over his arm, and a pair of hears in his other hand, with the following lines, expreffing the fickle difpofition of the Englih.

> I am an Englifhman, and naked I fand here, Müfing in my mynde, what rayment I thal were; For now I were thys, and now I will were that, Now I wyl were, I cannot tell what,—_\&c.

John Butler, or Boulter, who, we are informed, was 2 jadge in the Court of Common-pleas, had a Printing-houfe at the fign of St. John the Evangelift, in Fleet-ftreet, in 1520, where he carried on but little bufinefs.

Robert Wyer, an early printer, who printed many books without dates. He lived at the fign of St. John Evangelift, in St. Martin's parih, in the Bifhop of Norwich's Rents, near Charing-Crofs, in 1524.

Robert Redman printed law as early as 1525 , while Wynken de Worde, Pinfon, and Raftell were living, as well as fome others; fo that one would be apt to conclude their patents were not always exclufive of others. He dwelt after Pinfon's death in his houfe, and continued the fign of the George. His will, which is in the Prerogative office, is as follows: Rabert Redman, ftationer and freeman of London, in the parifh of St. Dunftan's in the Weft, made his will the 21 It day of October, 1540 . His eftates he left to his family. Forty pence to be given to the poor, at the day of his death. Elizabeth, his wife, to be fole executrix; and William Peyghan,

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Peyghan, and his fon-in-law, Henry Smith, to be overfeers of this his will; and they to have for their labour at the difcretion of his execatrix.

Richard Banks printed, and had others that printed for $\mathrm{him}_{\mathrm{y}}$ about twenty years. He dwelt and fold books at feveral places, and had a patent for printing the Epifles and Gofpels, in the following words, granted in 1540.

Henry the eighth, by the grace of God, king of England and of France, defender of the Faith, lord of Ireland, and in earth fupreme head immediately under Chrift of the church of England. To all printers of books within this realm, and to all our letters hearing or feeing, greeting. Be it known to all, that we of our efpecial grace have given privilege unto our well beloved fubject Richard Banks, that no perfon within this realme, shall print any manner of books whatfoever that our faid fubjecis flall firft print within the face of feven years next enfuing the printing of every furch book fo by him printed, upon pain of forfeiture of the fame. Wherefore we will and command, that you, nor none of you, do prefume to print any of the faid books dusing the time aforefaid; as. you tender our pleafure and will, avoid the contrary.
Laurence Andrew, a native of Calais. He was a tranflatior of divers authors before he learned the Art of Printing, which probably might be from John of Doelborowe and Peter Treuers. Afterwards he practifed it in Fleet-ftreet, London, at the fign of the Golden-crofs, by Fleet-bridge.

Jónn Reynes, bookfeller and bookbinder, dwelt in St. Paul's Church-yard, at the fign of the St. George in 1527, if not before. Some bcoks are faid to be printed by him, others for him; but there are many more that have his marki, and pretty devices on their covers; as the arms and fupporters of Jesus Christ, with thefe words, redemptoris munds arma.
Thomas Berthelet, Ef; the King's Printer, dwelt at the fign of Lucretia Romana, in Fleet-ftreet; and bad a patent

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granted him at the deceafe of Pinfon, and the firt to be met with, for King's Printer, in thefe words:
Rex omnibus ad quds prìlentes', \&c. falutem. Sciatis quod nos de gratia notra feciali, ac ex certa fcientia, et mero mota noffris dedimíus et conceffimus, ac per pra. 'fentes damus et concedimus delecto fervienti noftro Thomx Berthelet impreffori nofto quahdam annuitatem, five quendam annualem redditum quatuor librarum fterlingorum, habendum et annuatim percipiendani pradiztam annuitatem, five annualem redditum quatuor librarumi eidem Thome Barthelet, a fefto Pafchæ, anno regni noffri vicefimo primo, durante vita fua de thefauro noftro ad receptann feaccarii noftri per manus thefaurar. Et camerarii noftrotum ibidem pro tempore exiften. ad feftà faneti Michaelis archangeli et Pafche per equales portiones, et quod expreffa mentio, \&c. in cujus, \&c. teftimonium rei apud Weftminfterienfem', vicefimo fecúndo die Februarii, anno regni Hearici octavi tícefimo primo. Per breve de privato figillo.

His arms are defcribed in a book marked 2. H. 5. in the college of arms, London; thus;

The armes and crefte of Thomas Barthelet of London, efquyer, gentillman; he bereth afure on a chéverion flore contre flore argent betwene three doves of the fame; thre, trefiles vert. per chreft. upon his helm. out of a crounall filver two ferpents endorfed afure ventred gold open mouthed, langued and eyed geules, there tails comyng up in faulre under thire throtes; the endes of their tailes entering into their eres, langued and armed geules manteled geules, doubled filver, as more plainly apperilh depicted in this margent; graunted and geven by me Thomas Hawley; alias Clarenceulx, kying of armes, the firf day of September in the thirde yere of the reygne of our foverange lorde kyige Edward the vi; \&c.

As feveral books, and one in 1541, are faid to be printed in the houfe, late Thomas Barthelet's, he probably left off printing, or at leaft employed others to print for him, fome years before his death.

In the year 1546, he printed a proclamation to abolifh fuch books as contain pernicious errors and herefies, wherein it is expreffed that " None fhall receive, take, 'have, or keep, in his or their poffefion, the text of the New Teftament of Tindal's or Coverdal's tranflation in Englifh, wor any other than is permitted by the act of parliament:

Richard Fawres, fometimes Fakes, is fuppofed to be a foreigner, and printer to the monaftery Syon, and that be printed an indulgence in 1520.

John Haukyns, whofe place of refidence and fign are not known, printed, in 15332 Merlin's Prophecies, from whence we have made fe following extract:

Seven and tes addyd to nine, Of Fraunce her woe thys is the fygne, Tamys sivere twys y frozen, Walke fane wetyag fhoes ne ho zen. Then comych foorthe, Ich undertonde, From town of Stoffe to fattyn Londe, An herdie chyftan, woe the morne To Fraunce, that evere he was borne. Then fhall the fyfhe beweyle his boffe; Nor fhall grin berrys make up the loffe, Yònge Symnele fhall again mifcarrye : And Norways pryd again thall marrey. And from the tree blofums feele, Ripe fruit ihall come, and all is wele. Reaums fhail daunce honde in honde, And it thall be merrye in cld Inglonde. Then old Inglonde faall be no more, And no man fhall be forrie therefore. Ceryon nall have three hedes agayne, Till Hapsburgh, makyth them but twayne.

William Rastall, Son of John'Raftall, of London, printer, by Elizabeth his wife, fifter to Sir Thomas More, knight, was born in the city of London, and educated in claffical
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clafical learning. In 1525 , being feventoen years old, he was fent to Oxford to complete his education, after which he became a fudient in Lincoln's Inn; and was, in 1554, made a ferjeant at law, and a little before the death of queen Mary was appointed one of the juftices of the Common-pleas. . He was a zealous Roman catholic, and the chief production of his prefs was law and religious controverfy. On the acceffion of queen Elizabeth he retired to Louvain, where he died in 1565 .
Josn Toys printed at London, in Paul's Charch-yart, at the fign of St. Nicholas, in 153 .
Joun Bybble, otherwife called Salisbury, but for what reafon it is not faid. He was a flationer and printer, and appears to have fold books in the year 1533, if not before. It is probable that he was apprentice to Wynken de Worde. He' firt kept fhop at the fign of our Lady of Piety, but afterwards moved to Wynken de Worde's houfe, and was one of his executors, as appears by Worde's will already mentioned.
In the 25 th year of Henry viir. being 1533, we find the following act, touching the importation and binding of books:
Whereas by the provifion of a flature, made in the firf year of the reign of king Richard the third, it was provided in the fame act, that all ftrangers repairing into this realm, might lawfully bring into the faid realm, printed and written books, to fell at their liberty and pleafure. 2. By force of which provifion there hath come into this realm, fithen the making of the fame, a marvelous number of printed books, and daily doth; and the caufe of making of the fame provifion feemeth to be, for that there were but few books, and few printers, within this realm at that time, which could well exercife and occupy the faid fcience and craft of Printing : neverthelefs, fithen the making of the faid provifion, many of this realm, being the king's natural fubjects, have given themfelves fo diligently to learn and exercife the faid cruft of Printing, that at this day there be within this realm a great number of cunning and expert in the faid fcience or craft of Printing, as able to exercife the

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faid craft in all points, as any franger in any other realm or country. 3. And furthermore, where there be a great number of the king's fubjects within this realm, which live by the craft and myltery of binding of books, and that there be a great multitude well expert in the fame, yet all this notwithfanding there are diverfe perfons, that bring from beyond the fea great plenty of printed books, not only in the Latin tonge, but alfo in our maternal Englifh tonge, fome bound in boards, fome in leather, and fome in parchment, and them fell by retail, whereby many of the king's fubjects, being binders of books, and haying no other faculty wherewith to get their living, be deftitute of work, and like to be undone, except fome reformation be herein had. Be it therefore enacted by the king our fovereigne lord, the lords fpiritual and temporal, and the commons in this prefent parliament affembled, and by authority of the fame, that the faid provifo, made the firt year of the faid king Richard the third, that from the feaft of the nativity of our Lord God next coming, fhall be void and of none effect.
II. And further, be it enacted by the authority aforefaid, that no perfons, refiant, or inhabitant, within this realm, after the faid feaft of Chrittmas next coming, fhal buy to fell again, any printed books, brought from any parts out of the king's obeyfance, ready bound in boards, leather, or parchment, upon pain to lofe and forfeit for every book bound out of the faid king's obeyfance, and brought into this realm, and brought by any perfon or perfons within the fame to fell again contrary to this act, 6 s .8 d .
III. And be it further enacted, by the authority aforefaid, that no perfon or perfons, inhabitant, or refiant, within this realm, after the faid feaft of Chriftmas, flall buy within this reaim, of any ftranger bourn out of the king's ovedience, other then of denizens, any manner of printed books, brought from any the parts beyond the fea, except only by engrofs, and not by retail, upon pain of forfeiture of 6 s . 8d. for every book fo buught by retail, contrary to the form and effect of this

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deftatate. 2. The faid forfeitures to be always levied of the buyers of any fuch books contrary to this act, the one half of the faid forfeitures to be to the ufe of our fovereign lord the king, and the other moiety to be to the party, that will feize, or fue for the fame in any of the king's courts, to be by bill, plaint, or information, werein the defendent thall not be admitted to wage his law, nor no protection, ne effoin fhall be unto him allowed.
IV. Provided always, and be it enacted by the authority before faid, that if any of the faid printers, or fellers of printed books, inhabited within this realm, at any time hereafter, bappen in fuch wife to enhance, or encreafe the prices of any fuch printed books in fale or binding, at too high and unreafonable prices, in fuch wife as complaint be made there of unto the king's highnefs, or unto the lord chancellor, lord treafurer, or any of the chief juftices of the one bench, or the other, that then the faime lord chancellor, lord treafurer, and two chief juffices, or two of any of them, fhall have power and authority to enquire thereof, as well by the oaths of twelve honeft and difcreet perfons, as otherwife by due examination by their difcreffion. 2. And after the fame enhauncing and encreafing of the faid prices of the faid books and binding, thall be fo found by the faid twelve men, or otherwife, by examination of the faid lord chancellor, lord treafurer, and juftices, or two of them at the leaft, that then the fame lord chancellor, lord treafurer, and juftices, or two of them at the leaft, from time to come, fhall have power and authority to reform and redrefs fuch enhauncing of the prices of printed books from time to time by their difcreffions, and to limit prices as well of the books, as for the binding of them. 3. And over that, the offender or offenders thereof being canviat by examination of the fame lord chancellor, lord treafurer, or two juftices, or two of them; or otherwife, thall lofe and forfeit for every book by them fold, whereof the price dball be enhanced for the book,

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or binding thereof, three fhillings four-pence, the one half thereof fhall be to the king's righnefs, and the other half to the parties greived, that will complain upon the fame, in manner and form before rehearled.

Thomas Gibson, befides being a printer, was a fudious man, and compiled the firf Concordance to the Englifh New Teftament, ${ }^{1534}$.

John Gowghe, Govge, or Gover,'printer, fationer, and author, dwelt at the fign of the Mermaid, in Cheapfide, near the entrance to St. Paul's; and afterwards removed to Lombard-ftreet.

William Marshall, feems to have been a gentleman or Merchant, who had intereft at court, and procured a licence for printing the fine Reformed or Proteftant Primer from the Cantabrigians and Oxonians cafting off the pope's fapremacy the year before; which met with the approbation and protection of Anna Bolleyne, 1535 .

Roger Latham, as appears by a Latin grammar, among the late Earl of Oxford's books. He dwelt in the Old Bailey in $1535^{\circ}$

Richard Grafton, Efq. feems to have been born at London the latter end of king Henry VIIths time; however, he appeared as a printer in the reigns of king Henry VIII. king Edward VI. queen Mary, and queen Elizabeth : through all which reigns we fhall endeavour to trace him as far as the intelligence we can procire will permit. It is uncertain whether he was a flationer, but it is nataral to fuppofe he was brought up to the profefion of a printer, fince he exercifed the art in the carly part of his life, and continued it for fo long a duration. He enjoyed a liberal education, and by his writings muft have underflood the languages. His original letters to archbinop Cranmer and lord Cromwel, thew that he was encouraged by, and even admitted to the converfation of the nobility of the great men of his time, in which he mentions his being a grocer.

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In 1537, he profeffed and practifed printing in Lrondon. Previous to his living in London he dwelt at Antwerp, where he printed Tindal's New Teftaments and afterwards his Bible, revied and corre?ted by Miles Coverdale. Some imprefions of the former having been difperfed in England, they were bought up by Cuthbert Tonftal, then bithop of London, and burnt at St. Paul's Crofs.

The publication of this New Teftament occafioned the Bifhop of London to iffue the following prohibition:

Cuthbert, by the permiffion of God, bifhop of London, unto our well beloved in Chrift, the arch-deacon of London, or to hys өfficiall, health, grace, and benediction. Fy the du:ty of our paftorall office, we are bounde diligently with all our power to forefee, provide for, roote out, and put away all thofe thynges, which feem to tend to the peril, and daunger of our fubjects, and efpecially to the defiruction of their foules. Wherefore we hauyng underfandyng, by the report of divers credible perfons, and alio by the evident apparaunce of the matter, that many children of iniquitie, maintayners of Lathers fea, blynded through extreame wickednefs, wandrying from the way of truth, and the catholicke fayth, crafteiy have tranflated the New Teftament into our Englifh tongue, entermedlyng therewith many hereticall articles, and erruneous opinions, pernicious and offeafive, feducyng the fimple people attemptyng by their wicked and perverfe interpretations, to prophanate the majeftye of the frripture, which hitherto hath remained undefiled, and craftely to abure the mofl holy word of God, and the true fenfe of the fame, of the which tranflation there are many bookes imprinted, fome with glofes, and fome without, contayning in the Englighe tongue that peftiferious and moft pernicious poifon, difperfed throughout all our dioceffe of London in great number; which truly, without it be fpeedily forefeene, wythout doubt will contaminate, and infeat the flock committed to us, with moft deadly poyfon and herefie, to the grieuous peril and danger of the foules committed

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mitted to our charge, and the offence of God's divine majeftie : wherefore we Cathbert the bifhop aforefaid, grevotily forrowyng for the premiffes; willyng to withftand the crafte and fubtletie of the ancient enemy, and hys minifters, which feek the deftruction of my flock, and with a diligent care to take hede' unto the flock, committed to my charge, defiring to provide fpeedy remidies for the premifes; we charge you jointly and feverally, and by vertue, of your obedience ftraightly enjoyn and commaunde you, that by our authority, you warn, or caufe to be warned, all and fingular, as well exempt as not exempt, dwelling within your arch deaconries, that within $\mathbf{x x x}$ days fpace, whereof x dayes fhall be for the firtt, x for the fecond, and $x$ for the third peremtory terme, under paine of excommunication, and incurring the fafpicion of herefie, they do bring in; and really deliver tinto our vicare generall, all and fingular fuch bookes conteyning the tranflation of the New Teftament in the Englifhe tongue; and that you doe certifie us, or our fayd comiffarye, within ii monethes after the day of the date of thefe prefentes, duely, perfonally, or by your letters, together with -thefe prefents, under your feals, what you have done in the premiffes, under pain of contempt. Given under our feale the xxiii of October, in the $v$ yere of our confecration, anno 1526.

Another commiffion, in like manner and fame form, was fent to the three other archdeacons; viz. Middlefex, Effex, and Colchefter, for the execution of the fame matter, under the bifhop's feal.

It is very plain, that the bihop of London's prohibition was very l:ttle regarded, and not very readily obeyed; the bifhops and clergy therefore made great complaints to the king of this trandation, on which his majefty refolved to take this matter into confideration himfelf. In 1533, the Convocation met, and among other things, decreed, that the Scripture thould be tranflated into the vulgare tongue; but at that time it was not carried into execution.

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Grafton and Whitchurch's names are fometimes printed feparately in the fame books; particularly thofe which they printed with the royal privilege " ad imprimendum folum :" as the Bible, new. Teftaments, and Primers. In printing the flated number, when fo many as were to bear Grafton's name were compleced, his name was taken out of the form, and Whitchurch's inferted in its place.

He lived in a part of the diffolved houfe of the GreyFriars, which was afterwards granted by king Edward VI. for an hofpital for the maintenance and education of orphan3, called Chrift's Hofpital. It does not appear that Grafton dwelt in any other house. He took for his rebus, in allufion to his name, a Tun, with a G.aft:d Tree growing through it, with this motto: suscipite insitum. verbum. Inco. i.

His firt work was the Englifh Bible printed abroad in 1535 , a prefent of Six of which he made to archbihop Cranmer and lord Cromwel: perbaps it was at Paris, or Marsburgh in Hefia, for Francis I. king of France granted a licence to him and Edward Whitchurch to print an Englif Bible there ; and, as it was a work of fuch importance, we hope our Readers will not be difpleafed with the following account of it.

In 1535, the firft edition of the whole Bible, by Miles Coverdale, was publifhed in the Englifh tongue. It was a folio dedicated to the king, in the following manner:
"Unto the moolt victorious prynce and our mooft gracyous foveraygne lorde kynge Henry the eyghth, kynge of Englande and of France, Lorde of Irelande, \&c. Defendour of the fayth, and under God the chefe fappreme heade of the church of Englande."
" The ryght and juft adminiftracyon of the lawes that God gave unto Mofes and unto Jofua: the teltimonye of faythfulnefs that God gave of David: the plenteous abundaunce of wyfedome that God gave unto Salomon: the lucky and profperous age with the multiplicacyon of fede which God gave unto Abraham and Sara his wyfe, be geven unto you,

mooft

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inooft gracyours prymee, with yodr deareft juft wyfe and mooft vertuons prynceffe quene Jare. Amens"-This dedication is thus fubfcribed;
" Your graces hamble furbjecte and dáylye Oratour, Myles "Coverdale."
Coverdale was a native of Yorkhtre, and afterwards profeffed of the houfe of Auftin Friers in Cambridge, of which Dr. Batrie's was prior, who was burnt for pretended herefy. One of this name took the degree of batchelor of canon law, A.D. 1.530 but this feems too late for our Coverdale. However, entes: taiting the fame opinions with his prior, and finding himfelf in danger by fo doing, fled beyond fea, where the chiefly applied himfelf to the ftady and tranflation of the Holy Seriptures.
In this dedication he tells his majefly, that "tho blynd blifiop of Rome no more knew what he did when he gave him this title, Defender of the Faith, than the Jewifh bißoop Cayphas when he prophefied, that it was better to put Chrift to death, than that all the people fhould perifh: that the pope gave him this tite, becaufe his highnefs fuffered his bifhops to barne God's word the root of faith, and to perfecute the lovers and minifters of it, where in very deed he prophecyed, that by the righteous adminiffration of his grace the faith fhould be fo defended, that God's word, the mother of faith, fhould have its free courfe thorow all chriftendome, but tepecially in his graces realme : that his grace in very deed flould defende the faith, yea even the true faith of Chrift, no dreames, no fibles, no herefye, no papiftical inventions, but the ancorrupt faith of. God's moft holy word ; which, to fet forth, his highnefs with his moft honourable council applied all ftudie and endeavour."

He next obferved to his majcify, that " forfomuch as the word of God is the only truth that driveth away all lyes, and aifcloreth all juggling and deceit, therfore is our Balaam of Rome fo loth that the Scripture fhould be known in the mother-tongue, left if kings and princes (efpecially above all other)

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other) were exercyled therin, they hould reclaipa and chalenge again their due authority, which he falfely hath ururped fo many years, and fa to tie him Mhorter; and.left the pepple, being taughe by she word of God, thoald fall frome the falfe fayned obedience of him and his difguifed apoftles unto the true obediepce commanded by God's own pmopth, as namely to obey their prince, their father and mother, \&c. and not to flep over them to enter into bis painted religions. - For that the Scripture declareth moft abundantly, that the office, authoritie and power given of God unto kings is in earth above all other powers: that as ther is nothing above. God, fo is ther no man above the king in his realme; but that he only under God is the chief head of all the congregation and church of the fame. And in token that this is true, he faid, ther hath been of old antiquitie, and was yot unto that day, a loving ceramonie ufed in our realme of England, that when the king's fubjeets read his letters, or begun to talk or difcourfe of his.majeftie, they movod their bonnots for a fign and token of reverence unto him, as to their moft fovercign lord and head under God, which thing no man ufed to do to any bihop:-that no prieft or bithop is exempt (nor can be lawfully) from the obedience of his prince :-that Aaron was obedient unto Mofes; Eleafar and Phineas were under the obedience of Jofua : that Nathan the prophet fell down to the ground before king David; he had his prince in fuch reverence, he made not the king for to kifs his foot, as the bifhop of Rome maketh emperors to do, notwithftanding he fpared not to rebuke him, and that right marply when he fell from the word of God to adultery and manflaughter: for he was not afraid to reprove him of his fins, no more than Helias the prophet ftode in fear to fay unto king Achab, it is thou and thy father's houfe that trouble Ifrael, becaufe ye have forfaken the commandments of the Lord, and walk after Baal ; and as John Baptift durft fay unto kynge Herode, it is not lawful for thee to take thy brother's wife?"

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He next takes notice of the intolerable injuries done unto God, to all princes, and the commonalties of all chriftian realms, fince, "they who thould be only the minifters of God"s word became Lords of the world, and thruft the true and juft princes out of their rooms." This he imputes to "the ignorance of the Scriptare of God, and to the light of God's word being extinct, and God's law being clean thut up, depreffed, caft afide, and put out of remembrance." But he adds, that " by the king's moft righteous adminiftration it was now found again; and that his majefty, like another Jofia, commanded ftraitly, that the law of God fhould be read and taught unto all the people."

As to the prefent tranflation, Coverdale obferves here, and in his epiftle to the reader, that " it was neither his labour nor defire to have this work put into his hand, but that being inftantly required to undertake it; and the Holy Choft moving other men to do the coft thereof, he was the more bold to take it in hand, Befides, he copfidered how great pitie it was, that the Englifh fhould want fuch a tranflation fo long, and called to his remembrance the adverfitie of thofe whe were not only of ripe knowledge, but would alfo with all their hearts have performed that they begun, if they had not had impediments. According therefore as he was defired, he took the more upon him, he faid, to fet forth this feccial tranilation, not as 2 checker, reprover or defpifer of other men's tranflations, but lowly and faithfully following his interpreters, and that under correction, Of thefe, he faid, he made ufe of five different ones, who had trannated the Scriptures not enly into Latin, but alfo into Dutch." Accordingly he made this declaration, that he " had neither wrefted nor altered \{o much as one word for the maintenance of any manner of fefte, but had with a clear confcience purely and faithfully tranflated out of the foregoing interpreters, having only the manifeft truth of the Scripture before his eyes." But becaufe fuch different tranflations, he faw, were apt to offend weak minds, he therefore

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added, that " he was fure that there came more underftanding and knowledge of the Scripture by thefe fundry tranflations than by all the gloffes of our fophiftical doctors. The readers therefore, he faid, fhould not be offended though one call a Scribe that another calleth a Lawyer, or Elders that another calleth Father and Mother, or Repentance that another calleth Penance or Amendment. For if we were not deceived by men's traditions, we fhould find no more diverfitie between thefe terms than between four-pence and a groat. And this manner, he faid, he had ufed in this his tranflation, calling it in fome place Penance that in another he called Repentance; and that not only becaufe the interpreters had done fo before him, but that the adverfaries of the truth might fee, that we abhor not this word Penance no more than the interpreters of Latin abhor poenitere when they read refipifcere. Only he defired, that God's people be not blinded in their undertanding, left they believe Penance to be ought fave a very Repentance, Amendment, or Converfion unto God, and to be an unfained New Creature in Chrit, and to live according to his Lawe. For elfe fhall they fall into the old blarphemie of Chrift's blood, and believe, that they themfelves are able to make fatisfaction unto God for their own fins."
He concluded his dedication to the king with telling his grace, that " confidering his imperial majeftie not only to be his natural foveraygne liege lord and chefe Head of the church of England, but alfo the true defender and maintener of God's lawes, he thought it his dutie and to belonge unto his al:egiance, when he had tranflated this Bible, not only to dedicate this tranflation to his highnefs, but wholly to commit it unto him, to the intent that if any thing therin be tranlated amifs, it might ftand in his grace's hands to correct it, to amend it, to improve it, yea and clean to rejecte it, if his godly wifdom fhould think it neceffary." The fame humble opinion of this his performance, he expreffes at the clufe of

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his Epitile to the Reader, that "though the Scripture be not wosthily minilued unto him in this trandation by reafon of his sudenefs; yet if he was fervient in his prayer, God houdd not, only fend it him in 3 better fappe by the miniftration of other that begas it afone, but thall alfo move the hearts of thenp which as yet mediod not with all to take it in hand."

By what Coverdale here fays to the king, it feapns plain, that it was now allowed by his authority, that the Holy Scriptures fhould be had and read in Englifh. The , hame is as plaindy intimated in a little MS. Manual of Devorions, . Which, according to the tradition of the warthy faneily in which it is preferved, was the prefent of queen Anne Boleyn to her. maids of honour: " Grante us, moft mercyful father, this one of the greatefk gyftes that evor thowe gaveft to mankynde, the knowledge of thie holy wille and gladde tidinges of oure frileations this grease while oppreffed with the tyrannye of thy adverfary of Reme and his fautors, and kepte clofe undre his Latyne Lettres, and now lat length promulgate publyihed and fette at lybertye by the grace poured into the harte of thy supreme power our prince, as all kinges hartes be in thie hande, as in the olde lawe dydeft ufe lyke mercye to thie people of Irraell by thie hie inftrument the good king Jofia, whiche reffored the temple decayed to his former beasutie, abolyfhed all worthippynge of images and ydolatrye, and fette abrode the lawe by the fpace of many hundred yeres befor clean oute of iemembraunce."

There is a plain inconfiftency with the title or preamble of the dedication to the king, wherein, as has been before obferved, Coverdale mentions the king's dearef juft wife Jaze, whereas it is certain, the king was not married to her cill May 10, 1536 , more than half a year after the date of fnifhing this Bible. The only way I can think of to reconcile wis difierence, is thus; that, after this bible's being finifhed at the prefs in October, Coverdale, hearing from his friends in. England, that queen Anne was declining at court, thouglit

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it prudent to defer the publication of it till he faw what turn affairs would take, and after the king's marrying queen Jane, who was thought to favour the Reformation, then made the fore-mentioned dedication to the king, or however, aliered the title of it as it flands now, and reprinted it. This latt is the more probable, an in anothor copy of this traallation, which has this dedication, the text, charater, and every thing etife alike or the fame with this, it is " your dearell jut wyfe and moft vertuons princeffe quene Anne."

The convocation of the province of Canterbury alfembled June 9, the year 1536, Dr. Heylin tells us that the clergy then agreed upon a furm of a petition to be prefented to the king, that he would gracioully indulge unto his fubjects of the laity, the rending of the Bible in the Englifh tongue, and that a new trandation of it might be forthwith made for chut end and purpofe. By this it appears, that the clergy did not approve of the tranilation already made by Tyndal and Coverdale, and that their attempt, which they made two years ago to have the soyal permifion to make z new one, did nat fucceed.

Soon after the fnißhing this Bible, vere publifhed by lord Cromwel, keeper of the privy feal, and vicegereat to the kiag for and concerning all his juridiction ecclefiafical within his realme, "Injundions to the clergy, by the authorite of the king's highneffe," the feventh of which was as fcllows:
"That every perfon or proprietary of any parißh churche within this realme fhall on this fide the feaft of St. Peter ad vircula [Auguft I.] nexte comming prouide a boke of the whode Bible, both in Latin and alfo in Englifh, and lay the fame in the quire for everye man that will to loke.and read therom: and fhall difoourage no man from the reading any parte of the Bible either in Latin or Englifh, but rathar comfort, exhort, and admonith every man to read the fame as the very word of God and the firitual foode of manne's foul, whereby they may the better knowe their duties to God, to their foucraigne lord the king and sheir neighbour : ever gantilly and charitably exhorting the reading and inquifition of the true fenfe of the fame, they doo in no wife ftifly or eagerly contend to fltryve one with another about the fame, but referre the declaration of thofe places that be in controverfie to the judgemente of them that be better learned." This feems a confirmation of Coverdale's Bible being licenfed by the king, fince by this injunction it is ordered to be had in churches, and there read by any that would, there being no other Bible in Englifh at this time than Coverdale's.

Whether the archbifhop had a mind to have Tyndal's prologues and notes reprinted, or the printers thought fuch an edition would fell well, we find the next year publihed another edition of the Englifh Bible in Folio, with the following title:

The Byble, which is all the Holy Scripture, in which are contayned the Olde and Newe Teftament, truely and purelye tranflated into Englyfh. By Thomas Matthewe.

At the beginning of the Prophets are printed on the top of the page the initial letters R. G. i. e. Richard Grafton, and at the bottom E.W.i.e. Edward Whitchurch, who were printers, and at whofe charge and expence this impreffion was made. At the end of the Old Teftament are the initial letters W. T. i. e: William Tyndal, as if it was tranflated all by him.

However this be, Cranmer, who had been promoted to the fee of Canterbury four years before, favoured this edition of the Englifh Bible, and by his intereft with lord Cromwel not only procured the royal licence for it, but that in the injunctions, which, as the king's vicar-general, Cromwel publithed the next year, " the clergy fhould be ordered to provyde on thys fyde the feafte of N . next comyng one booke of the whole Byble of the largeft volume in Englih, and the fame fet up in fome convenient place within their charches that they have cure of, wheras their parifhioners might moft commodioully refort to the fame and read it : and that the charges of this book fhould


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trat fo they might underfell him, which might be to his and this friends rün, fie having expended on'this edition 500 pounds. He therefore defired of his lordfliip to obtain for him of the king, that " none fhould print this Bible but himfelf for three years." His letter to archbilhop Cranmer is dated 13 Auguft 1537.

The Dutch printers, as has been faid before, had a defign to print upon Grafton and Whitchurch their late edition of the Englifh Bible, as they had done Befbre Tyundal's of the New Teitament alone. This would have been a very great lofs to them, as well as an injury and wrong done to the puiblick. Of this defign therefore Graftom complained in a letter to their great friend the ford privy-feal. He -reprefented to his lordfhip the great expence they had been at in procuring this edition, no lefs than 500 pounds, a great part'of which they muft neceffarily lofe if the Dutch went on with their defign to print it again, in a lefs volume and fmaller letter, and thereby to underfell them. But that not only they, but the public, would fuffer by this act of piracy, fince it was like to prove a very bad edition both for paper and print, añd exceedingly erroneous and incorrect; for that the printers were Dutchimen thät could neither fpeak nor write true Englifh, and were generally fo covetous as not to give fufficient encouragement to any learned men to bverfee and correct the prefs. An inflance of this we had before in Joye, who very jufty complained of the little he had allowed him for his pains, in correcting a very faulty copy, which had been made fo throogh the Dutchmen's ignorance of the language, and their hafte and careleffnefs in compofing. Therefore Grafton defired the favour of lord Cromwel to obtain for him of the king the privilege of the fole printing this Bible for three years. To which he added another requeft, that every curate might be obliged to have one of thefe Bibles, and every abby fix: by which it fhould feem as if he intended another impreffion, fince the number already 'printed, viz. 1 $5 \mathrm{\omega}$, was no wife fufficient to anfwer fo large'a demand.

However

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However this be, a refolution was certainly then to revife this edition of Matthews's, and to print it again without the prolognes or annotations, at which great offence was pretended to be taken, as containing matters heretical, and very fcandalous and defamatory. For this purpofe were Grafton and Whitchurch employed, who, becaufe at that time there were in France better printers and paper than could be had here in England, procured the king's letters to the French king for the liberty of printing it at Paris. Accordingly they had the royal licence fo to do, and had almott finiked their defign, when by an order of the inquifition, dated Decem. 17, 1538 , the printers were inhibited under canonical pains to print the faid Englifh Bible, and were had before the inquiftion, and charged with herefy. The Englift, who were there to correct the prefs and take care of the impreffion, were all forced to flee, and the imprefion, confifting of 2500 books in number, was feized and confifcated. But, by the encouragement of lord Cromwel, fome of the Englifh returned to Paris, and got the preffes, letters, and printing-fervants, and brought them over to London, where they refumed the work, and finified it next year.
Mr. Thorefly mentions the New Teftament printed at Paris by bifhop Bonner's means in 8vo, in two columns, Englifh and Latin, the latter of which was fmaller than the other: and obferves of it, that in it, I Peter ii. 13 . was rendered unto the kynge as unto the chefe heade.

In November 1539 , the king by his letters patent dirested to all and fingular printers and bookfellers within this his realm, \&sc. appointed the lord Cromwel, keeper of his privyfeal, to take fpecial care and charge, " that no manner of perfon or perfons within this his realm, fhall enterprize, attempt, or fet in hand to print any Bible in the Englifh tongue, of any manner of volume during the fpace of five years next enfuing the date thereof, but only all fuch as fhall be deputed, affigned and admitted by the faid lord Cromwel."

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Accordingly it appears by the Bibles printed this very year his lordhip affigned others befides Grafton aud Whitchurch, as John Biddel, Thomas Barthlet, \&c. to print Bibles in the Englifh tongue.

## CRANMER's or the Great Bible.

The firt of thefe printed this year is a Bible in a large folio, with the following title : the Byble in Englyhe, that is to fay, the content of all the holy feripture bothe of the olde and newe teftament, truly tranflated after the veryte of the Hebrue and Greke textes by the dylygent ftudye of dyuerfe excellent learned men, expert in the forfayde tonges.

Prynted by Richard Grafton and Edward Whitchurch,
Çum priuilegio ad imprimendum folum. 1539
Round this title, in a border, is the following reprefentation finely cut in wood, and defigned, it is faid, by Hans Holben. On the top of it is a reprefentation of the Almighty in the clouds of Heaven, with both his hands fretched out, and two labels going from his mouth. On that going towards his right hand are the following words, Verbum quod egredietur de me non revertetur ad me vacuum, fed faciet qurecunque volui, Efa. lv. His left hand points to the king, who is reprefented kneeling at fome diftance bare-hehded, and his hands lifted up towards heaven, with his crown on the ground before him, and a label going out of his mouth. On the label which comes from the Almighty is this text, Inveni virum juxta cor meum, qui faciet omnes voluntates meas, Ac. xiii. to which anfwers that proceeding from the king, Lucerna pedibus meis verbum tuum, Pfal. cxvii. Underneath the Almighty is the king again reprefented fitting in his throne, with his arms before him at his feet. On his right hand fand two bifhops bare-headed, and their mitres on the ground, in token, as it fhould feem, of their acknowledgment of the king's fupremacy. The king gives to him a book fhit, with thefe words on the

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cover, vírbvm dei, and thefe words on a label going out of his mouth, Hec precipe et dcce, tit. iiii. The bifhop receives it bending his right knee. On the king's left hand fand feveral of the lords temporal, to one of which he delivers a book clafped with verbim dei ca the cover of it, and the following wordes on one label, A me conftitutum eft ct decretum ut in univerfo imperio et regno meo tremifanat et paveant deum viventem, Daniel vi. and on another label this text, Quod iuftum eft iudicate, ita parvum audictis ut magnum, deut. primo. The nobleman rcceives the book bending his left knee. Underneath the bifhops ftands archbifhop Cranmer, with his mitre on his head, and habited in his rochet or Itole over it. Before him is one kneeling with a fhaven crown, and habited in a furplice, to whom the archbihop delivers a book clafped, with the words verbvm dei on the cover of it, and faying to him thefe words as they are in a label coming out of his mouth, Pafcite quod in vobis eft grezem chrifti, i Pet. v. Behind the archbifhop feems to ftand one of his chaplains, and at his feet are placed his coat of armes within a garland, the fame with thofe before his life by archbifiop Parker, only here diftinguifhed by the crefeent as the arms of a younger family. Under the lords temporal flands lord Cromwel the king's vicegerent, as appears by his arms placed at his feet as the archbifhop's are: his lordfhip is reprefented flanding with his cap on, and a roll of paper in one hand, and in the other a book clafped, with verbvm dei on the cover of it, which he delivers to a nobleman, who receives it of him bare-headed, with thefe words on a label going out of his mouth, Diverte a malo et fac bonum, inquire pacem et fequere eam, Pfalmo xxxiii. At the bottom on the right hand is reprefented a prieft with his fquare cap on in a pulpit, preaching to a pretty large auditory of perfons of all ranks and qualities, orders, fexes and ages, men, women, children, nobles, priefts, foldiers, tradefmen and countrymen; who are reprefented fome fanding and others fitting on forms, and expreffing themfelves
themselves very thankful. Out of the preacher's mouth goes a label with thefe words, "Obfecro igitur primum om. nium fieri obfecrationes orationes, poftulationes, gratiarum actiones pro amnibus hominibus, pro regibus, \&c. I Tim. ii. On the right fide of the pulpit are thefe words, vivat rex, and in labels coming from the peaples and childrens mouths, vivat rex, god save the kino, to exprefs the great and univerfal joy and fatisfastion which all the king's fubjects, high and low, great and little, had, and their thankfulnefs to the king, for his granting them this privilege of having and reading the Holy Scriptures in their mothertongue. On the left fide are reprefentod prifoners looking out of the prifon grates, and partaking of this greas and comb mon joy."

Grafton was in fo much favour, that we find in Rymer's Foedera a patent datod Jan. 28, 1543 , as follows. .

Pro divino fervicio, de libris imprimendis.
Henry the eighth, by the grace of God, scc. To all prynters of bookes within this our realme, and to all other aur officers, minifters, and fubjectes, theis our letters patents hering or feing greting. We do you to underfland, that whorein tymes paft it hath been ufually accuftomed, that theis beokes of divine fervice, that is to fey, the maffe booke, the graill, the antyphoner, the himptuall, the portans, and the prymer, both in Latyn and in Englyfhe of Sarum ufe, for the pravince of Canterbury, have been prynted by \&xangiers in other, and Arange countreys, partely to the great loffe and byaderance of our fubjectes, who both have the fufficient arte, feate and treade of Printing, and by imprinting fuche bookes noyght profitably, and to thufe of the commonwelthe, be fet on worke, and partely to the fetting forthe the bythopp of Rome's ufurped autoritie, and keping the fame in contynuall memorye, contrary to the decrees, flatutes. and lewes, of this our realme; and confidering alfo the greate expences and provifion of o neccfary workes as theis arre, and yot the

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same not a litle chargeable, and to thintent that hereafter we woll have theym more perfectly, and faithfully, and truly done, to the high honour of Almighty God, and fafeguard and quyetnes of our fubjects, which dayly doo, and further may incurre no fmall parill and daunger of our injunctions, proclamacions, and lawes, by reafon of not oblitterating the feid name, and ufurped power and authoritic of the bufhop of Rome as aforefaid: We of our grace efpeciall have graunted, and geven privilege to our wel-biloved fubjects Richard Grafton and Edward Whitchurch, citezeins of London, that they and their affignes, and noon other perfon nor perfons, faving the faid Richard and Edward, and their affignes, only have libertie to prynte the bookes abovefaid, and every forte and fortes of theym, whiche either at this.prefent daye arre in ufe, or heroafter thall be auctorifed for Sarum ufe, within any parte of oure realmes or domynions, and that no manor of perfon Chall.prynte the feid bookes, nor any other booke or bookes, that our feid fubjects at their proper expences fhall prynte withia the fpace of, feven yeres next-enfuing the printing of every fuche booke or bookes, fo printed by our feid fubjects, and either of theym; or of their affignes or any of theym. Wherfore we woll and commaunde you, that ye noon of you prefume to prynte any of the bookes, that our feid fubjects fhall have prynted as aforefaid, during the feid tyme of this our privilege, upon payne to forfeyte to our ufe all fuche bookes, wherfoever the fame flall be founde, emiprynted contrary to the tenour and fourme of this our privilege. In witnefs whereof, \&cc. Witnefs our felf at Weftminter the twenty-eight daye of Januarye.

In 2545 he printed king Henry VIIIth's Primer, both in Latin and Englifh, with red and black ink, for which he had a patent that is inferted at the end, expreffed in much the fame words as the preceding one of 1543 .
In the firtt year of Edward VI. Grafton was favoured with a fpecial. patent granted to him for the fole printing of all the Statute

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Statute books. This is the firf patent that is taken notice of by that diligent and accurate antiquary, Sir Wm. Dugdale.

There is a patent dated'Dec. 18 , 1548 , to R. Grafton and E. Whitchurch, printers, by which they are authorifed to take up and provide, for one year, printers, compofitors, \&c. together with papers, ink, preffes, \&c. at reafonable rates and prices.

In 1549 , the 3 d year of Edward VI. a proclamation was iffued, printed by Grafton, for abolifhing and putting away, divers books and images, which paffed into an act of parliament, in the following words:

Whereas the king's moft excellent majefty hath of late fet forth, and eftablifhed, by authority of parliament, an uniform, quiet, and godly order of common and open prayer, in a book, intitled, The Book of Common Prayer, and Adminiftration of the Sacraments, and other Rites and Ceremonies after the Church of England, to be ufed and obferved in the faid Church of England, agreeable to the order of the primitive church, much more comfortable unto his loving fubjects than other diverfity of fervice, as heretofore of long time hath been tufed, being in the faid book ordained, nothing to be read but the very pure word of God, or which is evidently grounded thereon, \&c. It then proceeds to order the abolifhing of all other religious books, as they tend to fupertition and idolatry; and commands all perfons to deface and deftroy images of all kinds that were erected for religious worhip, under a penalty for any to prevent the fame. In this proclamation are the following claufes: Provided always, that this act, or any thing therein contained, thall not extend to any image, or picture, fet, or engraven upon any tomb in any church, chapel, or church-yard, only for a monument of any dead perfon, which hath not been commonly reputed and taken for a faint. It was alfo enacted, that the people might ftill keep the Primers fet forth by the late king Henry the eighth, provided they erafed the fentences of invocation, and names of popith faints. This

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act was repealed by queen Mary, but king James I. re-eftablifhed it.

In 1553, on the death of king Edward VI. Grafton, in confequence of being king's printer, was employed to print the proclamation, by which lady Jane Grey was declared fucceffor to the crown, by virtue of the meafures that had been concerted by her father-in-law, the duke of Somerfet; but on queen Mary's acceffion to the throne, Grafton, though he had done no more than difcharged the duty of his office, loft a debt of 3001 . which was owing to him from the crown at the time of king Edward's death, and was immediately deprived of his patent, and John Cawood put in his room. The reafon of this deprivation, as it is given in the patent granted to his fucceffor, was, his having printed the proclamation for declaring lady Jane Grey queen of England. This, it feems, was confidered as nothing lefs than high treafon in thofe days. Befides the lofs of his debt and paten!, he was profecuted and imprifuned fix wecks in the Fleet prifon. Whether this profecution was carried on againft him on account of the abovementioned proclamation, or for printing the Bible in Englifh, is not fo evident. His reformation principles, of which he could not give greater proof than by encouraging the Englifh Bible, might excite the difguft againft him ; though the affair of the proclamation was made the handle, as the more plaufible and political pretence. During his confinement, or at leaft while he was out of bufinefs, he employed himfelf in writing. The fubject upon which he fell, was the Hiftory of England; an abridgment of the chronicles of which he put together; tut it was not printed till 1552 .

There was a Richard Grafton, a grocer, member of parliament for the city of London 1553 and 1554 , and again 1556 and 1557 , who might probably be cur printer. Feb. 5, 1557, Grafton was joined with othcrs to examine a matter againft Walter Rawley, a burgef, complained on out of the Admiralty Court, by Dr. Cook's letter. March 9, 1;62, the bill

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for paving of Kent-ftreet, in the borough of Southwark, was brought in by Grafton, who that year ferved for the city of Coventry in Warwick fhire, as appears by the Journals of the Houfe of Commons. In 1563, he brought in a bill to affize the weight of barrels, \&c. Oct. 14, 1566, fee his complaint againft Phylpott for extortion.
On the acceffion of queen Elizabeth to the throne, Grafton publifhed Thie Paflage of our moft drad Soveraigne Lady Queen Elyzabeth through the City of Liondon to Weftminfter, the Daye before her Coronation, anno 1558 . Grafton employed others to print for him at the latter part of his fife.

- Edward. Whitchurch, Efq. King's Printer, was joined in the fame patent with Grafton, and originally brought up a merchant, and lived in St. Martin's, at the Well with two Buckets; and, as Fox in his Acts and Monuments fays, he was brought into trouble with Grafton, in the year 1541 , concerning the fix articies, being fufpected not to have been confeffed. They continued in friendfhip and partnerihip together for many years, though Whitchurch dwelt feparate, and kept fhop at feveral places in London. In the year 1554, there was a general pardon proclaimed within the Abby, at the time of her [Q.Mary's] coronation, out of which proclamation all the prifoners of the Tower and of the Fleet were excepted, and fixty-two more; whereof Mr. Whitchurch and Mr. Grafton were two. He aftcrwards married the widow of archbihop Cranmer, and continued printing till the year 1554.

Thomas Petit, Petyt, or Petyte, who it is fuppofd was related to the famous John Petit, a curious printer at Paris. He dwelt in St. Paul's Church-yard, at the fign of the Miaiden's-head', and printed feveral law books; yet he was not the king's printer, nor had an excluive patent for it, other printers doing the fame about this time, viz. 1538.

John Wayland, citizen and frivencr, of Londen, lived at the fign of the Blue Garland, in Fieet-itreet ; and in the

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year 1541, at the fign of the Sun againft the conduit. He calls himfelf Allowed Printer, from his obtaining a patent from queen Mary, for printing Prayer-books.

In 1555 he printed The account of the arrival, and landyng, and moft noble marryage of the mofte illuatre prynce Philippe, prynce of Spaine, to the moft excellent princes Marye quene of England, folemnifated in the citie of Wincheßter ; and how he was recyeued and inflalled at Windfore, and of his triumphyng entries in the noble citie of London. Whereunto is added, a brefe overture, or openyng of the legation of the moft reverend father in God, lorde cardinall Poole, from the fea apoftolyke of Rome, with the fubftaunce of his oracyon to the kyng and quenes mageftie, for the reconcilement of the realme of Englande to the unitie of the catholyke churche; with the very copye alfo of the fupplycation, exhibited to their highnefles by the three eftates affembled in the parliament; wherein they, reprefenting the whole body of the realme, and dominions of the fame, have fubmitted themfelves to the pope's holyneffe. (In defrribing the prince he fays, that) Of vifage he is well favoured, with a broad forehead, and grey iyes, ftreight nofed, and manly countenance, From the forehead to the point of hys chynne, his face groweth fmall, his pace is princely, and gate fo ftreight and upright, as be lofeth no inch of his highte, with a yeallowe berde; and thus to conclude, he is fo well proportioned of bodi, arme, legge, and every other limme to the fame, as nature cannot worke a more parfite paterne; and as I have learned, of the age of xxviii years, whofe majelly I judge to be of a ftuate ftomake, pregnant witted, and of moft jentel nature.

Andien Hester was ratier a bookfeller than printer, and lived at the fign of the White Horfe, in St. Paul's Church-yard, from the year 1539 to 1551 .

Michell Lobley, printer, ftationer, and bookfeller, was fervant to Henry Pepwell, and lived at the fign of St. Mychell,

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in St．Paul＇s Church－yard．He had in Henry VIIIth＇s reign been guilty of heretical pravity，and was forced to abjure and bare faggots for penance．He was upper－warden of the Stationer＇s Company the firft year of the reign of queen－Eli－ zabeth，when fhe renewed their charter，which we fhall infert hereafter．He publifhed from 1539 to 1560 ．
John Maler，Mayler，Maylert，or Maylart， for his name is feelt all thefe ways，a grocer by company， was a fcholar and a zealous man for the Reformation，and lived at the White Bear，in Botolph－lane，near Billinfgate； and was in trouble on account of the fix articles，in the year 1541，＂Being a facramentary，a rayler againft the maffe； for calling the facrament of the aulter，the baken God；and far faying，that the mafle was called beyond the fea，miffe， for that all is amiffe in it．＂
Anthony Malert，or Marler，fuppofed to be related to the preceding John Maylert，was a haberdafter by company， as appears by a patent granted him for printing a folio Bible． In the King＇s Library，in the Mufeum，at the beginning of a very fine illuminated folio Bible，printed on vellum，are the following words wrote，＂This booke is prefented unto your moft excellent hyghnefs，by your loving，faithfull，and obe－ dient fubject，and dayly orator，Anthony Marler，of London， haberdafher．＂Printed in April 1540．His defire to oblige by this prefent，might probably be a means of his having the grant．
William Middleton feems to have fucceeded Redman
in his houfe，and bufinefs of priating，and kept the fign of the George，next to St．Dunftan＇s Church in Fleet－ftreet， 1541 ．
John Hertforde，Herforde，or Herefard，printed． at St．Alban＇s before he refided in London．The Reformation taking place，and not finding bufinefs among the monks，he came and lived in Aldergate－ftreet，where he refided from the year 1544 to 1548.
Thomas Raynalde，lived in St．Andrew＇s parif，in the ＇Wardrohe，and kept fhop in St．Paul＇s Church－yard．He is Wardrobe，and kept fhop in St．Paul＇s Church－yard．He is
fuppofed to have been author of The Birth of Mankind. This is the firf Englifh book embellifhed with rolling-prefs cuts. It was printed by him in 1540, and he continued in bufinefs till 1555 .
Robert Toy; he lived at the fign of the Bell in St. Paul's Church-yard, and continued in bufinefs from 1541 to 1551.
Richard Lant, citizen and fationer, lived in the Old Bailey, in St. Sepulchre's parifh, and alfo in Alderfgate-ftreet. He printed from 1542 to 155 , when he became one of the Stationers Company.
William Bonham, fationer, lived at the Red Lion and King's Arms, in St. Paul's Church-yard.
Reynold Wolfe, Efq. King's Printer, was a foreigner, born either in Germany, or Zurich in Switzerland. There were two printers of this name ; one, Nicholas Wolfe, a Germain, in the year 1502 ; and Thomas Wolfe, at Bafil, 1527. Probably ours was related to one of them and brought up early to learning, and that of printing. It is plain he was a man of eminence, by being in great favour with king Henry VIII. lord Cromwel, archbinhop Cranmer, \&c. Stowe obferves of him, that in the year 1549 , the bones of the dead, in the charnel houfe of St Paul's, amounting to more than 1000 cart loads, were carried to Finsbury-field, and the expence borne by Wolfe.

He fet up his printing houfe in St. Paul's Church-yard, at the fign of the Brazen Serpent, which was a device ufed by foreign printers. The houfe he built from the ground, out of the old chapel which he purchafed of Henry VIII. at the diffolution of monafterics, where on the fame ground he had feveral other tenements, and afterwards purchafed feveral leafes of the Dean and Chapter of St. Paul's. He followed his bufinefs of printing with great reputation for many years, and printed for archbilhop Cranmer moft of his pieces.

He was the firft wio had a patent for being printer to the king in Latin, Greek and Hebrew ; by which he was authorized

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rized to be his majefty's bookfeller and ftationer, and to print allf forts of books in the faid languages, as alfo Greek and Latin Grammars, although interfperfed with Englifh; and likewife charts, maps, and fuch other things, which might be at any time ufeful and neceffary. And he was permitted to exercife this office either himfelf, or by fufficient deputies; and to enjoy an annuity of twenty-fix flillings and eight pence, befides all other profits, and advantages belonging to bis office during life. And all other bookfellers and printers were forbid to fell or print any books printed by him, at his own charge, or in his name, on pain of forfeiting their books, \&c.

It appeaas that he defifted from printing during the reign of queen Mary, and !fpent that time in collecting materials for his chronicles. When queen Elizabeth renewed and confirmed the Stationers Charter in the firft year of her reign, Reynold Wolfe was then mafter, as will appear by the Charter inferted hereafter.

After he had continued his bufinefs above thixty years, he made his will, which is but ghort, in the year 1574, Jan. 9 , and left his wife Joan fole executrix. His trade feems to have been continued fome time after his death by his wife.

William Foleington, lived at Holywell by Shoreditch, where he printed in 1544.

Jobn Day, is fuppofed to be a Suffolk man, of a good family from their lying buried at Bradley-Parva in that county. He was of the company of Stationers, but from whom he learned the art of printing does not appear. He lived at Alderfgate, and kept at the fame time feveral fhops in different parts of the town. He appears to have brought up a large family in a gentecl manner, was a lover of learning, and gave handfome prefents of books to promote it. Among the Harleian MSS. may be feen that he gave feveral benefactions to King's College in Cambridge in 1571 . He was the
firtt in England who printed in the Saxon letter; and brought that of the Greek to a great perfection, as well as the Icalic, and other characters, of which the had great variety. He ufed a great variety of mathematical fchemes, maps, and other ufeful devices to embellifh his works. He began printing in 1544, and continued to the year 1583, but not without ceafing during the reign of queen Mary, which time he employed in making improvements in the art of printing.

The 7th of Edward VI. on March 25, 1553, he obtained 2 licence for the fole printing 2 Catechifm in Englifh.

In 1559, the if of Elizabeth, he obtained a licence for the printing Cunyngham's Cofmographical Glafs.

On the 26th of Auguft, 1577, the 19th of Elizabeth, a licence was granted to him and his fon Richard, to print The Pfalms of David in metre, \&c.

On the 8th of January 1583, he with others yielded up to the Stationers Company, for the relicf of the poor of the company, his copy-right to a parcel of books; a lift of which books, among others, will be inferted hereafter.
Mr. Day died July 23, 1584 , having followed the bufinefs of a printer for about forty years. He was buried in the pariih church of Bradley-Parva, in the county of Suffolk; where, againft the north wall of the chancel, is a fone table fixed to his memory, on which is inlaid in brafs the effigies of a man and woman kneeling againft a table, before which are two children in fwaddling cloths; and behind the man, fix fons, and behind the woman, five daughters, all knceling. On the top of the ftone are three efoutcheons on brafs plates, under which is cut in capital letters, mifi vita christus. Under the two effigies of Day and his wife are the following lines cut in the old Engiifh letter:

Here lyes the Day, that darknefs could not blind,
When popifh fogges had overcafte the funne,
This Day the cruell nighte did leave beinind,
To view, and flew what blodi acts were conne.

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He fet a Fox to wright how martyrs runne, By death to lyfe. Fox ventured paynes and health, To give them light; Day fent in print his wealth. But God with gayne returned his wealth agayne, And gave to him, as he gave to the poore. Two wives he had pertakers of his payne, Each wyfe twelve babes, and each of them one more; Als was the laft encreafer of his ftore, Who mourning long for being left alone, Set up this tombe, herfelf turn'd to a fone. Obiit 23 July, 1584.
Richard Day, m.a. fon of the laft mentioned famous printer, John Day, was elected from Eton in the year 1571; became m. a, and fellow of King's College, Cambridge; ferved the cure of Highgate in the room of John Fox; wrote commendatory verfes on Fox's Book of Martyrs, a work he was concerned in; the Preface and Conclufion to the Teftaments of the Twelve Patriarchs (of which he was efteemed the tranflator) and many other works. He was joined in a patent with his father, as was before obferved, Aug. 26, 1577, to print the Pfalms, \&c. He kept a fhop at the Weft End of St. Paul's Church-yard, at the fign of the Tree, and ufed this motto, sicut lilium inter spinas.
William Seres was concerned with John Day, his partner, in feveral pieces. It is obferved that Day is always mentioned the firft. They were both of the Stationers Company in 1566 . Seres kept his thop in Peter-college, a pace fo called, fituate on the weft fide of Paul's church, at the fign of the Hedge-hog, which being the badge of Sir Henry Sidney, Mr. Bagford fuppofes him to have been his fervant ; yet we don't finde that he was fervant to any man, more than willingly to oblige all his employers. Mr. Strype fpeaks of him thus, "Sir William Cecil, principal fecretary of fate to king Edward, procuted for him, being his fervant, a licence to

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print all manner of private prayers, ćalled primers, as thould be agreeable to the common-prayer, eftablifhed in the court of parliament; and that none elfe fhould print the fame. Provided, that before the faid Seres, or his afligns, did begin to print off the fame, he or they fhould prefent a copy thereof, to be allowed by the lords of the privy-council, or by the lord-chancellor for the time being, or by the king's four ordinary chaplains, or two of them. And when the fame was and fhould be from time to time printed, that the faid lords, and other of the faid privy-cquncil, or by the lord-chancellor, or with the advice of the faid occupation, the reafonable price thereof be fet, as well in fheets as bound, in like manner as was expreffed at the end of The Book of Common Prayer." Mr. Strype fays "Seres had a privilege for the printing of all Pfalters, Primers, and Prayer Books; that this privilege was taken away by queen Mary but reftored by queen Elizabeth by the means of lord Cecil, with the addition of the grant to him and to his fon during the life of the longeft liver ;this gave occafion to a difpute; for Seres, the father, in the latter part of his life, not being well able to follow his bufineff, affigned his privilege, with all his prefles, letter, \&c. to Henry Denham, for an annuity. Denham engaged feven perfons out of the Company of Stationers to join with him in the fame; but fome others of the Company of Stationers at the fame time endeavouring to invade on the patentees rights, prefented a petition to the privy-council, wherein they pretended that in juftice it food with the beft policy of this realm, that the printing of all good and ufeful books hould be at liberty for every man to do, without granting or allowing of any privilege by the prince to the contrary. And they faid it was againft law, and that the queen ought not to grant any fuch. Seres upon this, in a petition to the lord-treafurer, urged againdt thefe men, that privileges for fpecial books were ever granted by the prince; for that for the moft part in all antient books we read thefe words, Cum privilegio ad imprimendumof their poor.

He continued printing from 1544 to 1576 .
Henry Smyth lived at the fign of the Holy Trinity, without Teinple-bar, in St. Clement's parifh, anno 1540 .
Nicholas Hill, in 1546, lived in St. John's Street, near Clerkenwell.

Richard Jugge, was bred a fcholar, and elected from Eton to King's College, in 1531. About the time of the Reformation he acquired the art of printing, which he praftifed in king Edward VIth's time, and kept fhop at the North door of St. Paul's church, but dwelt at the fign of the Bible in Newgate-market, near Chrift's Church. He and John Cawood were made printers to queen Elizabeth, by patent dated the $24^{\text {th }}$ of March, 1560 , with the ufual allowance of 61.13 s . 4 d. to print all ftatutes, \&c. He was very curious in his editions of the Ołd and New Teilaments, beftowing not only a good letter, but many clegant initial letters, and fine wooden cuts. He continued in bufinefs about thirty years, and was fucceeded in, it by his wife Joan.
Jhon Wally, or John Waley, lived in Fofter-lane, from 1547 to 1585 .

Whliam Powel, lived in St. Dunftan's parifh in Flectfrreet, next to the church, at the fign of the George, in the
old fhop that was late William Middleton's. He continued in bufinefs from 1547 to 1567 .
Hugh Singleton is fuppofed to have been very foon in the printing bufinefs, yet the firt book of his production, with a date, was in the year 1548, and he continued in bufinefs till 1588.
In the year 1581 , the 23 d of the reign of queen Elizabeth, he printed a feditious quarto book under the following title, A gaping Gulph to fwallow up England by a French Marriage, \&c. It was wrote by John Stubbs of Lincoln's-Inn, publifhed by William Page, and Hugh Singleton the printer, all three of whom were apprehended; and, by a law of Philip and Mary, received fentence to lofe their right hands; which was put in force againft the author and publifher, who had their hands taken off at their wrifts by a butcher's knife and a mallet; but Singleton, by the intereft of his friends, obtained a remittance of the fentence.
He lived at the Golden Tun in Creed-lane, near Ludgate, and ufed thefe words for his motto, god is my helper.
Richard Kele lived at a long fhop in the Poultry, under St. Mildred's Church, in $154^{8}$; and in Lombard-ftreet, at the fign of the Eagle, in $15 \% 2$.

Anthony Scoloker was brought up a fcholar, and in 1548 refided in London, in the Savoy Rents near Temple-bar, after which he removed to Ipfwich.

Humphrey Powel, in $154^{8}$, lived near Holbourn-Conduit ; from thence in 155 i he went to Ireland, where he was the firft perfon who there introduced printing.

Robert Stoughton, in 1548, lived at the fign of the Bifhop's Mitre, within Ludgate, and continued till 155 I .

Gaulter Lynne lived on Somner's Quay, near billingfgate, was a fcholar aind an author, as well as a printer of feveral books, from the year 1548 to 1550 .

William Hill, or Hyll, lived at the fign of the Hill, in St. Paul's Church-yard, at the Weft door of the church, in 1548.

Robert
$\rightarrow 2$

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Robert Crowley, Croleus, or Crole, was born in Gloucefterfhire, became a ftudent in the univerfity of Oxford in 1534, and was foon after made demy of Magdalen College. In 1542, being bachelor of arts, was made probationer fellow of the faid houre, by the name of Robert Crole. When king Edward VI. began to reign, he lived in Ely-Rents, Holbourn, London; where he printed and fold books, and at the fame time preached in the city; but upon the acceffion of queen Mary, he among feveral Englif Proteftants, went to Franckfort in Germany. After Mary's deceafe he returned, and had feveral benefices beftowed on him, among which was St. Giles's, Cripplegate, London; of which`church he wrote himfelf vicar in 1566 . He lived to a good age, was buried in St. Giles's, Cripplegate, 'where, over his grave, a fone was laid, with this infcription engraven on a brafs plate: Here lieth the body of Robert Crowley, clerk, late vicar of this parifh, who departed this life the 18 th of June, 1588.

Roger Car, profeffed and practifed the art in 1548. .
William Tilly lived in St. Anne and Agnes parifh in Alderfgate-ftreet, in 1549 .
John Wyer, lived in Fleet-ftreet, a little above the Conduit, in 1550.

Richard Charlton practifed the art in 5550 .
John Kinge, printer and flationer, lived in Creed-lane, and had a fhop in St. Paul's Church-yard, at the fign of the Swan, in 15.50.

Thomas Gaultier practifed the art in 1550.
John Tisdale, or Jhon Tysdali, lived in Knight-Riders-Atreet, and had a fhop in Lombard-ftreet, in All-Hallow's Church-yard, near Grace-church, in 1550.

Stephen Mierdman practifed the art in 1550.
John Case lived in St. Peter's-College Rents in 1551.
Abrafam Vele, in 155i, lived at the fign of the Lamb in St. Paul's Church-yard, where he refided till 1586.

John Turke, in 1553, lived ipl St. Paul's Church-yard, at the fign of the Cock.

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Jhon Wyghte, or John Wight, had a fhop at the fign of the Rofe, in St. Paul's Church yard, at the great north door. He was rather efteemed a bookfeller than a printer, yet practifed both in 155 I.
John Cawood, Efq. was of an antient family in the county of York, as appears from a book at the Herald'soffice, William Grafton, vi. A, b, c, London. Wherein are the following words: "Cawood, Typographus regius reginae Mariae; his armes are, fable and argent parte per cheveron, embatteled between 3 harts heads cabofed, counterchanged within a border per feffe, counter-changed as before, with verdoy de trefyles fleped, numbered io. Thefe Cawoods were once lords of the manor of Cawood near the city of York, although the caftle hath aunciently been the archbihops fee. And it appears among the inquifitiones of the brethren in the time of king John throughout England, (that is to fay, in the 12 th and 13 th year of his reign, in the county of York, concerning knights fervice, and others held by him in chief, or capite, in the treafury rolls for the aforefaid liberty, by the hands of the fhireef of that time:) that John Cawood held by grand fergentie (fcilt. per fore ftaritem inter Darwenc et Owfe) one plowed land in Cawood. Which John, father of Peter, and Robert, clark of the pipe, who had John, who had Margaret, \&c." Thus it feems he was of that family in Yorkfhire. When, or by whom, he was inffructed in the art of printing, does not appear, but he exercifed that art three or four years before a patent was granted him by queen Mary, when Richard Grafton was fitt afide, and had a narrow efcape for his life. The chief import of the patent, which you may fee at length in Rymer, vol. xv. p. 125, is thus abfracted.

The queen, to all whom it may concern, fends greeting. Know ye, that of our fpecial favour, \&c. for the good, true, and acceptable fervice of our beloved John Cawood, printer, already performed, by thefe prefents for us, our heirs, and fucceffiors,

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fucceffors, we do give and grant to the faid John Cawood, the office of our printer of all and fingular our ftatate books, acts, proclamations, injunctions, and other volumes, and things, under what name or title foever, either already, or hereafter to be publifhed in the Englifh language. Which office is now vacant, and in our difpofal, for as much as R. Grafton, who lately had and exercifed that office, hath forfeited it by printing a certain proclamation fetting forth, that one Jane, wife of Gilford Dudley, was queen of England, which Jane is indeed a falfe traitor, and not queen of England; and by thefe prefents, we conflitute the faid John Cawood our printer ih the premifes, to have and exercife, by himfelf, or fufficient deputies, the faid office, with all the profits and advantages any way appertaining thereunto, during his natural life, in as ample manner as $R$. Grafton, or any others have, or ought to have enjoyed it heretofore.

Wherefore, we prohibit all our fubjects whatfoever, and wherefoever, and all other perfons whatfoever, to print or caufe to be printed, either by themfelves, or others, in our dominions, or out of them, any books or volumes, the printing of which is granted to the aforefaid John Cawood; and that none caufe to be reprinted, import, or caufe to be imported, or fell within our kingdom, any bookes printed in our dominions by the faid John Cawood, or hereafter to be printed by him in foreign parts, under the penalty of forfeiting all fuch books, \&c.

And we do grant power unto John Cawood, and his affigns, to feize and confifcate to our ufe, all füch books, \&c. as he or they fhall find fo prohibited, without let or hindrance; and to enjoy the fum of 61.13 s. 4 d. per annum, during life, to be received out of our treafury. And whereas our dear brother Edward vi \&c. did grant unto Reginald Wolf; the office of printer and bookfeller, in Latin, Greek, and Hebrew; we out of our abundant grace, \&c. for ourfelves, heirs, and fucceffors, do give and grant to the faid John Cawood the faid office, with the fee of 16 s .8 d . per annum, and all other profits
and advantages thereto belonging, to be entered upon immediately after the death of the aforefaid Reginald, and to be enjoyed by him during his natural life, in as full and ample manner as the faid Reginald now has, and exercifes that office, \&c. given at Weftminfter, 29 Dec. 1553.

He and Henry Coke were appointed the firft wandens of the Stationers Company (Thomas Dockwray being mafter) in the charter granted by Philip and Mary. He became partner with Richard Jugge, in queen Elizabeth's time, and printed books joyntly and feparately. He was buried in St. Faith's, under St. Paul's, London; and his epitaph, preferved by Dugdale, is thus: "John Cawood, citizen and flationer of London, printer to the moft renowned queen's majefty Elizabeth; married three wives, and had iffue by Joane, the firf wife only, as followeth, three fones, four daughters., John his eldeft fon, being bachelour in law, and fellow in New College in Oxenford, died 1570 ; Mary married to George Bifchoppe, ftationer; Ifabell married to Thomas Woodcock, ftationer; Gabrael, his fecond fon, beftowed this dutiful remembrance of his deare parents, 1591, then church-warden; Sufanna married to Robert Bullok; Barbara married to Mark Norton; Edmund, third fon, died 1570." He died April 1, 1572, aged 58.

In 1555, the following proclamation was printed by him, and iffued by order of Philip and Mary :

Whereas dyvers books, filled both with heerefye, fedition, and treafon, have of late, and be dayly brought into this realme, out of forreigne countrys, and places beyond the feas, and fome alfo covertly printed within this realme, and caft abroade. in fundry partes thereof, whereby not only God is difhonourcd, but affo an encouragement geven to difobey lawful princes and governours ; the king and queen's majelties, for redrcts therecf, doth by this thyr prefent proclaymation declare and publyah to all theyr fubjectes, that whofocwer fhail, after the proclaymation hereof, be found to have any of the fayd wicked and feditious

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feditious bookes, or fyndyng them, do not forthwith, burne the fame, without fhewing or readyng the fame to any other perfon, fhall in that cafe bee reputed and taken for a rebell, and hall without delaye be executed for that offence, according to thorder of martiall law. Geven at oure manor of fainct Jamefes, the fixt day of June.

The fame year, viz. 1555, he printed a proclamation in the following words :

Whereas by the flatute made in the fecunde yeare of kinge Henrye IV. concerning the repreffynge of herefies, there is ordeyned, and provyded, of greate punyfhment, not only for the authors, makers, and wryters of books, conteynynge wycked doctryne, and erronious and heretycall opynions, contrarye to the catholyque ffaythe, and determynatyon of the holye churche, and lykewyfe for the fautours and fupporters, but alfo for fuche, as fhall have, or keape any fuche books or wrytings, and not make delyvery of them to the ordenarye of the dyoces, or his mynifters, withyn a certeyne tyme lymytted in the fayd fatute, as by the fayde flatute more att large it dothe appeare; whych acte, or ftatute, being by auchorytie of parlyament, of late revyved, was alfo openly proclaymed to thynte the fubjects of the realme upon fuche p:oclamatyon, fhould the rather efchue the daunger and penaltie of the fayde flatute, and as yet neverthelefs in mofte partes of the realme, the fame ys neglecied and lytle regarded:

The kynge and quene, our foveraigne lorde and lady, therefore mofte entirely and earnefly tenderynge the prefervation and faulty, as well of the foules as of the bodyes, landes, and fubftaunce, of all their good lovynge fubjectes, and others, and myndynge to root oute and extinguifhe all falfe doctryne and herefyes, and other occafyons of fcifmes, dyvifyons, and fects, that come by the fame he efies; and falfe doctryne, ftraightly charge and command, that no perfon or perfons of what effate, degree, or condytion foever he or they be, from henceforthe prefume to bringe, or convey, or caufe to be broughte

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broughte and conveyed, into this realme anye bookes, wrytinges, or workes hereafter mentyoned: that ys to faye, any booke, or bookes, wrytinges, or workes, made, or fett fourthe by, or in the name of Martyn Luther; or any booke, or bookes, wrytings, or woorks, made or fette forthe by, or in the name of Oecolampadyus, Sivinglius, John Calvyn, Pomerane, John Alafco, Bullynger, Bacer, Malanethon, Barnardinus Ochinus, Erarmus Sarcerius, Peter Martyr, Hughe Latymer, Roberte Barnes, otherwyfe called Freere Barnes, John Bale; otherwyfe called Freere Bale, Juftus Jonas, John Hoper, Miles Coverdale, William Tyndale, Thomas Cranmer, late archebyfhop of Canterburye, Wylliam Turner, Theodore Bafyll, othervyfe called, Thomas Beacon, John Frythe Roye; and the book commonly called, Halles Cronycles; or any of them in the Latyn tonge, Duche tonge, Englifh tonge, Italyan tonge, or French tonge; or any other lyke booke, paper, wrytinge, or wourke, made, prynted, or fett forth by any otherperfone, or perfons, conteynynge falfe doctryne, contrarye, and agaynfte the catholyque faythe, and the doctryne of the catholy que churche.

And alfo, that no perfone, or perfons, prefume to wryte, prynte, utter, fell, reade, or keape, or caufe to be wrytten, prynted, uttered, rede, or kepre, any of the fayde bookes, papers, workes, or wrytings, or any booke, or books, wrytten, or prynted in the Latten, or Englyfhe tonge, concernynge the common fervice and miniftratyon, fett forthe in Englyfhe, to oe ufed in the churches of this realme, in the tyme of kinge Edward the vi. commonly called, the commanyon booke, or bouks of common fervice, and orderynge of mynifters, otherwyfe called, the booke fette forthe by the aucthorytie of parlyament for common prayer, and admyniftration of the facraments, to be ufed in the mother tonge, wythin the churche of Englande, but fhall wythin the fpace of fyftene dayes next after the publicatyon of this proclamatyon, brynge, or delyver, or caufe the fayde bookes, wrytings, and works, and everye

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of them remayneinge in their cuftodies, and kepinge, to be broughte, and delyvered to thordinarye of the dioces; where fuche beoks, works, or wrytings be, or remayne, to his chauncelloure, or commyflaryes, withoute fraude, colour, or deceipte, at the fayde ordinaries will and difpofition to be burnte, or otherwyfe to be ufyde, or orderyd by the faid ordenaries; as by the cannons, and fpirituall lawes it is in that cafe lymyted, and apoynted, upon payne that everye offendor contrary to this proclamatyon, fhall incurre the daunger and penalties conteyned in the fayde fatute, and as they will avoide their majeftyes highe indignatyon and difpleafure, and further awnfwer att thire uttermoft periles.

And their majeftyes by this proclamatyon geveth full power and aucthorytie to all bysthops, and ordynaryes, and all juftices of peace, mayors, fheriffes, baylyffes of cyties, and townes corporate, and other hedde offycers within this realme, and the domynions theirof, and exprefsleye commaundeth and willethe the fame, and everye of them, that they, and everye of theim, within their feveral lymyts and jurifdictions, fhall, in the defaulte and neglygence of the faid fubjects, after the fayd fyftene dayes expyred, enquyer, and ferche oute the fayde bookes, wrytings, and works, and for this purpofe enter into the howfe, or howfes, cloffetts, and fecrete places of every perfon of whatfoever edgre, beinge negligente in this behalf, and furpected to kepe anye fuche booke, wrytinge, or workes, contrarye to this prociamation.
And that the faide jutices, mayors, fheryffs, baylyffs, and other hede officurs above fpecified, and every of them, within their fayde lymyres and juryfdictions, fyndinge anye of the fayde fubjetes neghigent, and fuultie in this behalfe, fhall commytte everye fuche ofendour to warde, theire to remayne withoute bayle, or maynepiyfe, tyll the fame offendour, or offendours, have receavid fuche punyhnent, as the faid flatute dothe lymitte and anpogate in this behalfe. Geven under our fignes
mantell,

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manuell, at oure honour of Hampton courte, the xiiith daye of June,' the fyrfte and feconde yeres of our reignes.

Wilifam Riddel, probably was fervant to John Day: he printed in 1552.
Rowland Hall, or Rowlande Haule, and fometimes Hawle, lived firt in Golden-lane, at the fign of the Arrows. At the death of Edward VI. with feveral refugees during the reign of queen Mary, he went and refided at Geneva, from whence we have feveral editions of the Englifh Bible, and one of his impreffion in the year 1560 . After his return to England he put up the Half Eagle and Key (the Arms of Geneva) for a figñ, at his old houle in Golden-lane, near Cripplegate, and the fame fign in Gutter-lane.

Richard Tottrl had his name fpelt very different, was a very confiderable printer of law, and one of the ftationers company. He dwelt in Fleet-Atreet within Temple Bar, at the fign of the Hand and Star. We find in Dudg. Orig. Jurid. p. 59. and 60 . the following licences. A fpecial licence to Richard Tathille, or Tottel, citizen, fationer, and printer of London, for him and his affigns, to imprint, for the fpace of feven years next enfuing the date hereof, all manner of books of the temporal law, called the common law ; fo as the copies be allowed, and adjudged meet to be printed by one of the juftices of the law, or two ferjennts, or three apprentices of the law ; whereof the one to be a reader in court. And that none other fhall imprint any book, which the faid Richard Totell fhall firt take and imprint, during the faid term, upon pain of forfeiture of all fuch books. T. R. apud Wentm, 12 April, 7 Edward v1. p. 3. A licence to Richard Tottle, ftationer of London, to imprint, or caufe to be imprinted, for the fpace of feven years next enfuing, all manner of books, which touch or concern the common law, whether already imprinted, or not. T. R. apud Wcflm, i Maii. Pat. 2, and 3 Phil. and Mary, p. i. licence to Richard Tottell, citizen, printer, and fationer of London, to print all manner of books, touching the
common laws of England, for his lifé. T. R. 12 Jan. Pat. ${ }_{1}$ Eliz. p. 4.

There was a patent ready drawn for queen Flizabeth's. figning for feven years, privileging Richard Tothill, ftationer, to imprint all manner of books, or tables, whatfoever, which touched, or concerned cofmography, or any part thereof; as geography, or topography, writ in the Englifn tongue, or trantlated out of any other language into Englifh, of whatfoever countries they treated, and whofoever was the author. But whether this was ever actually figned or not, is uncertain.

Richard Tottyl was mafter of the fationers company in the year 1578 , John Harrifon and George Bifhop, being then wardens; William Seres, and John Day, affiftants; and the 8th of January, 1583 , he yielded up to the Stationers Company, feven copies of books for the relief of the poor of their company.

Roger Madeley lived in 1553 , at the fign of the Star, in St. Paul's Church-yard.

Robert Caley, or Caly, lived in Chrif's Hofpital, and is fuppofed to have fucceeded Richard Grafton in his houfe and bufinefs. He continued in bufinefs from 1553 to 1558.

Henry Sutton, in 1553 , lived at the fign of the Black Boy, in Pater-nofter Row, and other places; and had a frop in St. Paul's Church .yard.

John Kingston, he put áy for an i and ane at the end of his name, or fometimes wrote Jhon Kyngstone, according to the ufage of thofe times, when they were negligent in fpelling. In 1553 he had 2 hop at the Weft door of Ste Paul's.

Thomas Marshe, printer and citizen of London, was one of the Stationers Company when their charter was granted the $3^{\text {d }}$ and $4^{\text {th }}$ of Philip and Mary. He lived at the the fign of the Prince's Arms, near St. Dunftan's Church, in Fleet-ftreet. In Stow's Survey he is faid to have had a patent granted

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granted him te print Latin School-books, of which the Stationers complained to the lord treafurer. He continued in bufinefs from 1555 to 1587 .

Thomas Geminie, in 1556, lived in Black Friars.
Amthony Kytson, in 1555 , kept a thop at the fign of the Sun, in St. Paul's Church-yard.

Theifas Powel, printer and fationer, in 1556, lived in Fleet-freet.

Owen Rogers, or Ap. Rogers, ftationer, in 1556, lived at the Spread Fagle, near St. Bartholomew's Gate, in Smithfield.

William Norton, a printer of great note, lived in St. Paul's Church-yard. On a tomb mentioned by Dugdale, is this infcription concerning his family. "William Norton, citizen and ftationer of London, and treafurer of Chrift's Hofpital, died anno 1593, aged 66 years, and had ifliue one ouly fonne. His nephew John Norton, efq. ftationer, and fometime alderman of this city, died without iffue anno 1612, aged 55 years. Alfo Bonhan Norton, of Church-Stretton, in the county of Salop, efq. ftationer, and fometime alderman of this city, fon of the aforefaid William, died April 5, anno 1635, aged 70 years. He had iffue by Jane, daughter of Thomas Owen, efq. one of the judges of the Common Pleas, nine fons and four daughters, whereof three fons were here buried; Thomas and George unmarried, and Arthur, who married the only child of George Norton, of Abbot's Leigh, in the county of Somerfet, efq. and having by her iffue two fons, died October 28, anno 1635, aged 38. years., Jane Norton, the faid widow of Bonham aforefaid, caufed this monument to be erected near the fepulchres of the deceafed." He gave 61. 13 s .4 d . yearly to his company, to be lent to young men, free of the fime company; and the like fum yearly for ever to Chria‘s Hofpital.

Richard Adams pratifed printing in 1559.
James Burrel, in 1559 , lived without the Noth gate of

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St. Paul's, in the corner houfe of Pater-nofter Row, opening into Cheapfide.

Richard Harryson, fationer, in 1562, lived in White-crofs-ftreet, at the fign of the Wheat-fheaf.

David Moptid, and John Mather, in 1556, were partners, lived in Red-crofs-ffreet, near St. Giles's church, Crirplegate.
John Audeley, or Awdeley, in 1560 , lived in LittleBritain, without Alderfyate, where he continued till 1576. In the year 1566, he printed the following

Ordinances decreed by the court of Star-chamber, high commifion court, for the reformation of divers diforders in printing and uttering of books, dated from the Star-chamber, June 29, 1566.
I. That no perfon fhould print, or caufe to be printed, or bring, or procured to be brought, into the realm printed, any book againft the force and meaning of any ordinance, prohibition, or commandment, contained, or to be contained, in any the ftatutes or laws of this realm, or in any injunctions, letters, patents, or ordinances, paft, or fet forth, or to be paft or fet forth, by the queen's grant, commiffion, or authority.
II. That whofoever fhould offend againft the faid ordinances, fhould forfeit all fuch books and copies; and from thenceforth fhould never ufe, or exercife, or take benefit by any ufing or, exercifing the feat of printing; and to fuftain three months imprifonment without bail or mainprize.
III. That no perfon fhould fell, or put to fale, bind, ftitch, or fow, any fuch books, or copies, upon pain to forfeit all fuch boor's and copies, and for every book 20s.
IV. Thiat all books fo forfcited, fhould be brought into Stationer-hall, and there one mciety of the money forfeited to be referved to the queen's ufe, and the other moiety to be delivered to him, or them, that fhould firft feize the books, or make complaint thereof to the warden of the faid company; and

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all the books fo to be forfeited, to be deftroyed, or made wafte paper.
V. That it fhould be lawful for the wardens of the company for the time being, or any two of the faid company thereto deputed by the faid wardens, as well in any ports, or other fufpected places, to open and view all packs, dryfats, maunds, and other things, wherein books or paper fhall be contained, brought into this realm, and make fearch in all workhoufes, fhops, warehoufes, and other places of printers, bookfellers; and fuch as bring books into the realm to be fold, or where they have reafonable caufe of fufpicion. And all books to be found againft the faid ordinances, to feize and carry to the hall, to the ufes abovefaid; and to bring the perfons offending before the queen's commiffioners in caufes ecclefiaftical.
VI. Every fationer, printer, bookfeller, merchant, ufing any trade of book-printing, binding, felling, or bringing into the realn, fhould before the commiffioners, or before any other perfons, thereto to be affigned by the queen's privy council, enter into feveral recognizances of reafonable fums of money to her majefty, with fureties, or without, as to the commiffioners fhould be thought expedient, that he fhould truly obferve all the faid ordinances, well and truly yield and pay all fuch forfeitures, and in no point be refifting, but in all things aiding to the faid wardens, and their deputies, for the true execution of the premifes.

And this was thus fubfribed; "Upon the confideration before expreffed, and upon the motion of the commiffioners, we of the privy council have agreed this to be obferved, and kept, upon the pains therein contained. At the Star-chamber, the 29 June, anno 1566, and the eighth year of the queen's majefties reign."

| N. Bacon, C. S. | Winchefter, | R. Leicefter, |
| :--- | :--- | :--- |
| E. Clynton, | E. Rçers, | F. Knollys. |
| Anber. Cave, | W. Cecyl. |  |

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To which the commifioners for ecclefiaftical caufes alfo underwrit. We underwrit think thefe ordinances meet and neceffary to be decreed, and obferved :

| Matthue Cantuar, | Ambr. Cave, | Tho. Yale, |
| :--- | :--- | :--- |
| Edm. London, | David Lewis, | Rob. Wefton, |
|  |  | T. Huycke. |

Јonn Alde, lived at the long hop adjoining St. Mildred's church, in the Poultry, in 1560.

Thomas Hacket lived in Lombard-flreet, at the fign of the Pope's Head, and kept a fhop in the Royal-Exchange, at the fign of the Green Dragon, in 1560.

Ralfh, or Rafe Newbery, fationer, and warden of that company in the year 1583 , being allignee with Henry Denham, and yielded up to the Stationers Company a privilege. He lived in Fleet-ftreet, a little above the Conduit. Sow fays, he gave a flock of books, and privileges of printing, to be fold for the benefit of Chrift's Hofpital and Bridewell. He was concerned with George Bifhope, and others, in the printing of books, in 1596 , and even after 1600.

Francis Coldock, fationer; and twice warden of that company; practifed the art from 1561 to 1577, and died at the age of 72 , in the year 1602.

William Griffith, lived in Fleet-ftreet, at the fign of the Falcon, and kept fliop in St. Dunftan's Church-yard, in the year 1561 .

Lucas Harrison, or Harryson, in 156 r , lived at the fign of the Crane, in St. Paul's Church-yard.

Thomas Colvell, fucceeded Robert Wycr in bufinefs; he kept, the fign of St. Jthn the Evangelift, in St. Martin's parih, near Charing-Crofs; and the fame fign in Flect-ftreet, near the Conduit; and continued in bufinefs from 1558 to the yeara 575.

Humphrey Toy, in 1550 , lived at the Helmet, in St. Paul's Church-yard, and continued till 1574 .

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Henry Wykes, in ij62, lived in Fleet-ffreet, at the fign of the Black Elephant, which he put under a compartment of Man carrying a Sheep on his Back.

Gerard Dewes, a good printer, and kept a fhop at the fign of the Swan in St. Paul's Church-yard, in the year 1562.

Henry Dienam, in 1564, lived at the fign of the Star, in Pater-nofter Row, with this motto round it, os homini sublime dedit, which he put at the end of feveral of his printed books. He lived alfo in White-crofs-ftreet, and was alfignee to William Seres in 1564 . In the year 1586 he lived in Alderfgate-ftreet, at the fame fign. He frequently ufed a cut of the Bear and Ragged Staff, within the Garter.

He had a privilege granted him in 1567 for printing the New Teftament in the Wellh tongue. He continued in bufinefs till 1587 .

The 27th of March, $156_{3}$, a bill was brought into the Houfe of Commons, that the Bible, and the divine fervice, may te tranflated into the Welf, or Britifh tongue, and ufed in the churches of Wales. See Journals of the Houfe of Commons at that time. Which bill expreffes that,
The bifhops of Hereford, faint Davids, Afaph, Bangor, and Landaff, and their fuccefiors, fhall take fuch order amongit themfelves for the foules health of the flocks, committed to their charge, within Wales, that the whole Bible, containing the New Teftament, and the Old, with the book of Common Prayer, and adminiftration of the facraments, as is now ufed within the realm in Englif, to be truly and exactly tranilated, into the Britifh or Welch tongue. 2. And that the fame fo tranflated being by them viewed, perufed, and allowed, be imprinted to fuch number at the leaft, that one of every fort may be had for every cathedral, collegiate, and parifh chatrch, and chappel of eafe, in fuch places, and countrys, of eiery the faid diocefies, where that tongue is commonly fpoken or ufed, bcfore the firt day of March, ainno Domini 1566.
3. That

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3. That from that day forth, the whole divine fervice fhall be ufed and faid by the curates and minifters, throughout all the faid dioceffes, where the Welch tongue is commonly ufed, in the faid Britifh, or Welch tongue, in fuch manner and form, as is now ufed in the Englifhe tongue, and differing nothing in any order or form from the Enyilth book. 4. For the which books fo imprinted, the parihoners of every the faid parifhes fhall pay tin ene half or moiety, and the faid parfon and vicar of every of the faid parifhes (where hoth be) or elfe the one of them, where there is but one, fhall pay the other half or moiety. 5. The prices of which books fhall be appointed and rated by the faid bifhops, and their fucceffors, or by three of them at the leaft. 6. The which things, if the faid bifhops, or their fucceffors, neglect to do, then every one of them fhall forfeit to the queen's majelty, her heirs, and fucceffors, the fum of 401. to be ievied of their goods and chatiels.
II. And one book containing the Bible, and one other book of common prayer, in the Englifh tongue, fhall be brought, and had in every church throughout Wales, in which the bible, and book of common prayer in Welch is to be had by force of this act (if there be none already) before the firft day of Maich, one thoufand five hundred finty fix. 2. And the fame books to remain in fuch conveniel : places within the faid churches, that fuch as underitand them, may refort at all convenient times to read and ferufe the fame; and aifo fuch, as do not underfand the faid language, may, by conferring both tongues together, the fuoner attain to the knowledge of the Englifh tongue; any thing in this ait to the contrary notwithftanding.
Richard Serlls, in 1566 , lived in Fleet-lane, at the fign of the Half-Eagle and Key.

Henry Byfneman, was fervant to Reynoid Woife, and became an eminent pribitcr. He dwelt in Thamcs-Areet near unto Baynard's caftie, and at Kuightriders-freet, at the fign of the Miermaid, with this motto about it, omsia tempus

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habent. "In the year 1580, Fehruary 6th, one Arthur Hall of Granthan, a member of the Houre of Commons, was accufed of reffccting and reproaching Sir Robert Bell the fpeaker, and feveral of the members, in a book dedicated to fir Henry Knyvett, and fet forth in print by Henry Bynneman, who faid, that one John Welles, a fcrivener in Flect-ftrect, did deliver the written copy to him, and when the book was printed, he delivered one book to Henry Shurlande, in Frydayftreet, linnen draper, to be fent to Mr. Halle; and that afterwards, about a year paft, he delivered to Mr. Hall fix of the faid books, and one more to Mr. Hall's man fhortly after, and faid, that Mr. Hall promifed to get him a priviledge, whereupon he adventured (he fayeth) to print the book: and fayeth that the copy was written by Welles the fcrivener; and that he received of the faid Shurlande linnen cloth, to the value of fix pounds thirteen fhillings and fourpence, for printing of the book; and that he ftayed, of his own accord, the publifhing of the faid book, till he were paid, whereas Mr. Halle was contented they fhould have been put to fale prefently. Which report fo made by Mr. Secretary, and withall, that Mr. Halle, and the printer, were both at the door, Mr. Halle was brought to the bar, and exprefled his forrow, if he had offended, was fure it was done with no malicious intent, prayed pardon, and willed the book fhould be fuppreffed. Then was Mr. Halle fequefred, and H. Bynneman brought to the bar, and affimed, as fecretary Wilfon had faid above, and wilthing all the books had been burnt, before he had meddled with them; that Halle fhould fay to him again, he would not fo for 100 pounds that he had printed fourfcore, or hundred of the fayd books, and was thereupon fequeftred. Then was Shurlande brought to the bar, who confeffed that Mr. Halie did write a letter unto him, and fent the book to get it printed; and was alfo fequeftred. Welles the fcrivener was brought to the bar, and faid that Halle had paid him again the xx nobles, which he before had paid the printer ; and fo he was fequeftred. Ordered to meet

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again three different times afterwards, when Halle was committed to the Tower for fix months, and until he made-a retaliation to the fatisfaction of the houfe, to pay 500 marks; to be fevercd from being a member of this houfe, and to chufe another." He met with great incouragement from archbifhop Parker, as you may fee in Strype's life of that archbihop, who allowed him to have a fhop, or fhed, at the north-weft door of St. Paul's church, at the fign of the Three Wells. He left Mr. Denham and Mr. Newbery, affignees, and died 1583.

In 1573, Bynneman printed a fmall twelves volume with the following title; The Art of Reafon, rightly termed Witcraft, teaching a perfect way to argue and difpute, by Raphe Lever. From the preface of this book, which is dedicated to Walter earl of Effex, is taken the following extract : "To prove, that the arte of reafoning may be taught in Englifhe, I reafon thus : firf, we Englihmen have wits, as well as men of other nations have; whereby we conceyve what ftandeth with reafon, and is well doone, and what feemeth to be fo, and is not.-For artes are like to okes, which by little and little grow a long time, afore they come to their full bignefs. That one man beginneth, another oft times furthereth and mendeth; and yet more praife to be given to the beginner, then to the furtherer or mender, if the firtt did find more good things, then the follower did adde. Experience teacheth, that each thing, which is invented by man, hath a beginning, hath an increafe, and hath alfo in time a full ripenefs. Now, although each worke is moft commendable, when it is brought to his full perfection, yet, where the workmen are many, there is oftimes more praife to be given to him that beginneth a good worke, then to him that endeth it. For if ye confider the bookes, that are now printed, and compare them with the bookes, that were printed at the firft, Lord, what a diverfity is there, and how much do the laft exceed the firit ! yet if you will compare the firft and the laft printer tegcther, and feek whether defervcth more praife and commendation, ye fhall find

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that the firft did farre exceede the laft : for the laft had help of manye, and the firt had help of none. So that the firft lighteth the candle of knowledge (as it were) and the fecond doth but fnuff it."
Thomas Purfoot, printer and fationer, had a fhop in St. Paul's Church-yard, in 1544, at the fign of the Lucretia, within the New Rents in Newgate-market. He, or another of the fame name, printed a long time after 1660, as he is the third perfen named, of the twenty, who were allowed in the year ${ }^{1637}$, by a decree of the Star-Chamber, to print for the whole kingdom.
Alexander Lacy, in 1566 , lived in Little Britain.
Thomas East, Est, or Este, if the fame perfon, lived in Alderfgate-ftreet, at the fign of the Black-horfe, and at other places, and figns, as the cuftom then was; which makes it difficult to affign, whether it was the fame perfon or no. He appears to have been employed by Birde and Tallis, to whom queen Elizabeth, in the 17 th year of her reign, granted a patent. He, or they, printed mufic, and other books, from 1569 till after 1600.

The cxtract and effect of the queen's letters patents, to Thomas Tallis, and Williambirde, for the printing of mufick.

Elizabeth by the grace of God, quene of Englande, Fraunce, and Ireland, defender of the faith, \&c. to all printers, bokefellers, and other officers, minitters, and fabjects, greting. Know ye, that we for the efpeciall effection, and good will, that we haue and bare to the fcience of mufick, and for the aduancement thereof, by our letters patents, dated the xxil of January, in the $x_{1 i}$ yere of our raigne, have graunted full priviledge and licence vnto our welbeloued fervants, Thomas Tallis, and William Birde, gent. of our chappell, and to the oucriyuer of them, and to the :fignes of them, and of the furuiuer of them, for xxi yeares next enfaing, to imprint any, and

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and fo many, as they will, of fet fonge, or fonges in partes, either in Englifh, Latine, French, Italian, or other tongues, that may ferve for muficke, either in churche or chamber, or otherwife to be either plaid, or foonge. And that they may rule, and caure to be ruled, by impreffion any paper to ferue for printing, or pricking, of any fonge or fonges, and may fell and vtter any printed bokes, or papers of any fonge, or fonges, or any bookes, or quieres of fuch ruled paper imprinted. Alfo we ftraightly by the fame forbid all printers, bookfellers; fubjects, and ftrangers, other then as is aforefaid, to do any the premiffes, or to bring, or caufe to be brought, of any forren realmes into any our dominions, any fonge, or fonges, made and printed in any forren countrie, to fell, or put to fale, uppon paine of our difpleafure; and the offender in any of the premiffes, for euery time to forfet to us, our heires, and fucceffors, fortie fhillings, and to the faid Thomas Tallis, and William Birde, or to their affignes, and to the affignees of the furuiuer of them, all, and euery the faid bookes, papers, fonge, or fonges. We have alfo by the fame willed and commaunded our printers, maifters, and wardens of the mifterie of Stationers, to affift the faid Thomas Tallis, and William Birde, and their affignees, for the dewe executing of the premiffes."

Towards the clofe of queen Elizabeth's reign a patent was granted to Thomas Morley, for printing mufick; but it being much the fame with Talis and Birde's before mentioned, we forbear reciting it. Patents were alfo granted to John Spilman, to make cards; to Richard Watkins and James Roberts, to print Almanacks; to Richard Wrighte, to print the Hiftory of Cornelius Tacitus; to John Norden, to print Speculum Britannix; to Sir Henry Singer, touching the printing of School-books; to Thomas Morley, to print fongs, in three parts; to Thomas Wight and Bonham Norton, to print law books; Edward Darcy, for cardis; \&'c.

In the debates concerning monopolies, when that of cards
was mentioned，Sir Walter Rawleigh blufhed．Upon reading of the lift of patents，Mr．Hackwell，of Lincoln＇s－Inn，ftoad ap，and afked，Is not bread there ？Bread！fays one．Bread！ fays another．This requeft feems ftrange，fays one of the members．No，not in the leaft，fays Mr．Hacket，for，if not fpeedily prevented，a patent for bread will be procured before the next feffion of parliament．

Richard Watkins，in 1570 ，lived in St．Paul＇s Church－ yard，and had a fhop adjoining to the Little Conduit in Cheapfide．He had a patent with James Roberts，for print－ ing Almanacks；and was warden of the Stationers Company in 1583，and then gave up his right of the Sheet or Broad－ fide Almanack，for the relief of the poor of the company．

James Roberts，a confiderable printer，who，with Wat－ kins had a pa：ent for the Sheet Almanacks in 1573．He was proprietor of upwards of 100 books，which he difpofed of in the year 1594．

William How，in 1570，lived in Fleet－ftreet，and con－ tinued in bufinefs till 1590 ．

Richard Jones，Jhones，or Johnes，printed in con－ junction with Thomas Colwell，in 1570 ．He kept a flop at the fouth－weft door of St．Paul＇s Church，and lived at the fign of the Rofe and Crown，near Saffron－hill，in Holborn ；and at the upper end of Fleet－lane，over againft St．Sepulcher＇s Church，at the fign of the Spread Eagle．He printed feveral books in partnerhip with others．

Henry Middleton lived at the fign of the Faulcon in Fleet－ftreet，and printed in partnerfhip with Thomas Ean fo early as 1569 ；but whether he was the fon of William Mid－ dleton，before－mentioned，is uncertain．

William Williamson，in 1573，had a fhop at the fign of the Sun，in St．Paul＇s Church－yard．

Thomas Vautrollier，who was a fcholar and printer from Paris，or Roan，came into England about the beginning of queen Elizabeth＇s reign，and firt feitled his printing oifice

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in Black Friars. He married his daughter Jakin to Richard Field, printer in Black Friars, Jan. 13, 1588, and buried feveral children in that parifh, as appears by their' church hooks. He was a moft curious printer, as is evident from his productions. Mr. Baker fays, he was the printer of Jordanus Brunus, in the year 1584 , for which he fled, and the next year being at Edinburgh, he firft thught that nation the way of doing their work in a maiterly manner; where he continued until, by the interceffion of friends, he procured his pardon; as appears by a dedication of his to the right worfhipful Thomas Randolph, efq. where he returns him thanks for his great favour, and for affifting him in his great diftrefs. He continued in the printing bufinefs from $157+$ to 1588 .

Christopher and Robert Barker, efqrs. the queen's printers, in 1555, lived in Pater-nofter Row, at the fign of the Tyger's-head, and kept a flop in St. Paul's Church-yard, at the fign of the Grafhoppcr. He came of an ancient family, being defcended from Chriftopher Barker, knt. King at Arms. Edward Barker, who is fuppofed to have been father to Chriftopher the printer, was, by a will dated Dec. 31, 1549, appointed heir to one William Barker his coufin, who had a confiderable eftate of houfes in London, but nothing in any county, and dicd Jan. 2, $15 \%$. Queen Eizzabeth granted a patent to our Chrifopher Barker, and Robert his fon; which patent expreffes itfelf to have been granted, in confideration of the father's great improvement of the art of printing.

King James I. May 10, 1602 , in the firt year of his reign, granted the fame patent to Chrifopher, fon of the faid Robert, to hold the fame after the death of his futher, with a provifo, that if Chrifopher fhould die before his Etther, then his heirs, \&c. fhould have it for four years afte: his father Robert's de.:.th.

Robert Barker of Southiey, or Southlee, in the county of Eucks, efq. married two wives, Rachael daughter of Richard Day, bifhop of Wincheiter, by whom he ind feveral children, and

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and Ann, relict of Nicholas Cage of London. Others, befides his fons, were concerned with him in the bufinefs of printing. July 19, 1603 , a fpecial licence was granted Robert for printing all the Statutes during his life. Jarres $I$. in confideration of the fum of three hundred pounds, and an annual rent of twenty pounds, demifed to Robert Barker Upton manor, for twenty-two years. The rent foon afterwas raifed to forty pounds per annum. William Ball, efq. fays Robert Barker had paid for amendment, or correcting, the tranflation of the Bible, the confiderable fum of 35001 . \&c. therefore his heirs had the right of printing it. This great family had their changes in fortune, for this fame Robert Barker lay in prifon above ten years, as appears from a certificate, in thefe words: Thefe are to certify whom it may concern, that Robert Barker, efq. was committed a prifoner to the cuftody of the Marfhal of the King's Bench, the 27th of November, 1635, and died in the prifon of the King's Bench, the 10 th of January, 1645 .

King James I. in the fourteenth year of his reign, anno 1616, on the 11th of February, granted the fame to Robert, fon of the faid Robert, for thirty years, to commence from the death of Robert the father.

King Charles I. July 20, 1627, in the third of his reign, having notice that the feveral interefts of the Barkers were affigned over to Bonham Norton and John Bill, confirmed the faid affignment to Norton and Bill.

King Charles I. Sept. 26, 1635, in the eleventh year of his reign, granted the fame to Charles and Matthew Barker, two other fons of Robert the father, after the expiration of the four years to Chriftopher's heirs, and the thirty ye:rs to Robert their brother.

Robert, to whom queen Elizabetli granted the office for life 1589 , dyed in the queen's bench, January $10,16+5$; fo that Chriftopher's four years ended the 1oth of January 1689.

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Robert the fon's, began January 10, 1649, and expired January 10, 1679.

King Charles II. December 24, 167\%, in the 27th of his reign, grants the fame to Thomas Newcomb and Henry Hills, for thirty years, to commence after the expiration of the refpective terms granted to the Barkers.

Charles and Matthew Barker's, began January 10, 1679, and expired January 10, 1709.

Thomas Newcomb and Henry Hills began January 10, 1709.

Note, When king Charles II. granted the office of printer, \&c. to Thomas Newcomb and Henry Hills, there were then of the refpective terms, formerly granted to the Barkers, thirtyfour years unexpired.

Note, alfo, that the fame patent was affigned over by the executors of Thomas Newcomb and Henry Hills unto John Bafkett and others. There has been contefts about the meaning of this patent fince the union, as Mrs. Anderfon's cafe, and that between John Bafkett, efq. and Henry Parfons, \&c. printed 1720.

To the queen's moft excellent majefty.
The humble petition of Benjamin Tooke and John Barber, citizens and ftationers of London,
Sheweth,
That his late majefly king Charles the fecond, did by his letters patents, under the great feal of England, bearing date at Weftminfter the 24th day of December, in the 24th year of his reign, grant unto Thomas Newcomb and Henry Hills, of the city of London, the office of his majeft's printer, for the printing of all bibles, new teftaments, books of common priyer of all tranflations, fatutes with notes, or without, abridgements of the fame, proclamations and injuncions; to hold to them, their executors, and affigns by themfelves, or their fufficient deputy or deputies, for thirty years, from the determination of the feveral and refpective eltates and interefts therein then for-

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merly granted to Robert Barker the younger, and Charles and Mathew Barker.

And whereas the faid office hath been ufually from time to time granted by the crown for the term of thirty years, in reverfion as aforefaid.

Your petitioners moft humbly pray your majefty would be gracioully pleafed to grant unto them the faid offices and premifes, to hold to them, their executors, and affigns, for thirty years, from the determination of the feveral and refpective eftates and interefts now in being.
And your petitioners, as in duty bound fhall ever pray, \&c.
It appears that this petition was received and granted the ${ }_{13}$ th day of October 1713, the twelfth year of queen Anne. Per breve de privato figillo. Соскs.
John Bakkett, efq. fome ycars ago, bought out Tooke's moiety, and alfo that of alderman Barber's; foon after the fire, which burnt the printing houfe, had a new patent granted him by king George II. for 60 years, with the privilege to ferve the parliament with flationers wares, added to it. Thirty years of this grant was then conveyed for a valuable confideration, to Charles Eyre, efq. and his heirs.
In the year ${ }^{7}{ }^{6} 9$, Mr. Bakett's term of the patent expired, and the confiz hed reverfion for 30 years, being the fole property of Charles Eyre, efq. he took poffeffion of the fame, and appointed William Strahan, fen. efq. his printer, who for the purpofes of carrying on the fame, has built a convenient and extenfive Printing-houfe near his dwelling-houfe in Newftreet, Shoe-lane.
John Charlewood, in 1575 , lived in Barbican, at the fign of the Half-Eagle and Key, ufed many forts of letter, and about the cut of his fign this motto, post tenebras lux, and fometimes files himfelf fervant to the right honourable the earl of Arundel. He continued in bufinefs till 1593.

Тномas Woodcock, fationef and bookfeller, lived in St. Paul's

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Paul's Church-yard, at the fign of the Black Bear, and married Ifabel, fecond daughter of John Cavood, efq. He continued in bufinefs from 1575, to 1591 .

Wilitam Hoskins, in 1575 , lived Fleet-Atreet.
John Shepard, in 1576.
Thomas Dawson, in 1577 , lived at the Three Cranes, in the Vintry ; and ufed a device of Three Cranes in a Vineyard, and continued in 'bufinefs till 1599.

Nicasius Yetsweirt, efq. was clerk of the private feal, and fecretary to queen Elizabeth for the French tongue. He had a patent granted Nov. 18, 1577, the 20th of Elizabeth, for thirty years, for printing all manner of books, concerning the Commen Laws of this realm.

Charles Yetsweirt, efq. fon of the before-mentioned Nicafius Yetfiweirt, who alfo was French fecretary and clerk of the fignet to queen Elizabeth, had a patent granted him the 37 th of Elizabeth, for thirty years to come, for printing all books concerning the laws. He continued in bufinefs, as Law-printer but one year, viz. 1594, as he died the beginning of the year following, when his widow continued exercifing the art of printing and felling law books, but not without oppofition from the Stationers Company, which occafioned her to complain to the lord keeper and lord treafurer, but it does not appear what redrefs fhe had ; yet it is imagined fhe had but little fuccefs, as the continued in bufinefs but two years.

Hugh Jackson, in 1577, lived in Fleet-ftreet, near the Conduit, at the fign of St. John the Evangeiif. He continued in bufinefs till 1592.

Andrew Maunsell, in 1570, lived at the fign of the Parrot, in St. Paul's Church-yard, and continued in bufinefs about 30 years.

Robert Waldegrave, in 1578 , firf pracifed the art of printing in the Strand, near Somerfet-houfe; from thence he removed to Fofter-lane; but afterwards, by printing puritan- tance of friends, overcame his troubles, and was made printer to king James VI. of Scotland, from whom he received a patent.
Grorge Bishop, flationer, concerned with, and imployed others, in feveral large works, was deputy printer to queen Elizabeth. He married Mary the eldeft daughter to John Cawood, efq. He became alderman of London, and among other legacies left fix pounds per ann. to his company; and allowed ten pounds per ann. for ever, towards maintaining preachers at St. Paul's Crofs. He gave alfo fix pounds per annum, to Chrif's Horpital.
John Harrion, in 1579 , practifed the art, and in 1583 , was mafter of the Stationers Company.
Abel Jeffs, in ${ }_{1561}$, lived in the Old Bailey, at the fign of the Golden Cup; and, in $155^{8}$, at the fign of the Bell, in Philip-lane.
Thomas Scarlet, was a good printer, and in 1576, practifed the art, and continued in bufinefs till 1596 .
Henry Bamporde, in 1577.
Richard Webster, in $157^{8}$.
Edfard Aggas, lived at the Weft End of St. Paul's Church-yard, and continued in bufinefs from 1558 to 1594 .
John Wolfe, city printer in 1581 ; he practifed the art of printing, and, as Stow fays in his Survey of London, publifhed by Strype, p. 223, in a conteft between the patentees, and the Stationers Company, taking upon him as a captain in this caufe, was content with no agreement, but generally affirmed, that he might and would print any lawful book, notwithftanding any commandment of the queen. And to that end had incenfed the popalarity of London, as in a common caufe, fomewhat dangerounly. And with him feveral of the ret changing their minds, were affociaied, and laboured to overthrow thofe privileges the queen had granted, or could
grant. Whereupon the abovefaid committees of the Stationers Company, finding them fo difordered, would have bound them to appear before the queen's council, which they promifed to do; but after conference with their abettors refufed; and fill profecuted their complaints to her majefty, garnifhing the fame with pretences of the liberties of London, and the common wealth of the faid company; and faying, the queen was deceived by thofe, that were the means for obtaining fuch privileges. He afterwards was in fuch favour with the citizens, that he was made printer to the honourable city of London. He dwelt at Paul's chain, and in Diftaff-lane, over againft the fign of the Caftle, and had a fhop in Pope's-head-alley in Lom-bard-ftreet, in 1598; ufed the mark of a Fleur-de-lis feeding, and fometimes about it, ubieue florescit. Was fucceeded as city printer by John Windet.
Roger Ward, in ${ }^{5} 582$, lived near Holbourn Conduit, at the fign of the Talbot, and as (Strype's edition of Stow fays, p. 223.) Wolf was one of thefe unruly printers, fo Roger Ward was another, who would print any book however forbidden by the queen's privilege, and made it his practice to print all kinds of books at his plenfure. The mafter and wardens of the company going to fearch his printing-houfe, according to the power they had, were refifted by his wife and fervants; of which a complaint was made by the faid mafter and wardens to the court. And again, in the year $1_{5}{ }^{9} 3$, the mafter and wardens preferred a petition againft this man; to the lordtreafurer, fhewing his contemptuous demeanour, doing contrary to all order and authority; and withall, his infufficiency to ufe the art of printing. The commiffioners appointed by the council could bring him to nothing, but ftill he continued to print what he pleared without allowance, by his own authority, and fuch books as were warranted by her highnefs's letters patents to other men : and fold and uttered the fame in city and country, to men of other arts; whereby the company fuftained great lofs, in taking the fale of them ; and particularly

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to the decay of feven young men, who executed a privilege granted to William Seres for a yearly rent. This man notwithftanding had given two feveral bonds to the queen, the one not to print any more diforderly, the other to bring in fuch books, as he had fo printed; but none performed. All this was laid open in the faid petition : the figners of it were, John Harrion, mafter; and Richard Watkins and Ralph Newbury, wardens; and befides them Chriftopher Barker, John Day, William Norton, George Bihop, John Judfon, and Francis Caldock; all bookfellers in thefe times of the chiefeft reputation.

Thomas Chardr, in 1600 , lived in Bi hop fyate Churchyard, and had been engaged in the printing bufinefs from the year 1582.

Edward White, in 1583 , lived at the Little North Door of St. Paul's Church, at the fign of the Gun.

William Bartlet, or Barthelet, as he fpelt is name both ways, followed the bufinefs in 1578 .

William Carter, was a daring printer, and printed a great many treafonable traits from the year 1579 to 1584, when, on the roth of January, he was tried at the Old.Bailey, and there condemned for high-treafon, and the next day executed at Tybarn.

Henry Marshe, in 1524, lived in the fame houfe, in Fleet-ftreet, in which Tho. Marhe, before mentioned, lived.

Richard Yardley, and Peter Short, partners, lived at the fign of the Star, on Bread-ftreet-hill, in 1584, and continued in bufinefs till 1603 .

Ninian Newton, in 1584 , printed in partnerfhip with Arnold Hatfield. They lived in. Lothbury, and kept a hop at the Brafen Serpent, in St. Paul's Chirch-yard.

Robert Robison, Robertson, or Robinson, in 1585 , lived in Fleet-lane, and alfo in Fewter-lane, Holborn. He continued in bufinefs till 1597 .

Edmund Boliffant, lived ịn Elliot's-Court, in the Little

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Old Bailey, and continued in bufinefs from 1585 till after 1602.

John Jackson, in 1585, in partnerhip with Bollifant, juft before mentioned, and continued fo till 1594.
Walter Venge, in 1585 , lived in Fleet lane, oppofite the Maiden head.

Simon Waterson, in 1585.
Thomas Lust, in 1585.
John Windet, a good printer, fucceeded John Wolfe as printer to the Hon. City of London, and lived at the fign of the White-Bear in Adling-ftreet, near Bernard's Caftle ; and afterwards at the Crofs-Keys, near Paul's Wharf. He ufed a device of Time cutting down a Sheaf of Corn, with a book clafped; on the cover are thefe words, verbum deimanet. in etternum. The compartment has the Queen's Arms at top, the City's on the right, and the Stationers on the left, with his fign of the Bear beneath, and J.W. over it, and this motto, homo non solo pane vivet, round it. He continued in bufinefs from 1585 to 165 I , when he was fucceded by Richard Cotes; in 1669 James Flefher, who was fucceeded in 1672 by Andrew Clark; in 1679 Samuel Roycroft was appointed in that place, who, in 1710 , was fucceeded by John Barber, efq. who, afterwards ferved the office of Lord Mayor; he was fucceeded by George James, by whofe widow the bufinefs was carried on for fome time, when that office was conferred on Henry Kent, efq. the prefent City Printer,

George Robinson, he practifed the art of printing from in 1586 to 1587.

Richard Robinson, printed in 1589.
Edward Allde, or Alde, in 1587, lived at the Goldert Cup, without Cripplegate, where he continued for fome time after 1600.

Thomas Orwin, 1587 , lived in Pater-mofter Row, and continued in bufinefs till 1597.

Richard Field, a good printer, married the danghter of Vautrollier,

Vautrollier, who died in 1589, to whofe bufinefs he fucceeded, and continued in, till feveral years after 1600 .

Toby Cook, in 1579, lived at the Tiger's Head, in St. Paul's Church-yard, where he continued till 1590 .

William White, printed in 1582, and continued for fome time after 1600.

Robetr Dexter, in 1590 , lived at the Brafen Serpent, in St. Paul's Church-yard, and was a benefactor to the Stationers Company,

William Kerney, or Krarney, in 1591, livedin Ad-ling-ftreet, near Cripplegate.

Robert Bourne, and John Porter, partners, in 1591.
John Dantrr, in 1591 , lived in Hofier-lane, near Holbourn Conduit, and continued in bufinefs till the year 1596 .

William Ponsonby, in 1591 , lived at the Bifhop's Head, in St. Paul's Church-yard.

William Barley, in 1592, lived in Grace Churchftreet, and was affignee of Thomas Morley.

Thomas Salisbury, Ralph Blowar, John Bowen, and John Bu'sbie, were all printers who refided in London, yet not mentioned where, but only in 1593 .

Richard Boyle, in 1593, lived at the fign of the Rofe, in St. Paul's Church-yard.

Thomas Creed, in 1594, lived at the fign of the Catharine Wheel, near the Old Swan, in Thames-freet, and frequently put to his books an emblem of Truth, with a hand iffuing from the clouds friking on her back with a rod, and this motto round it, veritas virescit vulnere. He continued in bufinefs till 1607.

Adam Islip, from 1594 to 1603.
Gabriel Simpson, in 1595, at the fign of the White Horfe, in Fleet lane.

Vallintine Sims, or Simmes, in i595, lived in Addle, or Adling-ftreet, at the fign of the White Swan, near BarnardCafle, and continued in bufinefs till 1611.

Henrie Ballard, in 1597 , lived at the fign of the Bear, without Temble-bar, oppofite St. Clement's Church.

Felix Kingston, from 1597 to 1623.
John de Beauchesne, in 1597.
John Norton, efq. the queen's printer, in Latin, Greek, and Hebrew; he was of the Company of Stationers, to whom he gave 1000 l. to purchafe lands, to the value of 501 . per ann. and part to be lent to poor young men of the faid company. He alfo gave 1501 . to the parifh of St. Faith, under St. Paul's Church, to purchafe 7 l. io s. yearly for ever, to be given to the poor. In 1593 he lived at the fign of the Queen's Arms, in the houfe lately inhabited by his coufin Bonham Norton ; and, being a man of eminence, employed feveral others to print for him.

He appears to be the firt who introduced printing into the College at Eton; in í6io.

George Shaw, in 1598.
Thomas Judson, from 1584 to 1599.
Richard Brancocke, or Bradock, in 1598 .
Simon Strafford, or Stafford; in 1599, lived on Addle-hill, near Carter-lane.

Having given an account of the art in London before 1600, we fhall now proceed to the Country.



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From thefe we are obliged to defcend to the year 1506 , when Pynfon, or Wynken de Worde, printed for them till $\mathrm{f}_{5} 18$.

John Scolar printed here, in 1518 , and lived in St. John Baptift's lane; who was fucceeded by

Charles Kyrfeth, a Dutchman, who refided here but a fhort time, in whofe name we have only one book, in 1519. Mr . Anthony Wood, in his Hiftory of the Antiquities of Ox ford, printed 1674 , fays, Theodoric Rood was fucceeded by Scolar, and he by

Peter Trevers; who, in 1527, removed to Southwark.
In Rymer, Vol. xv. p. 628. is the following Grant.
Elizabeth by the grace of God, quene of England, Fraunce, and Ireland, defender of the faith, \&e. To all and finguler printers of bookes, bookefellers, flatyoners, as well within this our realm of England, as in other our dominions, and all other our officers, minifters, and fubjects, greeting. We let you to wit, that in confideracion, that our loving fubjerte, Thomas Cooper, of Oxforde, hathe diverfe and fundrye tymes heretofore traveled in the correcting, and augmenting of the Englifh Dictionarie (commonly called, Bibliotheca Eliota) and now of late, as well to his further paynes and ftudie, as alfo to his great coftes, and charges, of a zeale to further good letters, and the knowledge of the Laten tong, in thefe our realms and dominions, hath altered and broughte the fame to a more perfecte forme, in following the notable worke called, Thefurus Lingux Latinx, then at any time heretofore it hath been ufed, or fet farth; we therefore, of our grace efpecial and mere mocion, haue lycenced and priviliged, and by thefe prefents do graunte, and give lycence and priviledged, unto the faid Thomas Cogper, and his affignes onlye, to prynte, and fet fourthe to fale, the faid Englyshe diationary (before tyme named Bibliotheca Elictae) and now in this lat edicion entituled, Thefaurus utriufque linguae Latinae et Britannicae. Commaunding and flraytelye prohibiting, that neither you, nor any of you, nor any perfon, or perfons whatfoever, other then

## THE HISTORY OF PRINTING.

27
the faid Thomas Cooper, and his only affignes, fhall, durying the fpace of twelve yeres next enfuyng the printing of the booke or worke, printe, or caufe to be printed, or put to fale the faid work, or booke abovenamed, eyther by the coppye heretofore ymprinted, or hereafter to be printed, by the faid Thomas Cooper, or his affignes, or by any other copye, tranflation, alteration, addicion, or abridgement, or by other whatfoever tolerable way, name, or title, the faid book, or work, fhall, or may after be called, printed, or fet fourthe, uppon payne and forfeiture, and confifcacion of all and every the fame booke, and bookes, worke, and workes, fo by you, or any of you, imprinted, or fet fourthe to fale, contrary to the tenour of thefe prefents, and farther incurrying our highe difpleafure and indignation for your attemptipg of the contrary at your extreme parill. Willyng therefore, and ftrayghtly charging and commanding all our officers, minifters, and fub jects, as they tender our favour, and will avoyde our high indignacion and difpleafure, that they, and every of them, do ayde and affifte the faid Thomas Cooper, and his affignes, in the due accomplifhment and execution of thefe our licence and priviledge; any ftatute, lawe, or ordenaunce heretofore to the contrary notwithftanding. In witnes whereof, \&cc. Witnefs ourfelf at Weftminfter, the xir daye of Marche. Per breve de privato figillo.

After this time we have obferved no other printer refident at Oxford, for the fpace of 60 years, for which chafm there is no reafon affigned. In 1585 a new printing prefs was erected, at the expence of the Earl of Leicefter, chancellor of that Univerfity. The firt book produced from it was publifhed by John Cafe, Fellow of St. John's Collegew

Joseph Barnes was appointed Univerfity Printer in 1585 , and continued till 1617 . From that time
John Litchpield, and
James Short, were Printers to the Univerfity till 1624, whofe books have not always both their names.

## 128 THE HISTORY OF PRINTING.

## John Litchpield, and

William Turner, were Univerfity Printersito 1635 .
William Turner and Lbonard Litchfield, in 1658.
Henry Hall, in 1648, and
William Hall, in 1662, who continued till 1676.
Mr. Wood, in his Athena, mentions Samuel Clark, a mafter of arts, as elected May 14, 1658, Architypographus, who was fucceeded by Martin Bold, in 1669.

Books printed è Theatro Sheldoniano from 1671, have ufually no Printers name to them. Henry Crutterden printed a book at Oxford, in 1688, wherein he calls himfelf one of his Majefty's printers.

## C A MBRIDGE. 1521 .

In this Univerfity they received the Art of Printing early, but its uncertain who were the perfons that brought it thither.

Јонn Siberch, in 1521, fettled here, and filed himfelf the firt Greek printer in England; yet, though there is much Greek letter in his books, there is not one that is wholly of that character. As Erafmus was then ${ }^{\text {irefident at Cambridge, }}$ he no doubt took care of his own works.

In July, 1534, king Henry VIII. granted to this Univerfity for ever, under his great feal, authority to name, and to have three flationers, or printers of books, alyants and ftrangers, not born within, or under his obedience, and they to be reputed and taken as denifons.

Notwithftanding this favourable licence for the encouragement of the prefs, no books appear to have been printed here, after the year 1522, to the year 1584, the fpace of 62 ycars, when Thomas Thomas, M. A. and formerly of King's College, in this Univerfity; took up, and followed the bufinefs of printing ; and was, befides printer to the Univerfity, author of the Dictionary which bears the name of Thomas Thomas. He died in $1588^{\circ}$.

## THE HISTORY OF PRINTING. 129

John Ldgate, citizen and fationer of London, in 1589 , was printer to this Univerfity, which he fays was conferred on him by the Univerfity.

In 1606 he ufed the impreffion of the alma mater cantabrigia, and round it, hinc lucemet pocula SACRA, which has frequently been ufed fince.

He died in 1626, leaving eleven children, when a licence was granted to John Legate his fon, to print Thomas's Dictionary, \&c. How long his fon printed does not appear, but he lived in London in the year 1637. In 1608, Chantrell Legge printed for the Univerfity, and was fucceeded by Thomas Buck, 1687, and Roger Daniel to 1650, and Buck alone 1653 ; who by a will, made 21 September 1667, left legacies to Catharine-Hall, where he had been a fcholar, to purchafe books. He died in 1688, and was buried in Great St. Mary's Chnrch. He was fucceeded in 1655 , by John Field, who was fucceeded about the year 1675 , by J. Hayes, who, about 1688, was fucceeded by Edward Hall. After the Revolution Cornelius Crownfield, a Dutchman, had that office, and was fucceeded by Mr. Jofeph Bentham, who about three years fince refigued it in favour of Mr. John Archdeacon, the prefent Univerfity Printer.

## ST. ALBANS. 1480.

Who the perfon was that practifed this Art at St. Albans we have not been able to learn, but by the productions from his prefs we find he was a Schoolmafter of that place; and by feveral writers mentioned as a man of merit, and a friend of Caxton. He printed there fo early as 1480 , and produced feveral books between that year and 1486, from which time there appears a great chafm.

John Hertford, in 1536, endeavoused to revive the Art in this place, by printing feveral books, but finding it not anfwer his expectation, removed, in 1538, to Alderfgate-flreet, London.

## 130 THE HISTORY OF PRINTING.

$$
\underline{Y} \mathbf{O} \mathbf{R}, \mathrm{~K} .
$$

Printing at this city was early, in refpect to other places in this kingdom, which induces us to conclude they had enterprizing gentlemen among them, willing to cultivate common fenfe. In 1509 Hugo Goes, fuppofed to be the fon of an ingenious printer at Antwerp, erected a printing-houfe here, where he continued fome years, and then removed to

## BEVERLEY,

Where he lived in the Hye-gate, and ufed for a device an H and a Goofe, but produced but little from hence. He afwards removed to London.

## TAVISTOCK,

Received the art fo early as the year 1525, from Thomas Rychard, monk of the faid monaftery, where, among other productions, was printed the Stannary laws.

## S O U T H W ARK,

Received printing in 1514, when Peter. Treveris a foreigner erected a prefs, and continued till 1532 . He lived at the fign of the Widows, and printed feveral books for William Raftell, John Reynes, R. Copland, and others, in the city of London.

James Nicholson, in 1526, fet upa printing office here, and lived in 1537 in St. Thomas's Hofpital, and had a licence in 1538, from king Henry VIII. for printing the New Teltament, in Latin and Englifh.

John Redman printed in Southwark before the year 1540 , for Robert Redman.

Christopher Truthall, fuppofed to be a feigned name; for in queen Mary's reign he printed feveral books againft the papifts, which it would have been dangerous to to put the real name to.

THE HISTORY OF PRINTING. $13!$ CANTERBMRY;
Had a printing-houfe early, as appears by the liberties taken at the death of king Henry VIII.

In 1550 John Mychell lived in St. Paul's parifh, and foon after in St. Autin's, where he printed a Chronicle, Cum priv. ad imprimendam folern.

## I P 5 W I C H,

Had a printing-houfe erected in Cardinal Wolfey's time, in 1538, by John Oswen, who made ufe of Cum imprimendum folum, to his firft producion:

John Overiton, in 15 4 $^{8}$.
Anthony Scoloxer, from London; refided here in 1548. WORCESTER.
In the Roll's Chapel, is a licence granted by Edward VI. to John Oswen, of the city of Worcefter, and his affigns, to print and reprint, \&c. every kind of book, or books, fet forth by his majefty, concerning the fervice to be ufed in charches; adminiffration of the facraments, and inftruction of his fabjects of thę principality of Wales, and marfhes thereunto belonging, \&c: for feven years, prohibiting all other perfons whatfoever, from printing the fame.

He continued to print till ${ }_{1553}$, in which year, being the 7th of Edward VI. he was appointed printer for the principality of Wales, and the marfhes thereunto belonging.

## G REENWICH;

Had a printer in 1554, who printed without inferting his name to his production.

$$
N O R \quad 1 \quad C H
$$

It appears in the year $156 \rho$; that many ftrangers from the Low Countries came, and fettled in Norwich city, mafters, workmen, and fervants, (and had her majefty's letters patents to work, and make all forts of woolen manufactures) men, T women,

## 132. THE HISTORY OF PRINTING.

women, and children, to about 3925. This was encouraged by the mayor and fheriffs of this city who waited on Thomas, duke of Norfolk, at his palace there, and got the freedom and liberty of the city granted to them. Among thefe frangers the art of printing was introduced here, of whom Anthony Solmpne, was fo well approved of, that he had his freedom prefented to him.

Anthony de Solmpne is taken notice of as a printer at Norwich, in Leland's appendix to his Collectanea, part 2. vol. vi. p. 41. and in the Bodlean library among the archives.
M O U L S E Y, \&c.

Here might be recited the titles of great numbers of fcurrilous pamphlets wrote, printed, and difperfed, on hoth fides, concerning ecclefiaftical difcipline, and never ending cavils and difputes about rites and ceremonies, in a fnarleing and ridiculous manner; and the public printing preffes being fhut againft the puritans, fome of them purchafed a private one. If any defire to know the motions and flages of the prefs, which printed thefe books; know, it was firft fet up at Moulfey, near Kingfon in Surry, thence conveyed to Fawfley in Northamptonfhire, thence to Norton, and afterwards to Coventry ; from Coventry to Woolfton in Warwickßhire, and from thence to Manchefter in Lancalhire; difcovered by Henry, earl of Darby, in the printing "More Work for the Cooper."

Having treated by whom Printing was firf practifed, and who made improvements in the Types, viz. Worde, Day, \&c. after whofe example feveral further attempts were made, but with little fuccefs, till the late ingenious Wilifam Caslon, efq. brought the Art of Letter-Founding to its prefent peifection, to whofe bufinefs his fon, the prefent William Caslon, eff. fucceeded, and by whom feveral confiderabie additions have been made, as will appear by the following Specimen; facred to whofe Memory, and as a tribute due to their Merit, we here infert it.

# SPECIMEN 



# Printing Types, 

B Y
cuilliam caflon.
Letter Founder,
㫦

THE .HISTORY OF PRINTING. 135
Two Lines Double Pica.

Two Lines Great Primer.

Two Lines Englifh,
ABCDEFGJ HIKLMNO $\Gamma \Delta \Pi \Sigma \Upsilon \Phi \Psi \Omega$
พาํㅡㄴ

b3 the history of pininting.
Two Lines Pica.
ABCDEFGHIM JKLNOPQRST $\Gamma \Delta \Theta \Xi П \Sigma \Upsilon \Phi \Omega$ Two Lines Small Pica. ABCDEFGHIKL MNOPQRSTUV $\Gamma \Delta \Theta \Xi \Pi \Sigma \Upsilon \Phi \Psi \Omega$ Two Lines Long Primer. ABCDEFGHIJKM LNOPQRSTUVW $\Gamma \Delta \Theta \Xi \Pi \Sigma \Upsilon \Phi \mathrm{X} \Psi \Omega$
Two Lines Brevier.
ABCDEFGHIKLMN OPQRSTUVWXYZJ $\Gamma \Delta E \Theta K \Lambda \Xi O \Pi \Sigma \Upsilon \Phi \Omega$

ris the history of printing. Two Lines Great Primer. Quoufque tandem abutere Catilina, p 2uoufque tandem abutere, Catilina, paTwo Lines Englifh. Quoufque tandem abutere, Catilina, patientia noftra? quamdiu nos e2uoufque tandem abutere Catilina, patientia nofra? Two Lines Pica.
Quoufque tandem abutere, Catilina, patientia noftra? qu Quoufque tandem abutere, Catilina, patientia noftra? quam-

THE HISTORY OF PRINTING. ${ }_{39}$ Double Pica Roman. I. Quoufque tandem abutere Ca tilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum prefidium pa Double Pica Romañ. 2. Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum prefidium palatii

## Double Pica Italick.

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem Sefe effrenata jactabit audacia? nibilne te noctur-

140 THE HISTORY OF PRINTING.
Paragon Roman.

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum præfidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil confenfus bonorum om niụm, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vu ltufque moverunt? patere tua confiABCDEFGHIJKLMNO

## Paragon Italick.

2uoufque tandem abutere, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus cludet? quem ad finem fere effrenata jactabit audacia? nibilne te nocturnum prafidium palatii, nibil urbis vigilite, nibil timor populi, nibil confenfus bonorum omnium, nibil bic munitibimus loabendi fenatus locus, nitūil borum ora vultufgiue moverut? ABGDEFGHI尹KLMN

THE HISTORY OF PRINTING. 141

## Great Primer Roman.

Quoufque tandem abutêre, Catilina, pa tientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum præfidium palatii; nihil urbis vigiliz, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, ni hil horum ora vultufque moverunt? pa tere tua conflilia non fentis ? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? $q$ ABCDEFGHIJKLMNOP

## Great Primer Italick.

QuouSque tandem abutére, Catilina, pàtientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem Sefe effrenata jactabit audacia? nibilne te nocturnum prafiaium palatii, nibil urbis vigilice, nibil timor populi, nibil confenfus bonorum omnium, nibil bic munitiflimus babendi fenatus locus, nibil borum ora vultuique moveruint? patere tua con flia non fentis? conflrietant jan omniums borum confcientia teneri conjuratio-

## 142 THE HISTORY OF PRINTING.

## Englist Roman. No 1.

Quourque tàndem abutere, Catilina, patierttia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jacta bit audacia? nihilne te nocturnum prefidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil confenfus bonorum omnium; nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quem noftrum ignorare ABCDEFGHIJKLMNOPQRST

## Long Bodied Engifst Roman.

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum præfidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum conícientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos conz'

## THE HISTORY OF PRINTING. 143

## English Roman. No 2.

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum prǽfidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt ? patere tua confilia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis quem noftrum ignorare arbitraris? 0 tempora o mores ! Senatus hoc intelligit, conful vidit : hic tamen vivit. vivit? imo vero etiam in fenABCDEFGHIJKLMNOPQRST

## Engliß Italick.

Quoufque tandem abutêre, Catilina, patientza noftra? quamdiu nos etiam furor ijte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nibilne te nocturnum prafidium palatii, nibil urbis vigilia, nibil timor populi, nibil confenfus bonorum omnium, nibil bic munitifimus babendi fenatus locus, nibil borum ora vultuigue moverunt? patere tua conflia non fentis? conflrifiam jam omnium borum confcientia tenert conjurationem tuam non vides? quid proxima, quid jisperiore nocte egeris, ubi fueris, quos convocaveris, auid confïii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus boc intelligit, confil vidit: bic ABCDEFGHIJKLMNO,PQ2S

## $14 \dot{4}$ THE HISTORY OFPRINTING.

## Pica Roman. No i:

Quoufque eandem abutêre, Catilina, patientia nợtra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum præfidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus hoc intelligit, conful vidit: hic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confliii particeps: notat $\&$ defignat oculis ad cædem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. videmur, fi iftius furorem ac tela vi ABCDEFGHIJKLMNOPQRSTUV

## Pica Italick. No 1.

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finems fefe effrenata jactabit audacia? nibilne te nocturnum pre§idium palatii, nibil urbis vigilia, nibil timor populi, nibil confenfus bonorum omnium, nibil bic munitiflimus babendi fenatus locus, nibil borum ora vultufque moverunt? patere tua conflia non fentis? conftriftam jam omnium borum confcientia teneri conjurationem tuam non vides? quid proxima, quid superiore nocte egeris, ubi fueris, quos. convocaveris, quid conflii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus boc intelligit, conful vidit: bic tamen vivit. vivit? ima vero etiam in fenatum venit: fit publici conflii particeps: notat $\mathcal{E}$ delignat oculis ad codem unumquemque noftrim. Nos autem viri fortes fatisfacere reipub. videmur, $f_{2}$ iftius furorem ABCDEFGHI7KLMNOPQRSTUVW

# THE HISTORY OF PRINTING. 145 

## Pica Roman. No 2.

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum præfidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quem noftrum ignorare arbitraris? $O$ tempora, o mores! Senatus hoc intelligit, conful vidit: hic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confilii particeps: notat $\&$ defignat oculis ad cædem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. machinaris. An vero vir ampliffimus, $P$. Scipio, $p$ ABCDEFGHIJKLMNOPQRSTUV

## Pica Italick. No 2.

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem Sefe effrenata jactabit audacia? nibilne te nocturnum presfidium palatii, nibil urbis vigilia, nibil timor populi, nibil confenfus bonorum omnium, nibil bic munitifimus babendi fenatus locus, nibil borum ora vultufque moverunt? patere tua confilia non fentis? conftriEtam jam omnium. borum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore noEle egeris, ubi fueris, quos convocaveris, quid conjiii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus boc intelligit, conful vidit: bic tamen vivit. vivit? imo vero etiam in Senatum venit: fit publici confilii particeps: notat $\mathcal{E}$ de$\sqrt{\text { ignat oculis ad ccedem unumquemque noftrum. Nos autem }}$ viri fortes fatisfacere reipub. videmur, fi ifius furorem ABCDEFGHIFKLMNOPQRSTUVW

Small Pica Roman. No i.

Quoufque tandem abutere, Catilina, patientia noftra? quam diu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum prefidium palatii, nihil urbis vigilix, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid conflii ceperis, quewn noftrum ignorare arbitraris? O tempora, o mores! Senatus hec intelligit, conful vidit: hic tamen vivit. vivit ? imo vero etiam in fenatum venit: fit publici confilii particeps: notat \& defignat oculis ad cadem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. videmur, fi iftius furorem ac tela vitemus. Ad mortem te, Catilina, duci juffu confulis jam pridem opertebat: in te conferri peftem iftam, quam tu in nos omnes jamdiu machinaris. An vero vir ampliffimus, P. Scipio, pontifex maximus, Tiberium Gracchum mediocriter labefactantem ftatum reipublicæ privatus interfecit: Catilinam vero orbe ABCDEFGHIJKLMNOPQRSTUVWX

## Small Pica Italick. No I.

2\&oufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jačabit audacia? nibilne te nocturnum praffidium palatii, nibil urbis vigilia, nibll timor populi, nibil conjenfus bonoram omnium, nibil bic munitijlimus babendi Jenatus locus, nibil borum ora vultufque moverust? patere tua conflia non fentis? conftrittam jam amnium horum confaientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocite egeris, ubi fueris, quos convocaveris, quid conflii ceperis, quem.noftrum ignorare arbitraris? O tentpora, o mores! Senatus boc intelligit, conful vidit: bic tamen vivit. vivit? imo vero-etiam in fenatum venit: fit publici confliii particeps: notat $\mathcal{E}^{2}$ defignat oculis ad cedem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. videmur, -F ifliss furcrem ac tela vitemus. Ad mortem te, Catilina, duci jufu confulis jam pridem opertebat: in te conferri pefiem iffam, quam tu in nos omnes jamdiu machinaris. An vero vir ampliflimus, $P$. Scipio, pontifer maximus, Tiberium Gracchum mediorriter labefactantem flatum reipublice privatus interfecit: Cati$A B C D E F G H I \mathcal{F} K L M N O P . Q R S T V W$ 3 シ

## THE HISTORY OF PRINTING.

Smali Pica Roman No 2:

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem' fefe effrenata jactabit audacia? nihilne te nocturnum prefidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus hoc intelligit, conful vidit: hic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confilii particeps: notat \& defignat oculis ad cædem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. videmur, fi iftius furorem ac tela vitemus. Ad mortem te, Catilina, duci juffu confulis jam pridem opertebat: in te conferri peftem iftam, quam tu in nos omnes jamdiu machinaris. An vero vir ampliffimus, P. Scipio, pontifex maximus, Tiberium Gracchum mediocriter labefactantem ftatum reipublicæ privatus interfecit: Catilinam vero orbeABCDEFGHIJKLMNOPQRSTUVWX

## Small Pica Italick. No 2.

2uoufque tandem abutêre, Catilina, patientia nofra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nibilne te nocturnum prafidium palatii, nibil urbis vigilia, nibil timor populi, nibil confenfus bonorum omni$u m$, nibil bic munitiflimus babendi Senatus locus, nibil borum ora vultufque moverunt? patere tua conflia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocł̄e cgeris, ubi fucris, quos convocaveris, quid conflii ceperis, quem noftrum ignorare arbi, traris? O tempora, o mores! Senatus hoc intelligit, confut vidit. bic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici conflii particeps: notat छ defignat oculis ad cecdem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. videmur, $\sqrt{2}$ ifinus furorem ac tela vitcmus. Ad mortem te, Catilina, duci jufu confulis jam pridem opertebat: in te conforri peftem iftam, quam tu in nos omnes jamdiu machinaris. An vero vir ampliflimus, P. Scipio, pontifex maximus, Tiberium Gracchumm ediocriter labefactantem ftatum rcipublica privatus interfecit: CatiABCDEFGHI才KLMNOPQRSTUVWXY X

## 148 THE HISTORY OF PRINTING.

## Long Primer Roman. No 2.

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum prefidium palatii, nihil urbis vigilix, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quem noftrom ignorare arbitraris? O tempora, o mores! Senatus hoc intelligit, conful vidit: hic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confilii particeps: notat \& defignat oculis ad cædem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. videmur, fi iftius ABCDEFGHIJKLMNOPQRSTUVWXYZ $\mathbb{E}$

## Long Primer Italick. No 2.

2uoufque tandem abutêre, Catilina, patientia noffra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nibilne te nocturnum prafidium palatii, nibil urbis vigilia, nibil tinvor populi, nibil conjenfus bonorun omnium, nibil bic munitiffmus babendi fenatus locus, nibil borum ora vultufque moverunt? patere tua conflia non fentis? conffrictam jam omnium borum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore notre egeris, ubi fueris, quos convocaveris, quid conflii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus boc intelligit, conful vidit: bic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confliii particeps: notat $\mathcal{O}^{\circ}$ defignat oculis ad caden unumquemque nofrum. Nos autem viri fortes fatiifacere reipub. viaeABCDEFGHITKLMNOPQRSTUVWXYZA

## Large Face Burgeois.

Qurouque tandem abutere, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum preffidium palatii, nihil urbis vigilix, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? confrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii cepcris, quem noftrum ignorare arbitraris? O tempora, o. mores! Senatus hoc intelligit, conful vidit: hic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confilii particeps: notat \& defignat oculis ad cedem unumquemque notrum. Nos autem viri fortes fatisfacere reipub. videmur, fi ittius furorem ac tela vitemus. Ad mortem te, Catilina, duci juffu confulis jam pridem opertebat: in te conferri peftem iftam, quam tu in nos omnes jamdiu machinaris. An vero vir ampliffimus, P. Scipio, pontifex maxi-
150 THE HISTORY OF PRINTING.

## Burgeois Roman. No 1 .

Quoufque tandem abutere, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum præfidium palatii, nihil urbis vigiliæ, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides ? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus hoc intelligit, conful vidit: hic tamen vivit. vivit? imo vero etimm in fenatum venit: fit publici confilii particeps: notat \& defignat oculis ad cædem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. videmur, fiftius furorem ac tela vitemus. Ad mortem te, Catilina, duci juffu confulis jam pridem opertebat: in te conferri peftem iftam, quam tu in nos omnes jam-
ABCDEFGHIJKLMNOPQRSTUVWXYZ $\boldsymbol{E}$

## Burgeois Roman. No 2.

Quoufque tandem abutêre, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effremata jactabit audacia? nihilne te nocturnum prefidium palatii, nihil urbis vigiliz, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? confrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus hoc intelligit, conful vidit: hic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confilii particeps: notat \& defignat oculis ad cædem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. videmur, fi iftius furorem ac tela vitemus. Ad mortem te, Catilina, duci juffu confulis jam pridem opertebat: in te conferri peftem iftam, quam tu in nos omnes jamdiu machinaris. An vero vir amplifimus, P. Scipio,

> ABCDEFGHIJKLMNOPQRSTUVWXYZ

## Burgeois Italick.

2uoufque tandenn abutêre, Catilina, patientia nofira? quamdiu nos etiam furor ife tuus eludet? quem ad finem fefe effrenata jactabit audacia? nibilne te nocturrum prafidium palatii, nibil urbis vigilia, nibil timor populi, nibil confenfus bonorum omnium, nibil bic munitifimus habendi fonatus locus, nibil horum ora vultufque moverunt? patere tua confilia non rentis? conffrictam jam omnium borum confcientia teneri conjurationems tuams non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid conflii ceperis, quem nofrum ignorare arbitraris? O termpora, o mores! Senatus boc intelligit, conful vidit: bic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confilii particeps: notat $\mathcal{G}^{\circ}$ defignat oculis ad cadem unumquemque nofrum. Nos autem ciri fortes fatisfacere rcipub. videmur, fi ifius furorem ac tela vitemis. Ad norrcme te $c_{2}$ Catilina, duci julfu confulis jann pridem opertebat: ABCDEFGHIfKLMNOPQRSTUVWXYZ E

## THE HISTORY OF PRINTING.

## Brevier Roman. No 1.

Quoufque tandem abutêre, Catilina, patientia noftrx? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fere effrenata jactabit audacia? nihilne te nocturnum priefidium palatii, nihil urbis vigilix, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum cra vultufque moverunt? patere tua confilia non fentis? confrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore notte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus hoc intelligit, conful vidit: hic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confilii particeps: notat \& defignat oculis ad cædem unumquemque nofrum. $\checkmark$ Nos autem viri fortes fatisfacere reipub. videmur, 㙃iftius furorem ac tela vitemus. Ad mortem te, Catilina, duci juffu confulis jam pridem opertebat: in te conferri peftem iftam, quam tu in nos omnes jamdiu inachinaris. An vero vir amplifimus, P. Scipio, pontifex maximus, Tiberium Gracchum mediocriter labefactantem ftatum reipublices privatus interfecit: Catilinam vero orbem terre cade atque incendiis vaf-

## ABCDEFGHIJKLMNOPQRSTUVWXYZR

## Brevier Roman. No 2.

Quouqque tandem abutêre, Eatilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te nocturnum prafidrum palatii, nihil urbis vigilix, nihil timor populi, nihil confenfus bonorum omnium, nihil hic munitiffimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum confcientia teneri conjurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus hoc intelligit, conful vidit: hic tamen vivit. vivit? imo vero etiam in fenatum venit: fit publici confilii particeps: notat $\&$ defignat oculis ad cedem unumquemque noftrum. Nos autem viri fortes fatisfacere reipub. videmur, fi iftius furorem ac tela vitemus. Ad mortem te, Catilina, duci juffu confulis jam pridem opertebat: in te conferri peftem iftam, quam tu in nos omnes jamdiu machinaris. An vero vir amplifimus, P. Scipio, pontifex maximus, Tiberium Gracchum mediocriter labefactantem ftatum reipublicæ privatus in terfecit: Catilinam vero orbem terræ crede atque incendiis vaftare cupientem

## ABCDEFGHIJKLMNOPQRSTUVWXYZ

## Brevier Italick.

Quoufque tandcm abutére, Catilina, patientia noftra? quamdiu nos etiam furor ifte tuus eludets quem ad finem fefe cffrenata jactabit audacia? nibilne te nocturnum prafidium palatii, nibil urbis vigilia, nibil timor populi, nibil confenfus bonorum omnium, nibil bic munitiflimus babendi fenatus locus, nibil'borum ora vultufque moverunt $?$ papatere tua conflia non fentis? confriztam jam omnium borum confcientia teneri conjuraticnown twam non vides? quid proxima, quid fuperione nocte egeris, ubi fueris, quas convocaveris, quid confilii cipcris, quem noftrum ignorare arbitraris? 0 tempora, o mores! Senatus boc inteliigit, conful vidit : bic tamen vivit. vivit? imo vero etiams in fenatum venit: fit publici confilii particeps: notat Go defignat oculis ad cadem un-
 rorem ac tela vit:mus. Ad martem te, Catilina, duci juffuconfulis jam pridem opertebat : in te confirri peffem ifam, quam tu in nos omnes jamdin macbinaris. An vero vir ampiifinnus, P. Scipio, pontifex maximus, Tiberium Graccbum mediocriter labefacta :item flutum reipublica privatus interfecit: Catilinam vero orbem terrac cade atque incendiis $\begin{gathered}\text { uhfare cupienticm nos confules perferemus } ? \text { nam illa nimis antiqua pra- }\end{gathered}$ tereo, quod Q. Servilius Aibaia Sp. Melium, novis rebus fiudentem mainu fua occidit.

ABCDEFGHIJ゙KLMNOPQRSTUVWXYZ

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## Minion.

Then Agrippa faid unto Paul, Thou art permitted to fpeak for thyfelf. then Paul ftrecched forth the hand, and anfwered for himfelf; 2 I think myfelf happy, king Agrippa, becaufe I thall anfwer for myfelf this day before thee touching all the things whereof I am accufed of the Jews: 3 Efpecially, becaufe I know the to be expert in all cuftoms and queftions which are among the Jews; wherefore I befeech thee to hear me patiently. 4 My manner of life from my youth, which was at the firf among mine own nation at Jerufalem, know all the Jews, 5 Which knew me from the beginning, (if they would teftify) that after the moft ftraitert feat of our religion I lived a Pharifee. 6 And now I fand and am judged for the hope of the promife made of God unto our fathers: 7 Unto which promife our twelve tribes inftantly ferving God day and night hope to come. for which hopes fake, king Agrippa, I am accufed of the Jews. 8 Why fhould it be thought a thing incredible with you that God Thould raife the dead? 9 I verily thought with myfelf that I ought to do many things contrary to the name of Jefus of Nazareth. so Which thing I alfo did in Jerufalem: and many of the faints did I thut up in prifon, having received authority from the chief priefts; and, when they were put to death, I gave my voice againft them. II And I punifhed them oft in every fynagogue, and compelled them to blafpheme : and being exce-

Nonpareil Roman. No I.
Quoufque tandem ahutere, Catilina, natientis nofra? quaindiu nos eti:m furor inte tuus eludet? quem ad finem fefe efirenata jactabit audacia? nihilne te netrurnam prxidium palatii, nihil urbis vigilix, nihil tinior pepuli, nihil confenfus bonorum omnium, nihil hic munitimmus habendi fenatus locus nihil horum ora vultufque moverunt? patere tua conilia non dentis? conftrictam jam omnium horum conicientia teneri conjurationem tuam non vides? quid proxima, qu id fuperiore notte egeris, ubi fueris, quos convocaveris, quid conillii ceperis, quem montrum ignorare arbitraris ? O tempora, o ABCDEFGHIJKLMNOPQRSTU

## Nonpareil Roman. No 2.

Quonfque tandem abutere, Catilina, patichtia noftra! quamdiu nos etiam furor ifte tuus eludet? quem ad finem fefe effrenata jactabit audacia? nihilne te noturnum prefidium palatii, nihil urbis vigilix, nihit timor populi, nihil confenfus bonoram omnium, nihil hic munitifimus habendi fenatus locus, nihil horum ora vultufque moverunt? patere tua confilia non fentis? conftrictam jam omnium horum confciertia tencri co:ijurationem tuam non vides? quid proxima, quid fuperiore nocte egeris, ubi fueris, quos convocaveris, quid confilii ceperis, quenn noftrum ignorare arbitraris? O tempora, o mores! Senatus hoc inABCDEFGHIJKLMNOPQRSTU

Nompareil Italick. No I.
Durofque tandem abutere, Catilina, patienti.i noftra? quamdiu nos etiam furor ifte tuus eludet ? quem ad finem fife effrenata iaEtabit autacia ? nibilnc te nocturntum prajl lizm palatii, nibil urbis vigilis, nibil timize populi, v:lit confenfus bonorum monium, nibii bic mu nitijimus batendi fenatus locus, nibil borum ora vultufque moverunt? pateri tua conjilia non fintis? conflrictan: jam omnium borum cunfcientia tencri conjurationem tuans non wides? quid proxima, quid juperiore notte ege. ris, ubi fuer is, quos convocaveris, quid confilii ceperis, quem noftrum ignorare arbitraris? O tempora, o mores! Senatus boc intelliABCDEFGHITKLMNOPRRSTU

Nonfareil Italick. No 2.
Quoufque tandem abutere, Catilina, patientia moftrit! quamdiu nes etiann juror ifec tuus slydet? quem ad jinem jefe sffrenata jatzabit audacia? nthilne te nocturnum prefjidium palatii, nibil urbis vigilice nibill timor populi, nibil onfenfus bonoruan omaium, nibil bic muntitiftmus babendi fenatus lacus, nibil borum ara vultufque moverunt? pastere tus conflia nan fontis ? confririfam jam ommium borum conjic. entia teneri conjurationem tuam non vides? quid proxima, quid fuperiore naize egeris, ubi fueris, quos ionvocaveris quid confilii ceperis, quem nofrum ignorare arbitratis? 0 tempora, 0 meres! S. natus boc intelligit, canful vidita bix tamen vivit. ytuit? imo vero etiam in fomaturs vernit: fit publici ABCDEFGHITKLMNOPQRSTU

## Pearl Roman.

Quofque tandem abutere, Catalina, patientia nofera? quamdiu nos etiam furor ifte tuus eludet? Ra? qua finem fefe effrata patabit uud eludet? quem ad finem refe effrenata jactabit audacia? nivigilise, nihil timor poppuli, nihil contenfis urbis rum omnium nitil bic munitifimus habend fenatus locus, nihil horum ora vultufque moverunt patere tua confilis non fentis? confrictam fam om paum horum confcientia tencri conjurationem om am non vides? quid proxima, quid cuperiore notageris, ubi fueris, quos convocaveris, quip confili ABCDEFGHIXIMNOPQRSTUVW

Pearl malick.
Susque tandem abutcre, Catilina, pationtia nef, trai quamdin nos etiam furor ife tuus eludet? quem ad finem fofa effrcnata jadabit audacia? nt
 oigiliac, nibil timor populf, nibil conjenjus benorum cus, nibil berum ora vultufque moverunt? patere cus, nibil borum wa vultulque moveruni? patere tua confilia non fentis? confiriciam jam omnilum borum condicntia tmerl citprationem tuain nom ofo dueris, quas convocaveris, queti confiliic coperes, uhe $A B C D E F G H I K L M N O P \Omega K S$ TUVHX
 $2345078901 \quad 2345678901$ $\frac{7}{4} \frac{1}{2} \frac{3}{4} \frac{1}{6}$ 景 $\frac{5}{8}$

THE HISTORY OF PRINTING.
Double Pica Greek.












Great Primer Greek.










154. THE HISTORY OF PRINTING.
Englifh Greek.

$\Pi$







Pica Greek.

$\Pi$







## Small Pica Greek.

$\Pi$







## Long Primer Greek.

$\Pi$






## Brevier Greek.

$\Pi$






## Nonpareil Greek.

$\Pi$






THE HISTORY OF PRINTING. 155 Two Lines Great Primer Hebrew. בראשית ברא אלהים את השמיש ואת הארץ: והארץ היתה תהו ובהו וחשך על-

Two Lines Englifh Hebrew. בראשירת ברא אלהים ארת השמים וארת הארץ והארץ היתִה תהו זבהו וחששך עלפני תהום ורוה אלהים מרח
 Double Pica Hebrew.
בראשית ברא אלהים את השמים ואת הארץ: והארץ היתר תחו ובחו וחששך צל־פני תההום ורוח אלהים מר חפת עלֹפעני המים: ליאמר אלהים יהי אור ויהי־אור: : וירא אלהים אתּ האור כי־םוב ויברל אלדים ביץ חהאור
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## Great Primer Hebrew.

בראשירת ברא אלחים את השממים וארת הארץ : והארץ היתח תהו ובהו וחשך על־פני תהום ורוח אלהים מרחפת עלפני המים: ויאמר אלהים ידי אור ויהי־ אור: וירא אלהים את־האור כי־טוב וי־
Great Primer Hebrew with Points.




 Englifh Hebrew.
בראשירת ברא אלהים ארת השמים וארת הארץ : ודאארץ היתה תהו ובחו וחשך עליפני תהום ורוח אלהים מרחפרח על־פני המים: ויאמר אלחים יהי אור ויהי־אור: וירא אלהים את־האור כי־טוב ויבדל אלהים בין האור ובין החשך : ויקרא אלחים לאור יום ולחשך קרא לילדָ ויהי-״ערב ויהי־־בקר יום
Englifh Hebrew with Points.





 NAI NAMR $\Psi$ EIN ：CUIMAI $\Psi$ IndINASSNS
 himina gah and aikyhi：hadif nn－ SARANA 母ANA SINTEINAN FIF INS himMAddra：GAh AFAGT nNS $4 \lambda$ TGI SknAANS SIGAIMA．SYA SVGgAh YE－ IS AFAETAM $\psi$ JIM SKNANM INSAKA－

## Pica Coptick．










## Pica $\not$ Ethiopick．







中中\＆

## Etrufcan．







THE HISTORY OF PRINTING.
Englith Syriack.


 $1!1$ (1)

Englifh Arabick.

 اثانالسبوس الثيطريرك اللانطاكي $2{ }^{2}$ الشامبثة *




Pica Armenian.








Pica Samaritan.



 ม2 $\pi$ 上 :



Fæoen une bu be eanc on heopenum. $\delta_{1} b_{1 n}$ nama zehalzoo. To-becume bin puce. Lrepunte bin pilla on eonban. rpa rpa on heofenum. Urne oxzhpamlican hlaf rỳle ur
 pa pe fonzıfað unum zỳleenoum. Ano ne zelaooe bu ur on corenunze. ac alyr ur of yfele. So olice. Fæoen une bu be eape on

Pica Saxof.
Fæঠen une pu pe eafr on heofenum. Si pun nama zehalzoo: To-becume pin puce. Lrepupide pin pilla on eonpan. rpa rpa on heofenum. Upne oxzhpamlican hlaf rÿle ur to dæz. Ano fonzẏf ur une zỳlcar. rpa rpa pe ponzifað unum zỳlzenoum. Ano ne zelæode pu ur on corenunze. ac alỳr ur of ẏfele. So dhice. Fæoen une pu pe eape on heofenum. 81 pin nama $z^{\text {ehalzoo. To- }}$

## Long Primer Saxon.

Froen une pu pe eape on heofenum. $\delta_{1}$ pin nama zehalzox. To-becume pin nuce. Lepunde pin pilla on eonpan. rpa ypa on heopenum. :Upne oxyhpamlican hlaf rÿle ur ro oxæ.
 leenoum. Ano ne zelaboe pu ur on corrnunze. ac alyr ur, of ẏfele. So סlice. Froen une pu pe eane on heofenum. ס1 pin nama zehalzoo. To-becume pin Mice. Lepuñe pin pilla on eorpan. rpa rpa on heopenum. Urne oxzhpamican hlaf fy̆le ur ro oxz. Ano foņy̆f ur une дẏlzar. rpa rpa pé

## Brevier Saxon.

Fæben une pu pe eapr on heofenum. si pin nama gehalzoo. To-becume $^{\text {per }}$. pin nice. Lepuņe pin pilla on eonpan. rpa rpa on heofenum. Urne oæ弓hpamlican hlaf ryle ur ro бæљ. Ano fonzýf ur une zylear. rpa гpa pe fonzifať unum zylrenoum. Ano ne zelaobe pu ur on corenunze. ac alyj ur of yfele. So dhice. Fæoen uje pu pe eane on heofenum. $\delta_{1} p$ in nama zehalzoo. To-becume pin nice. Lepunte pin pilla on eonpan. rpa rpa on heofenum. Upne oxzhpamlican hlaf ryle ur co ræz. Ano
 zelæove fu up on corenunze. ac aly ur of yfele. So dhes.

THE HISTORY OF PRINTING. 161
Two Lines Great Primer Black. Ano be it furtherbe reby enatto That Double Pica Black.


Great Primer Black. And be it further herebp enadte, Ithat the 9 apors, 1 Hailiffs, oz $0=$ ther bead Dffeers of every and place conpozate, and $\mathfrak{C i t y}$ mit=

Englifh Black.

Gno be it further berche enaited, obat the giga pozs, 2Bailitiz, oz other bead Diticers of every Comn and place cozpozate, and City witbin tbis Reaim, being Juffice oz $\mathbf{J u f t i c e s}$ of 1 Peace, Ghall bave the fame auttonity bo bertue of this ait, witbin tbe timits and pecints of tbeir $\mathfrak{J u}=$

$$
\text { Englifh Black. No } 2 .
$$

Gnd be it furtbux butbe enated, That the
 enexp Town and place cozpozate, and Cite mithin this Raxan, being Suftice os Tuffica of forate, fanll yane tye fame autyosity, be uettue ot thig Ga, witjin tye Imita and pee

Pica Black.

ant bs it further berefp enaited, Chat the eqaz pozs, 1Bailifts, oz otber bead Dificers of cierin Comn and place cozpozate, and City mithin tbis 1Realm, being 3 fuftice ot fuftices of perace, Ghatl babe the fame authozity to vertue of thits $\mathfrak{a t}$, witbin the limits and peccinits of their $\mathfrak{J u}=$

## Pica Black. No 2.

And he it furtyer jerebn enated, chat the gapozy,
 plate coznozate, and Citu within thid Realm; heing Suftice of fufters of forate, thall bawe the fame au= thogity by oettue of thig $\mathfrak{A a t}$, within the limito and


## Small Pica Black.

Gnd be it futtber beteby enated, That the SRapozg, 2Bailifts, of other head $\mathbb{D}$ fiterg of every Tomo and place colpozate, and $\mathbb{C i t y}$ withín this kealm, being Buftice of Tuftices of ferace, fhall babe the came aus thozity fo betue of this $\mathfrak{A x}$, mithin the limitg and peecintes of tbeic Jutisditions, as well out of Set:


## Long Primer Black.


 in this Realm, being Jutice or Jultices of jpeace, ball babe the fame autbofite he bertue of this gat, mithin the timits and peecinds of their 3urisniations, as well out of Eeffions, as at tbeir Seffions, if thek boto ant, as is berein timited, peftribed and appointed to Juatices of the joeace of the CTounty, of ang thoo of moze of them, of to the Juf. fices of pocace in their quarter=刃effions, to do and execute fok all the

## Brevier Black.

Guo be it further bereby enated, Tryat the wapozs, q13ailfffs, of other beat Dificers of enery T Nion and place razpozate, and City withitn this Realm, being Juffice on gulfices of peace, flall bane the fante authozity by bertue of this Git, within the limits anm pzecimns of their Murispitionts, as bell out of ©effionts, as at thrir coeftions, if ther hoto ank, as is herein limitco, pr=




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THE FHISTORY OF PRINTING.


## Brevier Flowers.


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 Nonpareil. Flowers.






2
the history of printing: 169.2

AS we have given fo copious a Specimen of Mr. Callon's Foundery, we prefume it will be neediefs to give any other, except of an Engroffing.Type, cut by Mr. T. Cottrell (which, for Lawyers, may; be made of to advantage) ; and alfo fome Flower Head-pieces, of his conftruction.

Engroffing.
Ond be if furthir hiruby Enarfis, That the 2Mayois, 2Bailiffs, or othez hicad Of= Efitizs of erory Eorion and s \$plare rorporate, and $\mathbb{C}_{\text {ify }}^{\text {t }}$ woithin this Qralu bring Sufficior juffitis of 7 Oratr, fhall have the fame autho= rity by oirfue of this oltf, within fhe limits and pre= riutts of thici $\dot{\text { Eurifoitfions, }}$ M2BCOEA EGO \& \& L 2N2NOf02 2R feHN




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THE HISTORY OF PRINTING.
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## 174 THE HISTORY OF PRINTING.

WE doubt not but the Curious will be pleafed with the following Specimen, the Letter of which was alfo caft by Mr. Cotrrell, and defigned for a printed edition of The Doomfday Book, it being the Character made ufe of in the reign of William the Conqueror.
$\therefore$ In (W) leton bunó.
$R_{\text {ex cen }}$ in dño (W) letone. T.R.E. 7 m

 thi. un. fefur. $7^{\text {nu. molim pe. } x \text { axx. folia. } 7}$



 T.R.E. ualt xv. Lik. Modo x. 1, $\mathfrak{b}$

## In che chefelle buwd

$\mathrm{R}_{\text {ex ten' in dúno che che }}$ ILE. Eddid regina
 Modo adop? regrf $p x x x$ wur bua. Tra. है
 bord. cü. xavi. catr. 1b. un. molum de. xui
 cxl. por's. de pafnag. 7 de herlagio. xl un.



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The Charter granted to the Company of Stationers on the $4^{\text {th }}$ day of May, in the year 1556 , and in the Third and Fourth of Philip and Mary, being a true copy of the original record remaining in the Chapel of the Rolls. Examined, and tranflated from the original Latin copy, by Mr. Henry Rook, Clerk of the Rolls.

The King and Queen to all thofe to whom thefe Prefents fhall come, Greeting.
I. $\dot{\text { K N }}$ Ne that we confidering and manifefly perceiving that feveral feditious and heretical books both in verfe and profe are daily publifhed, ftamped and printed by divers fcandalous, fchifmatical and heretical perfons, not only exciting our fubjects and liegemen to fedition and difobedience againft us, our crown and dignity, but alfo to the renewal and propagating very great and deteftable herefies againft the faith and found catholick doctrine of holy mother, the church; and being willing to provide a proper remedy in this cafe,
II. We of our own fecial favour, certain knowledge and mere motion do will, give and grant for ourfelves, our heirs and fucceffors of the above-mentioned queen, to our beloved and faithful liegemen, Thomas Dockwray (Mafter) John Cawood, Henry Coke (Keepers or Wardens) (The Freemen or Commonalty)

William Bonham
Robert Holder
Richard Patchet
Richard Waye
Robert Broke
Thomas Sawyer
Charles Walley
Simon Cofton
James Hollyland

John Rogers
William Steward
Nicholas.Borman
James Gunwell
George Brodehead
Hugh Cotisfurth
Richard Wallis
Reynold Wolf
Stephen Keval


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John Shereman
Owen ap Roger
Adam Croke

Thomas Skeroll
John Tyfdale and John Fox

Freemen of the Myftery or Art of a Stationer of our city of London and fubarbs thereof, that from henceforth they may be in deed, fact and name one body of itfelf for ever, and one Society corporated for ever, with one Mafter amd two Keepers or Wardens, in the Saciety of the fame Myftery or Art of a Stationer of the city aforefaid, and that they may enjoy a perpetual fuccefion.
III. And further We of our own fpecial favoar, certain knowledge and mere motion do by thefe prefents ordain, create, erect, make and conilitute, the aforefaid Thomas Dockwray the Matter of the fame Myftery or Ast of a Stationer of the aforefaid eity for one pear next enfuing ; and the aforefaid John Cawood and Heary Cooke, the Keepers or Wardens of the fame Myftery or Art of a Stationer, of the aforefaid city, for one year next enfuing; and we by thefe prefents do make, create and conftitute the forefaid William Bonham, \&c. \&c. (all whofe namea have befone been recited) the Commonalty of the fame Myftery or Art of the city aforefaid.
IV. And further We ordain, create, ereft, make and conftitute by thefe prefents the aforefaid Mafter and Keepers or Wardens and Commonalty one body in deed and name of themfelves for ever, and one Society for ever corporate with one Mafter and two Keepers or Wardens and the Commonalty of the fame Myftery or Art of a Stationer of the city of London aforefaid. And We do incorporate the fame Mafter Keepers or Wardens and Commonalty, and by thefe prefents We do really and fully will, grant, create, erect, ondain, make, declare and conflitute the faid Mafter and Keepers or Wardens and Commonalty a body corporate to continue for ever by the name of the Mafter and Keepers or Wardens and Commonalty of the Myftery or Art of a Stationer of the city

## THE HISTORY OF PRINTING.

of London: and thrat the fame Mafter and Keeper or Wardens and Commonalty may from henceforth have 2 perpetual fucceffion : and that the Maiter and Keepers or Wardetis and Commonalty and their facceffors for ever may be ftiled, intited and called by the name of the Mafter and Keepers or Wardens and Commonalty of the Myftery or Art of a Stationer of the city of London : and that they may be able to plead and to be impleaded, to anfiwer and to be anfiwered by that name in all and fingular matters, frits and plaints, actions, demands and caules before any of our judges and juftices whomfoever in any courts or places whatfoever: and that they may have 2 Cómmon Seal to ferve and to be ufed for their affairs and bufinefs; and for the fealing of all and fingular their deeds and writings any wife touching or concerning their affairs and bufinets.
V. And that the fame Mafter and Keepers or Wardens and Commonalty and their fucceffers may from time to time make and ordain and eftablifh for the good and well ordering and governing of the freemen of the forefaid Art or Myftery, and of the forefaid fociety, ordinances, provifions and laws as often as - they thall fee proper and convenient.
VI. Provided that thofe ordinances, provifions and laws be in no wife repugnant or contrary to the laws and ftatutes of this our kingdom of England, or in prejudice to the commonweal of our fame kingdom. •
VII. And that the fame and their fucceffors for ever are enabled and may lawfully and fafoly without moleftation or difturbance of $U s$ or the heirs or fucceffors of our forefaid queen, or of any other perfon, hold, as often as they plenfe, lawful and honeft meetings of themfelves for the enacting fuch lawis and ordinances, and tranfacting other bufinefs for the benefic of the fame Myftery or Art, and of the fame Society, and for other lawful caufes in the manner aforefaid.
VIII. And that the forefaid Mafter and Keepers or Wardens and the Commonality of the faid Myftery or Art of a Stationer of the forefaid city, and their fucceffors, or the greater part B b of

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 of them being affembled lawfully and in a convenient place, may yearly for ever, or oftener or feldomer, at fuch times and places within the faid city, as they fhall think fit, chufe from amongft themfelves, and make one Mafter and two Keepers or Wardens of fame Mytery or Art of a Stationer of the forefaid city, to rule, govern and fupervife the forefaid Myftery and Society, and all the men of the fame Myftery, and their bufinefs; and to remove and difplace the former Matter and the former Keepers or Wardens out of thofe offices, as they fhall fee beft.IX. And that if, and as often as, it fhall happen in any election that the Mafter and Keepers or Wardens and the forefaid Commonalty are equal in votes, one part againft another in fuch an election, that then and fo often the Mafter of the forefaid Myftery, if there fhall be then any Mafter, or the upper Keeper or Warden of that Myftery, if there fhall then be no Mafter, may have two votes in fuch elections.
X. And that the Mafter and Keepers or Wardens and Commonalty of the forefaid Myttery, and their fucceffors for the time being fhall be deemed fit and able perfons in law as well to give, grant and to let their lands and tenements, poffeffions, goods and chattels, as to purchafe, poffefs, take and receive for themfelves and their fucceffors, lands, tenements, poffeffions, goods, chattels and inheritances to be had, enjoyed and poffefled by themfives and their fucceffors for ever, the ftatute againft putting lands and tenements in Mortmain, or any other flatute, act or ordinance to the contrary notwithflanding.
XI. Provided that the faid lands, tenements and inheritances fo to be purchafed and to be poffeffed by them, be within our faid city of London or fuburbs, or the liberties of the fame city; and fo that they do not in any wife exceed the yearly value of twenty pounds of lawful money of England.
XII. Moreover We will, grant, ordain and conftitute for ourfelves and the fucceflors of our furefaid queen that no per-

THE HISTORY OF PRINTING. 181 fon within this our kingdom of England or dominions thereof either by himfelf or by his journeymen, fervants or by any other perfon fhall practife or exercife the Art or Myftery of printing or famping any book or any thing to be fold or to be bargained for within this our kingdom of England or the dominions thereof, unlefs the fame perfon is or thall be one of the Society of the forefaid Myftery or Art of a Stationer of the city aforefaid at the time of his forefaid printing or flamping; or has for that purpofe obtained our Licence or the Licence of the heirs and fucceffors of our forefaid queen.
XIII. Moreover We will, grant, ordain and conflitute for ourfelves, the heirs and fuccefors of our faid queen, to the forefaid Mafter, Keepers or Wardens and the Commonalty of the Myftery or Art of a Stationer of the forefaid city of London, and to their fucceffors for ever, that the forefaid Mafter and Keepers or Wardens and their fucceffors for the time being fhall very lawfully as well fearch, as often as they pleafe, any place, fhop, houfe, chamber or building of any ftamper, printer, binder or feller of any manner of books within our kingdom of England or dominions thereof, concerning or for any books or things printed, ftamped or to be printed or ftamped, as feize, take away, have, burn or convert to the proper ufe of the faid fociety all and fingular thofe books and thofe things, which are or fhall be printed or ftamped contrary to the form of any ftatute, act or proclamation made or to be made.
XIV. And that, if any perfon fhall practife or exercife the forcfaid Art or Myftery contrary to the form above defcribed; or fhall difturb, refufe or hinder the foreaiaid Mafter and Keepers or Wardens for the time being, or any one of them for the time bcing to make the forefaid fearch, or to feize, take away or burn the forefaid books or things, which are, or any one of which has been printed or flamped, or are to be printed or ftamped contrary to the form of any flatute, act or proclamation, that then the forefaid Mafter or Keepers or Wardens for the time being fhall imprifon ${ }^{\text {a }}$ or fend to gaol, or either of them


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them fhall imprifon or fend to gaol every fuch perfon fa pracifing or exercifing the forefaid Art or Myftery contrary to the form aforefaid, or fo that, as aforefaid, the difturber, refufer or hinderer fhall there remain without bail or mainprize for the fpace of three months; and that the fame perfon fó practifing the Art or Myftery aforefaid contrary to the faid form, or fo that, as aforefaid, the difturber, refufer or hinderer fhall pay or caufe to be paid for every fuch practifing or exercifing as aforefaid, contrary to the faid form, and for every fuch difturbance, let or hinderance, one hundred fhillings of lawful money of England, one moiety thereof to Us, our heirs and and fucceffors of the forefaid queen, and the other moiety thereof to the forefaid Matter, Keepers or Wardens and Commonalty, acc. In Witnefs whereof, The King and Queen at Weftminfter, May 4.

By Writ of Privy Seal, \&c.
The privileges to chufe their proper officers, to make Laws for the good and well governing of the Company, \&c. granted to the freemen of the Company of Stationers of the city of London by King Philip and Queen Mary, had been found fo jut and agreeable to the laws of the land, the liberties of the fubject, and in particular fo neceflary to the well-being of the faid Company of Stationers, that Queen Elizabeth, of glorions memory, upon her firft coming to the crown, did by her Letters Patents, alfo renew and confirm the foregoing Charter, in the following manner.

The Queen to whom thefe Prefents, \&c.

## Greeting.

WE have feen the Letters Patents of the Lord Philip, King, and the Lady Mary late Queen of England Our moft dearly beloved fifter, to the Mafter, Keepers or Wardens and Commonalty of the Myftery or Art of a Stationer of our city of London, lately granted at Weftminfter on the fourthe day of May, in the $3^{d}$ and $4^{\text {th }}$ years of their reigns:

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EHere Queen Elizabeth recites the Charter verbatim, as it was granted by Philip and Mary, printed in the preceding pages, and then confirms the fame in the following words.]
And We ratifying and allowing the forefaid Letters, and all and every thing contained therein, do, as much as in us lies, accept and approve them for ourfelves, our heirs and fuccefiors, and do ratify and confirm them to our beloved Reynold Wolfe, now the Mafter of the forefaid Myttery or Art of a Stationer, and Michael Lobley and Thomas Duxwell the Keepers or Wardens of the fame Myitery, and to their fucceffors in fuch manner as the forefaid recited Charter and Letters do reafonably in themfelves teftify. In witnefs whereof, \&cc. The Queen at Weftminfter, on the tenth day of November, and in the firlt year of our reign.

Befides this confirmation by Queen Elizabeth now recited, the foregoing Charter by Philip and Mary was exemplified in the 19th year of the reign of king Charles II. on the 1oth of Auguft, A. D. 1667, at the requeft of Humphry Robinfon, the then Mafter, and Evan Tyler and Richard Royfton, the then Wardens of the Company of Stationers.

And the faid Charter was again exemplified on the I 3 th ofOctober, A. D. 1684, at the requeft of Roger Norton the then Mafter, and Henry Hills and James Cotteraj, the then Wardens of the faid Company of Stationers.
'The Charter granted by King Charles to the Stationers Company, anno 1584, in the 36 th year of his reign, was as follows:

The King to all thofe to whom thefe Preferits fhall come, Greeting.
I. WJ HEREAS King Philip and Queen Mary by their Letiers Patents fealed with their Great Seal of England, dated at Weftminfter on the fourth day of May in the third and fourth years of their reigns, have for themfelves and

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the heirs and fucceffors of the faid Queen, given and granted to their beloved and faithful liegemen Thomas Dockwray, John Cawood, Henry Coke, William Bonham, and to diverfe other perfons named in the fame Letters Patents, being Freemen of the Myftery or Art of Stationers of the city of London and fuburbs thereof, that they in deed, fact and name, fhall be one Body of themfelves for ever, and one perpetual Society corporate of one Mafter and two Keepers or Wardens in the Society of the fame Myftery or Art of Stationers of the City aforefaid; and that they might have a perpetual fucceffion.
II. And the faid King and Queen then by the fame Letters Patents have further of their own fecial grace, certain knowledge and mere motion, ordained, created, erected, made and conftituted the forefaid Thomas Dockwray Mafer of the fame Myftery or Art of Stationers of the faid city for one year next enfuing; and the forefaid, John Cawood and Henry Coke, Keepers or Wardens of the fame Myftery or Art of Stationers of the forefaid city for one year next enfuing; and they have made and conftituted the forefaid William Bonham and all the other perfons named in the fame Letters Patents the Commonality of the fame Myttery or Art of Stationers of the forefaid city. And,
III. Further they have by the fame Letters Patents ordained, created, eretted, made and conflituted the forefaid Mafter, Keepers or Wardens and Commonalty in deed and name one body of themfelves for ever and one Society for ever corporate of one Mafter and two Keepers or.Wardens and Commonalty of the fame Myttery or Art of Stationers of the forefaid city of London; and they have incorporated the fame Mafter and Keepers or Wardens and Commonalty; and they by their fame Letters Patents have really and fully created, erected, ordained, made, declared and conflituted them a Body corporate to continue for ever by the name of the Mafter and Keepers or Wardens and Commonalty of the Myftery or Art of Stationers of the city of London. And,

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IV. That the fame Mafter, Keepers or Wardens and Commonalty and their Succeffors might for the future have a perpetual Succeffion: and that the fame Mafter, and Keepers or Wardens and Commonalty, and their Succefiors, for ever might be filed, named and called by the name of the Mafter and Keepers or Wardens and Commonalty of the Myttery or Art of Stationers of the city of London. And,
V. That they might be enabled to plead and to be impleaded, and to anfwer and to be anfwered by that name in all and ringular matters, fuits and plaints, actions and demands and caufes before any judges and juftices whofoever, and in any courts and places of judicature whatfoever. And,
VI. That they might have a Common Seal for their proper ufe and bufinefs, and for the fealing of all and fingular their deeds and writings any wife touching or concerning their affairs añ bufinefs. And,
VII. That the fame Mafter and Keepers or Wardens and Commonalty and their fucceffors, might from time to time make, ordainand eftablifh, as often as they fhould fee proper and convenient, Ordinances, Provifions and Laws for the good and well ordering and governing of the Freemen of the Art or ${ }_{1}$ Myftery aforefaid, and of the Commonalty aforefaid:
VIII. Provided thofe Ordinances, Provifions and Laws fhould be in no wife repugnant or contrary to the laws and ftatutes of the kingdom of England, or in prejudice to the commonweal of the fame kingdom. And,
IX. That they and their fucceffors for ever might be enabled lawfully and fafely, as often as they pleafe, to call lawful and honeft meetings of themfelves for enacting fuch-like Laws and Ordinances, and for confidering other affairs for the benefit of the fame Myftery or Art, and of the fame Commonalty, and for other lawful caufes in the manner aforefaid, without moleftation or inquietude of the fame forefaid King and Queen, , the heirs or fucceffors of the forefaid Queen or of any other perfon. And,
X. That
X. That the forefaid Mafter and Keepers or Wardens and the Commonalty of the faid Myftery or Art of Stationers of the city aforefaid, and their fucceflors, or the greater part of them being met together lawfully, and in convenient places, might yearly for ever, or oftener or feldomer, at fuch times and places within the city aforefaid, as they fhould think fit, chnfe from among themfelves and make one Mafter and two Keepers or Wardens of the fame Myftery or Art of Stationers of the. city aforefaid, to, rule, govern and to fupervife the forefaid Myftery and Society, and all the men of the fame Myftery and their bufinefs. And,
XI. That they might remove and put out, as it fhould feem to them beft, the former Mafter and former Keepers or Wardens from thofe offices. And,
XII. That, if, and as often as it happeneth in any election that the Mafter and Keepers or Wardens and Commonalty aforefaid fhould be equal in one vote, one part oppofing the other in fuch election, that then and fo often the Mafter of the forefaid Myftery, (if there fhould then be any Mafter) or the fenior Keeper or Warden of that Myftery, (if there fhould then be no Mafter of that Myftery) might have zwo votes, in fuch elections. And,
XIII. That the Mafter and Keepers or Wardens and Commonalty of the forefaid Myftery and their fucceffors, for the the time being, for ever might be deemed in law fit and able Perfons as well to give, grant and difpofe of lands and tenements, and their goods and chittels, as to purchafe, poffefs, take and receive for themfelves and their fucceffors, lands, tenements, poffeffions, goods, chattels and hereditaments, to be had, enjoyed and poffeffed by themfelves and their fucceffors for ever, the fatute againft putting lands and tenements in mortmain or any other flatute, act or ordinance publifhed to the contrary notwithftanding:
XIV. Provided that the faid lands, tenements and hereditaments fo to be by them purchafed and poffeffed be within the

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faid city of London, or fuburbs or liberties of the fame city; and that they might not exceed by any means the yearly value of twenty pounds of lawful money of England. And
XV. The fame King and Queen by the fame Letters Patents have for themfelves and the fucceffors of the forefaid Queen granted, ordained and conflituted that no perfon within the realm of England or the dominions thereof frould practife or exercife by themfelves or their journeymen, their fervants, or by any other perfon, the Art or Myftery of Printing or Stamping any book or any thing to be fold or bargained for within this kingdom of England or dominions thereof, unlefs the fame perfon at the time of his forefaid Printing or Stamping were or fhould be one of the forefaid Society, or fhould have the licence of the fame Lord the King and Lady the Queen, or of the heirs or the fuccefliors of the forefaid Queen for that purpofe. And
XVI. Further the fame Lord the King and Queen have granted, ordained and conflituted for themfelves, and the heirs and fucceffors of the forefaid Queen, to the forefaid Mafter and Keepers or Wardens and Commonalty of the Mytery or Art of Stationers of the city of London and their fuccefiors for ever, that it might be lawful for the Mafter and Keepers or Wardens and Commonalty of the Myftery or Art of Stationers of the city of London and their fúcceffors for the time being, both to fearch, as often as they fhould pleare, in any place, fhop, houfe, chamber or building of any Stamper; Printer, Binder, or Seller of any fort of books within their kingdom of England or dominions thereof, concerning or for any books or things printed and flamped, or to be printed or ftamped, and to take and feize all fuch books and things which fhould be printed or flamped contrary to the form or terior of any ftatute, act or proclamation, as it doth more fully appear by the fame Letters Patents enrolled in our Court of Chancery of Record. And;

Igo THE HISTORY OF. PRINTING.
that the fame Pellowhip from henceforth fhall be permitted and fuffered to have, ufe and wear a Livery and Livery-hood in fuch decent and comly-wife and order as the other Companies and Fellowinips of this city, after their degrees, do commonly ufe and wear; and that, they the faid Stationers Shall caufe all fuch, and as many of their faid Fellowihip as conveniently may be able, to prepare and make ready the fame Liveries with fpeed, fo that they may from henceforth attend and wait apon the Lord Mayor of this city, at all common fhews hereafter to be made by the citizens of the city, in fuch and like manner and forte as the other citizens of the faid citie, in fuch and lyke manner and forte as the other citizens of the faid city, for the honour of the fame citye fo long tyme paft, have done, and yet dayley do, as occcafion Shall require."

This Account of Books delivered by the richer Printers to the Company of Stationbrs for the Relief of their Poor, is taken from a manufcript indorfed:
" Decrees of the Lords in the Star-chamber, touching Printers, Stationers, \&c. 23 Junii, Eliz. 28, 1585. Order for them fent to archbilhop Whitgift."
" Whereas fundrrie decrees, and ordinances, have upon grave advice and deliberation, been made and publifhed for the repreffing of fuch great enormities and abufes, as of late (moft men in tyme paft) haue been commonlye ufed and practifcd by diverfe contemptuoufe and diforderly perfons, profefing the Arte or Mifterie of Printing, and felling of books; and yet notwithfanding the faid abufes and enormities are nothing abated, but (as is found by experience) doe rather more and more increafe, to the wilful and manifeft breach and contempt of the faide ordinances and decrees, to the great difpleafure and offence of the queen's mofte excellent majeftie; by reafon whereof fundrie intolerable offences, troubles,tion, have ordeyned and decreed, that the ordinances andconftitutions, rules and articles, hereafter following, fhall,from henceforth, by all perfons, be dulie and inviolablie keptand obferved, according to the tenor, purporte, and true intent, and meaning of the fame, as they tender her majeftieshigh difpleafure, and as they wyll aunfivere to the contrarie attheir uttermofe perill: Videlicet.

Imprimis, That every printer, and other perfon, or perfons whatfoever, which at this tyme prefent hath erected, or fet up, or hereafter fhall erect, fet up, keepe, mainteyn, or have

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anye printing preffe, rowle, or other inftrument, for imprinting of books, chartes, ballades, pourtrayctures, paper called damalk-paper, or any fuch matters, or things whatfoever, fhall bring a true note, or certificate of the faide preffes, or other printing inftruments allreadie erected, within tenne days next coming, after the publication hereof; and of the faide prefles, or other printing inftruments hereafter to be erected, or fet up, from tyme to tyme, within tenn dayes next after the erecting, or fetting up thereof, unto the Mafter and Wardens, of the Companie of Stacioners, of the cittie of London, for the tyme being ; upon payne, that everye perfon fayling; or offending herein, flall have all and averie the faid prefles, and other inftruments, utterlye defaced, and made unferviceable for imprinting for ever; and thall allfo fuffer twelve moneths imprifonment without bayle or maynprife.
2. Item, That no printer of bookes, nor any other perfon, or perfons whatfoever, hall fett up, keepe, or mayntain any preffe or preffes, or any other inftrument, or infruments, for imprinting of bookes, ballades, charte, pourtrayctures, or any other thing, or things whatfoever, but onelye in the cittie of London, or the fuburbs thereof (except one preffe in the univerfitie of Cambridge, and one other preffe in the univerfitie of Cxforde, and no more) and that no perfon fhall hereafter erect, fett up, or maynteyne in any fecrett, or obfcure corner, or place, any fuch preffie or inflrument before expreffed ; but that the fame fhall be in fuche open place or places, in his, or their houfe or houfes, as the Wardeins of the faide Companie of Stationers; for the tyme being, or fuche other perfon, or perfons, as by the faide Wardeins, fhall be thereunto appointed, may from tyme to tyme have readie acceffe unto, to fearch for, and viewe the fame; and that no printer, or other perfon, or perfons, fhall, at any tyme hereafter withftande, or make refiftance to, or in any fuche view or fearch nor denye, or keepe fecrett any fuche preffe, or other inftru-

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 ing in any thing contrarie to this article, fhall have all the faide preffes, and other printing inftruments, defaced, and made unferviceable for imprinting for ever; and hall alloo fuffer imprifonment one whole year, without bayle, or mayneprife, and to be difabled forever to keepe any printing preffe, or other inftrument for printing, or to be mafter of any printing-howfie, or to have any benefite thereby, other than onelye to worke as a journey man for wages.3. Item, That no printer, nor other perfon or perfons whatfoever, that hath fett up anye preffe, or inftrument, for imprinting within fixe moneths laft paft, fhall hereafter ufe, or occupie the fame, nor any perfon or perfons thall hereafter erect, or fett up any prefle, or other inftrument of printing, till the exceffive multitude of printers, having preffes alreadie fett up, be abated, diminihed, and by death given over, or otherwife brought to fo fmall a number of mafters, or owners of printing-howfes, being of abilitie and good behaviour, as the archbifhopp of Canterburie and bifhopp of London, for the tyme being, fhall thereupon think it requifite, and convenient, for the good fervice of the realme, to have fome more preffies, or inftruments for printing erected, and fett up: and that when, and as often as the faide archbihopp and bihopp, for the tyme being, fhall fo think it requifite and convenient, and fhall fignifie the fame to the faid Maiter and Wardeins of the faide Companie of Stationers, for the tyme being ; that then, and fo often, the faide Mafter and Wardeins, thall (within convenient tyme after) call the Affitants of the faide Companie befcre them, and fhall make choice of one, or more (as by the opinion of the faide archbifopp and bifhopp, for the tyme being, need fhall require) of fuche perfons being free Stationers, as for theyr fkill, abilitie, and gcod behaviour, fhall be thought by the faide Mafter, Wardeins, and Alfilants, or the more parte of them, meet to have the charge and government of a preffe, or printing houfe; and that wilhin

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fowerteen dayes next after fuche election, and choice, the faide Mafter, Wardeins, and fower other at the leaft of the Affitants of the faide Companie, fhall prefent before the high commiffinners in caufes eccelefiaftical, or fixe or more of them, whereof the faide archbifhopp, or bihopp, to be one, to allowe, and admitt everie fuche perfon to chofen and prefented, to be mafter and governoure of a preffe, and printing-houffe, according to the fame election and prefentment, upon payne that everie perfon offending contrary to the intent of this article, thall have his preffe, and inftruments for printing, defaced, and made unferviceable, and allfo fuffer imprifonment, by the face of one whole yeare, without bayle, or maynprize. Provided allwayes, that this article, or any thing therein conteyned, fhall not extend to the office of the queene's majefties printer for the fervice of the realme; but that the faid office, and offices, thall be, and continue at the pleafure and difpoficion of her majeftie, her heires, and fucceffors, at all tymes, upon the death of her highnes's printer, or otherwife.
4. Item, That no perfon, or perfons, fhall imprint, or caufe to be imprinted, or fuffer by any meanes to his knowledge, his preffe, letters, or other inftruments, to be occupied in printing of any booke, worke, coppie, matter, or thing whatfoever, except the fame booke, worke, coppie, matter, or any thing, hath bene heretofore allowed, or hereafter fhall be allowed, before the imprinting thereof, according to the order appointed by the queene's majefties injunctions, and be firlt feene and perufed by the archbilhopp of Canterburie, and bifhopp of London, for the tyme being, or one of them (the queene's majefties printer for fome feecial fervice by her majeftie, or by fome of her highnes privie councell thereunto appoynted; and fuche are, or fhal be priviledged to print the bookes of the common lawe of this realme, for fuche of the fame books, as fhal be allowed of by the two cheefe juftices, and cheefe barons, for the tyme being, or any two of them, onelye excepted; nor fhall imprint, or caufe to be

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imprinted, any booke, worke, or coppie, againt the forme and meaning of any reftraynte, or ordinaunce conteyned, or to be conteyned, in any flatute, or lawes of this realme, or in any injunction made, or fett forthe by her majeftie, or her highnes privie counfell, or againfte the true intent and meaning of any letters patents, commiffions, or prohibicions, under the great feale of Englande; or contrarie to any allowed ordinaunce, fett downe for the good governaunce of the Company of Stationers, within the cittie of London; upon payne to haue all fache prefies, letters, and inftruments, as in or about the imprinting of any fuche bookes, or copies, fhall be imployed or ufed, to be defaced, and made uncerviceable for imprinting for ever; and upon payne allfo, that everye offender, and offenders, contrarie to this prefent article, or ordinaunce, fhal be difabled (after any fuche offence) to ufe, or exercife, or take benefite by ufing, or exercifing of the arte, or feate of imprinting; and fhall moreover fufteyne fixe moneths imprifonment without bayle, or maynprife:
5. Item, That everie fuche perfon, as fhall fell, utter, or putt to fale wittingly, bynde, ftitch, or fowe; or wittinglie caufe to be folde, uttered, put to fale, bounde, flitched, or fowed, any bookes, or copics whatfoever, printed contrarie to the intent and true meaning of any ordinaunce, or article aforefaid, fhall fuffer three moneths imprifonment for his, or their offince.
6. Item, That it fhall be lawfull for the Waideins of the faide Companye, for the tyme being, or any two of the faide companie thereto deputed, by the faide Wardeins, to make fearche in all work-howfes, fhopps, ware-howfes of printers, bookefellers, booke-bynders, or where they fhall haue reafonable caufe of fufpition; and all bookes, copies, matters, and things printed, or to be printed, contrarie to ti.e intent and meaning of thefe prefent ordinances, to feaze and take to her majeflies ufe, and the fame to carrie into the Stacioners hall in London; and the partie, or parties, offending in printing, felling, utter-

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ing, bynding, flitching, or fowing any fuch bookes, copies, matters, or things, to arreft, bring, and prefent before the faid highe commifioners in caufes ecclefiafticall, or fome three, or more of them, whereof the faid archbiihop of Canterburie, or biihopp of London, for the tyme being, to be one.
7. Item, That it fhall be lawfull to and for the raforefaide Wardeins, for the tyme being, or any two by them appoynted, without lett, or interruption of any perfon, or perfons whatroever, to enter into any howffe, work-howfie, ware-howffe, fhopp, or other place, or places; and to feaze, take, and carrie away all prefles, letters, and other printing inftruments, fett up, ufed, or imployed, contrarie to the true meaning hereof, to be defaced, and made uncerviceable, as aforefaid; and that the faid Wardeins fhall fo often as need fhall require, call the affiftants of their faide companie, or the more parte of them into their faide hall, and there take order for the defacing, burning, breaking, and deftroying of all the faide letters, preffes, and other printing inftruments aforefaide; and thereupon fhall caufe all fuche printing prefles, or other printing inffruments, to be defaced, melted, fawed in peeces, broken, or battered, at the fmythes forge, or otherwife to be made unferviceable; and the fuffe of the fame fo defaced, fhall redelyver to the owners thereof agayne, within three moneths next after the taking, or feazing thereof, as aforefayde.
8. Item, That for the avoyding of the exceffive number of printers within this realme, it flall not be lawfull for any perfon or perfons, being free of the Companie of Stacioners, on ufing the trade or myfterie of printing, bookefelling, or bookebynding, to have, take, and keepe hereafter, at one tyme, any greater number of apprentizes, than fhall be hereafter expreffed; that is to fay, every perfon that hath been or fhall be Mafter, or upper Wardein of the Company, whereof he is free, to keepe three apprent zes at one tyme, and not above; and every perfon that is, or flall be under Wardein, or of the liverie of the companie whoreof he is free, to keepe two apprentizes, and not above;

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above; and every perfon that is, or fhall be of the yeomanrie of the Companie, whereof he is, or thall be free, to keepe one apprentize (if he himfelf be not a journeyman) and not above. Provided allwayes, that this ordinaunce fhall not extend to the queen's majefties printer for the tyme being, for the fervice of her majeftie, and the realme, but that he be at libertie to keepe and have apprentizes; to the number of fixe at any one tyme.
9. Item, That none of the printers in Cambridge; or Oxford, for the tyme being, thall be fuffered to have any more appren. tizes, than one at one tyme at the mofte. But it is, and fhall be lawfull, to, and for the faide printers, and either of them, and their fucceffors, to have, and ufe the help of anye journeyman, beeing freemen of the cittie of London, without contradiction; any lawe, ftatute, or commaundement, contrarie to the meaning and due execution of thofe ordinaunces, or any of them, in any wife notwithftanding.

Books yeilded into the hands and difpofitions of the Mafter, Wardeins, and Affiftants of the myfterye of the Stationers of London, for the reliefe of the poore of the faide Companie, according to the difcretion of the Mafter, Wardeins, and Affiftants, or the more parte of them.
Mr. Baker, her majefties printer, hath yielded unto the faide difpofition and purpofe, thefe bookes following, viz.

The firt and fécond volume of Homilies.
The whole fatutes at large, with the preamble, as they are now extant.

The paraphrafis of Erafmus upon the, epiftles and gofpells, appoynted to be read in churches.

Articles of religion agreed upon 1562 , for the minifters.
The Queenes injunctions, and articles, to be enquired of through the whole realme.

The profitt and benefite of the two mofte vendible volumes of the New Teftament, in Englifh, commonlie called; Mr. Cheekes tranflation; that is; in the volume called, Octavo,

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with annotations as they be now; and in the volume called, Decimo fexto, of the fame tranflation without notes in the brevier Englif letter onely.

Provided, that Mr. Barker himfelf print the fayde Teftaments at the loweft value, by the direction of the Mafter and Wardeins of the Company of Stationers, for the tyme being. Provided allwayes, that Mr. Barker do reteyn fome fmall number of thefe for diverfe fervices, in her majelties cowrtes, or ellfewhere: and laftlye, that nothing, fhat he yeeldeth unto by meanes aforefaid, be prejudiciall to her majefties high prerogatine, or to any that fhall fucceed in the office of her majefties printer.

Mr. Tottrle, printer of the lawe bookes, hath yeilded unto the difpofition and purpofe aforefaide, thefe bookes following, viz.

Tullie's offices in Englifh and Latin.
Morall philofophie.
Romea and Julietta.
Quintus Curtius, in Englifh.
Mr. Dr. Wilfon upon ufurie.
Two Englifh lovers.
Songes and fonnetts of the earle of Surrey.
Mr. Watkins, now Wardein, hath yeilded to the difpofition and purpofe aforefiaide, this that followeth, viz.

The broad almanack; that is to fay, the fame to be printed on one fyde of a fheet, to be fett on walls, as ufuallie it hath bene.

Mr. John Daye, printer, hath yeilded to the difpofition and purpofe aforefaide, thefe bookes following, viz.

Calvin upon Daniell.
Pilgrimage of princes.
The jewell of joye.
Principles of religion, by Becon.
Dering's fermons in the tower.
Practife of preiatts.

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Cofmographicall glaffe.
All the prayer books, which. Heary. Denham had frems Mr. Day.
Peter Martyr on the Judges.
Peter Martyr on the Romanes.
Poore man's librarie.
Tindall's, Frythe's, and Barne's workes.
Becon's whole workes.
Bullinger upon the Apocalips.
Letters of the martyres.
Calvin's cathechifme, in fixteens
Image of God.
Image of nature and grace.
Reliques of Rome.
Hawes's examinations.
Calvin's fermons upon Ezechias.
Pomander of prayers, in octavo.
Governance of vertue, in octavo.
Governance of vertue, in fixteens.
Afcham's fchole-mafter.
Afcham's affaires of Germanie.
Saxon lawes.
Canons in Englif.
Vita et mors Juelli.
Articuli religionis.
Epittola Gildae.
Sylogifticon.
Drant in eclefiaften.
Forreft of hiftories.
A dialogue of Mercurie, and the Englifh fouldies.
Aftronomers game.
Mr. Newberye, wardein, and HenrieDenham, affignes to execute the privilege, which belonged to Henr. Bynneman, deceafed, have yielded to the difpoficion and purpofe aforefayde, thefe bookes following, vif.

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The breife chronicle in the volume, or fife, called, Decimo fexto. Provided allwayes, that all addicions, which hereafter fhall be putt to the fame, and any other chronicle, that fhallybe fett forthe in the fame, or lyke volume or fize, fhall be printed, and fet forthe in the lyke breefe order, and forme, that the faide boke in decimo fexto, allreadie extant, is of. And all controverfies, that may arife towching the faide booke, or addition, or alteration of, or to the fame, or towching any other chronicle, that fhall come forthe in this'volume, or fize, are fubmitted, and allwayes fhall be fubmitted, and referred to the ordering and determinacion of the Mafter, Wardeins, and Affiftants for the tyme being, or the more part of them.

Item, all thefe bookes and copies following, or fo manye of them, as fhall be found to have belonged to the faide Henrye Bynnemen, viz.

> QU ARTO.

Mufculus common places.
Cornelius Agrippa of the vanitie of fciences.
Digge his Straticos.
Arte of fhooting in great ordinance.
O C T A VO.

The Spaniards lyfe.
Booke of Gardening.
Colloquia Erafmi.
Exercitatio linguae Latinae.
Confabulationes Heffii.
Juftini hiftoria.
Virgilii opera.
Sententiae pueriles.
Pfalmi Roffenfis.
Mr. Newberye, now Wardein, in his owne right, and of his owne copies, doth yeild to the difpofition and purpofe aforefaid, as follows, viz.

Bullinger's decades, now readie to print. Allwayes provided,

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vided, that the printers of it thall give certeyn leaves, that he lacketh.

Mr. Cooper's poftill, when Mr. Newbery hath folde thofe of the former impreffion, which he hath in his hands, being under an hundred bookes. And then he will procure the quires to enlarge it.

Panoplie of epiftles, when he hath folde thofe he hath of the former impreffion.

Chronicle of ten emperours of Grecia, when he hath folde thofe he hath.

Galeteo of good manners.
Life of Serving men.
Googe's fongs and fonnetts.
Now ready to print.
Perambulation of Kent, allmofte readie to print.
Item, The faid Henrye Denham hath yeilded thefe bookes following:

Pafquin in a traunce.
The hoppe gardein.
Ovid's metamorphofis.
The courtier.
Cefar's commentaries in Englifh.
Ovid's epiftles.
Image of idleneffe.
Flower of friendhipp.
Schole of vertue.
Gardiner's laborynth.
Demoftheme's orations.
Two or three of Seneca's tragedies.

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and fet forth by anie learned man at the procurement, cofts and charges of the faid Verney Alley, fo that no fuch booke or bookes fhould be repugnant to the Holie Scripture, or the laws or orders of this realme, as in, and by the fame Letters Patents maie appear ; which faid Letters Patents the adminiftrators and affignes of the faid Verney have affigned and fett over unto certaine perfons in truft to the ufe of the Mafter and Keepers or Wardens and Commynaltie of the Arte or Mittery of Stacioners of the cittie of London and their fucceffors.
II. And whereas alfo by our Letters Patents under our great feal of England, bearing date at Harfields the 2gth daie of Ottober, in the ift year of our reigne of England, France and Ireland, and of Scotland the 37 th, it is mencioned, that Wee, for the Helpe and Releife of our lovynge fubjects beinge of the Corporacion of the Mafter and Keepers or Wardens and Commynaltie of the Arte or Myfterie of Stacioners of the cittie of Lundon, and theire fucceffors, of oure fpecial grace, certaine knowledge and meere mocion have given and graunted full power and authoritie, priviledge and lycence unto the faide Mafter and Keepers or Wardens and Comynaltie of the Myfterie or Arte of Stacioners of the cittic of London and to their fucceffors for ever to imprint or caufe to be imprinted all manner of booke and bookes of Primers, Pfalters and Pfalms in meeter or profe with mufical notes or without notes, both in great volumes and in finall in the Englifie tongue, which then were or at any time after that fhould bee fett forthe and permitted by us, our heirs or fucceffors or by any other perfon or perfons thereto by us authorifed, or to be authorifed to be had, ufed, read or taught of, by or unto our lovinge fubjects throughout our realme of England by whatfoever name or names the fame booke or bookes or anie of them were or fhoulde be called (the Buokes of Common Prayer ufuallie reade in the churches of Englande, togeather with all bookes conteyned in the Letters Patents of the office of our Printer
graunted to Robert Barker and Chriftopher his fonne out of the faid recited graunt alwaies excepted and foreprifed) with prohibition to all other the fubjects of us, our heirs and fucceflors to print, utter or fell, or caufe to bee printed, uttered or fould anie other booke or bookes of Prymmers, Pfalters and Pfalmes in the Englifhe tongue (except as in the raid recited Letters Patents is excepted) than fuch as fhoulde bee by the Mafter and Keepers or Wardens and Commynaltie of the Arte of Stacioners of the cittie of London or theire fucceffors printed or caufe to be printed accordinge to the true meaneing of the fame graunte.
III. And where in and by our faid recited Letters Patents it further mencioned, That Wee of our more abundant grace, certaine knowledge and meere mocion for the better reliefe of the faid Corporacion of the Mafter and Keepers or Wardeins and Comynaltie of the Miftery or Arte of Stacyoners of the cittie of London and their fucceffors, did give and graunte unto the faid Mafter and Keepers or Wardens and Comynaltie of the Miftery or Arte of Stacyoners of the cittie of London and theire fucceffors, full power, priviledge and authority, That they the faid Mafter and Keepers or Wardens and Comynaltie and theire fuccefiors thould and might at all times, and from time to time for ever printe and caufe to be printed all manrer of Almanacks and Prognofticacions whatfoever in the Englifhe tongue, and all manner of bookes and pamphletts tendinge to the fame purpofe, and which were not to bee taken or confrued other then Almanacks or Prognofticacions beinge allowed by the archbifhoppe of Canterbury and bifhoppe of London, or one of them for the time beinge, or by fuche other perfon or perfons as they or either of them for the tyme being fhoulde in that behalfe affigne or appointe, by what names or titles foever the fame'fhould bee entitled, named or called, as fhould be printed within this realme of Englande, with ftraight commandement and prohibicion to all and finguler other Printers; Bookfellers and all other officers minifters and fubjects whatfo-

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ever of us, our heires and fucceffors, that they or anie of them at anie time or times after that fhould not printe or caufe to bee printed anie of the faid Almanacks, Prognofticacions or anie other Almanacks or Prognofticacions, bookes or pamphletts in the Englifhe tongue; tendinge to the fame or like purpofe, and that mighte bee in anie wife conftrued and taken as Almanacks and Prognofticacions by what titles or addicions foever the fame were or fhoulde be intitled or named; nor buy, utter or fell, or caufe to bee brought, uttered or foulde anie other Almanacks, Prognofticacions or other bookes in the Englifine tongue tendinge to the fame purpofe, then fuche onelie as fhoulde bee printed by the faide Mafter and Keepers or Wardens and Comynaltie of the Mifterie or Arte of Stacioners of the cittie of London and theire fucceffors, as in and by the faide recited Letters Patents more plainelie appeareth, which faide recited Letters Patents by us graunted the faide Mafter and Keepers or Wardens of the Art or Mifterie of Stacioners of the cittie of London have furrendered to us in our court of Chauncerie, and which wee have accepted.
IV. Now know yee that wee for the Helpe and Reliefe of the faide Corporacion of Mafter and Keepers or Wardens and Comynaltie of the Arte or Mifteric of Stacioners of the cittie of London and theire fucceffors, of our fpecial grace, certaine knowledge and meere mocion have given and graunted, and ty thefe prefents for us, our heirs and facceffors doc give and graunte full powel, authoritie, priviledge and licence unto the faide Mafter, and Keepers or Wardens and Comynaltic of the Mifterie or Arte of Stacioncrs of the cittie of London and to theire fucceffors for ever, to imprinte or caufe to bee imprinted all manncr of bocke or bookes of Prymmers, Fíalters and Pfalms in Meeter or Profe with muficall noates or without noates both in great volumes and in fmall, in the Englifie tongue, which now bee or at anic tine hereafter fhall bee fett forthe and permitted by us, our heirs or fucceffrs, or by anie other perfon or ferfons thercto by us, our heirs or fucceffors, autho-

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au horized or to bee authorized, to bee had, reade, ufed or taught of, by, or unto our lovinge fubjects throughout our realme of Englande' by whatfoever name or names the fame booke or bookes, or anie of them are or thall bee called, (The Booke of Common Prayer ufuallie reade or to be reade in the Churches of Englande, togeather with all bookes conteyned in the Letters Patents of the office of our Printer graunted to Robert Barker and Chriftopher his Sonne, other then the faide booke and bookes of Prymers, Pfalters, Pfalms in meeter or profe, Almanacks, Prognofticacions and bookes and pamphletts tendinge to the fame purpofe, which are not to bee taken or conftrued other then Almanacks or Prognofticacions, alwaies excepted and foreprifed) anie priviledge or anie other order heretofore graunted or taken to the contrarie notwithftandinge: fraightlie inhibiting and prohibiting all other perfon or perfons whatfoever to printe, utter or fell, or caufe to bee printed, uttered or fould, or to be brought into this realme from anie the partes beyonde the feas anie other booke or bookes of Prymers, Pfalters and Pfalmes in the Englifhe tongue (except before excepted) then fuche as fhall be by the Mafter and Keepers or Wardens and Comynaltie of the Mifterie or Arte of Stacioners of the cittie of London, or theire fucceffors, printed or caufed to bee printed according to the true meaninge of this our prefent graunt and priviledge, upon paine of forfeiture of all fuche bookes, as they fhall imprinte, utter or fell contrarie to the meaning hereof: The fame booke and bookes fo to be forfeited to be feifed uppon and taken by the faide Mafter and Keepers or Wardens and Comynaltie of the Miftery or Arte of Stacioners of the cittie of London and theire fucceffors to theire owne proper ufe, benefitt and behoofe, and uppon fuch paines and penalties as may be inflicted uppon fuche as contemne and infringe our commaundement royall.
V. Wherefore wee will and commaunde all and every the officers and fubjects of us, oure heires and fucceflors, as they tender oure favoure and will avoid our difpleafure, that they. and
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and every of them (if neede do require) dot aid and affyfte the faid Mafter and Keepers or Wardens and Comynaltie of the Arte or Mifterie of Stacioners of the cittie of London, and theire fucceffors, in the due execution of this our graunte and lycence with effecte, accordinge to the true intent and mean-ing of the fame.
VI. And furthur know yee that wee of our more abundant grace, certaine knowledge and meere mocion, for the better relief of the faide Corporacion of Mafter and Keepers or Wardens and Comynaltie of the Mifterie or Arte of Stacioners of the cittie of London and their fucceffors, of our fpecial grace, certaine knowledge and meere motion have given and graunted, and by thefe prefents for us, our heires and fucceffors doe give and graunte unto the faide Mafter and Keepers or Wardens and Comynaltie of the Mifterie or Arte of Stacioners of the cittie of London, and theire fuccefliors, full power, priviledge and authoritie that they, the faide Mafter and Keepers or Wardens and Comynaltie and theire fucceffors fhall and maie at all times and from time to time fur ever printe and caufe to bee printed all manner of Almanacks and prognofticacions in the Englifhe tongue, and all manner of bookes and pamphletts tendinge to the fame purpofe, and which are not to bee taken and conftrued other then Almanacks or Prognofticacions, being allowed by the archbifhoppe of Canterburie and biihoppe of London, or one of them for the time beinge, or by fuche other perfon or perfons, as they or either of them, for the time beinge, fhall in that behalfe affigne or appointe by what names or titles foever the fame fhall be intitled, named or called, as fhall bee printed within this our realme of Englande.
VII. Wherefore by thefe prefents for us, our heirs and fuccefiors wee doe ftraitlie charge, prohibite and commaunde all and finguler other Printers, Bockfellers and all others the officers, minifters and fubjects' whatfoever of us, our heires and fucceffurs, that they or anie of them at anie time or times here-

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after fhall not printe or caufe to bee printed or brought from the partes beyonde the feas anie of the faide Almanackes, Prognoftications or anie other, Almanacks or Prognofticacions, bookes or pamphletts in the Englifhe tongue, tendinge to the fame or like purpofe, and that maie be in anie wife confrued and taken as Almanacks and Prognofticacions, by what titles or addicions foever the fame bee or fhall bec intitled or named, nor buy, utter or fell, or caufe to bee boughte, uttered or foulde anie other Almanackes, Prognofticacions or other bookes in the Englifh tongue tendinge to the fame or like purpofe then, fuch onelie as fhall bee printed by the faid Mafter and Keepers or Wardens and Comynaltie of the Mifterie or Arte of Stacioners of the cittie of London, and theire fucceffors, uppon paine of forfeiture of all fuche Almanackes, bookes, pamphletts and Prognofticacions as fhall bee printed, bought, uttered or fould contrarie to the lymitacion and meaninge of thefe our Letters Patentees, and uppon paine of forfeiture of twelve pence for every Almanacke and Prognofticacion foe to bee printed, boughte, uttered or foulde, or imported, or brought into this realme from beyonde the feas; and alfoe uppon fuch paynes and penalties as maie bee inflicted upon fuch as contemne and infringe our commaundmente royall; all which faide forfeitures to bee to the ufe of us, our heires and fucceffors.
VIII. And moreover by thefe our Letters Patents for us, our heires and fucceflors wee doc will and commaunde all and fingular our officers, minitters, and fubjects whatfoever, as they tender our favour, and will avoide our indignacion and difpleafure for the contrarie, that they and everie of them (if neede fhall require) doe ayde and affite the faide Mafter and Keepers or Wardens and Comynaltie and theire fucceffors, as well for farchinge of all fuche perfon or perfones offending therein, as in the due exercife and execucion of this our prefent licence and priviledge with cffect, and in all matters incident to the fame, accordinge to the true meaninge of there prefents.
IX.

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IX. And further know yee that wee of our more ample grace, certaine knowledge and meere mocion for us, our heires and facceffors, doe by thefe prefents graunte unto the faide Mafter and Keepers or Wardens and Comynaltie of the Mifterie or Arte of Stacioners of the cittie of London, and theire fucceffors, That the faide Mafter, Wardens and Affiftantes of the faide Corporacion for the time beinge, or the greater parte of them (whereof the Mafter of the faide Corporation, for the time beinge, to be one) fhall have full and free licence, power and authoritie to conflitute, ordaine and make from time to time fuche reafonable Lawes, Ordinances and Conftitutions, as to them or the greater parte of them (whereof the Mafter of the faid Corporacion, for the time beinge, to be one) fhall feeme good, profittable, honeft and neceffiarie accordinge to theire difcrecions, fcr the good governmente and direccion of the faide Mafter and Keepers or Wardens and Comynaltie and of theire fucceffors in, aboute or concerninge the due execution of thefe our Letters Patents.
X. And that the faide Mafter, Wardens and Affiftantes for the time beinge, and theire fucceflors, or the greateft parte of them (whereof the Mafter of the faide Corporacion, for the time beinge, to be one) foe often as they fhall conflitute, ordaine and make anie fuch Laws, Conftitucions and Ordinances, as is aforefaide, fhall and maie impofe, affeffe, ordaine and provide fuch paines, punifhmentes and penalties, by imprifonment of Body or by fines and amerciamentes, or by either of them, uppon all fuche as fhall offende againft fuche Lawes, Ordinances and Conftitucions, or anie of them, as to the faide Mafter, Wardens and Afliftantes and theire fucceffors for the time beinge, or the greater parte of them (whereof the Mafter of the faide Corporacion for the time beinge to be one) thall feem neceffary and convenient for the obfervacion of the faide Lawes, Ordinances and Conftitucions, and the fame fines and amerciaments from time to time and at all times hereafter fhall and maie leavie, take and have to the ufe and behoofe of the
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faide Mafter and Keepers or Wardens and Comynaltie and of theire fucceffors without impedimente of us, our heires, or fuccefors, and without anie Accompte therofore to us, our heires or fucceftors to bee rendered or made.
XI. All and fingular which lawes, Ordinancies and Conftitucions foe, as aforefiade, to bee made, wee will to bee obferved under the paines thercin conteyned. So alwaies that the faide Lawes, Ordinancies and Conltitucions be alreadie, or thall bee examyned and approved by the Chauncellor of England, Treafurer of Englande and Cheefe Juftices of either benches of us, our heires or fucceflors for the time beinge or anie three of them, and bee not contrarie or repugnant to the lawes, ftatutes, Rights or Cuftomes of Our realme of Englande, nor contrarie to the Dacree touching Frinters and Bookfellers made in the courte of Starr Chamber the three and twentith daie of June in the eighte and twentith yeare of the raigne of oure faide deere fifter Elizabeth late queene of Englande.
XII. And wee alfoe do by thefe prefentes confirme, approve and allowe all and every fuche Lawes, Ordinancies and Conftitucions as by the Mafter and Keepers or Wardens and Comynaltie of the faid Mifterie or Arte of Stacioners or anie of theire predeceffors have been conflituted; ordeyned and made for the good governmente and direccion of the faide Matter and Keepers or Wardens and Comynaltie and of theire fucceffors in, about or concerninge the due execucion oure former Letters Patents graunted of the Premifes or anie of them: And which Lawes, Ordinances and Conflitucions have been examined and approved by the Lord Channcellor of Englande, and by the Chiefe Juftices of either Benche for the Time beinge under theire Handes and Seales.
XIII. And for the avoideinge of all confufion which maie happen in and aboute the premifes, Our Will and Pleafure is, and by thefe prefentes for us, oure heires and fucceffors wee do will and graunte, That the government, order and direccion of all affaires, matters and thinges concerninge the execution of

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this oure graunte and priviledge flall from time to time and at all times for ever remaine wholie and firmelie in the Mafter, Wardens and Affiftantes of the Mifterie or Arte of Stacioners of the cittie of London, and of theire fucceffore, and of the greater parte of them (whereof the Mafter of the faid Corporacion for the time beinge to bee one.)
XIV. And we further will and graunte for us, oure heires and fucceffors, that this oure prefente graunte fhall be good and availeable againft us, our heirs and fucceffors, notwithftandinge anic mifrecitall or not-recitall of anie former graunte or grauntes of the premiffes or anie of them to anie perfon or perfons whatfoever ; and notwithflandeinge anie mifnameinge, not true nameinge or not nameinge of anie of the premifles or of anie of them ; although expreffe mencion of the certaintie of the premiffes or of anie of them, or of anie other giftes or grauntes by us, or anie our progenitors or predeceffors to the faide Mafter and Keepers or Wardens and Comynaltie heretofore made in thefe prefentes, is not expreffed; or anie other or former graunte by us or anie our progenitors heretofore had, made or done, or mencioned to bee had, made or done to anie other perfon or perfons whatfoever or anie flatute, acte, ordinance, provifions, proclamacion or reftrainte to the contrarie thereof had, made, ordeyned or provided or anie other matter, caufe or thinge whatfoever to the contrarie notwithfandinge. In Witnefs, \&cc. Witnefs our felf at Weftminfter the eighte daie of Marche.

Per Breve de Privato Sigillo, \&c.



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French Canon is univerfally allowed to have been firft produced by fome artifan of that nation, and employed in fome work relating to the Canons of the church; to which alfo the German title Miffal likewife alludes.

Two Lines Double-Pica, Two Lines -Great Primer, Two Lines English, Two Lines Pica, and Double Pica, derive their names from the refpective bodies of which the depth of two m -quadrats anfwer to one of the double fizes. We cannot here avoid taking notice, that our Double Pica is of the fame fize with what the Germans call Secunda, which induces us to imagine that there fhould be a Prima; but as we know of no Letter of that name, we conjecture, that Prima being a fize larger, and anfwering to Two Lines Englif, it loft its firft name.

Paragon is the only Letter that has preferved its name, being called fo in all countries. Its appellation fhews, that it was firft cut in France; and at the fame time gives room to fuppofe, that the fhape of Letter was, at that time, but very indifferent; becaufe when Paragon happened to turn out a Letter better fhaped than the reft, it received the name of Perfect Pattern, which the word Paragon implies.

Great Primer, in Germany, is called Tertia, and is therefore one of the major fizes of Letter which in the infancy of the Art ferved for printing feveral works of confideration, and particularly the Bible; on which account it is by fome called Bible Text.

English, by the Germans called Mittel, and St. Auguftin, by the French and Dutch. The word Mittel bearing the fame meaning with Middle, intimates, that the former fizes of Letter were feven in number, of which Englin was the middlemof, having Prima, Secunda, and Tertia on one fide, and Pica, Long Primer, and Brevier, at the other. As to the name of St. Augufin, which the French and Dutch give it, it informs us, that the Writings of that Father were the firft Works

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Works done on that fize Letter ；but whether the firft，or the other have a right to claim the honour of the performance，we Thall leave to others to determine．

Pica is another Letter that admits of having particular no－ tice of it，on account of its being called Cicero by the French and Germans；for as the preceding Size was diftinguifhed by the name of St．Auguftin，fo has this been honoured with that of Cicero，on account of the Epifles of that Writer having been firft done in this fize Letter．

Small Pica being of an irregular Body，it takes its name in England from its inferiority to Pica；but in France they affign the invention of this Body of Letter to Philofophy；for which，indeed，they may have their reafon，confidering；that their Cicero and Philofophie are of one and the fame face； from which we conclude，that Small Pica has not been thought by the French worth cutting with a Face proportionable to its Body ；and that the cramping of Cicero to Philofophie，was done with no other view than to get in upon the former．This we venture to fuggeft；but cannot form any idea why the Germans give this Letter the name of Brevier．

Long Primer．Upon the fame fuppofition，that fome Bodies of Letter took their names from work in which they were firt employed，we are induced to believe，that the Ger－， mans gave the name of Corpus to this character，on account of their Corpus Juris being firft done in this fize；and is fill continued in that Letter．It is called by the Germans，Gar－ mond，but whether Garmond is the name of its inventor，or what fignification elfe it bears，we have no traces of．In con－ tradiftinction of the French Gres Romain，they call this fize Petit Romain，conformable to the diftinction that is made be－ tween Great Primer and Long Primer，in England．

Burgeors is a Letter of an irregular Body，and has been hitherto received accordingly．By its name it feems to have firf come from France．Gaillarde is a Letter of the fame Body but has the Face of Petit Romain．

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Beevtar had its mame from being firt ufed for the Breviary, a Roman Cacholick Church-book, which is commonly printed in this character. It is alfo called Petit, and Jungfar or Maiden Letter, by the Germans, on account of its neatnefs, to which, and their fmallnefs, the names of Miniox, Nonpareil and Pearlaliude.

Thus have we attempted to make our canjectures cancerning the names of the different Bodies of Letter that are call into Founts, in hopes that the want of materials for this fubject will be fupplied by fome more able hand.

## DIFFERENCE OF BODIES

Each Body of Letter is not always caft to the fame Size, but differ in their depth, and therefore no certain number of lines can be affigned of the fame length exactly; this is often perceived when a book is to be repripted from a Copy whofe prior Edition was done in a Printing houfe where the Size of Letter in the firft Edition differs from that ufed in the fecond; but here we chure to wave this fubjeft, and proceed to fhew the Proportion that one.Body of Letter bears to another, as to Depth. The following Scheme is defigned to thew where one Size of Letter falls even with another, whether in the Afconding, or Defending order: thus every gth line of Englifh falls even with each roth line of Pica, and fo on; but becaufe the cafting off of Copy requires more than anocher, in Depth, we fhall fhew the Methods which are ufed, to know how much one Letter either Gets in, or Drives out, more than another, in Width alfo, from Great Primer to Brevier, the limitations being fignifed by a Full-point inverted.

The Length of the lines in the Scheme are divided into eight equal par s, each to fhew how many letters are contained in $1,2,3,4$, or in all the eight parts of a line, according to the different Bodies of Letter.

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 A Schbme thewing the difference there is between the deveral Bodies of Letter, as to Depth; frum Greatprimer to Brevier.

According to this Scheme, which fhaws the Sizes of Leter in their Defcending order,
Gr.P. Eng. $\mid$ Eng. Pica | Pica S.Pica

$$
\begin{aligned}
4 & =5 \\
8 & =10 \\
42 & =15 \\
26 & =20 \\
20 & =25 \\
24 & =30 \\
28 & =35 \\
92 & =40 \\
36 & =45 \\
40 & =50 \\
44 & =55 \\
48 & =60 \\
52 & =65 \\
56 & =70
\end{aligned}
$$

| Eng. Pica | Pica S.Pica |
| ---: | ---: |
| $9=10$ | $7=8$ |
| $18=20$ | $14=16$ |
| $27=30$ | $21=24$ |
| $36=40$ | $28=32$ |
| $45=50$ | $35=40$ |
| $54=60$ | $42=48$ |
| $63=70$ | $49=56$ |
| $72=80$ | $56=64$ |
| $81=90$ | $63=72$ |
| $90=100$ | $70=83$ |
| $99=110$ | $77=88$ |
| $108=120$ | $84=96$ |
| $117=130$ | $91=104$ |
| $126=140$ | $98=112$ |

$14=15$
$28=30$
$42=45$
$56=60$
$70=75$
$84=90$
$98=105$
$112=120$
$126=135$
$140=150$
$154=165$
$168=180$
$174=195$
$188=210$
L.Pr. Burg.
$7=8$
$14=16$
$21=24$
$28=32$
$35=40$
$42=48$
$49=56$
$56=64$
$63=72$
$70=80$
$77=88$
$84=96$
$91=104$
$9^{8}=112$
$105=120$
$112=128$
$119=136$
L.Pr. Brev.
$4=5$
$8=10$
$12=15$
$16=20$
$20=25$
$24=30$
$28=35$
$32=40$
$36=45$
$40=50$
$44=55$
$48=60$
$52=65$
$56=70$
$60=75$
$64=80$
$68=85$

Burg. Brev.
$8=9$
$16=18$
$24=27$
$32=36$
$40=45$
$48=54$
$56=63$
$64=72$
$72=81$
$80=90$
$88=99$
$96=108$
$104=117$
$112=126$
$120=135$
$128=144$
$136=153$

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This Scheme is alfo of ufe in Cafting off Copy; for if we divide the Width of a Manufcript into equal parts, we can more readily compute our Copy, by obferving, how many parts are required to a line in print. The parts, therefore, into which we divide our Copy for menfuration, ought to be fuitable to the fize of it ; viz. wider for what is written in Folio; and clofer for what is written in Quarto, or in Octavo. Thefe equal parts are drawn out upon a piece of Paper anfwering to the length of a line of writing; and having firft tried how many parts of Manufcript go to a line in print; we may find how many lines of writing will make even lines in print; which, when found, will make it eafy to caft off for pages, forms, or fheets. And, to mention another convenience there is in dividing the lines or Copy into equal parts, it will affift us in Writing that varies; in' which cafe we may allow as many parts to a line in print as we think proper. But becaufe we do not expect that our Scheme will meet with a general reception, we leave every one to his own choice and hereafter offer another way that is ufed for Calting off Copy; and which is no new thought or method.

Though all Founders arree in the point of cafting Letter to certain Bodies, yet, in the article of cafting each Body always to one and the fame Size, they differ; infomuch tiat not only Founders of different places, but of the fame refidence, and even each in particular, often vary in the Height and Depth; both which feem rather to have increafed: but whether the Founder (to make his Letter more weighty), or the Printer, (to grace it with more diftance between the lines) has occafioned this digrefion from the former Sizes, we flall not fcrutinize; but only fuppofe, that it commenced with the time when Printers here were obliged to furnifh themfelves with good Letter from abroad. But that neither the Dutch Sizes of Letter have been approved of, nor our former founderies continued, cannot be well afcribed to accident, but defect in their produtions,

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That the Size for each Body of Letter was fixed, and unalterably obferved, by our antient Letter Founders, feems to be out of doubt; or the ingenious Author of Mechanic Exercifes would not have given us a Table of the Sizes of Letter, in his time, without refervation. In order,' therefore, to fee the difference between the depth of Letter in Mr. Moxon's time, and that which is caft at prefent, we will infert this Author's own Table of Sizes, in which he has carried the number of m 's, or (which is equally the fame) lines of matter of each Body of Letter to the length of 12 Inches, or a Foot; which we thall alfo obferve in our Counter-Table, fimilar to Mr. Moxon's.

A Table of the Sizes of Letter in Mr. Moxon's Time.


Thefe are all the Bodies of Letter that are feecified by him, from which it appears, that in his time Printers were not incumbered with fo many different Founts as they are at prefent; for now there are feven forts of Letter more than are exhibited in the preceding Table, viz. Minion, Burjois, Small Pica, Paragon, Two Lines Pica, Two Lines Great Primer, and Two Lines Double Pica. Fot, if thefe feven forts had then exifted, Mr. Moxon would not have failed fo have mentioned them, as he does Small Pica; concerning which he fays; " We have one Body more which is fometimes ufed in England, that is, a Small Pica; but I account it no difcretion

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tion in a Mafter Printer to provide it, becaufe it differs fo little from the Pica, that unlefs the Workmen be more careful than they fometimes are, it may be mingled with the Pica, and fo the beauty of both may be fpoiled." Hence we may guefs what little regard was paid to that one irregular bodied Letter, by not giving it a place to be mentioned among the others in the Table. How much lefs value, therefore, would Mr. Moxon have fet upon our Minion, Burjois and Paragon, had he ever feen them. We will firlt compare the Depth of the feven additional forts of Letter; proportionable to the Sizes in the foregoing Table, and then give the Sizes of all the Bodies of Letter, which are now extant.

Minion, then, of which two lines anfwer to the depth of one of Englifh, would, according to Mr. Moxon, have required to the length of one Foot, - 132 m's.
Burgois, which has Great Primer for its Two Line Letter, nould have required 100


Paragon, ———_ 46
Two Lines Pica, 37
Two Lines Great Primer, ——— 25
Two Lines Double Pica, —— 19
Thus would the Sizes of thefe feven forts of Letter have run, had they been caft about fourfcore yeats ago. As we have fhewn the ftandard they had at that time, it is requifite to fhew their prefent Sizes in the following Table, by which it may be eafily feen the difference of our prefent Sizes to that of Mr. Moxon's.

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## A Table of the Prefent Sizes of Letter.



This is the ftate of our Modern Sizes of Letter. The Table is dra un up to thew the Size which each Body of Letter, here fpecified, now has ; but let us not conclude from thence, that each fount of Letter is always caft to one and the fame Size in its Body. Were this the cafe, we fhould not take the liberty to fay, That whoever was the author of cafting Founts of the fame Body to different Sizes, has no room to boaft, that he has improved Printing ; but has done fo much hurt to it, that the ill confequences thereof would be too many here to enumerate : we therefore leave every judicious Printer, firft, to examine the merits of the charge ; and then, to join in the verdiet; which, we hope, will be given in our favour, after we have proved our affertion by the fubfequent Scheme.

A Scheme thewing fome of the different Sizes to which Long Primer is caft by different Founders.

From this fietch it may be eafily guefed, that the like variation which appears here in Loag Primer, prevails alfo in Founts of other Bodies. How apparent, then, is the harm and confu-

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fion which the differing in the Size of Letter of the fame Body is able to produce! and that therefore it ought to be made a rule, That each of the different Bodies of Letter fhould always be caft to the fame Height, Depth, and Line, by LetterFounders of the fame place, at leaft. But whether fuch a reformation would be chearfully made by Founders, is a queftion, unlefs they were urged to it by a joint agreement of the molt confiderable Printers, who always are furnifhed with more than one Fount of the fame Name; and who confequently sun the greater hazard of having the beauty of their Letter quite deftroyed, if Sorts of one Fount hould be made ufe of in another which is not of the fame Size. As ocular therefore as the mifchief is which arifes from different Sizes to the fame Body of Letter, fo demonitrable is the reciprocal benefit which would refalt to Printers and Founders, from caiting each Body of Letter to one and the fame Size. The latter, then, would have no occafion to be at the expence of fo many different MoldsThe more current Founts might always be cafting and drefling, becaufe they would fuit every one who fhould have occafion for a Fount of them; and, by keeping a Fount-cafe, contrived for that purpofe, and always fupplied with Sorts, Printers might be inftantly ferved with what they fhould want, without borrowing. Another advantage would be found, when a Priatinghoufe fhould happen to be fold, that the Letter of it would Stand with another Fount of the fame Body, to be ufed either by itfelf, or to be mixed, provided they fhould agree together, as to wear.

Thus, by ftating the conveniencies which would arife from an uniformity in calting each Body of Letter to the fame fixed Size; it will be needlefs to particularize the contrary effects; fince, without much fpeculation, every one may guefs of what detriment it muft be to a Printing-houfe which has feveral Founts of the fane Body ; but which differ in their Sizes - The confequence mult be, that the length of Pages (though of the fame number of lines) as well as of Furniture, will yary according

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cording to each Size : neither will Rules, Leads, Reglets, \&c. cut to a number of m's of one Fount, anfwer to a meafure of the fame number of m's of another Fount, which is either deeper or fhallower in Size. Nor is it poffible to prevent Letter from mixing, which is caft in the fame Matrices, and which has hardly any difference in the Nick. Thefe are fome of the unavoidable confequences which arife from having different Founts of the fame Body, not of one and the fame Size. The reafons, therefore, which are given in defence of this irregularity, ought rather to be regarded as fubterfuges, to fupport an argument which may be quafhed, without leaving it to arbitration.

To have regard that the Face of letter be proportionable to its Body, is the Letter-cutter's province: I am therefore of opinion, that the different forts of Irregular-bodied Letter owe their exiftence to accident; and fuppofe; that a Letter may have been cut, the Face whereof happened to prove too large for one of the regular-bodied Sizes, and too fmall for another; and that therefore the Founder ufed the expedient of cafting it to an intermediate Body, which we will fuppofe to have been Paragon : and this turning out a handrome Letter, the Founder, no doubt, recommended it, as an improvement, to fome good Printer, who had the complaifance to allow the Founder to be the beft judge in this cafe. And this accident might lead the way to the thrufting Intermediate Letter in between other Regular Bodies-Hence we have, between Pica and Long Primer Small Pica ; between Long Primer and Brevier, Burjois; and, between Brevier and Nonpareil, Minion. Of Paragon it may be further obferved, that it was caft, to be the intermediate Letter between [real] Double Pica and Great Primer; till, Small Pica coming in, the real Double Pica (as has been faid already) was reduced to a Two Line Letter of Small Pica; and real Double Pica, or Two Lines Pica, fubftituted by a new Letter, cut on purpofe. For the reft, Paragon is a Letter not met with in many Printing Houfes, either abroad, nor here, where

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where it has been lately introduced, and has now a place among the other Beauties in Mr. Callon's Specimen of Letter, before inferted.

What Irregular-bodied Letter is particularly to be admired for is, that each has been cut here purpofely for their refpective Bodies; whereas in France their La Philofophie, or Small Pica, is caft in the identical Matrices of Cicero, or Pica; their Gaillarde, or Burjois, in thofe of Long Primer; and their Mignone, or Minion, in the fame of Brevier---So that the cutting of Punches for three forts of Regular-bodied Letter, ferves there for as many of Irregular Body. A faving way, fimilar to this, was attempted by Mr. Jallefon, who was a Letter Founder, from Germany, and lived here in the Old Bailey; where he printed the greateft Part of an Hebrew Bible, with Letter of his own cafting ; but was, by adverfe Fortune, obliged to finifh that in Holland. He from three fets of Punches propofed to caft fix differept Bodies of Letter, viz. Brevier and Long Primer, from one fet-Pica and Englifh, from ano-ther-Great Primer and Double Pica, from a third fet of Punches. Accordingly, he charged his Brevier, Pica, and Great Primer, with as full a Face as their refpective Bodies would admit of ; and, in order to make fome alterations in the advancing Founts, he defigned to cut the Afcending and Defcending Letters to fuch a length as fhould fhew the extent of their different Bodies. But though he had caft Founts of the three minor forts of Letter, he did not bring the reft to perfection here.

## REGULAR BODIED LETTER.

This clafs takes in Great Primer, Englifh, Pica, Long Primer, Brevier, Nonpareil, and Pearl : but to thofe which go before them, viz. French Canon, Two Lines Double Pica, TwoLines Great Primer, Two Lines Englin, Two Lines Pica, and even Double Piea, we will give the name of Title Letters;

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confidering that the firft three forts are ufed in Titles of Books， and in Jobbs，only，to make emphatical words or lines appear more confpicuous．And as to the three other fizes，they are moftly ufed in Heads，and for Jobbs；though they，and even Two Lines Great Primer，fometimes ferve for fhort Dedications， or Prefaces，to works of an extraordinary lafge fize．

Anong the Title Letters，Two Lines Pica being looked upon as a Letter of no general ufe，and very apt to be mixed with Double Pica，but few Printers are fond of it；efpecially as they find that the difference betwixt Two Lines Pica and Double Pica， as well in Face，as Body，is but inconfiderable；and that of the two，the latter is fitteft for Poems，Prefaces，and other in－ troductory parts of a Work．

That Double Pica is not the right name for that Letter，no Printer will difown，becaufe its depth anfwers to Two Lines Small Pica，and ought for that reafon more properly be called Double Small Pica．Which gives us room to fuppofe，that the fame Letter which now anfwers to Two Lines of Small Pica， has been alfo caft to the depth of Two Lines of Pica；but，being àdjudged too fmall－faced for that fize，it has been reduced to two lines of Sm：ll Pica．But Mr．Caflon，has revived Two Lines Pica，in having cut a letter fomething larger than his Double Pica，on purpofe to be caft to the fize of Two－lines Pica．

## IRREGULAR BODIED LETTER．

Thefe are，Paragon，Small Pica，Burjois，and Minion．We call them Irregular，becaufe they are of intermediate fizes to Letter of Regular Bodies；a ftandard for which，no doubt，was fixed by former Printers，and Founders．

What has been mentioned about Two－lines Pica，may be equally faid of Paragon，Burjois and Minion；That they may be fpared in a Printing Houfe，well provided with Fufil Mate－ rials of Reg lar Bodies ：for none can well plead their neceffity， but fuch as are fure to reap a benefit from being furnifhed with them．

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them. Irregular Bodied Letter is apt to caufe confufion in a Printing Houfe; and is therefore the lefs countenanced by moft Printers. But becaufe Irregular Bodied Letter of the fmaller fizes fometimes ferves the ends of proprietors of fanding and felling Copies, this feems one reafon that it has been attempted; otherwife the Sizes of Printing Letter would not perhaps have been carried lower than Brevier-a Letter fmall enough, to injure the fight, without the help of Nonpareil, and Pearl, though both of the clafs of Regular Bodied Letter.

Among the Irregular Bodied forts of Letter, none has taken fo great a run as Small Pica; and very confiderable Works have been done in that Character; fuch as Chamber's Dictionary, the Syftem of Geography, the Univerfal Hiftory in 8 vo , and feveral other books of confequence. It is a Letter, indeed, which was not much taken notice of, before it appeared in Cyclopøedia; but it has raifed its reputation ever fince, and is now become the favourite Character to do voluminous Works in ; partly, becaufe it is a round and legible Letter; partly, becaufe it takes in confiderably more matter than Pica. In the mean time the purchafer of Works printed in Small Pica have the advantage; for they have more than an adequate value for their expence, efpecially if the matter is ufeful and entertaining.

## ROMAN LETTER.

Roman is at prefent the moft prevailing Letter ufed in printing; and has long been the national character not only of Great Britain and Ireland, but alfo of Portugal, Spain, France, and Italy; whereas in Germany, and in the kingdoms which lie near the Baltic, they make, ufe of letters which owe their formation to the Gothic characters; however, neither of thefe nations would fcruple to change their Types; and, with the Polanders, and Hungarians, print in their own language, with Roman letter: and the reafon the Germans as well as thofe who patronize their characters, have not yet in-

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tirely quitted them, and made Roman letter more univerfal, is chiefly owing to their apprehenfions of fharing the fate of the primitive Printers, who, in attempting to introduce Roman characters, fuffered greatly, from the dillike fhewed to the works done in that letter; whereby they were obliged to return to printing in the Gothic character, to which men of literature were then accuftomed, and which refembled the writing of Monks; as it was not difficult to pèrfuade people to difapprove of any thing which had the leaft fhew of difrefpect to the monaftic intereft.

The fame reafon may be given, why the Dutch have not turned the Black letter out of their Printing Houfes, but fill make ufe of it, efpecially in books of devotion, and religious treatifes defigned for general ufe; where curious and learned fubjects are frequently printed in Roman. The Germans, indeed, have more than once made efflays to print prayer-books in Roman letter, to try how they would be received by the public: but it has been obferved, that this fcheme would not take; and that the fmall impreffions of thefe books came into the hands of fuch only as were either curious, or as would be thought to be learned, when they fhould be feen reading in a book priuted in characters which the vulgar people in Germany perfuade themfelves to be appropriated to no other than the Latin language. However, what has fruftrated the defign of the German Printers, has not intimidated thofe in Sweden, where, by the authority of the proper fupporters of fo noble a plan, they have of late made confiderable fteps towards abolifhing German types, by printing the New Teftament, the Pfalter, and other fchool books, in Romăn letter; by which, it is hoped, printing, in that quarter, will put on a better face; and their Gothic printing letters become obfolete, and antiquated.

The appellation itfelf is fufficient for us to imagine, that it owes its being to the antient Romans, though the face of the preient, and the fhape of the original Roman letters are greatly changed,

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changed, by the improvements which they have received from time to time, according to the laws and rules laid down by eminent artifts. The Germans differ with us, as they call all thofe fizes of letter Antiqua, which we, as well as the French, and other printing nations, comprehend under the name of Roman.

That good Roman makes the beft figure in a fpecimen of letters, may be faid without referve; efpecially as we would be underfood not to pronounce all letter good which is new ; but only fuch as has the neceffary accomplifments, as well in its appearance as fubftance. The firft of the good qualities, therefore, of Letter, confifts in its being of a true and regular thape. We fhall not prefume to dictate or make obfervations upon this head; but agree with the ingenious Mr. Moxon, "That the Roman letters were originally invented and contrived to be made and confift of Circles, Arches of circles, and Atrait Lines; and that therefore thofe letters that have thefe figures, either entire, or elfe properly mixed, fo as the courfe and progrefs of the pen may beft admit, may deferve the name of true flhape." Thefe mathematical figures, therefore, being obferved, and properly applied, by the Lettercutter, will produce Roman characters, of fuch har:ony, grace, and fymmetry, as will delight and eafe the eye, in reading; by having their Fats and Leans properly difpored with fuch fweetnefs as amazes a clofe examiner into the proportion which the fmalleft letters bear to thofe of larger fizes: but to denounce, what Foundery can boaft of true fhaped letters, would be fpeaking with too much prefumption, fince it is agreed even by able pen-men, that none can ftrike two letters of the fame fignification, fo as, upon the Itriatef examination, to have the fame likenefs. If therefore it is impracticable to write a true duplicate upon paper, it may be excufed in thofe who attempt it in fteel : for, were it poffible to copy fo as to make it impoffible to difcover the leaft deviation from the original, letter cutters too, would then be able to give accented letters, and

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and fach as are contained in ligatures, the fame exact fhape and fymmetry with thofe of the mean alphabet, though even thefe fhould have nothing but the fancy of the artift in fupport of their being true fhaped.

We will not, therefore, engage in the controverfy about true Thaped letters, bat rather chufe to be filent upon that head; and yet not to mention that the Dutch Letter-founders have exerted themfelves more than their neighbours, in cafting good Letter, would be flifing a truth which does not want for vouchers; for though the authorities about the Invention of Metal Types ran in favour of the Germans, the meliorating and improving them cannot be more juftly claimed by any than by the Dutch, who have for fome time diftinguifhed themfelves by their neat Prefs-work; and as this has been afcribed to the goodnefs of their Letter, a notion has prevailed by fome not converfant in Printing, that "the Dutch print with, filver types;" but a good and neat Preffman can eafily eradicate their error, and convince them, that it is not on the Dutch Letter only that good Prefs-work depends; or that all their Letter is of equal goodnefs and beauty, any more than the productions of the old Englifh founderies, and thofe of fome of the modern.

It may be obferved that it was owing to the ingenuity and care of more than one Dutch founder, and the ftupidity and careleffnefs of our own, that the preference, till of late years, was given to Dutch Letter ; but it has now entirely loft its former credit by the influence and confpicuous fuperiority of the laborious productions of the late ingenious Mr. W. Caslon, and his fon, now his fucceffor; indeed, within a few years paft there is another aifiduous artift who makes large flrides towards perfection, viz. Mr. Joseph Jackson, who ferved his apprenticeflip with Mr. Caslon, and whofe neatnefs, punctuality, and expedition, in the execution of orders, greatly recommend him; as to the productions of other Founderies we fhall be filent, and leave tiem to found forth their

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their own good qualifications, which by an examiner are not found to exitt.

Van Dijke, (from whom Mr. Moxon made his draught of (rue-fhaped letters) Vokin and Dommer have been confidered as ingenious men in their profeffion; notwithftanding which, it cannot be faid that the merit of their Dutch letter Thews itfelf in being exadly true-fhaped, or the large capital letters in particular would not bear fuch a difproportion to each other, and difcover fo little of that beauty which the proper placing of Fats and Leans otherwife afford. In this we refer to the large capitals of Dutch Englifh, and Small Pica Roman, which fill may be found in Printing Houfes in London. It may however be faid that the Dutch took more than common care in finifhing their Punches, and removing all fuch irregularities as may obftruct their making a fmooth and even imprefion when funk into Matrices, firtt well prepared for the purpofe: and as their Letter was generally caft of good metal, and to fand true, and exact in line, befides well dreffed, it was no wonder that it formerly recommended itfelf into many confiderable Printing Houfes, and, probably would have been received in moft others, had it not been checked in its further progrefs by Mr. Caflon.

What has been faid about true fhape in Letters, relates chiefly to Roman; but, in our further obfervations upon the Properties of good Letter, we fhall comprehend all other fufil types. Accordingly, the goodnefs of Printing-letter being not confined to true flape alone, confifts alfo in having a deep face; which depends, firtt, upon the Punches being cut to 2 reafonable depth, and their Hollows deepened in proportion to the width of the refpective letters; and, fecondly, upon the Panches being funk deep into Matrices: for if either of there two requifites is neglected, the Letter, in courfe, will have a fhallow face, and prove unprofitable to the parchafer; as it is in France, where Printers have great reafon to complain of the fhallownefs of Letter caft by their founders. Mr. Fertel,

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Printer at St. Omer, in particular, exclaims agaitft this impofition in the following maner: " We need not wonder (fays he) that our Prefs work does not look better ; for if the paper is apt to fink, or otherwife deceives the perfon that wets it; and the ink happens not to be very clean, the eye of the Letter is prefently filled up.-The Preffman then, with his Bodkin, turns Graver; but with fuch an unfteady hand, and with fo little precaution, that he more hurts than clears the Letter. Had our characters the fame depth as thofe abroad, French Prefs-work would undoubtedly make a better figure alfo: but we have had new Founts where the relief part of fome Sorts (confidered from the centre of their hollows) did not anfwer to above the thicknefs of ordinary paper for printing which is a fhame!" And though this, at prefent, is not the cafe in England, it may be obferved, that fome of our Roman lower-cafe forts are not equally fortified to endure the weight of the Prefs, efpecially in Founts of the lefier fizes, where the $\mathrm{a}, \mathrm{e}, \mathrm{s}, \mathrm{w}$, are worn out before the other forts are injured; which few forts, were they caft again, and the worn ones thrown out, would render a fount ferviceable for a great deal more good work.

The next of the principal qualities of good Letter, is, that it be caft of good metal, fit to wear well, at leaft fo long as till it has paid for itfelf, befides good intereft for its long credit; thereby to eafe the charges of fuch other forts of Letter that never make a return either of the principal nor intereft.

The Compofition of metal for Letter being various, and depending upon the difcretion of the founder, muft needs have different effects upon Letter, and render it either more or lefs ferviceable. Mr. Moxon has been fo generous as to particularize the fpecies and the quantities which he ufed to make Metal of; and accordingly 28 lb . of Metal required 25 lb . of melted lead, mixed with 3 lb . of iron and antimony melted together. But in Germany they ufe more than three ingredients to their Metal; which is there made of fteel, iron, copper, brafs,
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brafs, tin, and lead: all which they incorporate with each other by means of antimony. This Metal, if duly prepared, does not bend, but breaks like glafs: it is harder than tin and lead; fomething fofter than copper, and melts fooner than lead.

Befides the three principal Properties which we have mentioned, the following are not undeferving the purchafer's examination; who ought to take notice,

1. Whether the Letter ftands even,' and in Line : which is the chief good quality in Letter, and makes the face thereof fometimes to pafs, though otherwife ill-fhaped.
2. Whether it flands parallel; and whether it drives out, or gets in, either at the head, or the foot, and is, as Printers call it, Bottle-arfed : which is a fault that cannot be mended but by rubbing the whole Fount over again.
3. Whether the thin lower-cafe letters, efpecially the dots over $i$ and $j$ are come in cafting.
4. Whether the Break is well ploughed away, and fmoothened.
5. Whether it be well fcraped, fo as not to want rubbing down by the compofitor.
6. Whether each letter has a due Proportion, as to thicknefs; and whether they are not fo thin as to hinder each other from appearing with a full face; or fo thick as to occafion a gap between letter and letter.
7. Whether it be well Bearded : which founders in France are obliged to do to their own difadvantage, on account of their fhallow Letter.
8. Whether it has a deep and open fingle, or double Nick, different from other Founts of the fame Body, and in the fame Printing-houfe.

In this laft article the Dutch and French act a little ungeneroufly; by putting a very narrow and Challow Nick to moft of their Letter: and the French to be more particular, put the Nick on the back of their Roman Letter,

## ITALIC LETTER.

As Roman characters owe their invention to the antient Romans, fo have Italic letters the learned Aldus Manutius for their author'; who was a Roman by birth, and who in the year 1490 erected a Printing-houfe in Venice; where having abolifhed the Letter which refembled the writing of Moriks, and introduced Roman types, of a much neater cut, invented that beautiful Letter which we and feveral other nations call Italic ; though the Germans, and thofe who join with them, fhew themfelves as ungenerous in this inflance, as they do with refpect to Roman; for they give Italic letter the name of Curfiv; whereby the memory of its original defcent is ftifled. In the beginning it was called the Venetian Letter, by reafon that Manutius was fettled at Venice, when he brought his new-invented letter to perfection; which not long after was dedicated to the State of Italy, thereby to prevent the difputes which might arife if any other nation fhould venture to claim the prioricy of it; as was the cafe about the firf Invention of Printing.

The chief and almoft only ufe for which Italic was originally defigned, was to diftinguin fuch parts of a book as may be faid not to belong to the Body thereof, as Prefaces, Introductions, Annotations, congratulatory Poems, Summaries, and Contents: all which fub-parts of a Work were formerly made a rule to be put in Italic; whence it was that at leaft two fifths of a Fount of Letter was Italic. At prefent that Letter is ufed more fparingly, fince all the different parts of a Work may now be very properly varied by the different fizes of Roman, was there even no Italic at all: and to plead the neceffity of Italic to diftinguifh proper names of Perfons and Places, would be altogether needlefs, and argue, that the prefent age is lefs capable of apprehenfion than our forefathers, who knew the fenfe and meaning of words, before Italic exifted, and when no other but one fort of letter ferved for Title, Body, and all the other parts of a Book.

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That Italic letter was not defigned to diftinguigh proper names in, nor for feveral other ufes which it now ferves, might be readily proved, even from works which have been printed here in England; where feveral have thought it a contraft to deprive Roman Letter of its own beauty, by loading it with Italic words and terms of common fignification and meaning; and have thought it inconfiftent to intermix Letter of an erect pofition with that of an oblique inclination.

What Roman letter fuffers by being interlarded with Itelic, is of equal prejudice to this, when it is invaded by the formerFor Roman being always of a bolder look than Italic of the fame Body, takes advantage of the foft and tender face of Italit; which, throughout all its fizes, is now in England of fuch a beautiful cut and fhape as it never was before. What pity then that two fuch fignificant Bodies as Roman and Italic are, and of which neither ftands in need of the other, fhould fometimes be maimed in fuch a manner as not to be known which of the two has the advantage of the other. It is therefore to be, wifhed, that the intermixing Roman and Italic may be brought to ftraighter limits, and the latter be ufed for fuch purpofes as it was defigned for; viz. for varying the different Parts and Fragments, abftracted from the Body of a work-for paffages which differ from the language of the Text-for literal citations from Scripture-for words, terms, or expreffions which fome authors would have regarded as more nervous; and by which they intend to convey to the reader either inflructing, fatyrizing, admiring, or other hints and remarks : whereas others again would not chufe to follow that method, fearing that their works fhould be thought to have been printed in a houfe where for want of Roman they had recourfe to the too great ufe of Italic.

Though it is in vain to expect that the ufe of Roman or Italie will be reftored to its former purity; yet may it be hoped that their parading fo very promifcuoufly may be prevented, or, like the Old Style, abolifhed, when, upon examining into the

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merits of thefe obfervations, fome may join in the opinion, that mixing the faid two fpecies of Letter on account of proper names, whether of perfons or places, ought to be avoided as well in profane Works, as it is in Holy Scripture. Which might be effected with the lefs difficulty, were Printers themfelves to thew their diflike to $i t$, and at the beginning of a Work give directions concerning proper names, and the placing of capital letters, before the Compofitor falls into the common road of both. But to prevent the trouble, as well as expence, which would enfue upon an Author's infifting to have his work done in an unufual way, after it has been begun, it is fafeft to confult every Gentleman, left fome fhould chufe to fhew themfelves peculiar, rather than conform to the methods which Printers ufe to grace the work committed to their care.

Were we to trace the.beginning of the cuftom which prevailed in England, to vary all proper names, it would require a difcourfe too prolix to give it here a place; yet that we may not be altogether filent upon this head, we will make the following conjectures, by obferving, That when Roman Letter became to be eftablifhed, the Germans made ufe of it among their Cha. racters, for proper names, and fuch words as are fometimes entire Latin. But if this has given the hint to the Englifh to vary their proper names, it may be faid in favour of the former, that the lofs which their Characters have fuftained in their afpect, by being intermixed with Roman, is far lefs than what that Letter fuffers when interlarded with Italic; the German and the Roman being both of a parallel pofition, but Italic, of an oblique inclination-Add to this, that the Germans, being apt to latinize moft proper names, and to exprefs them according to the fame rules as in a Latin difcourfe, by their varying them, own that fuch names and words have the genius of a different language; which cannot be faid of proper names in the Englifh, where they are not fubjected to that affected way of latinizing them, before they prefent themfelves in Latin

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Works. But if this conjecture will not pafs, we defire leave to offer another; and to fuppofe, That the varying of proper names, may be owing to the fancy of fome Author of a Work which abounded in proper names, either of perfons, or places, more than ordinary, and therefore ordered them to be diftinguifhed by difierent characters from the Text, thereby to fave himfelf the trouble of reading the Body of the Work over again, when he fhould have occafion to make an Index of the names contained in the matter : or elfe, to make the names in the Index to be found readily in the Text, where they would Thew themfelves more confipicuous to the Reader on account of their being put in different characters. And that fuch a contrivance may have afterwards been looked upon as an improvement; or the Printer may have fupported the fame, to make more ufe of his Italic, feems not altogether improbable.

Italic difcovers a particular delicacy, and fhews a mathematical judgment in the Letter cutter, to keep the Slopings of that tender faced Letter within fuch degrees as are required for each Body, and as do not detriment its individuals. But this precaution is not always ufed; for we may obferve that in fome Italics the lower cafe $g$ will not admit of another $g$ to fland after it, without putting a Hair Space between them, to prevent their preffing againft each other : neither will it give way to $f$, and the ligature $f$; and therefore a round st was formerly caft to fome Italic Founts, to be ufed after the letter $g$; but where the round $s t$ is wanting, an $s t$ in two pieces might be ufed without difcredit to the work, rather than to fuffer the long $f$ to be broke, or to caufe a gap between the $g$ and the faid ligature. The like feparation may be difcerned where $g$ flands before $j, p$, and $y$, in the fame word. To remove there fore thefe inconveniences, which the Italic $g$ feems to have occafioned equally in France, the Manager of the King's Founding Houfe at Paris caufed a $g$ to be cut of fuch a length and turn as yielded to the inclination of thofe letters which before were hindered from'their clofe joining the $g$. But thefe are not

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the only interfering letters; for fome of the Italic Capitals are of the fame troublefome nature, and fupprefs the appearance of certain lower cafe letters; of which we fhall take notice, when we come to fpeak of Kerned Letters.

We. hope it will not be thought improper to conclude with obferving, That Italic letter, not being expofed to the fame injuries which the Roman is apt to receive, by being conftantly ufed ; Printers, fometimes make one Fount of Italic ferve for two of Roman, by cafting fuch lower cafe forts over again as they obferve to have been blunted on account of their more tender Face; which generally happens to $e, 0$, and $s$-And that, in chufing their Letter, they are not confined to have Roman and Italic caft by the fame Founder, but where they find the one or the other to pleafe their fancy beft.

## BLACK PRINTING LETTER.

Black Letter, which is ufed in England, defcended from the Gothic Characters; and is therefore called Gothic, by fome, and Old Englifh by others: but Printers give it the nante of Black Letter, becaufe its Face, taking in a larger compafs than Roman or Italic of the fame Body, the full and fpreading ftrokes thereof appear more black upon paper, than common. At prefent Black Letter is fo far abolifhed, that it is feldom ufed in any work than what belongs to Law, and more particularly to Statute Law. It is therefore poffible that Black Letter, in time, may become altogether unregarded, as well as its parent, the Gothic, which in the primitive time of Printing was the eftablifhed Character, and prevailed againft the Latin; which had been firft introduced in Spain, by Alphonfus VI. 1080; when that Prince put an end to writing in Gothic characters throughout his dominions. Neither needs the extinction of Black Letter be much lamented by Printers, on account of the extraordinary quantity of ink which it requires, whereby the beft coloured paper receives a yellow hue, and becomes unfightly.

Black

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Defcending Letters are, $\mathrm{g}, \mathrm{p}, \mathrm{q}, \mathrm{y}, \mathrm{j}$, both in Roman and Italic. Afcending Letters, when they happen to ftand under Defcending Letters, fometimes are apt to be damaged by their bearing upon each other, which the Compofitor fhould prevent by fifting the Spaces.

Kerned Letters are fuch as have part - of their Face hang over, either on one, or both fides of their Shank. In the Roman, $f, f, j$, are the only kerned letters; but in the Italic, $d, g, j, l, g$, are kerned on one fide; and $f$ and $f$, on both fides of their face.

Kerned Letters being attended with more trouble than other forts, Founders are fometimes fparing in cafting them ; whereas they rather require a larger number than their Cafting-bill fpecifies; confidering the chance which kerned letters ftand, to have their beaks broke, efpecially the Roman f , when it ftands at the end of a line, where it is expofed to other accidents, befides thofe from the lie-brufh ; but in ftill more danger are kerned letters of the Italic; efpecially $d, f, l$, when they ftand with their beaks unguarded, at the end of lines; and at the beginning of lines, $f, g, i, f, y$, run as great a hazard; though of thefe, $f$ and $\int$ in particular are moft liable to fuffer.

Mof Italic Capitals are kerned on one fide of their face; but none ought to be more looked after than $A, T, V, W$, that the angle of the $A$ may not fall upon an Afcending letter that fhould fand next to it; alfo, that $\mathcal{T}$ and $W$ nay admit of an $b$, and $V$ of an $i$, after it.

The kerning of letters, it muft be owned, may ferve many purpofes; of which the following are not altogether undeferving of being mentioned, viz.

1. In Mathematical and Algebraical Works, where Letters, Figures, \&c. are exprefled according to the fignification which they have either over or under them; and which might be put more fafely over or under kerned characters, than be juftified

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to them ; whereby the compofing of Algebra would be rendered more eafy, and the work itfelf receive a more folid look.
2. In Etymological Dictionaries, the Vowels as well of large as of fmall Capitals, might be kerned, to make room for the Accent which governs the pronunciation of a word; whereby the feparation which the Acute makes between letter and letter, would be prevented ; and the odd appearance removed, which large Capitals make with common accented letters amongft them.
3. In large characters, fuch as Double Pica, and upwards, the five Vowels might likewife be kerned; and a few Acutes, Graves, and Circumflexes caft to the body of fuch Vowels; which would anfiver the whole clafs of Accented letters, and and leave room for twelve boxes, to contain more circulating , forts.
4. In Hebrew, one Alphabet kerned on one fide, and another, kerned on both fides, with Vowels, caft in the nature of Greek Accents, would make room for the proper Vowels to be put under Confonants, more readily than by juflifying them in feparate lines to their places.

That fome former Founders have been more liberal than others, in kerning of letters, appears from their care which they have fhewn in preventing the Italic Capital $A$ from caufing a gap, where it is preceded by a Capital letter which is not kerned; but more particularly when it flands after a $P$; from which the $A$ feparates itfelf more perceptible than from any other letter. To forward them therefore in their approaching each other, the $P$ is kerned, that its propenfity may cover the back of the protruding angle of $A$.

Thefe are the claffes into which Letter Founders divide the forts of a fount, without including Small Capitals and Accented Letters; becaufe they are not always caft with the fount, but only when the Printer gives orders for them.

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We fall only add two more observations, one of Double Letters; and in the other, give a Table of each fort comprehanded in a common Fount of Roman Letter.

Double Letters are, $\mathfrak{x}, \propto, \mathfrak{c t}, \mathfrak{f t}$, w. They are the only Ligatures that have been thought fit to be preferved. The other Double Letters are contrived,
I. For a kerned letter to fond with a kerned letter, as ff and ff .
2. For kerned letters to ftand with afcending letters, as fl, $\mathrm{ff}, \mathrm{fb}, \mathrm{h}, \mathrm{ik}, \mathrm{fl}, \mathrm{m}$.
3. For kerned letters to ftand with the dotted letter $i$, as $f$, ff, ff, ff.
As to other double letters, fuch as fr, ra, ta, as, is, us, and feveral others, with which Italic ufed formerly to abound, aft in a piece on account of that feparation which appears between, letter and letter of the above Ligatures; which are now juftly rejected as undeferving a place in our cafes.

## A BILL OF PICA ROMAN.

(THE NUMBER OF EACH SORT CAST BY FOUNDERS.)
This Head might be carried to a very confiderable length, were we to enter upon the Genius of Languages; or even upon thofe which make a figure in Europe. But as this would be an undertaking too difficult to one who is not a Linguift, nor pertinent to our purfuit; we will content ourfelves with taking notice of our own idiom, as far as relates to the forts which it requires; which will afford us an opportunity to touch upon fuch neighbouring languages as are often feen to proceed from the preffes in England. We confess, indeed, this to be a fubject which cannot be treated of with certainty, yet as Foreigners have endeavoured to make a computation of what number each fort is to confift in a Bill of Pica Roman, we fall try, whether the calculation of Letter Founders will not admit of forme alterations, by enlarging the number of

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fome forts and leffening others, efpecially as we would endeavour to adapt our Counter-bill to the Englinh language particularly; thereby to try, whether a Fount of Letter would tarn out more perfect than it fometines does; which, if it fhould anfwer our intention will give great fatisfaction; as it will have lefs occafion to caft imperfections, which often prove very hurtful to a new fount of letter; as they are feldom exact to the prior forts, but differ from them, rometimes in thicknefs, height to paper, or depth of Body; and fometimes they differ even in the Face: fo that,' was it not for the eagernefs of the Compofitor, who winks at fuch defects, rather than be hindered in the purfuit of his bufinefs, many a fort; caft for perfecting, would be returned. In the mean time, good Prefs-work will expofe the defects, and thew where letters are caft either too high, or too low, to paper; and where too thick, or too thin; for if they are too thick, they will bear off, and look as though they had hair-fpaces at their fides; and if too thin, they will feem to be jammed in fo as to be hindered from appearing. This, perhaps, may mot have happened, or rather, not have been obferved, in Mr. Palmer's time, or he would have been lefs pofitive in what he afferts in his Hiftory of Printing, p. $5^{1}$. fince it is poffible, that the fame word may meafure longer in one piace, and fhorter in another; for the word will meafare longer, if it has letters of imperfections in it that are calt thicker than the forts which were caft with the Fount: and in like manner is it poffible that the fame word may meafure fhorter than the other, if it has letters in it that are caft thinner than the prior forts, though the imperfections are caft in the fame mould as the fount; but this difference is chiefly owing to the ftrefs laid on the letter when rubbing by the Letter Founder. And as to maintaining, that the length of one page' cannot exceed the length of another of the fame number of lines and body; our Scheme before inferted will demonftraie : for it is not un-

$$
\mathrm{K} \mathrm{k}^{-} \quad \text { common }
$$

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common in large Printing Houfes to employ more than one fount of Letter in the fame work, which, notwithftanding they are of the fame face and goodnefs, may not be of the fame fize; whence it may happen, that the pages of one fheet may meafure either horter or longer than the pages of another, according to their different founts, as may be feen by the Scheme inferted page 222. But, that we may not be thought too bufy in our refearches, we will, without going further, ufe the fame expedient as we did before, and prove our affertion, by demonftrating the poffibility of Letter driv: ing out in one place, and getting in in another, by the annexed Scheme :

A Scheme fhewing how Letter may drive out, or get in, as to thicknefs.
Chrononhotonthologos Chrononhotonthologos Chrononhotonthologos
This may fuffice to fhew the poffibility of a fentence meafuring longer in one place and fhorter in another. The words are gathered from three different founts. The firt line is gathered from a fount of 'Mr. Caflon's, the fecond from one of Mr. Jackfon's, and the third from one of Mr. Moore's.

We fhall here introduce the Calculation of the Quantities of the refpective Sorts to 3000 Lower-Cafe m's, by Letter Founders called a Bill, and weighs about 500 lb . of Pica Roman; which has the name of a Fount of Letter, as well as a quantity of 2000 lb . or more; but which are diftinguiffed by calling the firt a Small Fount, and the other, a Large Fount. Our inferting this Calculation has no other view than to fubmit to Mafter Printers as well as Letter Founders, whether it will not admit of fome alterations in the fpecified quantities of feveral forts; fo as to make a Fount of Letter turn out more perfeit, for Englith Matter in particular. In order to this we have attempted to make an effay of eniarcing the fullowing given quantities of fome forts; and leffening the numbers

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numbers of others; at the 'fame time obferving, that our total fum of Capitals, Small Letters, Double Letters, Figures, and Points, together, correfponds with that of the firf Calculator; as appears by the following Scheme:

Ufual Number.-Propofed Number.


A Bill of Pica Roman, which weighs about 500 lb .



If we look into the primitive fate of Printing, we find that the Profeflors of the Art were obliged to have large Founts of Letter, on account of printing their Works in Quires of three, four, and even five fheets; whereas now, a Fount of half that force will ferve to do bufinefs more expeditioufly, by printing in fingle fheets; fo that very large Founts are not of equal advantage to every Printer; but only fuch as are fure to do large and voluminous Works; confidering that the larger the Fount is, the greater are the Imperfections: which, were they always to be calt for, would make a Fount enormoufly large, yet not perfect at laft. Neither is it of fervice to Letter, if one part is kept long out of ufe, while another parcel is worked brikly round. Sometimes a very large fount has the effect to make negligent Correctors, when they know how far a Fount goes, and thercfore give themfelves no concern about returning Proofs, till they find that the whole Fount is fet up, and that the Workman can go no farther. In fuch cafe the intertion of having large Founts is fruftrated, and the Compofitor as well
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as Preffman are prejudiced in their endeavours; whereas a tolerable large Fount of Letter, and a Regular difpatch of Proofs, is beneficial to Mafter and Men. Yet ordinary Founts will not always fuit Printers that are known to be capable of giving Work a quicker difpatch than ufual, on account of their being provided with extraordinary Founts of Letter,' and employing a number of hands; which, though attended with very great charges to the Pripter at firf, makes neverthelefs amends for them, provided thofe heavy Bodies of Letter are 'always kept in motion. In the mean time every Printer ought to confult with himfelf about the fcope and nature of the bufinefs which he fets out for, and have his Letter caft accordingly: for it cap hardly be fuppofed that he who fhall have particular occafion for large letter only, fhould lay his money qut upon fuch Founts as are required for Book-work; which ought to be large and complete, if the Owner of them propofes to fignalize himfelf for being furnifhed with ample materials for expediting work of every kind. A Fount of Englifh, which fat up about twelve fheets in 4 to of the Surgeons Cafe, in Paris, was much admired there for its largenefs: but, how much would their admiration be heightened, were they to fee here feyeral Founts larger than that; and one in particular of the late Mr. Richardfon's, which fat up above thirty fheets in Folio, of 77 lines long, and 45 m 's wide, before Imperfections were caft to it, which muft be very confiderable, in courfe, and have enlarged the Fount to feveral fheets more.

## A COMPLETE FOUNT OF LETTER, (as with Printers.)

In the foregoing pages we have fhewn the order into which Founders divide a Common Fount of Letter, to be ufed for ordinary and plain Engliih matter, felf-fufficient to explain itfelf, without the aid of Small Capitals, or even Italic: neither is a common Fount furnifhed with Accented Letters, for Latin, French, or other Works in foreign languages. It

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make a fine appearance in Infcriptions, Titlcs, or other matter, where their beauty is not invaded by Italic, but where they prefent themfelves in their erect pofition; by themfelves. But their bold and diftinguifing afpect is greatly obftructed by proper names of perfons and places being put in Italic ; fo that they would hardly have a chance to fhew themfelves, were $:$ not for their being put at the front of Noun Subftantives, to diftinguifh them from Verbs, Adverbs, or ocher parts of Grammar. But that their noble figure was not defigned for that pedantic purpofe, may be conceived from their being varioufly ufed, according to the chioice of authors: for though fome give themfelves no concern about capitaling, but leave that to the Printer's difcretion; yet there are others who thew themfelves more acquainted with Printing; and, in order to avoid intermixtures of Letter, of their own accord diftinguif no Subftantives by Capitals, but prefix them to names of perfons and places, alfo to titles of honour and eminence;; whereby fuch words, being graced with Capitals, fhew themfelves more neatly than they would have done in Italic.
Other authors chufe not only the foregoing method, but denote their emphatical expreaions, by beginning them with Capitals, whether they be of the fubftantive kind, or othervife. In fuch cafe it would be kind in Gentlemen to put fome diftinguifing mark to the emphatical words in their copy, and either underfcore the word, or make fome other token, which may inform the Compofitor of the Author's intention; fince otherwife it will be difficult for the former, in the purfuit of his bufinefs, to lay a frrefs upon the fame word with the Author, efpecially if the copy is written in the common way, viz. with Capitals to fubftantives, or without any method at, all. The lofs of time which the Compointor fuftains by not having the emphafis of words pointed out to him, till in the Proofthect, is very confiderable; and deftroys the care the Compofitor tiok in fpacing his matter; and he feldom gets much advantage by alterations, efpecially in Works of fmall fize, and

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large characters, where fome Capitals make a great alteration, and fometimes occafion the over-running of feveral lines, before their driving out can be recovered.

Words or Matter, which is to be fet in Capitals, fhould be written in Capitals in the copy, or treble underfored,' in contraditinction of Small Capitals, which are double underfcored ; and of Italic, which is intimated by underfcoring once what is to be in that character.

Matter in Capital letters has generally fpaces put between, but this method is not obferved in Dictionaries, and on other occafions where they occur in great abundance; but Italic Capitals require fpaces, or make but an aukward appearance.
SMALL CAPITALS

Are caft, with us, to Roman founts only, but abroad Italics have their own Small Capitals: for it would be thought a fault there to intercept the agreeable floping of Italic by Roman Small Capitals; and therefore they rather ufe large Capitals, in cafe fmall ones are wanting in the Italic.

Small Capitals are moflly ufed to denote, that a more particular ftrefs and emphafis is intended by the Author, on fuch words and expreffions as are diftinguifhed by them -And where they are ufed in Heads, among Italic, they commonly are made ufe of for fuch words as mention of what the matter is to treat.

Some are fo fond of Small Capitals, that they chufe to have whole verfes and fentences fet in them ; but which, as well as matter in large Capitals, is perplexing the reader, efpecially in books defigned for the comprehenfion of the meaneft capacities.

In open matter, with leads and white-lines between, the firf word of a new paragraph, though a polyfyllable, is commonly pus in Small Capitals; and even if it happens to be a proper name, which fome, upon fuch occafion, put in Italic Capitals ; yet that breaks through the rule of uniformity. But this rule may be very well laid afide in matter which is too fenten-

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tious and which would take up more Small Capitals than an ordinary quantity of them in a Fount could fapply.

In Titles, and upon other occafions, Small Capitals are fometimes made ufe of for a principal line, where it will not admit of large Capitals. But here we do not frictly mean Small Capitals which are caft to their refpective Founts; but rather fuch as are made artificially, by putting an intitial letter of a larger fize before the letters which are to look as if they were Small Capitals. Thus in Two Lines Englifh, Great Primer Capitals may fupply the want of Small Capitals. And thus may Double Pica, or any other Capitals, be contrived to refemble Small Capitals, by enlarging the initial letter, in proportion to the (feeming) Small Capitals: but great care muft be taken to juftify the initial letter, and the Small Capitals, fo as to fland exactly in line with each other; which may be done with the more certainty, if what will juftify one and the other is firft tried by letters whofe Stems run into a ftrait line at bottom, as they do in HIM; whereas BCD, and others, turn either off, or have a Stem on the left fide only, and are therefore not fo fit to juftify by, to a nicety. And this making of Small Capitals may be done in Italie as well as in Roman.

Small Capitals are generally Spaced, as well as Large Capitals, both which take up a Compofitor's time; though, with refpect to Small Capitals, the trouble of fpacing them might be prevented, were they caft fo thick as to bear off each other, according to their Bodies, and according to their tarn and fhape. But here, again, it is to be feared, that if they fhould be caft too thick, their beauty would be fpoiled, inftead of adding to it; confidering that the diftances which are given to Small Capitals by Founders, cannot at all be retrenched, whereas they maiy be enlarged by the Compofitor, upon occafion.

Small Capital c, o, s, v; w, x, z, feem in fome Founts to be the fame with the Lower-cafe letters, and differ from them L 1 only

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only by being caft fomewhat thicker: but though in other Founts the above Sorts are cut on purpofe for Small Capitals, yet refemble the common letters fo much, that they are ufed as fuch, when they are wanted in the Lower-cafe; the faid Small Capital Sorts are by fuch means loft, and common letters ufed in their room. To prevent therefore the faid Small Capital Sorts from defcending to fupply the wants of a Lowercafe, the cafting Small Capitals, throughout, with proportionable diftances between letter and letter, would be one expedient : but if this fhould not hinder the dragging of Uppercafe Sorts into the Lower-cafe, we offer another, which is, To caft the faid Sorts with a different Nick to them ; whereby thefe wandering Sorts might be fent to their proper places again by a careful Compofitor.

Where Small Capitals are plentys, they may be ufed inftead of large Capitals of their likenefs: thus, Double Pica Small Capitals having the face of Englifh Capitals, may ferve for fuch, in lines by themfelves, as CHAP. SECT. but, obferve, that neither the firft letter, nor the numerals, mult be other than Small Capitals.

## ACCENTED LETTERS.

The letters which are properly called Accented Letters, with Printers, are the five Vowels, marked either with an

| Acute, |  | áéíóg |
| :---: | :---: | :---: |
| Grave, |  | à è̀ ì ò ù |
| Circumflex, |  | âê îô ${ }^{\text {at }}$ |
| To thefe are | $\mathrm{d} \text { the } V$ |  |

As alfo the five Vowels with the marks of Short and Long over them, viz.

| Longs, | 1 |
| :---: | :---: |
| Shorts, |  |

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And thofe who call all Accented Letters that are of a particular fignification, on account of being diftinguiffied by marks, reckon the French $¢$, the Spanifh $\overline{\mathrm{n}}$, and the Welh $\hat{w}$ and $\hat{y}$, in the clafs of Accented Letters, though not Vowels.

$$
F I G U R E S
$$

Are invented to exprefs Numbers by; which is done, either by Numerical Letters, or by Arithmetical Symbols.

The Arabic character, called alfo the common one, becaufe it is ufed almoft throughout Europe in all forts of calculations, confifts of thefe ten digits, $1,2,3,4,5,6,7,8,9$, 0 .
Every letter in the alphabet was'ufed to denote fome number by the Greeks and Orientals, and each letter denoted 2 lefs or greater number, as it was nearer or more remote from the firft letter in their alphabetical order; and no letter, which in the order of the alphabet flands after another, ever denoted a number lefs than the letter that ftands before it. If the Romans, who derived their Letters originally from the Greeks, had derived alfo their Numeration by Letters, it is in the higheft degree probable, that thefe particulars would have been the fame in both; but as not one third of the Roman Letters are Numerals, fo neither is the Numeral Value of thofe that are fo, more or lefs, according to their place in Alphabetical Order; for D and C , which are among the firf letters of the alphabet, and $M$ and $L$, which are in the middle, are of much greater numerical value than $\mathbf{X}$ and V , which are near the end.
But it has been fuppofed that the Romans ufed $\mathbf{M}$ to denote rooo, becaufe it is the firlt letter of Mille, which is Latin for 1000 ; and C to denote 100, becaufe it is the firf letter of Centum, which is Latin for 100 . Some alfo fuppofe, that D being formed by dividing of the old M in the middle, was therefore appointed to ftand for 500 , that is, half as much as the M food for when it was whole; and that $L$ being half a $C$, was; for the fame reafon, ufed to deno-

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minate 50. But what reafon is there for any perfon to fuppofe, that 1000 and 100 were the numbers which letters were firf ufed to exprefs? And what reafon can be affigned why D , the firt letter in the Latin word Decem, 10, fhould not rather have been, chofen' to fland for that number than for 500 , becaufe it had a rude refemblance to half an $M$ ? But if thefe queftions could be fatisfactorily anfwered, there are other numerical letters which have never yet been accounted for at all. We therefore think thefe confiderations render it probable, that the Romans did not, in their original intention, ufe letters to exprefs numbers at all ; the moft natural account of the matter feems to be this :

The Romans probably put down a fingle ftroke I, for one, as is ftill the practice of thofe who fcore on a flate, or with chalk; this froke they doubled, trebled, and quadrupled, to exprefs, two, three, and four, thus, II, III, IIII. So far they could eafily number the miniums or ftrokes with a glance of the eye, but they found, that if more were added, it would be neceflary to number the flrokes one by one; for this reafon, when they came to five, they exprefled it by joining two ftrokes together in an acute angle, thus V , which will appear the more probable if it be confidered, that the progreffion of the Roman numbers is from five to five, that is, from the fingers of one hand to the fingers of the other.

Ovid has touched upon the original of this in his Feftorum, lib. iii. and Vitruv. lib. iii. c. i. has made the fame remark.

After they had made this acute angle V for five, they added fingle ftrokes to it to the number of four, thus, VI, VII, VIII, VIIII, and then as the minums could not be further multiplied without confufion, they doubled their acute angle by prolonging the two lines beyond their interfection thus, $X$, to denote two fives, or ten. After they had doubled, trebled, and quádrupled this double acute angle thus, XX, XXX, XXXX, they then, for the fame reafon which induced them firft to make a fingle angle, and then to double it, joined two fingle ftrokes

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ftrokes in another form; and inftead of an acute angle, made a right angle L , to denote fifty. When this fifty was doubled, they then doubled the right angle thus L , to denote one hundred, and having numbered this double right angle four times, thus, $\mathrm{LE}, \mathrm{ELC}, \mathrm{CLLL}$, when they came to the fifth number, as before, they reverted it, and put a fingle ftroke before it, thus, II , to denote five hundred; and when this five hundred was doubled, then they alfo doubled their double right angle, fetting two double right angles oppofite to each other with a fingle froke between them, thus, LII, to denote one thoufand: when this note for one thoufand had been four times repeated, they then put down II'I for five thoufand, LCIII for ten thoufand, and IJIJ for fifty thoufand.

That the Romans did not originally write M for one thoufand, and C for one hundred, but fquare characters, as before fhewn, we are exprefly informed by Paulus Manutius; but the corners of the angles being cut off by tranfcribers for difpatch, thefe figures were gradually brought into what are now called Numeral Letters. When the corners of CII were made round, it flood thus, CIO, which is fo near the Gothic $m$, that it foon deviated into that. letter; fo that II having the corners made round, flood thus ID, and then eafily deviated into $\mathrm{D}, \mathrm{I}$ alfo became a plain C by the fame means; the fingle rectangle which denoted fifty, was, without any alteration, a capital L ; the double acute angle was an X ; the fingle acute angle a $V$ confonant, and a plain fingle froke, the letter I. And thus thefe feven letters, M, D, C, L, X, V, I, became numerals.

As a further proof of this affertion, let it be confidered, that CIO is fill ufed for one thoufand, and IO for five hundred, inftead of M and D ; and this mark, $m$, is fomctimes ufed to denote one thoufand, which may eafily be derived from this figure, $\mathrm{E}[\mathrm{I}$, but cannot be deviations from, or corruptions of the Roman letter $\mathrm{M}_{4}$

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The Romans alfo expreffed any number of thoufands by a line drawn over any numeral lefs than one thoufand; thus, $\overline{\mathrm{V}}$ denotes five thoufand, $\overline{\mathrm{LX}}$ fixty thoufand: fo likewife $\overline{\mathrm{M}}$ is one million, $\overline{M M}$ two millions, \&c.

Figures require a Founder's particular care to caft them exactly $n$-thick, and to a true parallel, not drivins out either at the head or foot; confidering that they are left to juftify themfelves by the exactncfs which they have from the Letterfounder; and which foon fhews itfelf where Figures are confined between brafs rules, which yield neither to the protruding nor receeding Figures, but caufe the firft to rife, and the other to fink, or to drop out.
To be provided with neat Figures, for Arithmetical and Mathematical Works, is as interefting as being furnifhed with other good Printing materials. But the goodnefs of Figures does not confift in their having foft and fine ftrokes, but rather in fuch circles and lines as are much of the fame ftrength with the mean Face. Thus we fee in fome Figures the afcending turn of 6 , and the rounding off in 9 too fine and too tender to withftand accidents equally with other Figures: neither do they fhew themfelves plain and ready to the eye, efpecially upon brown and fubborn paper that has not been well prepared for the Piefs. The like debility may be obferved in the figure of 7 , whofe oblique line is fometimes fo fine and foft as fcarce to fuftain the leaft preffure.

## SCRATCHED FIGURES

Are at prefent not ufed with us; yet as they fill remain in feveral Printing-houfes, it might be conftrued an omiffion in $\mathbf{u}_{3}$, were we not to take notice of them; and therefore mention, that they were ufid here in that Species of Arithmetic which is called Divifion ; and that they are not yet abolihhed in Germany, and other foreign parts, where they fill are thought neceflary in the practice of the faid Species, to foratch the dividing

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dividing and divided Figures, as foon as they have been adjufted by Subftraction and Multiplication.

## REFERENCES.

References are all fuch Marks and Signs as are ufed in matter which has either fide or bottom Notes; and as ferve to direct the Reader to the obfervations which are made upon fuch paffages of the Text as are diftinguifhed by them, and demand a Reference of the fame likenefs to be put to the Notes by which the Matter is illuftrated, or otherwife taken notice of.

References which are ufed in Works with Notes to them, are variouily reprefented, though oftener by Letters than other Characters. Accordingly, fome put cominon letters between Parenthefes; thus, (a) (b) (c), \&c. Others, again, chufe to fee them betwixt Crotchets, as ${ }^{[ }[a][b][c]$, and fo on to the end of the alphabet; inftead of which others begin the Notes of every page with (a), in which they are as right as the former; and have this advantage befides, that the order of References is not fo liable to be interrupted as by going through a whole alphabet. Were we authorized to vary from the cuftomary way of practice we fhould recommend literal References to begin with cvery even page, if it has Notes; and to carry them no further than to the laft Note in the oppofite uneven page; by which means the order of the References would appear at one view, and an irregularity in them rectified without much trouble.

Inftead of Letters, whether Capital or Lower-cafe, Figures are ufed in the fame manner, and with the fame propriety; for the one as well as the other are of equal fignification, when ufed for the fame purpofe:-but the References which look the neateft, befides being the moft proper, are Superior Letters, or elfe Superior Figures; for both were originally contrived and intended to be employed in Matter that is explained by Notes, whether by way of Annotations, Quotati-

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ons, Citations, or otherwife. Neverthelefs we obferve, that Superior letters are not ufed upon every occafion, but chiefly in large and lafting works which have fometimes more than one fort of Notes, and therefore require different References; in which cafe not only fuperior letters, but alfo fuch Marks are ufed as never were defigned to ferve for References. Another reafon why Superior letters are not ufed upon all occafions, is, that they are often objected againft by Gentlemen who chufe to read copious Notes firft, and then refer to the Text, where they fancy Superior letters not confpicuous enough to be readily difcovered. And, indeed, Superiors of the fmalleft fize are not only inconvenient to the Reader, but alfo troublefome to the Preffman who is ambitious to make them come off clear, notwithftanding their difadvantageous fituation. But, to abide by the title of this Head, What are called References by Printers, are thefe, viz.

| if The Paragraph. | $\\|$ The Parallel. |
| :--- | :--- |
| + The Obelifk. | § The Section. |
| $\ddagger$ The Double Dagger. | The Afterifm. |

Thefe are the Names and Figures of what Founders reckon among Points, and Printers call References; but which were defigned to ferve for other purpofes than they have done of late; as will appear from their refpective functions.

The Paragraph is a Mark which formerly was perfixed to fuch matter as Authors defigned to diftinguifh from the mean contents of their works; and which was to give the Reader an item of fome particular fubject. At prefent Paragraphs are feen only in Bibles, where they thew the parts into which a Chapter is divided, and where its Contents change. In Common Prayer Books Paragraphs are put before the matter that directs the order of the Service, and which is called The Rubric, becaufe thofe lines were formerly pinted in Red.

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Otherwife it is a ufelefs Sort, and unfit to ferve for a Reference, as long as there are others which have not that antique look.
2. The Sign which implies the word Section, is a Sort, likewife feldom employed, becaufe in Work which is divided into Chapters, Articles, Paragraphs, Sections, or any other Parts, they are commonly put in lines by themfelves, either in Large Capitals, Small Capitals, or Italic; according to the fize of the Work. But the Sign of Section is fometimes ufed in (Latin) Notes, and particularly fuch as are collected from foreign books, which generally abound with Citations, becaufe' they help to make the Author to be reckoned very learned:

The Sections which are open-bellied, and which take up the whole depth of their Body; make no bad figure when they are put the flat way, and ufed inftead of a line of fmall Flowers.
3. The Obeliik, or long Crofs, erroneoufly called the fingle Dagger, is frequently ufed in Roman-Catholic Church-books, prayers of Exorcifm, at the Benediction of Bread, Water, Fruit, and upon other occafions, where the Prieft is to make the fign of the Crofs : but it muft be obferved, that the long Crofs is not ufed in books of the faid kind, unlefs for want of fquare Croffes, ( $\Psi$ ) which are the proper fymbols for the before-mentioned purpofes; and are ufed befides in the Pope's Briefs, and in Mandates of Archbifhops and Bifhops, who put it immediately before the fignature of their names. But the fquare crofs is not reckoned among References of which we are fpeaking; whereas the long Crofs anfwers feveral purpofes; for, befides ferving inftead of a fquare crofs, fometimes it ferves for a Signature to matter that has been either omitted, or elfe added; and which is intercalated after the Work is gone beyond the proper place for it. But the chief ufe which is made of the Obelifk, is by way of Reference, where it ferves in a double capacity, viz. the right way; and inverted.
4. The Double Dagger is a Mark crowded in to make ore of the improper references.

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5. The Parallel is another Sign which ferves for a Reference, and is fit to be ufed either for fide or bottom Notes.
6. The Afterifm is the chief of the References, which prefents itfelf mof readily to the eye, on account of having its figure a-top, and leaving a blank below; which makes it a Superior.

In Rqman Church-books the Afterifm divides each verfe of a Pfalm into two parts; and fhews where the Refponfes begin : which in our Common Prayer-books is done by putting a Colon between the two parts of each verfe.

The Afterifm is fometimes ufed to fupply a name of a perfou that chufe to pafs anonymous. Afterifms, again, denote an omiffion, or an hiatus, by lofs of original Copy ; in which cafe the number of Afterifms is multiplied according to the largenefs of the chafm; and not only whole lines, but fometimes whole pages are left blank, and marked with fome lines of Stars.

In fatyrizing perfons in Pamphlets and Public papers, the Afterifm is of great fervice; for it is but putting the firft letter of a perfon's name, with fome Afterifms after it, and illnatured people think they may characterize, and even libel, their betters, without reltriction.

Afterifms may ferve inftead of a line of Small Flowers, if they are fet to ftand progreffively; and they perform the fame fervice when they are put alternately, one fet the right way, and the next inverted.

The Atterifm, ufed as a Reference, has a proper pofition for its figure; but for all other purpofes it would be better to be in the middle of its Shank; which would fave the trouble of juttifying it, when ufed the flat way, and prevent the looks of bad fpacing, which it mult needs occafion in cicfe lines.

Thus have we hewn, that the Symbois which are uied as References, were defigned for quite different purpofis. We are therefore of opinion, that it would not have iseen one of the leaft improvenents, had fome ćther Marks been devited w:ich

## .THE HISTORY OF PRINTING. 26ı which fhould have appeared in a more becoming fhape than the aboye Reference; and more perfpicuous than Superiors of the leaft. <br> LOWER CASE SORTS.

Though we have been fpeaking of Lower-cafe Sorts before; yet as they were then confidered as they are with, Founders, we cannot well mention them here, without prefenting them in that order in which they fland with Printers. Accordingly, Lower-cafe Sorts confift of

Small Letters of the Alphabet, both Single and Compound

- -Points-Quadrats; and Spaces.

Of thefe Small-letter Sorts, fome are lodged in the Uppercafe, in moft Printing-houfes; but are not reckoned, properly, among Upper-cafe Sorts: the $k$, therefore, becaufe it lies in the Uppercafe, is diftinguifhed by the name of little $k$; and the reff, viz. fb fk ft, being Compounds, are called by their refpective contents, without Ayling them either Upper or Lower-cafe.

## POINTS.

The Order in which Points fland with Printers is, properly, the following; viz. The Comma-Semicolon-Colon-Full-point-Sign of Interrogation-Sign of Exclamation; and-Divifion.

To thefe we venture to add, the Parenthefis, and Crotchet, under the names of Signs of Intercalation ; and the Apofrophus, by the name of Sign of Abbreviation.
Points, or Stops, were invented to divide a Sentence into Refts and Paufes, according to the quantity which is intimated by their figures.

Points are not of the fame antiquity with Printing; for the inventors of the Art were not the Authors of them ; though it was not long after that the Colon, and the Full-point, were contrived;

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contrived; the firft, to thew the firft part of a period; and the Full-point, to clofe the other divifion thereof. In fuccefs of time a Comma was added to the infant Punctuation; which new Stop had no other figure than that of a perpendicular line, proportionable to the Body of the Letter. Thus they contented themfelves above fifty years with thefe three Points, which they thought fufficient to fhew, where a patefe was required in reading; till towards the clofe of the fifteenth century, Aldus Manutius, a Man made for the reftoration of learning! among other great improvements in the Art of Printing, corrected and enlarged the Punctuation of thofe times alfo: for he affigned the former Points their proper places, gave a better fhape to the Comma, and added the Semicolon; a Point to come in between the Comma and the Colon.

The moderate and-regular ufe of Points it muft be confeffed, is of fingular fervice to make Matter more eafy for reading, and more ready for apprehenfion ; whence it may be guefled what attention formerly was required, to read without Points, befides the difficulty of diftinguifhing word from word, and underlanding the various Abbreviations which writers ufed to make from their own fancy.

Since, therefore, we have a fufficiency of Points whereby to exprefs the confruction of a fubject, Pointing out to be confidered as a very material article with Authors, whofe bufinefs it is to give their Copy for the Prefs, not only clear and legible, but alfo Pointed to their own liking: for fince Pointing is become mere humour, which is fometines deaf to rule and reafon, it is impoffible for a Compofitor to guefs at an Author's manner of expreffing himfelf, unlefs he fhews it in pointing his Copy: and if he would have the Reader imitate him in his emphatical delivery, how can a Writer intimate it better than by Pointing his Copy himfelf?

But notwithftanding this eflential duty, incumbent upon Authors, not all have regard to it, but point their Matter either very locfely, or not at all : of which two evils, however,

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the laft is the leaft ; for in that cafe a Compofitor has room left to point the Copy his own way; which, though it cannot be done without lofs to him, yet it is not altogether of fo much hinderance as being troubled with Copy which is pointed at random, and which ftops the Compofitor in the career of his bufinefs more than if not pointed at all.
'Tis true, that the expectation of a fettled Punctuation is in vain, fince no rules of prevailing authority have been yet eftablifhed for that purpofe; which is the reafon that fo many take the liberty of critifizing upon that head; yet when we compare the rules which very able Grammarians have laid down about Pointing, the difference is not very'material; and it appears, that it is only a maxim with humourous Pedants, to make a clamour about the quality of a Point; who would even make an Erratum of a Comma which they fancy to bear the paufe of a Semicolon, were the Printer to give way to fuch pretended accuracies. Hence we find fome of thefe high-pointing Gentlemen propofe to increafe the number of points now in ufe, and to have one below the Comma; and another between the Comma and Semicolon: but of what fhape thefe ad. ditional Points are to be, is not yet fettled ; and perhaps will never come to an iffiue, by reafon that it will meet with too great an oppofition from thofe who think the prefent number of Points not only fufficient, but would even reduce them, and pronounce the Colon as unnecefliary.
It muft be allowed, that all Matter is not pointed alike; for fome require more flops than others. Thus, Hiftorical and Narrative fubjects do not take up fo many Points as Explanatory Matter ; and that, again, not fo many as Englifh Statute Law-But, happy! that Mifpointing is not of the fame confequence with Mifnomor; otherwife, Where would be the end of Law-quibbles !

It muft likewife be owned, that every Compofitor is not alike verfed in Pointing; and therefore fuch as are dubious whether they can maintain their notion of Pointing, ought to

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fubmit to the method, or even humour, of Authors, and authorized Correctors, rather than give them room to exclaim, about froiling the fenfe of the fubject, becaufe the Points are not put their right way : neither is it difficult to fall in with Correctors who ufe themfelves to a fet method for Spelling and Pointing, as well as minding of real Faults: but thefe requifites feldom meet together in Correctors, becaufe fome neglect the moft effential part of their duty, and think to fhew a confummate attention when they can efpy a word that is ambiguous, as to fpelling; or find room to put either a Point in, or to take one out. But as we do not propofe to make this the place for our obfervations upon Correcting, we will abide by the ufe of Points, which have been long fince introduced, and which have been found fufficient to give a harmonious found to reading.

1. The Comma, then, is the firft of Points, or Stops; and requires the fhorteft paufe, though that is ofien lengthened beyond its meafure, by being too repeatecily ufed in a period of no great compafs. But as Pointing is regulated by the free, or fiff way of writing, to which Authors have accuftomed themfelves; it will not be labour in vain for a Compofitor, to examine his Copy, and to obierve in what manner it is pointed, whether properly, or at randum : for fome Gentlemen who have regard to make the reading of their Works confonant with their own delivery, point their Copy accordingly, and abide thereby, with ftrictnefs; which, were it done by every Writer, Compofitors would be very glad.

Comma's are ufed to diftinguifh quoted Matter from the mean Text: for which purpofe two inverted Comma's are put at the beginning of fuch Matter, and continued before each line of the quotaion, till the clofe thereof is fignified by two Apoftrophus'; which by fome is called, the Mark for Silence; intimating thereby, that the borrowed or quoted paflage from another Author ceafes with that mark. But the rule for double-comma's is fometimes confounded, when they are put before

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before matter which is only an Extract, or the Subftance of a paffage, drawn'out to corroborate an Author's Argument; in which cafe fuch extracted matter would be bef known by having fingle inverted Comma's before it ; as a verbal Qnotation is diftinguifhed by double ones. Befides this proper ufe of inverted double and fingle Comma's, fome Authors ufe the former fometimes before fuch of their own Difcourfes as they would have particular notice taken of; though they might fucceed in their aim, without ufing double Comma's: and as neither double or fingle inverted Comma's are proper to diftinguifh an Author's own matter from that before defcribed, we are of opinion, that fome other mark might be devifed to diftinguif an Author's felect and enforcing matter from the mean Text; and therefore propofe to fubftitute the inverted Comma or Comma's by an inverted Full-point, or Colon, or a Comma ftanding in its proper pofition. Thus by tarning one of thefe Points into a mark, it would inflantly tell the Reader, which is a verbal Quotation, by being doublecomma'd, which - a collceted, or extratted 'one, by being fingle comma'd ; and which, again, an Author's own Select matter, by having one of the propofed Points along the fide of it .

The common Space which is put between inverted Comma's and the Matter, is an n-quadrat, though a thick Space is fufficient, efpecially in Letter of a larger fize than Long Primer; but in this a Compofitor chufes which of the two he obferves to be the moft plenty.

The Germans, as well as the French, put the fign of Quotation always according to the folio either of an even, or uneven page. Thus, in an even page, the former put two Comma's in their proper pofftion, at the beginning of lines; but ufe them inverted in uneven pages, at the end of lines. The French, again, put their double Comma's inverted, both in even and uneven pages; which double Comma's French Founders caft in a piece, on the middle of their fquare metal;

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the proper fituation for their particular fignification．In the mean time the placing of inverted Comma＇s according to the folio＇s of odd and even pages，witneffeth，that they formerly were not comprifed in the meafure of the Work，but were juftified，like Margival Notes，abfracted from the matter ；till it was thought prudent for every man to make his work as eafy to himfelf as he could．

Befides the before－recited ufe of a Comma，it ferves inftead of a fuperior c ，in the nominal appellation Mac ，or $\mathrm{M}^{\mathrm{c}}$ ； where an inverted Comma after a Roman M will ftand better than with an Italic one，which is kerned．

The ufe of inverted Comma＇s derives from France，where one Guillemet was the Author of them ；who，we may judge， was no great friend to Italic Letter，and therefore attempted the fall of it，by excluding it from ferving for Quotations； which he diftinguifhed from the matter of the Text，by two inverted Comma＇s；as an acknowledgement for which im－ provement，his countrymen call thefe inverted Comma＇s after his name，Guillemets；whereas the Germans make a jeft of their figure，and give them the name of Gxnfe－augen，or Geefe．eyes ；which，though it wants ferioufnefs，is neverthe－ lefs an appellation，by which they are known both to Printers and Writers，in Germany．But why we have hitherto found no proper name for French Guillemets，though fo much ufed in England，cannot be counted an impertinent queftion，after we have objęted againft Inverted Çomma＇s being fignificant enough for a fymbol of fuch confequence as they denote．

Though the Comma is one of the junior Points，it has neverthelefs the firft place in every period，and governs the order of the intermediate ones，viz．Semicolon and Colon． To perfect onefelf，therefore，in placing Comma＇s right，is the ready way to fair Pointing ：but to fet down rules for arriving to it，would be endeavouring in vain；fince Practice is the fureft guide．Neither is it fuppofed，that thofe who initiate themfelves for the Art，fhould be fo deflitute as not to

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undertand Pointing, even according to the rules of Spellingbooks. But, to have done with the Comma, permit us to conclude with this fimily, viz. "He that will not fay A, " will not fay B": by which we would intimate, that He who will not endeavour to place a Comma properly, will not know where to put a Semicolon, or other Point; and therefore ought to learn it by dint of a Bodkin.
2. The Semicolon is a Point which is compofed of a Comma, and an inverted Full-point; to fhew the quantity of the pause or reft which it requires.

The Semicolon is a Point of great ufe to enforce and to illuffrate what has been advanced, and digetted by the Comma. It ferves likewife to concatenate fuch parts of a period as are to be fupported by a Point of more elevation than a Comma, which helps to relate the matter more diftinctly; whereas the Semicolon keeps the 'parts of an argument together.

The Semicolon is ufed as an Abbreviation, in the word Efquire ; and fupplies the letters uire, when the faid word is abridged thus, viz. Efq;
In Latin, the Semicolon ftands for ue, when it is joined to q, as in abfq; deniq; \&c.

All Letter Founders in Germany, France, and Holland have Semicolons of the fame flope with Italic Letter: but why that favourite Point, the Semicolon, fhould ferve in England both for Roman and Italic, we cannot account for.
3. The Colon is a Point, prior both to Comma and Semicolon. It thews where the firt part of a paragraph has been digeffed by Comma's and Semicolons, for making obfervations, objections, or enlargements upon it, before the Full-point puts a flop to it.

The Colon ferves in marginal Notes of Scripture, where Figures are ufed inftead of Numerals; in which cafe the Colon is pat betwixt the Chapter and the Verie, to diftinguin one from the other, in this manner, viz. Deut. 5: 13 .

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The Colon ferves to diftinguif Columns from Columns, in Figure-work that confifts of different fmall accounts; and where a rule would make but a very fhort fhew : in which cafe fome chufe to ufe a Colon; thus,

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3456 : 782 : 235 : 59
1000: 40: 3 : 134
    25: 100: 334:412
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4. The Full point makes a ftop, and entirely clofes the contents and fubftance of a Period, or Paragraph.

Full-points ferve inftead of Rules, in work of Accounts, to lead and to connect the pofted Article with its contingent valuation. In this cafe fome ufe Full-points fanding the right way, while others prefer the putting them inverted. But the proper flation for Full-points (upon this oecafion) is, to point to the centre of the letter, of what Body foever. In order to this, they caft dotted Quadrats at the French King's Poundinghoufe in Paris, to fuch Lettet only as is employed in Figure work, which generally is done either in Pica, or in Long Primer. At the fame time they caft the dots upon Long Primer quadrats to the Face of a Pica Full-point; and thofe upon Pica, are equal to a Great Primer Full ftop. 'Thus ferve thefe Dotted Quadrats both for common quadrats, and metal rules; which, though they may be of a good cut, fall neverthelefs fhort of the neatnefs which appears in a line of dots: for, be their progreffion thort, or extraordinary long, their equidiftance defribes fuch a connexion as cannot fail to guide the reader to the contingent part of the Tabular article. To give a fketch of what has been faid concerning Dotted Quadrats, the following lines may ferve, viz.


Full-points ferve alfo te fhorten, or to abridge words, particularly Latin ones; which language not only beft admits of

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Abbreviations, but even requires them to be ufed upon feveral occafions, to perpetuate the cuftom of writing Latin as the former Romans did. For this reafon Latin Inferiptions on Coins, Tombs, \&cc. are generally compofed of words which admit of being abbreviated, and are counted to add to the grandear of the Epitaph. But the.Abbreviations that are of moft ufe for a Printer to know, are thofe which may be made in Catalogues of Latin Books; where not only mof names of Perfons and Places, but alfo of all other words, are abridged, which readily yield to it by their terminations.

After 8 cc . and after Figures, the Full-point is no Stop, unless it is at the end or a Period; and therefore the Point which is required either after the Abbreviation, or Figures, is put after the Full-point; with 2 thin Space before it. But this is not a rule with fuch who hate to be counted fiff, in Pointing.
5. The Sign of Interrogation needs not to be explained; for the very appellation tells us, that it is a mark which is ufed to fhew where a Quettion is propofed, that gives room for, or demands, an Anfiwer.
It is not only proper, but alfo requifite, that every Interrogation or Queftion fhould begin with a large Letter, whether Capitals are ufed in the Matter, or not; according to the method which is obferved in our Bibles, where as well Interrogatives as Refponfes, befides the beginning of Sayings, Allocutions, \&c. are generally intimated by a large Capital letter.
6. The Sign of Admiration, or Exclamation, likewife explains itfelf by its name, and claims a place where Surprize, Aftonifhment, Rapture, and the like fudden commotions of the mind are expreffed, whether upon lamenting, or rejoicing occafion.

The Sign of Exclamation is put after the Particles Ah! Alas! $\mathrm{O}!\& c$. though the laft is not always of that force to be attended by the exclamatory fymbol; but is foftened by a

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Comma, to enforce what follows, and to make the Admiration hore complete.

The Admirative part of a Paragraph, as well as of the Interrogatory, is always to begin with a Capital letter.

Exclamations are fometimes miftaking for Interrogations, as well as thefe are for Exclamations; and therefore care fhould be taken in examining to which of thefe two variations the the or the other inclines.
7. The Divifion, Hyphen, or Connexion, is a Mark of the utmoft authority, confidering that it has given employment not only to a number of Spelling-Book-Authors, but alfo others, of a higher degree, who have engaged in the controverfy of Spelling, though none of them has been acknowledged to have carried that important point fo as not to want amending or improving. How varioufly, therefore, the fubject of Spelling is treated, none can be better judges of than Compofitors, who never can arrive to one regular way of Spelling, on account of the liberty which almoft every Writer takes, to difplay the talent which he has in Spelling.

Were we to trace the article of Spelling according to its extent, we fhould find it difficult to excufe ourfelves for engaging in a fubject which ever will remain unlimited. We fhall therefore avoid giving a large Catalogue of words that are ambiguous, as to fpelling ; and only take notice of the Divifion, as it is ufed at the end of lines, and in Compounds.

In dividing words; therefore, very few Printers fuffer a fyllable of a fingle leter to be put at the end of a line; as, a-bide, e-normous, o-bedient, \&c. But it is allowed of, in Marginal Notes, and in other narrow meafures, where fometimes the getting in of one letter will fave the trouble of overrunning feveral lines, efpecially in large Letter. It is alfo allowed of by fuch as love to fee Matter fpaced clofe, and even ; but thereby make no provifion for Outs.

It is proper, if poffible, to keep the derivative, or radical ward, intire and undivided; as, Occur-rences, Gentle-man, refpect-ful,

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 refpect-ful, remif-nefs, \&c. By the fame rule, all the Participles whofe Verbs terminate in an e feminine, retain it at the end of lines, when they are divided: Thus the Verbs abide, afcribe, afpire, bite, bore, dictate, eafe, \&c. as alfo the Verbs which terminate in ke, as brake, make, take, \&c. retain their $e$ feminine at the end of a line; ${ }^{-}$and the fyllable ing, which makes the Participle of the Verb, begins the next line.Printers often differ in fpelling, with Schoolmen; for whereas thefe divide every part of a word that will make a fyllable, the former have regard to the harfhnefs which fome of them would have, were they not foftened by a preceding one ; and therefore the former make but two fyllables of carriage, mar-riage, bu-rial, ba-chelor, ca-fuif, \&c. In the fame manner that neat Workmen prevent a divifion of a fingleletter fyllable at the end of lines, they contrive that the fhort remains of a word fhall not appear at the beginning of lines; and therefore avoid, as often as they can, to put the final fyllables al, on, ny, en, ly, er, \&cc. at the head of them.

The old Rule, "Spell as you fpeak," does not always ftand good; for we fpell, da-mage, ho-nour, jea-lous; whereas, in pronouncing, the Divifion feems to relt at dam age, hon-our, jeal-ous.

Formerly f p was caft in a piece, in Italic, as well as ft 's are now; becaure neither of them were divided, in Latin; nor is it often that they are feparated in Englifh words derived from the former language ; and therefore we fpell, pro-fper, pro-fperous, pro-fpect, re-fpite, cu-ftom, di-ftance, ge-fture, \&c. \&c.

The Hyphen, or Divifion, is ufer, not only to connect the members of fyllables of words that are divided at the end of lines; but alfo to join two or three words together; which then come under the appellation of Compounds; and confift frequently of two Subtantives, whereof the laft is generally put with a Lower-cafe letter; as, Bird-neft, Love-letter, Pincufheon, \&c. though fometimes Compounds are made up of different

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different parts of Grammar; as, Loving-xindnefs, Self-conceit, Blind-fide, over-and-above, Blind-man's-buff, \&cc. But there are fome who make Compounds of words that never were intended for fuch, and ufe Divifions in Black-berries, Ferry-man, Ale-houfe, \&c. To acquire therefore a competent knowlege of Compounds, does not depend upon mere fancy, but requires the affiftance of reafon, to judge by the cife and fall of the tone, which is an Adjanct ; and whether that and the preceding Appellative may not be joined into one word rather than make a Compound of it, in connecting both by a fign which is defigned for a proper fymbol of dividing words into fyllables.

The Particles after, before, over, under, \&ce. are often connected to other words, but make not always a proper Compound: Thus, Under-age admits fometimes of an Hyphen; but at other times makes two diftinct words: before-mentioned, is likewife a Compound, when it ftands before a Subftantive; as, in the before-mentioned place; whereas it requires to be feparated, when it comes after a Noun ; as, in the Chapter before mentioned.

Divifions are ufed inftead of rules, in Table-work of narrow Columns: and though they are employed in wide meafure alfo, 'tis not always that they come off clear ; but Beard, and cut the paper, unlefs proper care is taken in wetting it accordingly.

It Ghews a good judgment in a Compofitor, to prevent Divifions, or any other Poiat, to fall too repeatedly upon one another, at the end of lines, efpecially where a fyllable may be got in, or drove out, without much difficalty.

Divifions being a Sort which is equally ufed with Roman and Italic, ought to be caft to an equal thicknefs, proportionable to the Body of the Letter. In this article French Letter Founders vary with ethers of their profeffion; for they caft Divifions to feveral thickneffes; which is done with a view to facilitate juftifying; and is of real fervice to a Compofitor: interrupt the ranging of Divifions every time they happen to fall too repeatedly upon one another, at the end of lines; yet would it be improper to do it by a mark of the fame fignification; and which muft needs expofe itfelf on account of its improper extent; firce a Divifion, at the end of a line, does not require a very bold ftroke, though in Spelling-books they fhould appear more conficicuous, and be caft full-faced for that purpofe.

Could we perfuade ourfelves that our obfervations would be taken notice of, we would recommend All the different Points, and Divifion, to be caft to an equal thicknefs: for fince Pointing is as changeable as Spelling, much trouble might be faved in changing and altering Points according to the fancy of $\mathbf{m}$ Author; in which cafe it is impracticable to bring a line to the fame exact juftification which it had before fuch alteration was made : but as to Points in particular, their proportion to each other, as to thicknefs, is fo very trifling, that no Space will fupply the deficiency which one Point has to another; efpecially as their refpective thicknefs is not confined to' a fet degree. This, we fuppofe, was the reafon, that the more curious Printers in Paris had their Guillemets, or inverted Comma's, caft in a piece, becaufe they obferved a variation in their thicknefs, and that they did not range with exaltnefs; for Inftances whereof we need not turn over French books. We re-iterate therefore our propofal, to caft all Points to an equal thicknefs, and to make the Comma the Standard Sort for the reft : in which cafe it will be requifite to caft the Full-point fo as to have its bearing off at the hind-fide of $j$ is Shank, that it may join to the matter of the clofing period; whereas the other Points not only admit, but require, to be feparaved from the matter; and it would alfo lave Spaces, were their bearings off at the fore-fide of their Shanks anfiverable to a thin Space. Even the Comma, we prefume, is not under a neceffity toclinge to the Matter fo clofe as it always does in England; confidering


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Parenthefes are caft to fland according to the pofition of Letter; and therefore Italic ones ought not to ferve with Roman, nor thefe with Italic matter.

To diftinguifh the two parts of the Parenthefis in reading of proofs, its firt femicircular figure is called Parenthefis, and the other is fignified by reading if, Clofe; which anfwers to claudatur, the term ufed by Correctors in foreign parts.

Parenthefes ferve likewife to inclofe letters, or figures, for References.

The Crotchet has relation to the Grammatical Figure, called Ellipfis'; which admits of omitting fome words in a fentence, that are neverthelefs underfood. `Thus we fay, I was at St. Paul's ; underttanding, Church : I am going to the Opera; meaning, Houfe. Such Ellipfes are frequently feen in moft fchool-books for Latin, where the words to be omitted are put between Crotchets, that fcholars may have the full fcope of the fentence; and at the fame time accuftom themfelves to elegant Latin. But inftead of ufing Crotchets upon the like occafion, fome diftinguifh Ellipfes by Italic, provided nothing elfe is varied in the Text; as it is in Englifh Bibles, where fuch words as are elegant omiffions in the Hebrew, and filled up by words in Italic letter. Crotchets are alfo ufed,

1. In Work of Receipts and Prefcriptions, that make but fhort paragraphs, and are generally ranged alphabetically. In fuch work, that would elfe ferve for Heads by themfelves, is put in Italic at the beginning of each Article; as, Hare, how to roaft.] Wine, how to clarify.] Strengthening-plaifter, how to prepare.]
2. In Forms of particular Prayers, and Notations; as Reftore him [her] we befeech thee. This is the firft [fecond, third] time of, \&c.
3. To put the Folio's of Pages between, that have no Running Titles.
4. To inclofe Letters, or Figures, for References.

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5. In Poetry, with Reglets between that anfwer to fome Body of Letter; which generally is Long Primer. In this cafe fuch word or fyllable as will not come into the meafure, is put under, and fometimes over the line to which it pertains; thus,
> [want,
> Patterns of labour we fhall never While we behold the fmall, but pain-
> [ful ant.

## APOSTROPHE.

We call the Apoftrophe a Sign of Abbreviation, becaure (except clofing a Quotation) where-ever it appears, it denotes the ejection of fome letter, or letters, that fuffer themfelves to be cut off by an Apofrophe. To this the Vowel e yields oftener than any letter, not only in Poetical Works, but alfo in Profe Writings ; for the e may be cut off by an Apoftrophe, in all fach Verbs whofe Preterimperfect, or other Tenfes, ended in ed, be the Confonant what it will that preceeds the Vowel, except the d , which does not allow of having the e fupereded by an Apoftrophe : neither is it elegant to put that Accent after c and g , becaufe onitting the e gives the fyllable a rough and harf found; though that is not regarded in Poetry, where it contracts two fyllables into one, to give a Verfe its proper meafure. But in the above cafes, an author ufes the Apoftrophe after his own difcretion, and according as he finds what way the fyllable ed runs the frootheft.

Befides the influence which the Apoftrophe has over the e, it retrenches the 1 in cou'd, fhou'd, wou'd : but this is done upon fufferance by the Mafter-Printer, and Author; though the abrence of the mute 1 can no-ways leffen the credit of an elaborate Eflay; but may help a Printer to lengthen his Letter, efpecially if he lives at fuch a diftance that he cannot

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be ferved upon occafion; and 1 being a Sort which in moft Founts rups fhort.

The Apoftrophe, fometimes, cats off a Vowel at the beginning of words, as 'hate, 'fcape, 'Squire: fometimes an entire fyllable; as an 'prentice, 'fore, 'change. But thefe and many other Abbreviations of this kind are not ufed in common, but chiefly in Poetry, Plays, and Epiftolary and Humoroas Writings; and are under the arbitration of an Author, who bef knows where fuch Contractions ferve his purpofe.

The monofyllables tho', and thro', are oftener flaortened, than fet at length.

The Genitive cafe of the Singular number is generally known by having 's for its termination; which [s] when it ftands with a Proper name, is varied from the Letter of that name.
QUADRATS.

The different meafures to whieh Quadrats have of late been caft, anfwer either to Four, Three, or Two m's of their refpective Bodies, befides the One-m, and $n$-quadrats. But, note, that four-m-quadrats are counted too large pieces of metal; when they are carried beyond the breadth of four m's Englif.

Though the faid three forts of large Quadrats may ferve to fill up moft Blanks, they often require the help of n-quadrats, to juftify lines that are made to the meafure of m's, and an $n$; and therefore a three-n-quadrat would often be of fervice, and fave $m$ and $n$-quadrats, efpecially in Figure-work where articles do not amount to thoufands.

Not only $m$ and $n$-quadrats, for Figure-work, but alfo the larger forts, require a Founder's utmoft care in dreffing them ; for if they differ ever fo little in the depth of their Body, the faule will be difcovered fooner than in Letter, efpecially in Poetical matter; the teft for Qadrats. And here it will be found,

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how inconvenient ${ }_{2}$ and even prejudicial it is, to have Founts of the fame Body caft to different Sizes; becaufe every Quadrat is hereby confined to its own Fount and cannot ferve in another, unlefs by accident, and upon unavoidable occafions.

Large Quadrats, caft exactly to m's, are very convenient Sorts in Table wark; but as vexatious, if they prove too tight; and therefore, if they cannot be caft to that exactnefs which they require, the leaft of the two faults would be, to fee them rather too flack than too hard for the Compofing-ftick; for a line of quadrats, if juftified to the meafure, will be found too tight in comparing it with a line of matter, which, as it were, is perforated, and will fhrink at the furce of a Mallet ; whereas Quadrats, being of a folid body, maintain their extenfion.
Reglets, of the fame Body with the Letter of the Work, are more proper for Whites than Quadrats, becaufe Reglets are capable to interrupt the hanging and crookednefs of Matter,

## S PACES.

The ufe of Spaces is, to feparate one word from another, thereby to render reading eafy and diftinct; whereas in the infancy of the Art, Matter was printed fo very clofe, that it was dificult to diffinguifh word from word.

If we reckon the n-quadrat among the Spaces, as it really ought (when ufed in Matter), we may count four forts of Spaces for compofing, viz.

Two to an m , or two n -quadrats.
Three to an $m$, or three thick Spaces.
Four to an $m$, or four middling Spaces.
Five to an $m$, or five thin Spaces;
befides Spaces for juftifying, called Hair Spaces; of which fome are caft fo very thin that they deferve to be admired.

Neither the German, French, nor Dutch Letter Founders keep to this Form of cafting Spaçes to no more than three fizes

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fizes, but caft them to feveral irregular thicknefles, to make true Spacing more eafy. This feems to be intended by the Dutch in: particular, who are not backwards to caft the greateft part of their Spaces to thiner fizes than moft Compofitors care for; but, whether this uncommon fault proceeds from a real defign to facilitate Spacing; or whether it is done in imitation of the original Spaces, we leave to the inquifition of others.

The greater the variety of Spaces, the more eafy is Spacing to a Compofitor. It is for this reafon that lefs opulent Printers frequently fave all the thin letters of a Fount which they defign to throw away, and have their tops cut off, to ferve for Spaces in a Fount of the fame Body, when caft to the fame fize.

## TWO LINE LETTERS

THAT are caft to regular bodies are, in their afcending order, Two Line Brevier, Two Line Long Primer, Two Line Pica, Two Line Englifh, and Two Line Great Primer. As for Four Lines Pica, and Five Lines Pica, they beft become the name of Title Letters; for though they may ferve for Initial letters upon feveral occafions, yet they feem to us too overbearing to the mild afpect which Pica letter prefents itfelf with. And that we have taken no notice of Two-line Small Pica letters, is becaufe they are caft to an Irregular Body, and eafily miftaken for Two-lines Pica; which is the reafon that Printers, formerly made fo little ufe of them. and that they did not appear till lately. In the mean time, where the furl-faced Capitals have not yet had accefs, leanfaced ones are fill thought to look neater before Small Pica, than one of a large afpect ; which, if required, might foon be complied with, by changing it into one of two lines Long Primer.

Two Line Letters are caft to the full depth of their Body; but is a fault that thould have been taken notice of before now :

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for they having fuch a deep Face, they defcended below the line in which they hould range, according to the different Bodies thereof: And that the excurfion from that imaginary Line ought to be prevented, is confeffed by a Compofitor's taking care that 2 . Fac shall not bouch the letters under it; from whence it confequently follows, that Two Line letters fhould not bear upon letters under them; as they needs muft do where they fand over Afcending letters of the following lise.

To ufe full-faced Capitals upon every occafion where Initial letters are required, does not add to neatnefs, but rather leffens the fame; efpecially in Work of narrow meafure, and short Chapters, or other Divifions.

The curtailing the J in cur Two Line letters, gives it $x$ diminutive look; not having the fame free turn and agreeable Face which was originally given to it; and therefore might have been left in its former fhape, though it frould run to the depth of three lines, on account of its tail.

## R U L E S.

Are either Brafs rules, Metal rales, or Space rules; whereof the firtt are made by Joiners, and the other two forts caft by Letter Founders.

Brafs rules being commonly cut to the length of fixteen inches, their equality, as to height, from end to end, is not always to be depended on; apd therefore fhould be tried: which is done by bolding the foot, and afterwards the face-fide of the whole length upon an impofing ftone, and obferving, whether light ean be difcovered betwixt the Rule and the Stone; which if it appears, it proves the Rule faulty, and fhews where it drives out in height, and occafions a hollownefs in fome other place.

The Face of Rules ought likewife to be confidered, that it may be of an equal bold, or elfe tender look, according to the bignefs

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bignefs of the Letter or Figures with which they are ufed. But we find a great difference in the Face of Rules, when we come to piece them; ublefs the Compofitor endeavours to drefs the fhorter pieces fo that they may not be diftinguified from the mean length. But becaufe piecing of Rules is often attended with confiderable trouble, few Compofitors chufe to fhew their dexterity thercin, till they are urged to it by the fcarcity of them.

The thicknefs of Rules for Table-work fhould be proportionable to their Face, without fo much Sholder as fhall hinder a crofs rule to join a perpendicular line ; fince it is a maxim, " That Rules (in Table-work) thall fall upon, and touch "Rules": which, if it is followed, makes Table-work look moft agreeable.

## METAL RULES.

Like Quadrats, are caft to m's, in fuch Founts as are commonly employed in Figure-work; which for the generality are Long Primer, and Pica.

Metal rules are ufed in Schemes of Accounts, to direct and connect each Article with its fummary Contents, where they ftand oppofite, and diftant from each other: in which cafe all the different fizes of Rules are ufed, to prevent one rule from falling upon another, efpecially of the fame force; and to hinder their ranging, except the laft in a line, which approaches the Figure-column within an m-quadrat, and by that means fall upon each other behind; though (on account of the different fizes) they do not range before.

Metal rules of a neat cut, and curioufly caft to ftand in line, and join, are very ufeful in a Printing-houfe, confidering that they ferve not only for rectilinear, but alfo perpendicular progrefions, where no other rales are to touch them. But though they have Sholdering fufficient to bear off the Matter, they require neverthelefs a Scabbard, or, if it will admit, a

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Reglet before and after them, that they may run ftraight and meet with nothing that can throw them out of line.

Sometimes a Rule ftands for a fign of Repetition, in Catalogues of Goods, where it implies Ditto; and in Catalogues of Books, where a rule fignifies Ejufdèm, inftead of repeating an Author's name, with the Title of every feparate Treatife of his Writing : But, note, that no fign of Repetition, no more than Ditto, Ejufdem, or Idem, muft be ufed at the top of a page; but that the name of the Author, or Merchandize, muft be fet out again at length; and if their feries continues, to denote the continuation thereof, at every article, by a rule of three, or four m's, fo as to range, inftead, of extending the rule to the different lengths of names.

At other times a Rule ftands for to, or till ; as, Chap. xvi. 3-17. that is, From the firf to or till the feventeenth verfe.

And at other times, again, a sule ferves for an Index, to give notice, that what follows, is a Corollary of what has preceded; or otherwife Matter of import and confequence.

Metal rules, when they ferve for Leaders, are improperly ufed in the laft line of an Article that is braced.

## SPACE RULES

Are not always caft to the fame thicknefs; though two of them generally anfwer to the depth of a Pearl quadrat. But their thicknefs is not of fo much moment as their being of a neat look, and to join well; in which cafe they may be counted valuable Sorts in a Printing-houfe, confidering that they not only fave Brafs rule, but alfo come off neat between columns of clofe matter; though they always appear beft when they have the advantage of.running between two Scabbaris.

Though all the due care fhould be taken by a Founder to caft Space rules to a true Straight-line, and to join well, yet it would be more fatisfactory to fee them caft with a Nick or Signature

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Signature to them; fince it is poffible, that the Sholder of one fide of the rule may bear off more than another; and that therefore a Nick would ferve for a guide; to run them under the fame fide of their Sholders.

## B R A C E S,

Are ufed chiefly in Tables of Accounts, and other fuch-like Matter that confifts of a variety of Articles, which would require much circumlocution, were it not for the curious method of Tabular Writing, which is practifed in England to greater perfection than in any other Nation.

Braces fland before, and keep together, fuch Articles as are of the fame import, and are Subdivifions of preceding Articles.

Braces, fometimes, fland after, and keep together, fuch Articles as make above one line, and have either pecuniary, mercantile, or other pofts after them ; which are juftified to anfwer to the middle of the Brace; thus,
\(\left.\begin{array}{c}To 60 I lb. weight of Letter <br>

at 18 \mathrm{~d} . perlb.\end{array}\right\}\)| l. | s. | $d$. |
| :---: | :---: | :---: |
| 45 | i | 6 |

Where Matter is not braced in, the Sum thereof runs out at the laft line of each Article; thus,

$$
\begin{aligned}
& \text { To } 60 \mathrm{I} \text { lb. weight of Letter, at } \\
& \text { i8 d. per lb. }-\cdots-\infty \quad \text { I } 6
\end{aligned}
$$

The bracing fide of a Brace is always turned to that part of an Article which makes the moft lines.

Braces are fometime ufed in the Margin; to cut off a Chronological Series from the proper Notes of the Work.

Table-matter is generally braced in, when it wants driving out in width; thus,


Whereas for driving down, we ufe the following method, viz.

$$
P_{p}^{\prime}
$$

Sometimes the fums of Separate Articles are run out, and braced together, to collect them into an aggregate fum ; thess,

And fometimes both the primary and fecondary fams are braced in, and the aggregate collected from the laft of the two ; thas,


Braces are generally caft to a Long Primer Body ; of which the deepeft anfwer to fix lines of that Letter; and therefore where longer Braces are required, they are made of Brafs rules. But becaufe every Compofitor is not alike fkilled in giving them their proper turn; befides that fome think it not pertinent to their profeffion to work in Brafs, moft Printinghoufes are provided with Middles and Corners, which anfwer all-the purpofes of Braces, and are preferable to thofe made of Brafs rules; confidering that the make and the face of thefe is always varying ; whereas Middles and Corners being caft in a Mould, are not fubject to changes.

Middles and Corners, as well as Rules, are the teft of a Founder's carefulnefs; both requiring the fame accuracy, to make them feem to be of one piece. And as to dreffing them, their Sholders fhould be plained away fo that no Bearding might be apprehended, fhould they even ftand expofed : on which

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which account they might be caft to a leffer body than Long Primer, where it not that every Printing-houfe is provided with that fize of quadrats.

## S UPERIORS.

Becaufe we have already been fpeaking of Superior Letters and Figures, we fhall fay the lefs of them here; and therefore only obferve, That Superior Letters fhould contain no more than the bare Alphabet, in cafting Superior Letters, 2 large number fhould be caft of the firf eight Sorts; a lefs of the fecond eight Sorts; becaufe it is often that References begin begin with ${ }^{\mathbf{a}}$ in every page; though fometimes they are continued to the end of a Chapter, or other divifion of a work; in which cafe they may run the length of an alphabet, and more. But a large number of $o$, fhould be caft which ferves for other purpofes, befides being a Reference; and therefore requires more than double the number of the firt clafs:
The fame may be done to the Nought of Superior Figares, and a larger quantity caft of this than another Sort : nor would it be wrong, were the $t$ hree firt Figures, and efpecially the figure One, to exceed the others in number.

## FRACTIONS,

Or Broken Numbers in Arithmetic, are feldom caft to any other Bodies than thofe of Pica, and Long Primer; and therefore the firft is equal to two Nonpareil quadrats; and the other, to two lines of Pearl.

Fractional Figures are caft to m-quadrats, and therefore n -quadrats are requifite to juftify a fingle figure over a double one, without trufting them to be taken from the Fount of Letter; becaufe Nonpareil and Pearlare not met with in every Printing-houfe. And, were we to follow the Dutch, we fhould want even halfs of an $n$-quadrat: for they caft their fractional

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fractional figures to n's ; and at the fame time fome to m's; which are ufed where the Numerator, or upper part of a Fraction, has but one figure, and the denominator, or lower part, two figures; yet where the Numerator confifts of two figures, and the Denominator of three, the firft muft have its figures $n$-thick; and even then cannot be exaclly juftified ower the Denominator, without Spaces, whereof two are equal to an n-quadrat.
The Scparatix, or rule between the Numerator and Denominator, is in fome Fractions joined to the foot of the firft: but of late it has been confidered that the figures of 34579 are thereby cramped, and for that reafon it is now cut to run in the Top-line of the denominating figure; which is an improvemént not undeferving to be taken notice of.

The goodnefs of Fractions does not confift in their having a fmall and fine Face; but rather in fhewing themfelves full, and clear.

Where Fractions are wanting, a Divifion ferves to diftinguif the Numerator from the Denominator, by putting it thus; viz. 3-8 $12-63$ 16-50.

## QUOTATIONS.

The name of thefe quadrats tells us, what they formerly were ufed for, viz. To receive all fuch matter as was heterogeneous to the text. Hence we fee in the productions of former Printers, that they delighted in feeing the pages lined with Notes and Quotations; which they enlarged on purpofe, and contrived to encompafs the pages of the text, that they might have the refemblance of a Looking-glafs in a frame. By thus crowding the pages with Notes, they could not want fo many Quotations as we do at prefent : now we are convinced that too many Netes are of no advantage to work that is to be called curious: for the Notes being always confiderably lefs than the text, either this will appear too pale, or the other too black;

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black; and for this reafon thofe who have a notion of Printing, avoid writing Side notes.

Quotation quadrats require to be dreffed and finifhed as carefully as any other Sort, that they may ftand true upon all occafions, either fingle-broad, or double-broad ; fingle-narrow, or double-narrow, and in any other meafure.

Quotations in a Printing-houfe ought to have been all caft in the fame Mould, to the height of common quadrats : but becaufe their height is not limited, we judge that it ought not to exceed the depth of four m's of Pica; for if they are higher, they will be in the Preffman's way, and in danger of the Hammer; to which they are moft expofed where they ferve for White-lines.

Qnotations are always caft hollow; yet fo various in their hollownefs as well as height, that when a pound weight of fome is worth the ufual price, the fame weight of others deferves not half the value, when they are calculated for the confumption of Metal more than for ufe.
Jultifiers, as well for broad as narrow Quotations, are caft, from Double Pica to all the Regular Bodies, even Pearl, inclufive: but the two fmalleft Sizes, viz. Nonpareil and Pearl, are feidom ufed, unlefs in a crowd of Notes.

## METAL FLOWERS,

Are caft to all the Regular Bodies of Letter, from Great Primer to Nonpareil, included ; befides feveral Sorts that are to the fize of Small Pica.

Flawers were the firt Ornaments which were ufed at the Head of fuch pages that either began the mean Work, or elfe a feparate Part of it.

Though they formerly had no great variety of Flowers; yet were the few of them contrived to look neat and ornamental; being deep in Body, and caft fo that no bearings off could be difcovered, but looked as one folid row.

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Bat with the growth of Printing, and when Letter-cutters ftrove to excel each other, they introduced alfo Flowers of feveral fhapes and fizes, which were received, and varioufly employed, till cutting in wood was come to perfection; when that art was eagerly encouraged, and Flowers not regarded. From that time till very lately, nothing has been thought to grace the firt page of a Work fo well at Head-pieces cut in wood; of which fome have fuch a coarfe look, that even Mourning rules would look neater, were they put in the room of them.

The invention of cutting in wood, is claimed by the German though the Italians feem to have a priur right to ftile themfelves the Authors. Neverthelefs, though the former may have had their Worthies of the faid Art, it is apparent that they have taken their knowledge with them to the grave. And this has alfo been the cafe in France, where the Mafters of the art of cutting in wood made a fecret of their method of working, and left no difciples of their abilities. Hence it was, that while Mr. Jackfon, an Englifhman, was at Paris, he was wholly employed in furnifhing Printers there with Head-pieces and other Ornaments of his Drawing and Cutting. But it being above thirty years fince he went to Rome, it muft be fuppofed that his work in France is worn down before this time; which may be the reafon that Flowers are come into fafhion again in France. But this, perhaps, would not have been fo readily effetted, had it not been for the particular genius and fancy of a Compofitor at the King's Printing-houfe in Paris, who reftored the credit of Flowers, by making them yield to every turn which is required to reprefent a figure anfwerable to the rules of Drawing. Hence it may be guefed what great variety of florid Sorts were ufed to exhibic Cyphers of names, Forms of crowns, Figures of winged and other creatures, and whatever elfe fancy prefented to this typographical Florif. But it muft be obferved, that the king of France paid for this whim; the Compofiter having a falary, and free accefs to the

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King's Founding-houfe, to order the cutting and calting every thing that could conduce to make his conceptions mature and the performance of them admirable.

Thus has the ufe of Flowers been revived in France; and has ftimulated the Germans to improve their Fufil ornaments; whereby they have been inftrumental to theronfiderable augmentation made here in Flowers, by all which we fhall be enabled to make Flower-pieces of oval, circularly, and angulary turns, inftead of having hitherto been confined either to fquare or to circular Flowers. But it is feared, that Head-pieces, Facs, and Tail-pieces of Plowers will not long continue, either in England, France or Germany ; confidering that the contriving and making them up, is attended with confiderable trouble and lofs of time ; and as no allowance is made for this, it will not be ftrange, if but few flall be found who will give inftances of their fancy. But this might be remedied, were Printers to recompenfe the Compofitor for his painful application; and then to preferve the fubftance of his invention intire, for occafional ufe.

The ufe of Flowers is not confined to Ornaments over Head pages only, bat they ferve alfo, each Sort by itfelf, upon feveral other occafions. Thas they are ufed in Mifcellaneous work, where a fingle row of Flowers is put over the Head of each frefh Subject, but not where two or more are comprehended under the fame ritle; which commonly have, Another, By the Same, \&c. for their Head. As therefore Flowers appertain to Heads, it ought to be a rule, that a fingle row of them fhould be put over a Head that begins a Page, be it Part, Chapter, Article, or any other Divifion, in Work that has its Divifions feparated by Flowers.

Flowers being caft to the ufual Bodies of Letter, their fize fhould be proportionable to the Face of the characters; fince it would be as wrong to ufe Great Primer Flowers with Long Primer Letter, as it is improper to embolden the look of Great Primer by Long Primer Flowers.


Flowers 'being cither of a rectilinear, angular, circular, or fquare fhape, they are ufed accordingly in making them up for Head-Pages, of whom we have in this Work introduced a few Specimens.

But as the conftruction of Flower Head Pieces entirely de.pends upon the fancy of a Compofitor, it would be prefumption in us to direct him in this point: we therefore leave the difplaying of Flowers to his own judgment, and to the variety of materials for this purpofe.

For want of Flowers, References and other Sorts belonging to a Fount, are fometimes made ufe of to ferve as well at the beginning as conclufion of work of a fmall fize.


THE PRINTING'PRESS.

HERE are two forts of Preffes in ufe, the old and the new fafthioned; the old fort, till of late years, were the only Preffes ufed in England, for which there can be no other reafon ficient to diftinguifh between an excellent improved invention, and a make-nift flovenly contrivance, practifed in the minority of the Art.
The new fafhioned Prefles were in general ufe throughout Holland feveral years before their introduction among us; but, before we proceed to a particular defcription of it, think it not improper to mention the Confructor of fo excellent an improvement, whofe Name is but little known or Memory regarded. This ingenious artift was Willem Jansen Blaew, of Amfterdam, a man as famous for his good Printing as for Aftronomical and Geometrical productions.
In his early part of life he was bred up to Joinery, and, having ferved out his time, being of an inquifitive difpofition rambled to Denmark, about the time that the famous Tycho Brahe was efablifhing his Aftronomical Obfervatory, by whom he entertained, and under whofe infructions he was employed in making Mathematical Inffruments, in which curious art he made very confiderable improvements; which occafioned it to be generally reported, that all or moft of the
Syderal

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Syderal Obfervations publifhed in Tycha＇s name，węre made by BlaEw，as well as the Infruments．

Before thefe Obfervations were publifhed to the world， Tycho，to gratif Blaew，gave him the copies of them， with which he went to Amfterdam，and there practifed the making of Globes，according to thofe Obfervations．As his trade increafed he found it neceffary to deal in Geographical Maps and Books，and became fo particularly curious in his plates，that many of the beft Globes and Maps were engraved by himfelf；and，by his frequent connexions with Printing of books，got fo good an infight in the practical part of the art，that he fet up a Printing Houfe for the tranfaction of his bufinefs；wherein he foon found the inconveniencies attending the ftructure of the old Preffes，which induced him to con－ trive remedies to every inconveniency，and in that fucceeded fo much to his expectation，that he caufed nine of them to be made，each of whom he called by the name of one of the nine Mufes．

The excellency of the improvement foon became known to other Printing Houfes，which induced their proprietors to follow Blaew＇s example，fo that Preffes of his ftructure be－ came，in the courfe of a few years，almof general through－ out the Low Countries，and from thence，of late years，not－ withftanding the oppofition of the ignorant，they have been introduced into England．

Thofe Prefles on the old principle are too common to need
a particular account of，we thall therefore confine the follow－ ing defcription to thofe of the new Aructure， Carriage, Coffin, Gutter, Plank, Gallows, Tinpans, Frifket, Points, and Point Screws.

All thefe members, by their matter, form, and pofition, contribute fuch an affiftance to the whole machine, that it becomes an engine manageable and proper for its intended purpofe. But as the fmallnefs of the Cut may obfcure the plain appearance of many of thefe parts; we fhall therefore give a more diftinct and large "defcription of every confiderable part in the prefs; and firt of the wood-work; in which is to be obferved that all the framed wood-work, fhould be made of good, fine, clean, well-feafoned Oak.

> THE FEET.


The Feet are two foot nine inches and a half long, five inches deep, and fix inches broad, and have their out-fides tried to a true fquare. It hath, for ornament fake, its two ends bevil'd away in a molding, from its upper-fide to its lower, about four inches within the ends; about four inches and three quarters within each end of each Foot is made in the middle of the breadth of the upper-fide of the Foot, a mortife two inches wide, to receive the tenons of the lower end of the Cheek, and the tenon of the lower end of the Hind Poft: the mortife for the Cheek is eight inches long, which is the whole breadth of the Cheek: and the mortife for the Hindpoft is four inches long, which is the fquare of the Hind-pott.

## THE CHEEKS,

Are five feet ten inches long, befides the tenons of the tap and bottom, which are eight inches broad, and four inches and an half thick. All its fides are tryed fquare to one
THE HISTORY OF PRINTING. 295 another. It hath a tenon at either end, its lower tenon marked $a$ to enter the fore-part of the Foot, runs through the middle of the breadth of the Cheek, which therefore is made to fit the mortife in the Foot, and is about four inches long, and reaches within an inch of the bottom of the Foot; but the tenon at the upper end of the Cheek marked $a$, is cut a-crofs the breadth of the Cheek, and therefure can have but four inches and an half of breadth, and its thicknefs is two inches, its length is four inches; fo that it scaches into the mortife in the Cap, within half an inch of the top.
In the lower-end-tenon is two holes bored, within an inch and an half of either fide, and within an inch and an half of the fiolder, with a three quarter inch augure, to be pinned into the Feet with an iron pin.
In the middle of the upper tenon, and within an inch and an half of the fholder, is bored another hole to pin the tenon into the Cap, alfo with an iron pin.
Between $b c$ two foot and half an inch, and three foot feven inches of the bottom fholder of the tenon, viz. from the top of the Winter to the under fholder the Till refts upon, is cut flat away into the thicknefs of the Cheek, three inches in the infide of the Cheek; fo that in that place the Cheek remains but an inch and an half thick: and the Cheeks are thus widened in this place, as well becaufe the duftail tenons of the Winter may go in be-
tween them as allo the Carriage and Coffin may be made the wider.

Even with the lower tholder of this flat cutting-in, is made a duftail mortife as at $d$, to reach eight inches and an half, viz. the depth of the Winter below the faid fholder. This mortife is three inches wide on the infide of the Cheek, and three inches deep; but towards the infide the Cheek, the mortife widens in a fraight line from the faid three inches to five inches, and fo becomes a duftail mortife. Into this duftail mortife is fitted a duftail tenon, made at each end of the Winter.

Two inches above the aforefaid cutting-in, is another cut-ting-in of the fame depth, from the infide the Cheek as at $c$. This cutting-in is but one inch broad at the farther fide the Cheek, and an inch and a quarter on the hither fide the Cheek. The under fide of this cutting-in, is ftraight through the Cheek, viz. Square to the fides of the Cheek: but the upper fide of this cutting-in, is not fquare through the Cheeks, but is one quarter of an inch higher on the fore fide the Cheek than it is on the further fide; fo that a wedge of an inch at one end, and an inch and a quarter at the other end may fill this cutting-in.

At an inch within either fide the Cheek, and an inch below this cutting-in, as at $f f$, is made a fmall mortife an inch and and an half wide, to which two tenons muft be fitted at the ends of the Till, fo that the tenons of the Till being flid in through the cutting-in aforefaid, may fall into thefe mortifes; and a wedge being made fit to the cutting-in, may prefs upon the tenons of the Till, and force it down to keep it feady in its place.

Here we fee remains a fquare fholder or fubflance of wood between two cuttings-in; but the under corner of this fquare fholder is for ornament-fake bevilled away and wrought into an ogee. .

At two inches above the laft cutting-in, is another cuttingin, but this cutting-in goes not quite through the breadth of the Cheek, but flops at an inch and an half within the further fide

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fide the Cheek ; fa that above the Till and its wedge is another fholder or fubftance of wood, whofe upper corner is alfo bevilled away, and wrought to a molding as the former.
The laft cutting-in is marked $g$, and is eight inches and a quarter above the fholder of the Till, that it may eafily contain the depth of the Head 3 the fubftance remaining is marked $b$. This cutting-in is made as deep into the thicknefs of the Cheek as the former cuttings-in are, viz. three inches; and the reafon the Cheek is cut-in here, is, that the Cheeks may be wide enough in this place to receive the Head, and its tenons, without un-doing the Cap and Winter.

Juft above this cutting-in is made a fquare mortefs in the middle of the Cheek, as at $i$, it is eight inches long, and two inches and an half wide, for the tenon of the Head to play in.

Upon the fore-fide of the Cheek is (for ornament fake) laid a molding through the whole length of the Cheek (a fquare at the top and bottom an inch deep excepted) it is laid on the outer fide, and therefore can be but an inch broad ; becaufe the cuttings-in on the infide, leaves the fubftance or ftuff but an inch and an half thick, and fhould the moldings be made broader, it would be interrupted in the feveral cuttings-in, or elfe a fquare of a quarter of an inch on either fide the Molding could not be allowed,

## THE CAP,



Is three foot and one inch long, four inches and an half deep, and nine inches and an half broad; but its forefide is cut away underneath to eight inches, which is the breadth of the Cheeks. Three quarters of an inch above the bottom of


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tenons are intended to do the office of a Summer, hecaufe the fpreading of the ends of thefe, two tenons into the fpreading. of the mortifes in the Cheeks, keeps the two Cheeks in a due diftance, and hinders them from flying afunder.
It would be very convenient to have a Summer alfo, the more firmly and furer to keep the Cheeks together; this Summer is only a rail tenoned, and let into mortifes made in the infide of the Cheeks, and fcrewed to them. Its depth is four inches and an half, and its breadth eight inches, which is the breadth of the Cheeks.

## THE HEAD.



The length of the Head befides the tenon at either end, is one foot nine inches and one quarter of an inch; the breadth eight inches and an half, and its depth eight inches. The top, bottom and hind-fides are tryed fquare, but the forefide projects half an inch over the range of the fore-fides of the Cheeks; in which projecture is cut a table with a hollow molding about it, two inches diftint from all the fides of the fore-fide of the Head : its tenons are three inches broad, and are cut down at either end, from the top to the bottom of the Head, and made fit to the mortifics in the Cheeks, that they may flide tight, and yet play in them.

In the under-fide of the Head is cut a fquare hole, about four inches fquare, and three inches and an half deep, into which the Brafs-Nut is to be fitted: And to keep this Nut in its place (lett the weight of it fhould make it fall out) is made on K r
either

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either fide the fquare hole, at about half an inch diftance from it, (as at $b$ b) a fquare hole quite through the top and bottom of the Head about three quarters of an inch wide; and into this fquare hole is fitted a fquare piece of iron to reach quite through the Head, having at its under-end a hook turned fquare to clapfe upon the under-fide of the Nut; and on its upper-end a male-ficrew reaching about an inch above the upper-fide of the Head, which by the help of a female-fcrew made in an iron Nut, with ears to it to turn it about, draws the Clafp at the bottom of the iron Shank clofe againft the Nut, and fo keeps it from falling out.
In the middle of the wide fquare hole that the Nut is let into, is bored a round hole through the top of the Head, of about three quarters of an inch wide, for the Prefs-man to pour oil in, fo oft as the Nut and Spindle fhall want oiling.

At three inches from either end of the Head is bored a hole quite through the top and bottom of the Hend, which holes have their under ends fquared about two inches upwards, and thefe fquares are made fo wide as to receive a fquare bar of iron three quarters of an inch fquare; but the other part of thefe holes remain round : into thefe holes two irons are fitted called the Screws.

The flanks of thefe Screw's are made fo long as to reach through the Head and through the Cap : at the upper-end of thefe fhanks is. made male-fcrews, and to thefe male-fcrews, iron female fcrews are fitted with two ears, to twift them the eafier about.

So much of thefe iron fhanks as are to lye in the fquare hole of the Head aforefaid, are alfo fquared to fit thofe fquare holes, that when they are fitted and put into thic holes in the Head, they may not twift about.

To the lower-ends of thefe iron-fhanks are made two fquare flat heads, which are let into and buried in the under-fide of the Head; $;$ and upon the fholders of thofe two tlat heads, refts the weight of the Head of the Prefs; and by the Screws at the and fcrewed up or let down as occafion requires.

THETILL,


Is a Hoard about one inch thick, and is as the Head and Winter,' one foot nine inches and a quarter Iong, befides the tenons-eitherend; its breadth is the breadth of the Cheeks, which are eight inches. It hath two tenons at either end, each of them about an inch and an half long, and an inch and an palf broad, and are made at an inch diftance from the fore and back-fide, fo that a ppace of two iniches is contained in the niddle of the ends between the two tenons; thefe tenons ard to be laid in the mortifes in the Cheeks.

In its middle it hath a round hole about two inches and an half wide, as at $b$, for the thank of the Spindle to pars through:
At feven inches and a quarter from either end, and in the middle between the fore and back-fide, are made two fquare holes through the Till, as at $e$, $c$, for the Hofe to pafs through.

## THE HIND-POSTS.

At one foot diftance from the hind-fides of the Cheeks are placed upright two Hind-pofts, they are three foot and fuur inches long befides the tenons; which tenons are to be placed in the mortifes in the hinder ends of the feet; their thicknefs is four inches on every fide, and every fide is tried fquare ; but within eight inches of the top is turned 2 round ball with a button on it, and a neck under it, and under that neck a flraight plinth or bafe ; this turned work on the top is only for ornament.



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The Ribs lye within a frame of four foot five inches long, one foot eleven inches broad; its two End-rails one foot and an half thick, its Side-rails two inches and an half thick; and the breadth of the Side and End-rails two inches and an half. But the Side-rails are cut away in the in-fide an inch and an half towards the outer fides of the Rails, and an inch deep towards the bottom fides of the Rails, fo that a fquare Cheek on either Side-rail remains. This cutting down of the Outer-rails of the Frame is made, becaufe the plank of the Carriage being but one foot eight inches and an half broad, may eafily flide, and yet be gaged between thefe Cheeks of the Rail, that the Cramp-irons nailed under the Carriage Plank joggle not on either fide off the Ribs.

Between the two Side-rails are famed into the two Endrails the two Wooden-ribs two inches and an half broad, and an inch and anihalf thick; they are placed each at an equal diftance from eath Side-rail, and alfo at the fame diftance between themfelves. Upon thefe two Ribs are faft nailed down the Iron-ribs, of which more fhall be faid when we come to fpeak of the iron-work.

THE CARRIAGE, COFIFIN AND THE PLANK.
The Plank of the Carriage is an elm plank an inch and an half thick, four fort long, and one foot eight inches and three quarters broad, upon this Plank at its, fore-end is firmly nailed down a fquare frame two foot four inches long, one foot ten inches broad, and the thicknefs of its fides two inches and an half fquare : this frame is called the Coffin, and in it the Stone is Bedded.

Upon each of the fourt comers of the Coffin is let in and fatened down a fquare iron plate as at $a a a a$, with returnfides about fix inches long each fide, half a quarter of an inch thick, and two inches and a quarter broad ; upon the upper outer-fides of each of thefe plates is faftened down to them with two or three rivets through each fide, another flrong iron
THE HISTORY OF PRINTING． 305 half an inch deep，and whofe outer angles only are fquare， but the inner angles are obtufe，as being floped away from the inner－angle towards the farther end of each inner－fide，fo as the Quoins may do the office of a wedge between each inner－ fide and the Chafe．

The plates of thefe corners are let in on the outer－angles of the upper－fide of the frame of the Coffin，fo as the upper－fides of the plates lye even with it，and are nailed down，or indeed rather rivetted down through the bottom and top－fides of the frame of the Coffin，becaufe then the upper－fides of the holes in the iron plates being fquare bored（that is，made wider on the upper fide of the plate）the ends of the fhanks of the iron fond the

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pins may be fo battered into the fquare-boring, that the whole fuperficies of the plate when thus rivetted hall be fmooth, or the nail-heads would hinder the free fliding of the Quoins.

At the hinder end of the frame of the Coffin are fattened either with frong nails, rivets, or rather fcrews, two iron half-joints, as at $b b$, which having an iron pin of almoft half an inch over put through them, and two Match half Joints faftened on the frame of the Tympan. Thefe two Match half Joints moving upon the iron pin aforefaid, as on an Axis, keeps the Tympan fo truly gaged, that it always falls down upon the Form in the fome place, and fo keeps the Regifter good.

Behind the Coffin is nailed on to its out-fide, a quarter, as at $c$; this quarter is about three inches longer than the breadth of the Coffin, it hath all its fides two inches over, and three of them fquare; but its upper fide is hollowed round to a groove or gutter, an inch and an half over. This gutter is fo nailed on, that its hither end flanding about an inch higher than its further end, the water that defcends from the Tympan falling into it, is carried away on the further fide the Coffin by the declivity of the further end of the gutter, and fo keeps the Plank of the Carriage neat and cleanly, and preferves it from rotting.
Parallel to the outer fides of the hind part of the plank of the Carriage, at three inches diftance from each fide, is nailed down on the upper fide of the Plank two female dovetail grooves, into which is fitted (fo as they may flide) two Male duftails made on the two feet of the Gallows (as at $d d$ ) that the Tympan refts upon; and by the fliding forward or backward of thefe duftail feet, the heighth of the Tympan is raifed or depreffed according to the reafon or fancy of the Prefs-man.

At three inches from the hinder rail of the Coffin, in the middle, between both fides of the plank, is cut an hole four inches fquare as at $e$ e, and upon the hither and further fide of this hole is faftened down on each fide a Stud made of
wood, as at $f f$, and in the middle of thefe two Studs is made a round hole about half an inch over, to receive the two round ends of an iron pin; which iron pin, though its ends are round, is through the middle of the fhank, fquare; and upon that fquare is fitted a round Wooden Roller or Barrel, with a fholder on either fide it, to contain fo much of the Girt as thall be rolled upon it; and to one end of the Roller is faftened an iron Circle or Wheel, having on its edge teeth cut to ftop againft a Clicker, when the Roller with an iron pin is turned about to ftrain the girt.

THE TYMPAN AND INNER-TYMPAN.


The Tympan is a fquare frame, three fides whereof are wood, and the fourth iron. Its width is one foot eight inches, its length two foot two inches; the breadth of the wooden fides an inch and an half, and the depth one inch.

On its fhort wooden-fide, which is its hind-end, at the two corners is rivetted an iron Match-joint, to be pinned on to another Half-juint faftened on the Hind-rail of the Coffin.

The other end, that is the fore-end of the Tympan, is made of iron, with a fquare Socket at either end for the wooden ends of the Tympen to fit and faften into. This iron is fomewhat thinner and narrower than an ordinary window-cafentent...,

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Upon the outer edge of this iron, about an inch and an half off the ends of it, is made two iron Half-joints to contain a Pin of about a quarter of an inch over, which Pin entering this half-joint, and a match half-joint made apon the Frifket, ferves for the Friket to move truly upon.

In the middle of each long Rail of the Tympan, is made through the top and bottom an hole half an inch fquare, which reaches within fix inches of either end, for the fquare fhanks of the Point-fcrews to fit into.

Into the inner-fide of this Tympan is fitted the Inner-Tympan, whofe three fides are alfo made of wood, and its fourth fide of iron, as the Tympan, but without joints: it is made fo much fhorter than the Outer-Tympan, that the outer edge of the iron of the Inner-Tympan may lye within the inner edge of the iron of the Outer:' Tympan; and it is made fo much narrower than the infide of the Tympan, that d convenient fpace may be allowed to pafte a Vellum between the infide of the Tympan, and the outfide of the Inner Tympan.

> THE INK-BLOCK.


To the Rail between the hither Cheek and Hind-poft is faftened the Ink-block, which is a beech board about thirteen inches long, nine inches broad, and commonly about two inches thick, and hath the left hand outer corrice of it cut away ; it is inclofed on its further and inner-fides, and a little above half the hither-fide, with a board about three quarters

THE HISTORY OF PRINTING. 309 of an inch thick, and two inches and an half above the upperfide the board of the Ink-block.

The Brayer is made of Beech. It is turned round on the fides, and flat on the bottom; its length is about three inches, and its diameter about two inches and an half; it hath an handle to it about four inches long. Its office is to rub and mingle the Ink on the Ink-block well together.

The Slice is a little thin Iron Shovel about three or four inches broad, and five inches long; it hath an handle to it of about feven inches long. Near the Shovel through the handle is fitted a fmall iron of about two inches long, fanding perpendicular to both the fides of the handle, and is about the thicknefs of a fmall curtain-rod.

THE CATCH OF THE BAR,


Is a piece of wood two inches thick, four inches broad, and ten inches long; the top of it is a little beviled or floped off, that the Bar may by its Spring fly up the bevil till it fick. This bevil projects three inches over its ftraight fhank; through the fore and back-fide, is a mortife made from within an inch of the rounding to an inch and an half of the bottom. This mortife is three quarters of an inch wide, and hath an iron pin with a fhoulder at one end fitted to ir, fo as it may flide from one end of the mortife to the other. At the other end of the iron pin is made a male-fcrew, which enters into a female iron fcrew let into the further Cheek of the Prefs; fo that the Catch may be fcrewed clofe to the Cheek.


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From the top to the toe of the Spiadle is fixteen inches and 2 balf, the length of the cilinder the Worms are cut upon is three inches and a quarter, and the diameter of that cilinder two inches and a quarter; between the bottom of the Worms and top of the cube one inch and an half; the cube is two inches and three quarters; the fquare Eye in the middle of the cube is an inch and a quarter through all the fides of the cube; one inch under the cube is the Neck of the Spindle, whofe diameter is two inches, it is one inch between the two fhoulders, viz. the upper and under houlders of the Neck, fo that the cilinder of the Neck is one inch long; the very bottom of the Spindle is called the Toe, it is made of an hemifpherical form, and about one inch in diameter; this Toe fhould be made of Steel, and well tempered, that by long or carelefs ufage the point of preffure wear not towards one fide of the Toe, but may remain in the axis of the Spindle.

The Worms for Printing-Prefs Spindles muft be projected with fuch declivity, as that they may come down at an affigned progrefs of the Bar.
The affigned progrefs may be various, and yet the Spindle do its office: for if the Cheeks of the Prefs ftand wide afunder, the fweep or progrefs of the fame Bar will be greater than if they fland nearer together.
It is confirmed upon good confideration and reafon, as well as conflant experience, that in a whole revolution of the Spindle in the Nut, the Toe does and ought to come down two inches and an half; but the Spindle in work feldom makes above one .quarter of a revolution at one Pull, in which fweep it comes down but half an inch and half a quarter of an inch; and the reafon to be given for this coming down, is the fqueezing of the feveral parts in the Prefs, fubject to fqueeze between the morteffés of the Winter and the morteffes the Head works in; and every joynt between thefe are fubject to squeeze by the force of a Pull. As firt, the Winter may fqueeze down into its mortefs one third part of the thicknefs of a Scabbord.

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Secondly, the Ribs fqueeze clofer to the Winter one Scabbord. Thirdly, the Iron-Ribs to the wooden Ribs one Scabbord. Fourthly, the Cramp-Irons to the Plank of the Coffin one Scabbord. Fifthly, the Plank itfelf half a Scabbord. Sixthly, the Stone to the Plank one Scabbord. Seventhly, the Form to the Stone half a Scabbord. Eighthly, the Juftifyers in the mortefs of the Head three Scabbords. Ninthly, the Nut in the Head one Scabbord. Tenthly, the Paper, Tympans and Blankecs two Scabbords. Eleventhly, play for the irons of the Tympans four Scabbords. Altogether make fifteen Scabbords and one third part of a Scabbord thick, which by allowing two Scabbords to make a Nonpareil, one hundred and fifty Nonpareils to make one foot, gives twelve and an half Nonpareils for an inch; and confequently twenty five Scabbords for an inch; fo by proportion, fifteen Scabbords and one third part of a Scabbord, gives five eighth parts of an inch, and 2 very fmall matter more, which is juft fo much as the Toe of the Spindle comes down in a quarter of a revolution.

This is the reafon that the coming down of the Toe ought to be juft thus much ; for fhould it be lefs, the natural fpring that all thefe joynts have, when they are unfqueezed, would mount the irons of the Tympans fo high, that it would be troublefome and tedicus for the Prefs-man to run them under the Plattin, unlefs the Cheeks ftood wider afunder, and confequently every fweep of the Bar in a Pull exceed a quarter of a revolution; which would be both laborious for the Prefs-man, and would hinder his ufual riddance of work.

There is a notion vulgarly accepted among work-men, that the Spindle will rife more or lefs for the number of Worms winding about the cilinder; for they think, or at leaft by tradition are taught to fay, that a Three-Wormed Spindle comes fafter and lower down than a Four-Wormed Spindle: but the opinion is falfe; for if a Spindle were made but with a Single-Worm, and fhould have this meafure, viz. two inches and an half fet off from the top, and a Worm cut to make 2

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revolution to this meafure, it would come down juft as faft, and as low, as if there were two, three, four, five or fix Wormı, \&c. cut in the fame meafure: for indeed, the number of Worms are only made to preferve the Worms of the Spindle and Nut from wearing each other out the fafter; for if the whole ftrefs of a Pull Should bear againft the fholder of a fingle Worm, it would wear and fhake in the Nut fooner by half than if the Itrefs thould be borne by the fholders of two Worms ; and fo proportionably for three, four, five Worms, \&c.

But the reafon why four Worms are generally made upon the Spindle, is becaufe the diameters of the Spindle are generally of this propofed fize, and therefore a convenient ftrength of mettal may be had on this fize for four Worms; but fhould the diameter of the Spindle be fmaller, as they fometimes are when the Prefs is defignéd for fmall work, only three Worms will be a properer number than four; becaufe when the diameter is fmall, the thicknefs of the Worms would alfo prove fmall, and by the ftrefs of a Pull would be more fubject to break or tear the Worms either of the Spindle or Nut.

## THE HOSE, GARTER, AND HOSE-HOOKS.

The Hofe are the upright irons, at a $a$, they are about 'three quarters of an inch-fquare, both their ends have malefcrews on them; the lower end is fitted into a fquare hole made at the parting of the Hofe-hooks, which by a fquare Nut with a female forew in it, is fcrewed tight up to them; their upper ends are let into fquare holes made at the ends of the Garter, and by Nuts with female fcrews in them, and ears to turn them about, as at $l l$, are drawn up higher if the Plattin is loofe; or elfe to let down lower if too tight. Thefe upper fcrews are called the Hofe Screws.

The Garter, but more properly the Collar, marked $b b$, is the round Hoop encompaffing the flat groove or neck of the hank of the Spindle, at e $c$; this round hoop is made of two

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half round hoops, having in a diametrical line without the hoop fquare irons of the fame piece proceeding from them, and flanding out as far as gg . Thefe irons are fo let into each other, that they comply and range with the fquare fholders at both ends, wherein fquare holes are made at the ends of the Hofe. They are fcrewed together with two fmall ferews, as at $b b$.

The four Hofe-hooks are marked i i i i. They proceed from two branches of an iron hoop at $k$ encompaffing the lower end of the Spindle, on either corner of the branch, and have notches filled in their outer-fides; which notches are to contain feveral turns of Cord in each notch; the Cord being alfo faftened to the hooks on the Plattin, holds the Plattin tight to the Hooks of the Hofe.

## THESB'A.

This Bar is iron, containing in length about two foot eight inches and an half, from $a$ to $b$, and its greateft thicknefs, except the fholder, an inch and a quarter; the end $a$ hath a male fcrew about an inch diameter and an inch long, to which a Nut with a female fcrew in it as at $m$ is fitted. The iron Nut in which this female fcrew is made; muft be very frong, viz, at leaft an inch thick, and an inch and three quarters in diameter; in two oppofite fides of it is made two ears; which muft alfo be very ftrong, becaufe they maft with heavy blows be knocked upon to draw the fholder of the fquare lhank on the Bar, when the fquare pin is in the Eye of the Spindle clofe and feady up to the cube on the Spindle. The fquare pin of the Bar marked $c$ is made to fit juft into the Eye, through the middle of the cube of the Spindle: on the hither end of this square pin is made a fholder or ftop, as at d. This fholder muft be filed exactly flat on all its four in-fides, that they may be drawn clofe and tight up to any flat gide of the cube on the Spindle; it is two inches fquare; that it may be drawn the firmer, and ftop the fteadier againft any of the

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flat fides of the faid cube, when it is hard drawn by the ftrength of the female fcrew in the aforefaid Nut at $c$. The thicknefs from $d$ to $e$ of this holder is about three quarters of an inch, and is beviled off towards the Handle of the Bar with a fmall molding.


The fubftance of this Bar, is about an inch and a quater; but its corners are all the way flated down till within five inches of the end: and from thefe five inches to the end, it is tapered away, that the Wooden Handle may be the fronger forced and faftened upon it.

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About four inches off the fholder, the Bar is bowed beyond a right angle, yet not with an angle, but a bow, which therefore lies ready to the Prefs-man's hand, that he may catch atit to draw the Wooden Handle of the Bar within his reach.

This Wood Handle with long wo rking often grows loofe; but then it is with hard blows on the end of it forced on again, which often fplits the Wood Handle and loofens the fquare pin, at the other end of the Bar, in the Eye of the Spindle: to remedy which inconvenience, it is neceffary to weld a piece of a curtain rod as long as the Wood Handle of the Bar, to the end of the iron Bar, and make a male fcrew at the other end with a femaie fcrew to fit it ; then bore an hole quite through the Wood Handle, and turn the very end of the Wood Handle with a fmall hollow in it flat at the bottom, and deep enough to bury the iron Nut on the end of the curtain rod, and when this curtain rod was put through the hollow in the Wood Handle and fcrewed faft to it at the end, it keeps the Wood Handle, from flying off; or if it loofened, by twifting the Nut once or twice more about, it will faften again.

## THERIBS,

Are made of four-fquare irons the length of the Wood Ribs and End Rails, which are four foot five inches long, and three quarters of an inch fquare; only one end is battered to about a quarter of an inch thick, and about two inches and an half broad, in which battering four or five holes are punched for the nailing it down to the Hind Rail of the Wood Ribs. The fore end is alfo lattered down as the hind end, but bound downwards to a fquare, that it may be nailed down on the outer fide of the Fore Rail of the Wood Ribs.

Into the bottom of there Ribs; within nine inches of the middle, on either fide is made two female dovetails about three quarters of an inch broad, and half a quarter of an inch thick, which female dovetails have male dovetails as at acaa, fitted ftiff into them, about an inch and three quar-

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 ters long; and thefe male dovetails have an hole punched at either end, that when they are fitted into the female dove tails in the Ribs, they may in thefe holes be nailed down the firmer to the Wood Ribs.

Thefe Ribs are to be between the upper and the under fide exactly of an equal thicknefs and both to lie exacty horizontal in ftraight lines: for irregularities will both mount and fink the Cramp-Irons, and make them Run, rumbling upon the ribs.


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The round ends of this Axis are hang up in two iron fockets as at $c c$, faftened with nails (but more properly with fcrews) on the outfide the wooden frame of the Ribs.

The Girt Barrel is turned of a piece of maple or alderwood, of fuch a length, that it may play eafily between the two wooden Ribs; and of fuch a diameter, that in one revolution of it, fuch a length of Girt may wind about it as mall be equal to half the length contained between the fore-end iron or the Tympan, and the infide of the rail of the InnerTympan; becaufe two revolutions of this Barrel muft move the Carriage this length of face.

This Barrel is fitted and faftened upon the iron Axis, at fuch a diftance from either end, that it may move round between the wooden Ribs aforefaid.

## THE PRESS STONE.

The Prefs-Stone fhould be marble, though fometines Mater Printers make fhift with purbeck, either becaufe they can bay them cheaper, or elfe becaufe they can neither diftinguifh them by their appearance, or know their different worths.

Its thicknefs mult be all the way throughout equal, and ought to be within one half quarter of an inch the depth of the infide of the Coffin; becaufe the matter it is bedded in will raife it high enough. Its length and breadth mult be about half an inch lefs than the length and breadth of the infide of the Coffin: becaufe Juftifiers of wood, the length of every fide, and almort the depth of the Sione, muft be thruft between the infides of the Coffin and the outfides of the Stone, to wedge it tight and fteddy in its place, after the Prefs-man has Bedded it. Its upper fide, or face, muft be exaitly flraight and fmooth.

We have given you this defcription of the Prefs Stone, becaufe they are thus generally ufed in all Printing-Houfes: but as there is fo much trouble, charge and vexation with the often breaking of Stones, either through the carcleffnefs or uatilifulnefs

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unkilfulnefs (or both) of Prefs-men, that neceffity compelled an ingenious workman to confider how he might leave them off; and by long experience he found, that a piece of hignum vite, or mahogany, of the fame fize, and truly wrought, performs the office of a Stone in all refpects.

> THE PLATTIN.


The Plattin is commonly made of beech plank, but it is much better of mahogany, two inches and an half thick, its length about fourteen inches, and its breadth about nine inches. Its fides are tried fquare, and the face or under fide of the Plattin planed exactly flraight and fmooth. Near the four corners on the upper fide, it hath four iron hooks as at a a a $a$, whofe fhanks are wormed in.
In the middle of the upper fide is let in and faftened an iron plate called the Plattin Plate, as $6 b b b$, a quarter of an inch thick, fix inches long, and four inches broad; in the middle of this plate is made a fquare iron frame about half an inch high, and half an inch broad, as at $c$. Into this fquare frame is fitted the Stud of the Plattin Pan, fo as it may ftand fteddy, and yet to be taken out and put in as occafion may require.

This Stud, marked $d$, is about an inch thick, and then fpreads wider and wider to the top (at ceee) of it, till it becomes about two inches and an half wide; and the fides of this fpreading being but about half a quarter of an inch thick, makes the pan. In the middle of the bottom of this pan is a fmall centet hole punched for the toe of the Pindle to work in.

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## THE POINTS AND POINT SCREWS.



The Points are made of iron plates, about the thicknefs of a halfpenny; at the end of this plate, as at $a$, ftands upright the Point. This Point is made of a piece of fmall wire, about a quarter and half of an inch high, and hath its lower end filed away to a fmall fhank, about twice the length of the thicknefs of the plate, fo that a fholder may remain. This fmall fhank is fitted into a fmall hole made near the end of the plate, and rivetted on the other fide. At the other end of the plate is filed a long fquare notch in the plate as at $b$, a quarter and half quarter inch wide, to receive the fquare flank of the Point Screws.
The Point Screw, marked $f$, is made of iron; it hath a thin head about an inch fquare, and a fquare fhank juft under the head, an inch deep, and almoft quarter and half quarter inch fquare, that the fquare notch in the hinder end of the plate may flide on it from end to end of the notch : under this fquare flank is a round pin filed with a male fcrew upon it, to which is fitted a Nut with a female fcrew in it, and ears on its outfide to twift about, and draw the head of the fhank clofe down to the Tympan, and fo hold the Point Plate fart in its place.

THE FOOT-STEP, GIRTS, 8 TAYS OF THE CARRIAGE, AND FRISKET.
The Foot Step is an inch-board about a foot broad, and fixteen inches long. This board is nailed upou a piece of timber about feven or eight inches high, and is bevild away on its upper-fide, as is alfo the board onits under-fide at its hither end,
end, that the board may fand aflope upon the floor. It is
placed faft on the floor under the carriage of the prefs. , Its
office fhall be fhewed when we come to treat of the exercife of
the Prefs-man.

Girts are thongs of leather, cut out of the back of an horfehide, or a bull's hide, fometimes an hog's hide. They are about an inch and an half, or an inch and three quarters broad. Two of them are ufed to carry the Carriage out and in. Thefe two have each of them one of their ends nailed to the Barrel on the Spindle of the Rounce, and the other ends nailed to the Barrel behind the Carriage in the Plank of the Coffin, and to the Barrel on the fore end of the frame of the Coffin.

The Stay of the Carriage is fometimes a piece of the fame Girt faftened to the outfide of the further Check, and to the further hinder fide of the frame of the Carriage. It is faftened at fuch a length by the Prefs-man, that the Carriage may ride fo far out, as that the irons of the Tympan may juft rife free and clear off the forefide of the Plattin.

Another way to flay the Carriage is to let an iron pin into the upper-fide of the further rail of the frame of the Ribs, juft in the place where the further hinder rail of the Carriage ftands projecting over the Rib Rail, when the iron of the Tympan may juft tife free from the fore fide of the Plattin; for then that projecting will fop againt the iron pin.

The Stay of the Friket is made by faftening a batten upon the middle of the top fide of the Cap, and by faftening a batten to the former batten perpendicularly downwards, juft at fuch a diffance, that the upper fide of the Friket may flop againft it when it is turned up juft a little beyond a perpendicular. When a Prefs ftands at a convenient diftance from a wall, that wall, performs the office of the aforefaid Stay.

Ball-Stocks are turned of Alder or Maple. They are about feven inches in diameter, and have their under fide turned hollow, to contain the greater quantity of Wool or Hair, to keep the Ball-Leathers plump the longer.

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In the foregoing Pages we have given an Acconnt of the Prefs, wherein we have obliged our Readers with all its feparate parts; we fhall now proceed with the Practical Part of that Branch, before we fay any thing relative to the Compofitors.

THE Printing-Prefs that a Prefs-man works at is a machine invented upon mature confideration of mechanic powers, deduced from geometric principles; and therefore a Prefs-man, endowed with a competency of the inventor's genius, will not only find great fatisfaction in the contemplation of the harmonious defign and make of a Prefs, but as often as any member, or part of it is out of order, he will know how to remedy any deficiency in it. This alone will intitle him to be an underftanding Prefs-man : But his care and ferious induftry in the manual performance of his tak, muft give him the reputation of a good and curious workman. -

An undertanding Prefs-man knows not only how to direct 2 Printer's joyner to fet up and faften a Prefs when it is made, but alfo how to give a frange joyner'and fmith inftructions to make a Prefs, and all its parts, in a fymmetrical proportion to any fize, if in a ftrange place he thall have occafion to ufe it. It being not only a care incumbent upon him, but a curiofity he fhould affume to himfelf; to direct and fee the joyner fet and faften it in a fteady and practical pofition; We will fuppofe a ftrange joyner, and not a printer's joyner, who generally by their conftant converfation in printers work, do or ought to know as much of fetting-up a Prefs as the Prefsman himfelf.

The joyner therefore having fet together the frame, viz. the Cheeks, Feet, Cap, Head, Till, Winter, Hind-Pofts, Ribs, Carriage, \&cc. the Prefs-man directs, and fees him perform as follows. Before the Head is put into its place, the Prefs-man befmears the whole tenoned ends and tenons well with foap or greafe, and alfo the Mortifes the Head nides in, and fo mack $\underset{\sim}{u}$ Head may the eafier work up and down.

He alfo before the Carriage is laid on the Ribs, befmears the two edges of the Plank and the under fide of the Coffin well with foap or greafe; and the like he does by the infide of the Wooden Ribs, that they may fide the eafier befide each other.

Now to return to the joyner. The Prefs man, I fay, directs and fees him place the Feet upon an Horizontal Level Floor, to erect the Cheeks perpendicularly upright, to place the Stays or Braces fo as the Prefs may be kept in the moft fteady and ftable pofition, as well to give a check to the force of the hardeft Pull he makes, as to the hardeft knock the bar thall make againf the farther Cheek, if by chance it flip out of the Prefs-man's hand.

This confideration may direct him to place one Brace againft the end of the Cap that hangs over the hither Cheek, and in a range farallel with the fore and hind fide of the Cap: for the more a Brace flands aflope to the two parallel fides; the lefs it refifts a force offered to the end of them, viz. the hither end of the Cap, which is one main Stay to the whole Prefs.

If he places another Brace againft the hinder corner of the farther end of the Cap, it will refift the Spring of the Bar, when it llip-out of the Prefs man's hand.

And if, he places two other Braces, one againft the hither corner of the hind-fide of the Cap, and the other againft the farther corner of the fore-fide of the Cap, the Prefs will be fufficiently Braced-up, if the room will afford convenience to place the farther end of the Braces againft it.

By convenience is meant a firm folidity to place the end of the Braces againft, be it either a fone-wall, brick-wall, or fome principal poit, or a girder, \&cc. that will not ftart or tremble at the force of a Pull.
The Braces ought to be flraight, and of fubftance frong enough proportionable to their length: and if convenience will allow it to be fixed in fuch a pofition that they ftand in

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the fame ftraight line with the upper furface of the Cap; viz. that the farther end of the Brace neither dips lower or mounts higher than the upper fide of the Caps Neither ought the Brace, though thus placed, to ftand aflope or alkew, that is, make unequal angles with the fide of the Cap it is faftened to, but it ought to ftand fquare, and make right angles with the refpective fide of the Cap; becaufe in thofe pofitions: the Braces beft refifts the force of continued Pulls.
But though this be, by the rules of architecture, the ftrangeft, firmeft, and moft concife method for Bracing-up'a Prefs, yet the room the Prefs is to ftand in will not always admit of convenience to place the Braces thus: therefore the Prefs-man ought to confider the conveniences of the room, both for the places to fit the Braces to, and the pofitions to fet the Braces: in ; placing his Braces as correfpondent as he can to thefe rules.

If he doubts the crazy make of the Winter, he will caufe two Battens of three or four inches broad, and a full inch thick, to be nailed clofe to the outer fides of the feet of the Prefs, which will both ftrengthen the Winter, and keep the lower part of the Cheeks from flying out, and alfo hinder the Prefs from working into a twifting pofition.
Joyners that work for Printers have got a cuftom to place a flrong piece of timber between the middle of the Cap and the ceiling or roof of the room, which can do no fervice there, unlefs they intend to fupport the roof: for the weight of the Prefs alone will keep it clofe to the floor, and the ftrength of ftuff between the mortifes in the Cheeks and the ends of them, are intended to be made ftrong enough to refift the rifing of the Head: for fhould that ftrength of ftuff flart, neither their frong piece of timber, nor the frength of thè roof, would refift the rifing of the Head: but Head and Cap, and timber and roof too, would all flart together: For indeed the ftrength of fuff between, the mortifes that the tenons of the HeadCheeks.

The Pnefs, being thus far fafteried, the Carriage is laid on; and if the joyner performs his work well in making ahe Wood work, it will at firt lie exaCtly harizontad; if not, it muft be monded whene it is amife, before the-Prefo-man can Lay the Soene; and before the Stay of the Carriage cam be fitted under the ead of the Ribs.

## LAYING OR BEDDING THE STONE.

We will fuppofe the wood Ribs to lie on the Winter exactly flat and borizontal, therefore the Prefs-man now Lays the Stone: If the Stone be all the way of an equal thicknefs between the Face and the bottom, he may Bed or Lay it upon fo many large Sheets of brown paper as will raife the Face about a Brevier above the fuperficies of the Cofin, and the Stone will do good fervice.

Or he may Bed or Lay it on bran; which indeed is frequently done, as follows:

He gratps an handful of bran and lays it down at the hither corner of the Coffin on his left hand, and it will form itfelf into a fmall Hiilock; then he takes another handful of bran, and lays that down in the fame manner near the firft, towards the further fide, and fo a third, sce. towards the further fide, till he has filled the whole breadth of the Coffin. Then he, in like manner lays another row of Hillocks, beginning at the hither fide of the Coffin; and fo a third and fourth row, \&e.

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till the length of the Coffin is filled as well as the breadth : then with a Riglet he drives the tops of thefe Hillocks into the valleys between them, to fpread the bran into an equal thicknefs in the whole Coffin, which done, he lays the Stone apon it.

But in this cafe he confiders to lay fo much bran thus into the Coffin as may make the Face of the Stone rife about a Great Primer higher than the fuperficies of the Coffin: For elfe he muft take all his bran out again, and new-lay his Hillocks, making the $m$ bigger or lefs, till he have fitted the Face of the Stone, to lie about a Great Primer, as aforefaid, higher than the fuperficies of the Coffin.

But if it be a thin Stone, or a Purbeck or Portland Stone, it is great odds if it be thus Laid, but it breaks with the firft Pull : therefore thefe Stones are often Laid or Bedded with plaifter of Paris, which before it hatdens, will of itfelf run into an horizontal pofition.

This plaifter of Paris is tempered with fair water to a thin confiftence, and fuch a quantity is put into the Coffin as may raife the Face of the Srone about a fcabbord higher than the fuperficies of the Coffin.

The different matter the Stone is Laid on, is the reafon why the Face is Laid of different heights above the fuperficies of the Coffin: for by the force of a Pull about a dozen fheets of brown paper may be fqueezed clofer by a Brevier Body, which brings the Face of the Stone into the fame level with the fuperficies of the Coffin. And bran fqueezes much more. But planfter of Paris not at all.

Whèn he Lays the Stone on Bran, or on plaitter of Paris, he and his companions flings the Stone in two ftrong packthreds, placing one towards either end of the Stone; and each of them taking an end of each ftring in each of their hands, with the Face of the Stone upwards, and brought as near as they can into an horizontal pofition, they with great care and caution let it into the Coffin, and as near as they can, fo as the whole bottom of the Stone touch the Bedding all at once; left

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by raking the Bedding with any part of the bottom of the Stone firft, the horizontal form of the Bedding be broken.
Having laid the Stone down, they draw the packthread from under it: and by fqueezing a little water out of a fpunge about the middle of the Face of the Stone, try whether the Stone lie truly horizontal, which they know by the flanding of the water: for if the water dilate itfelf equally about the middle of the Stone, the Stone lies horizontal : but if it have propenfity to one fide more than another, the declivity is on that fide, and the Stone muft be new Laid.

Having laid it horizontal, they Junfify it up with the Juftifiers.

## SETTING THE ROUNCE.

The Rounce being well Set does not only eafe a Prefs-man in hishabour, but contributes much to riddance in a train of work.

In the old-fafhioned Preffes, the Prefs-man finds often great trouble and lofs of time in Setting the Rounce : becaufe the Girts being nailed to the Carriage-board behind, and to the frame of the Coffin befure, he cannot alter the pofition of the Rounce without ùnnailing and nailing the Girts again, both before and behind. Nay, and fometimes though he thinks he has been very careful in Windingthe Girts off or on the Barrel of the Rounce, as he finds occafion requires; yet by fraining either of the Girts too hard, or not hard enough, or by an accidental llip of either of the Girts, or by firring the Rounce out of a fet pofition, when he thinks he has Set the Rounce, he has it to do again. Befides, the Carriage-board, Frame of the Coffin, and the Rounce-barrel, all fuffer tearing to pieces by often drawing out and driving in of nails.

But in the new-fahioned Preffes all thefe inconveniences are avoided, for the Prefs-man, without nailing or un-nailing, Sets the Rounce to what pofition he will, only by lifting up the iron Clicker that fops the wheel : For then Winding off fo much

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Girt, and Winding up fo much Girt at the oppofite end of the Carriage, his Rounce is fet.

He Sets the Rounce to fuch a pofition, that when the fore-end of the Tympan will juft lie down and rife free, without toaching the fore-edge of the Platin, then a line drawn or imagined from the axis of the Handle of the Rounce, to a perpendicular or Plumb-line, let fall from the axis of the Spindle of the Rounce, thefe two lines fhall make an angle of about 45 degrees, which is half the elevation becween an horizontal line, or line of level, and a perpendicalar, or plumb-line.

## HANGING THE PLATTIN.

When the Prefs-man Hangs the Plattin, he lays a Form upon the Prefs, and about a quire of paper doubled upon it, (this quire of paper thus doubled is called the Cards) then lays the Plattin $u_{F}$ on the Cards, and fo Runs the Carriage and Plattin in, till the middle of the Plattin lie juft under the Toe of the Spindle: then he puts the Pan of the Plattin in its place, and in part juftifies the Head, and unfcrews the Hofe-fcrews, 'till the fquares at the ends of the Hofe come down to about a quarter of an inch of the fquare of the focket they are fitted into in the ends of the Garter, and when the Toe of the Spindle is fitted into the Nut in the Pan of the Plattin, he examines, by fraining a packthread againft the two fore fides of the Cheeks of the Prefs, whether the fore edge of the Plattin is fet in a parallel range with the fore fides of the Cheeks: if it be not, he twifts the ends till the edge of the Plattin ftands parallel with the packthread, and confequently with the Cheeks.

Then with the Bar he pulls the Spindle hard down upon the Plattin, and Sets the edges of a Paper-board between the Bar and the further Cheek of the Prefs, to keep the Bar from flarting back.

And having provided cord, he knots a noofe on one end and puts it over one of the Hooks of the Plattin, lafhing the cord

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alfo upon the futhermoft Notch of the Hofe hook, and again upon the Plattin hook : So that there is now three lafhes of cord upon the Plattin hook, and upan the furthermoft Notch of the Hofe hook. Wherefore he lafhes his fourth lafhing of cord now upon the fecond Notch, viz. the middlemoft Notch of the Hofe hook, reiterating thefe lafhes on the middlemort Notch and Plattin hook alfo three times. And thus in like manner lafhes alfo three lafhes upon the third and laft Notch of the Hofe hook and alfo of the Plattin hook, obferving to draw every lahing of an equal frength.

Then he begins to wind about thefe lafnings to draw them clofe together: He begins, at the bottom of the larhings, that is clofe above the Plattin hook, and draws his cords very tight and hard, and contiguous above one another, till he has whipt fo near the top of the lafhings, viz. near the Hofe hooks that he finds the lafhings (which now fpread wide afunder becaufe the Notches of the Hofe hooks ftands far afunder) will yield no longer to his whipping and pulling: So that now he faftens his cord with two or three hard knots.

In like manner he begin at the oppofite diagonal corner of the Plattin, and lafhes and whips that: And alfo the two other corners of the Plattin as he did the firt, carefully obferving to draw all his lafhings and whippings of an equal ftrength, left any corner of the Plattin either mount or dip.
If he finds he flrained the cord not hard enough ; or (when he is in his train of work) that the Plattin-cords with long working work loofe; or that the Toe of the Spindle and the Nut it works in, have worn one another; he by turning the Screws at the upper ends of the Hofe, draws up the Nut of the Plattin clofer to the Toe of the Spindle, and by confequence ftrains the Plattin-cords tighter up; which is alio a great convenience in thefe new-fafhioned Preffes: for, any of thefe aforeiaid accidents the Prefs-man that works at the old Preffes muft new Hang his Plattin: when in thefe new Preffes he only turns about a Screw.

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## JUSTlFYING THE HEAD.

Juftifying the Head is to put into the mortifes in the Cheeks between the upper fides of the tenons of the Head, and the upper fides of the mortifes in the Cheeks, an equal and convenient thicknefs of (either) fquare pieces of felt, paftboards, or fcabbords (fome or all of them) that when the Prefs-man Pulls, the tertons of the Head thall have an equal horizontal level check.

In Juftifying the Head, the Pull is to be made longer or Ihorter.

If the Prefs-man be tall and frong and his work be Light, that is, a fmall form and great Letter; which needs not fo ftrong a Pull as a large Form and fmall Letter, he covets to have a Short pull; that is; that the Spindle fhall give an Impreffion by that time the Bar comes but about half way to the hither Cheek (in printers language Down.)

But if the Prefs-man be low; and not very flrong; he will require a Longer Pull, efpecially if the work be Heavy; viz a large Form and fmall Letter : becaufe the heighth of the Bar is generally made to lie at the command of a reaforiable tall man; and therefore a low man cannot pull the handle of the Bar at fo great a force at arm's end as a tall man ; but will require the fwinging of his whole body backwards to add force to the Pull : fo that if the Pull be not Longer, he cannot fall enough backwards to get the Handle of the Bar within his command and force. And therefore, a low man and Heaíy Work requires a long and Soaking Pull.

A long or a Soaking Pull; is when the Form feels the force of the Spindle by degrees, till the Bar comes almott to the hither Cheek of the Prefs, and this is alfo called a Soft Pull; becaufe it comes foft, and foakingly and eafily down: and for the contrary reafon the Short Pull is called an Hard Pull, becaufe it is fuddenly performed.

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That which makes a Hard Pull, is putting into the mortifes in the Cheeks folid blocks of wood, which will fcarce fqueeze by the ftrength of a Pull: and that which caufes a Soft Pull is putting in pieces of felt or paftboard, which being foft will fqueeze and retain their fpring for a confiderable time, yet will at length grow hard with working, and then the Pull grows Longer ; wnich the Prefs-man mends, by patting in another felt or paftboard into each mortife.

The Head cannot be conveniently and well Juftified foon after the laying of the Stone, if it be Laid on bran, becaufe though the force of t:e Spindle will at the immediate time of the Pull fqueeze the bran in the Coffin clofe, yet fo foon as the force of the Spindle is off the bran, all its dry parts, by their feveral irregular pofitions, will, like fo many fprings, at the fame moment of time endeavour to recover their natural tendency, and heave the Stone upwards again: fo that generally for a day or two working, the Stone will not lie folid, though at length through the often and conftant fqueezing the bran, it will. But if the Stone be Laid on brown paper, or plaifter of Paris, it quickly finds a folid foundation.

When the Prefs-man Juftifies the Head, he unfcrews the Female Screws of the Head Screws, that the weight of the Head may draw it down, to make room to put the Juftifiers into the mortifes in the Cheeks; and when he has put in fo many as he thinks convenient, he Screws up the Head again as hard as he can. Then lays the Cards on the Form, on the Prefs, and runs in the Carriage under the Plattin, and Pulls hard upon it, while his Companion Screws up the Head as hard and tight as he can, that the Carriage, Tympan, \&ic. may run the freer under the Plattin.

OILING THE IRON WORK OF THE PRESS.
The Ribs, the Tympan Joynts, the Friket Joynts, the Garters, both ends of the Rounce Spindle, the Nut and

## THE HISTORY OF PRINTING.

Spindle, and the Toe of the Spindle, are all to be well oiled; that they may all perform their feveral offices the eafier, lighter and nimbler ; both Upper and Under hand.

MAKING REGISTER, AND MAKING READY

## A FORM.

A curious Prefs-man will take care that againft the Compofitor brings a Form to the Prefs, his Prefs ftane be wiped very clean; for if any (though fmall) hard exuberant matter lie on it, the Letter that lies on that exuberant matter will, with Pulling, quickly Rife, and not only print harder than the reft of the Form, but bear the force of the Plattin off of the Letters adjacent to it. And therefore many times a Prefs-man will receive the Form from the Compofitor when he has only fet the Form on the fide of its Chafe upon the Prefs ftone, that he may be the furer the Face of the Stone is clean when he lays the Form down; as alfo that he may carefully examine that the backfide of the Form is clean before he goes about to make Regifter, or otherwife make ready his form.

Making Regifter is to Quoin up a Form, and otherwife alter Whites (if need be) between the Croffes and Pages: fo as that when a fecond Form of the fame Volume, Meafure and Whites, is placed in the fame pofition, all the fides of each Page fhall fall exactly upon all the fides of the Pages of the firft Form:

The firft procefs a Prefs-man makes towards this operation, is the chufing and placing of his Points: for to large paper he chufes Short Shanked Points, and to fmall paper Long Shanked Points, and proportionable to intermcliate fizes of paper: for his Points ought to be placed fo as that when he is in his train of work, they prick the Point holes within the grafp of the hollow between his hand, thumb, and fore-finger; becaufe when he fhall work the Reteration, he may the better manage and command the fheet he lays on the Tympan and Points.

Nor

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Nor will he place his Points too near the edge of the Paper, becaufe when he works the Reteration, he would be forced to carry his furthermoft Point hole the further from him, which in a long train of work lofes time: for the Laying Sheets quickly on their Point holes adds much to riddance. So alfo the lefs diffance between the further and hither Point hole makes more riddance than if they are far diftant; becaufe he muft draw his body fo much the further back to place that Hole on its Point. Therefore he places the hither Point farther into the paper than the farther Point, if it be Folio, Quarto or Octavo, but to Twelves equally diftant from both edges of the paper.
By placing the Points unequally from the edges of the paper, as in Folio's, Quarto's and Octavo's (as aforefaid) he alfo fecures himfelf the more from a Tarn'd Heap when he works the Reteration ; becaufe without very much altering the Quoins he fhall not be able to make Regifter: and Prefs-men (efpecially if they work upon the fame fort of work) feldom or never remove the Quoins on the further fide the Carriage, nor on the right hand end of the Carriage, but let them lie as gages for the next Form: for thrufting the Chafe clofe againft thefe Quoins, the Regifter is almoft (if not quite) made : the Compoitor having before, according to his tafk, chofen the Chafes exactly of an equal fize, aud made frait and equal Whites between the Croffes, \&c.

Having chofen his Points, he places them fo that they may both ftand in a fraight line parallel with the top and bottom fides of the '「ympan; which to know, he ftrains a packthread crofs the whole Tympan, laying it at once upon the middle of the Heads of both the loint-Screws, (for we will fuppofe the joyner hath rade the mortifes into which the Point Screws are let, parallel with buth the ends of the Tympan) and if both the Points fland in that ftraight line they are parallel, if not, he moves one or both of them upwards or downwards till they do, and then Screws them faft.

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Then he lays the Tympan down upon the Form, holding the Friket-end of it in his left-hand, about an inch or an inch and a half above the Face of the letter, and finks his body downwards till he can fee between the Form and Tympan, and with the ball of the middle finger of his right hand preffes a little gently upon the Tympan juft over the Point-ends of each Point fucceflively, to fee if the Points fall in or near the middle of the Slits in the Short-Crofs. If they fall exactly in the middle of thofe Slits, the Form lies right between the middje of both the ends: if they fall not exaetly in the middle of both thefe Slits, he moves the Form between the ends of the Carriage, till they do, and then Quoins up the two ends of the Chafe.

Then laying the Tympan flat down upon the Form, he lays the Blankets in it : they are called the Blankets, though generally it is but one Blanket doubled:) then he puts the IronPins, fattened through the hither fide of the inner Tympan into the holes made through the hither fide of the outer Tympan for gages : and turning about the tongues of the Iron-Buttons, that are fitted into the outer fide of the outer Tyimpan over the upper fide of the innerTympan, he Screws the Button faft down. He alfo Screws down the Iron-Button at the end of the Tympan. Thefe Buttons thus fcrewed down are to keep the Inner Tympan faft in, that it fpring not upwards..

Then he folds a theet of the paper he is to work long-ways, and broad-ways, and lays the long creafe of it upon the middle of the Long-Crofs; and the fhort creafe over the middle of the Gutters of the Short-Crofs, if the Short-Crofs lie in the middle of the form, (for in Twelves it does not, but then he gueffes at the middle; ) then wetting his Tympan he turns it down upon the paper, and Running in the Calriage, Pulls that theet, which with the force of the Pull now the Tympan is wet, will fick to the Tympan; and turning up the Tympan again fees how well the fheet was laid ; that is, how even it was laid: for if it was laid even on the form, the margin about the outfides of all the outer Pages will be equal ; but if the freet be not
laid

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laid even, he lifts it up fide by fide till he have loofened it from the Tympan, and removes it by his difcretion till it be laid even : and then Pulls again upon it to faften it to the Tympan. This theet is called the Tympan-fheet.
Then he lays another fheet even upon the Tympan-fheet, for . a regifter theet, and a wafte fheet over that to keep it clean from any filth the Face of the letter may have contracted and imprint upon it, and Pulls thefe two fheets. Then he runs out the Carriage, and takes up the Tympan, and takes off the two fheets, laying the wafte fheet by: but turns the other fide of the Regifter-Shect the proper way his voiumne requires, viz. end-ways. And laying the Point-holes in the Regifter-Sheet. over the Points, lays his wafte fheet on again, Runs-in the Carriage, and Pulls upon that the fecond fide of the Regifterfheet, to try how well the imprefiion of the fides of all the Pages agree, and lie upon the imprefion in the firft Pull'd fide. If he finds they agree perfectly well, Regifter is made. But if the imprefion of the laft Pulled fide of the Regifter-fheet fland be-hither the impreffion of the firft Pulled fide, either the whole length of the fheet or part, he obferves how much it ftands behither: if the thicknefs of a Scabbord, a Nonpareil, a LongPrimer, \&c. he loofens the Quoin or Quoins on the farther fide of the Carriage, and opens one or both of them, viz. removes them backwards till they fland a Scabbord, a Nonpareil, a Long Primer, \&c. off the fides of their refpective corners: then knocks up one or both the oppofite Quoins, till he have removed the Chafe, and the Chafe by confequence has forced the opened Quoin or Quoins clofe againft their corners. Or if the impreffion of the laft Pulled Side, flands within the impreflion of the firt Pulled Side; he obferves how much alfo; and Loofening the hither Quoin or Quoins, and Knocking up the oppofite as before, makes Regifter, for the fides of the fheet.
Then he obferves how the Regifter of the Head and Foot agrees : and if he finds it agrees on both fides the fhort Crofs;

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he has good Regifter; fuppofing the Compofitor has performed his office, viz. made all his Pages of an equal length, $\& c$.

If the imprefion of the laft Pulled Sheet, lie without the impreffion of the firt Pulled Sheet, towards the upper or lower end of the Tympan, he opens the Quoins at the refpective ead, and Knocks-np the oppofite till he has made Regiker: which to try he Pulls another clean Regifter-fheet as before. And if he finds Regifter agree on all the fides of the Form the tals is parformed : if not, he mends as aforefaid till it does.

But it f:metines happens that the Compofitor has not made an exact equal White between all the fides of the Crofles: in this cafe, altering the Qucins will not make good Regifter; wherefore the Prefs-man obferves which fide has too much or too little White; and unlocking the Form takes out or puts in fuch a number of Scabbords as he thinks will make good Regifter: which he tries by Pulling a fheet, and if need be, mending as before, till he has Pulled a fheet with good Regifter.

Although the Prefs-man has made Regifter, yet he muat further Make Ready the Form before he can go to work upon it. Under this phrafe of Making Ready the Form is comprehended many confiderations, leading to feveral various operations; for firft, the Friket muft be Cut : which to perform, the Prefs-man fits the Match Joints of the Friket into the Match Joynts of the Tympan, and pins them in with the Friket pins: and having Beaten the Form, turns down the Frifket and Tympan on the Form. And having alfo rubbed the Blankets to foften them, lays them frooth and even in the Outer Tympan, and Pins the Inner Tympan in upon them, and Pulls as before, upon the bare Frifket.

Then he runs out the Carriage, and takes up the Tympan and Friket together off the Form and lays them on the Gallows; then takes the Friket pins out again, and takes off the Frijket: and laying it flat on a Paper-board, with the point of a pen-

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knife cuts through the Frifket about all the fides of each Page, allowing to each Page he thus cuts out of the Frifket about 2 Nonpareil Margin on all the fides of the cut Pages: then he puts and pins his Frifket again on the Tympan, as before.

2dly, He takes care that the Tympan be well Wet; which he does by fqueezing water out of a Spunge on the backfide of it, till it be well wet all over, and well foaked and limber.
$3 \mathrm{~d} l \mathrm{y}$, That the Form be well and faft Locked up.
4thly, That no Letters or Spaces lie in the White lines of the Form; which may happen if the Compofitor have Corrected any thing fince the Form was laid on the Prefs, and the Compofitor through overfight picked them not all up.
${ }_{5}$ thly, If any Wood Letters or other Cuts be in the Form, that they be exactly Letter high : if not, (for it feldom happens they are) he muft make them fo; if they are too Low, (as they generally be) he Under lays them : but firft he examines how much they are too Low, by laying one card or one fcabbord or two fcabbords, or a fcabbord and a card, \&c. upon the face of the Wood Cut, and gently feeling with the balls of the fingers of his right hand if the intended Under-lay, viz. the Scabbord, Card, \&c. lie exactly even with the Face of the Letter ; if it do not, he tries thicker or thinner Under-lays till he has evened the Under-lay with the Face of the Letter: for then the balls of his fingers will go fmoothly and equally over the Under-lay and the Face of the Letter, as if they were one and the fame fuperficies.

Having evened his Under-lay, he Unlocks that Quarter it is in, and takes the Wood Cut out of the Form, and cutting a fcabbord or card or what it wants a little fmaller than the bottom of his Wood Cut, he lays it into the place he took the Wood Cut out of, or elfe he palts the Under-lay on the bottom of the Wood Cut, and puts the Wood Cut into its place again upon the Under-lay. But yet he trufts not to his judgment altogether for the thicknefs of the Under-lay: but Locking up the Form again, Pulls the Cards upon it to fink it as low as it

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will go, and Beats and Pulls a fheet to fee how it pleafes him. If it be too low, which he finds by the pale printing of it, be Underlays it a little more, and again tries by printing till it pleafes him. But by no means he lets the Cut ftand too high, though but a fmall matter, for then it will print too Hard and too Black, and deface the beauty and fairnefs of the Cut ; fo that it may better fland about half a card too low, than in the' leaft too high.

If the Wood Cut be too high, he caufes 2 joiner to plane off fome at the bottom.

6th, If a White Page or Pages happen in a Form, and he ufes a New drawn Friket, then he does not Cut out that Page; but if he works with an Old Frifket, and that Page is already Cut out, he paftes on a Paper to cover the White page in the Form that it print not black.

If the fides of the Pages adjacent to the White page print Hard, as moft commonly they do, becaufe the White page is generally lower than Letter high, fo that the ferce of the Spindle fqueezes the yielding Paper, Tympan and Blankets below the plane of the Face of the Letter; and befides the force of the Spindle falling upon the center of the Plattin, and the plane of the Plattin not finding refiftance to entertain itequally, prefles lower down upon the low White page, than upon the Faie of the Letter; fo that the Prefs man either Underlays the White page, as he does Wood Cuts, or elfe he fits a bearer on the Friket.

The Bearer is a Riglet of a convenient thicknefs: and this convenient thicknefs the Prefs-man finds, as I thewed you, how he found the thicknefs of his Underlays for Wood Cuts ; only. with this difference, that as then he made his Wood Cut exactly Letter high, fo now he makes his Bearer and the Furniture his Bearer bears on Letter high: wherefore he paftes one fide of his Bearer, and lays it as he would have it on the Furniture, with the pafted fide upwards; and laying his Tympan
Y y and
and Friket down upon the Form, with his fingers preffes on the outfide of the Inner Tympan Friket and all, upon the place where the Bearers lie; fo that with the pafte the Bearer fticks to the fide of the Friket.

7th. He examines whether the Frifket Bites not : that is whether no part of it print upon any of the fides of any of the Pages: if they do he cuts away fo much and about a Nonpareil more off the Friket whert it Bites.

8th. He examines if the Beards of the Letter print at the Feet of the Pages: if they do, he confiders whether the too fhort or too far Running in of the Carriage caufes it. Or whether it be only the Beard of a fhort Page that prints; if it be the Beard of a fhort Page that prints, he remedies it with an Under lay as I fhewed he did in the White Page.

If the Carriage be Run in too fhort, and the Feet of the Pages fland towards the Plattin, the Hindfide of the Plattin will prefs ftrong upon the Feet of thofe Pages: and if the Carriage be Run in too far, the Feet of the Pages that ftand towards the hinder Rail of the Tympan will moft feel the force of the Plattin, and according to a greater or lefs proportion of that force, and to the foftnefs or yielding of the paper, Tympan, and Blankets, and all other Springs in the Prefs, the Feet of the Pages and Beard of the Letter will more or lefs print Hard.

Wherefore in this cafe he Runs the Carriage under the Plattin, till the farther edge of the Platin juft cover the Feet of thofe Pages, and with a piece of chalk makes a white ftroke over the Board of the hither fide of thc Carriage behind, and the upper fide of the Rail of the Ribs: then he runs in the Carriage again, till the forefide of the Plattin juft cover the Feet of the Pages next the Hind Rail of the Tympan, and makes another mark with chalk on the Rail of the Ribs to join with the mark he firft made on the Board of the Carriage. Then he Runs out the Carriage, and lays the 'Tympan down on the Form ; and Runs in the Carriage again till he joins the

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mark or line he made firft on the Carriage-board and Rail of the Ribs, and makes a mark with chalk on the farther Rail of the Tympan to range with the forefide of the Plattin. This mark on the Tympan fhews him how far he muft Run the Carriage in againft the fore-edge of the Plattin for the Firft Pull: Then he Runs in the Carriage farther; till he joins the fame mark or line on the Carriage board to the fecond mark he made on the Rail of the Ribs, and makes another mark on the further Rail of the Tympan to range with the fore-fide of the Plattin, for the mark he is to Run the Carriage in to againit the fore-edge of the Plattin, for his Second Pull.
gth. He examines if the Catch of the Bar will hold the Bar when the Spindle makes a fmall fpring; viz. when the Bar flies but a little way back from the preffure of the Form : if it will not, he knocks up the Catch a little higher till it will, and then Screws the Screw on the Shank, and confequently the Catch clofe and firm againft the Cheek of the Prefs.

But if the Catch ftand too high; fo that it will not without a great Spring, (viz. when the Bar is Pulled hard from the farther Cheek) fly up: he then knocks upon the top of the Catch to fink it lower; and when it is well fitted fcrews it up again as before:

If the Catch of the Bar fand too low, it will not hold the Bar ; but it will Come down again of itfelf when he is in his train of work : for if, as it often happens, he lets the Bar fly harder than ordinary back, or if it flip out of his hand, it will knock hard againft the Cheek, and fpring back again.

If the Catch of the Barftand but a little too kigh, the violence of the Bar's flying back to make it fick on the Catch will foon loofen the fquare of the Bar in the Eye of the Spindle ; and indeed fubjett the whole Prefs to an unftable condition.

This is another eafe and convenience thefe new-fafhioned Preffes gives the Prefs-man: for in the old make of the Prefs, when the Catch of the Bar holds too hard; or too foft, he is unable to raife or fink the Catch the thicknefs of a Scabbord, which
which being indevifable, does not withoat trouble ar luckadjuft it to an exact height. And befides; thefe Under-lays be: ing.but.put.undet the Catch upon the Wooden Bearer without any ffftening, are very fubject to work out by the conftant dif. turbance the motion of the feveral parts of the Prefe (wihen at work) gives it : ot elfe (which is worfe) he maty times is forced to batter the Cheek of the Preft, with drawing and driving of, nails out and in it, to fit on atlother Catch bigger or leffer, whereas here with a fofter or an harderknock ofithe hammer heriaifes or finks the Catch; and afterwards fenewsit firmly up.
roth. He confiders whether the Siay of the Frildet feands neither too' forwards or too backwardy. The Stay may fand too forwards, though when it is leifurely turued up is fays. tie Frifket: becaufe, when the Prefs-man is in a train of work; though he generally throws the Friket quick up with an accuftomed, and as heintends, equal ftrength; yet if his guefsat ftrength in throwing it up varies, and it comes (though but a little) harder up, the Batten faftened on the Cap; and the perpendicular Batren faftened to the aforefaid Batten wrill by theis fhaking caufe a fpring, which will throw the Friftert Back agaix upon the Tympan: nay, though, as fometimes it happens, a folid wall ferves to do the office of a Stay for the Erifiner, yet with a little too hard throwing it up, the Friket iffelf will for fhake and tremble (its frame being made of iron) from end to: end, that e're it recover reft, its own mocion will by the quick. running of a fpring through it beat it back again.

If the Stay, ftand too backward, then after he has given the Friket a touch to bring it down, it will be too long e're it come down, and fo hinder his riddance.
Therefore he places the Stay fo, that the Friket may ftand but a little beyond a perpendicular backwards, that with a nearguefs'd frength in the toffing it up it may juft ftand ${ }_{y}$ and not come back; for then with a fmall touch behind, it will again quickly come down upon the Tympan..

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ith. He comfiders the fituation of the Foot-ftep, and that he plaves fo as may beff fuit with his own fature: for a tall man may allow the Foot-ftep to ftand farther of and lower than a fhort, becaufe his legs reach farther under the carriage, and can tread hard to add frength to his pull; when a fhort man muft ftrain his legs to feel the foot-ftep, and confequently. diminifh the force of his pull.

12 sh. He fits the Gallows, fo that the Tympan may fande as much towards an upright as he can : becaufe it is the foomen clapt down upon the form and hifted up again. But yet he will siot place it fo upright, bitt that the white fheets of paper he lays on it may lie fecurely from liding. downwards: and for Reteration fheets' their lying upon the Poínts fecures them.

In thefe new-fafthioned Prefles there is no trouble to place the Gallows, fo as it may'mount the Tympan to any pofition : for fliding the Male-Duftaids-made on the Feet of the Gallows through the Female Duftails faftened on the Plank of the Catriage, performs this great trouble that in our Englifh Prefles requires unnailing the ftuds of the Gallows and nailing them again; and many times tearing them and the Carriage-Plank to pieces: and that $\mathrm{f}_{0}$ oft as the fancy of the Prefs-man alters, or another workman comes to work at that Prefs.
$13^{\text {th. }}$. Few Prefs-men will fet the range of the Paper Bank to ftand at right angles with the Plank of the Carriage: but draws the fatther end of the Paper Bank fo as that the hither fide may make an angle of about 75 degrees' (more or lefs) with the hither fide of the Carriage : the reafon is, if the hither fide of the Paper Bank ftand at right angles with the hither fide of the Carriage, he mult carry his hand farther when he lays out Sheats which would hinder riddance: befides, his companion has a nearer accefs to it, to look over the Heap; which he frequently does, to fee the colour of the work.

14th. The Prefs-man brings his Heap and fets it on the fither end of the Paper Bank as near the Tympan as he can, yet not to touch it, left it fop the Tympan in a train of work:

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and he places an end of the Heap towards him. Then taking off the Paper-board that covered it when it was preft, he lays the long fides of it parallel to that of the Paper Bank: then he takes the uppermoft fheet (which as you may remember is a wafte-iheet) and lays it on the empty Paper-board; and taking three, or four, or five quires off his Heap in both his hands, he lifts it a little above his head, and claps it as hard as he can down upon the reft of the Heap, to loofen the fheets that with preffing fick clofe together: and not finding them loofe enough, he fhakes them long-ways and fide-ways, to and fro, till he finds he has pretty well loofened or hollowed the heap.
Then with the nail of his right hand thumb, he draws or flides forward the upper fheet, and two or three more commonly follows gradually with it, over the hither edge of the Heap to prepare thofe fheets ready for the Prefs-man to take off the Heap.
${ }^{1} 5^{\text {th. He confiders }}$ if the Face of the Tympan be moift enough for the Tympan fheet to ftick to, for though he wet the back fide of it before to fupple it, yet if the Tympan be frong, the water will not foak quite through to moiften the Face, fo that he wets the fpunge in fair water, and fprinkles the upper fide or Face of the Tympan all over : and fqueezing the water that is left in the fpunge well out again, rubs it quickly and gentiy all over the Face of the Tympan, to fuck up the body of water that he fprinkles on, and only leaves muifture on the Face of the Tympan to hold the fheet.

Here accrues now a benefit by the make of thefe new fafhioned Prefles having a Gutter faftened to the Hind rail of the Carriage to receive the water that falls from the Tympan, which convers it beyond the farther fide of the Prefs, and fecures the Plank of the Carriage from wet and moifture, and confequently from rotting.
Then he takes a theet of paper off the Heap for a Tympan fheet, and folds it exaclly into four quarters, and lays the

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creares of the fheet exaelly upon the middle of the Short and Long Croffes, if the Form allows them both to be in their refpective middles of the Chafe; if not, he lays the creafes exactly againft the notches in the Chafe that are made for them refpectively : and if his Frifket be blacked with former work, he lays a fheet of wafte paper upon the creatt theet : then lays the Tympan down on the Form, and Pulls on thefe two fheets, and takes up his Tympan again, and lays by the wafte fheet; but the creaft fheet he lays on the Tympan. But firt preffes the Tympan do wnwards, from under the fhank of each Point fucceffively; puts the two oppofite fides of the theet under the Shanks of the Points, and the Holes of the Points pricked with Pulling exactly, under the bottom rivets of the Points: then taking a little pafte on the ball of one of his fingers a little befmears the under corners of that theet, and claps them down clofe on the Tympan, that the fheet may ffick: but the bottom corner of that fide the fheet that is next to him, he befmears within the matter of the fheet, viz. within the impreffion the Form made. For when he has faftened that corner down, he tears off the Margin, (by guefs) in a ftraight line athwart the very corner, that it may not lie in his way to catç at as he Takes off Sheets, when he is in his train of work.

This fheet is called the Tympan fheet; and is only as a flanding mark to lay all the other fheets exactly even upon while he works upon the White Paper.

The Prefs-man does now fuppofe he has Made Ready : yet for affurance he will try his Regifter once more, left fome of the Quoins fhould have flipt. How he made Regifter I fhewed you before, wherefore if his Regifter be not good, he mends it as I there fhewed. But we will fuppofe it now good, wherefore he gently Knocks up all the Quoins in the corners, with an equal force to faften them.

Though I have in numercal order fet down thefe opera. tions, circumftances and confiderations, yet does not the any other prefcribed order.

## DRAWING THE TYMPANS AND FRISKET.

Drawing the Tympans or Frifket is the covering and pafting on of vellum, forrels or parchment upon the frames. To each Tympan and Friket is chofe a kin large enough to cover and lap about the frames.

Thefe fkins the Prefs-man rumples up together, and puts them into water to foak; and if he thinks they do not foak faft enough, he takes them and rubs them between his hands, as women wafh cloaths, to fupple them, that the water may foak the fafter in. And being thoroughly foaked he wrings the water out.

Then having provided fome pafte made of fine wheaten flower, well boiled in water, he fpreads the fkin flat, and firf paftes the under fide of the Tympan; then lays it on the middle of the fkin, and rearing each fide fucceffively up, paftes the fkin alfo from the infides the Tympan to the outer edges of the $\mathbb{1 k i n}$, and lays the Tympan down flat again: then he paftes all the other fides of the Tympan, and wraps the fikin about the two long fides firft, cutting the fides of the fkin away fo much, till he leaves only enough to reach almoft quite through the under-fides of the Tympan again: Then drawing and ftraining the fkin tighter, he drives in the points of nails about fix inches diftant from one another, to keep the fkin from ftarting as it dries.

Having thus drawn the fides, he with the point of a penknife cuts fquare holes in the $\mathbb{K i n}$, juft where the iron-joints fall, for the joints to fall into, and draws and ftrains the ends of the Tympan as he did the fides; wrapping the ends of the fkin

Then fetting it by to dry; when it is dry, he draws the nails.

As he drew this Tympan, fo he draws the other; and the Friket alfo : only, becaufe he cannot drive in nails, (the Friket being all made of iron) he doubles the fkin over the fides of the Friket; and being well pafted, as aforefaid, he fews the fides that lap over down upon the whole fkin, to keep it from flarting while it dries: then he paftes a fheet or two of paper all over the infide of it; as well to ftrengthen as to thicken it. Frikets are more frequently made with paper.

## OF WETTING PAPER.

PAPER is commonly Wet in a trough full of fair water. The Prefs-man places the dry Heap on the left hand the trough, and a Paper-board with its breadth before him on his right laying firft a wafte fheet of paper on the Paper-board, left the board might foil or foul the firft theet of the Heap. Then he takes up the firft token, and lays it in fuch a pofition that the backs of the quires lie towards his right hand, that he may the readier catch at the back of each quire with his right hand, when he is to wet it ; and he lays that Token athwart, or fomewhat crofling the reft of the Heap, that he may the eafier know when he has Wet that Token.

Then taking the firf quire of the Heap with the back of it in his right hand, and edge of the quire in his left, he lays the quire down upon the wafte fheet, fo, that the back of the quire lies upon the middle creafe of the watte fheet, and confequently one half of the quire already laid even down upon one half of the wafte freet. If.the paper be ftrong, he opens about half the quire, and turns it over dry upon the other half of the wafte fheet; but if the paper be weak and fpongy, he opens the whole quire, and lays that down dry.

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The reafon why he lays the firt laying down dry，is，be－ caufe it laying under the reft of the Heap will fufficiently imbibe the moifture that foaks from the other part；and the reafon why he leaves but half a quire dry for frong paper，and a whole for fpongy，is，becaufe fpongy paper foaks in moifture fafter than ftrong．

Having laid down his dry laying，he takes another quire off the dry Heap，with the back of the quire in his right hand， and the edge of the quire in his left，and clofing his hand a little，that the quire may bend a little downwards between his hands，he dips the back of the quire into his left hand fide of the trough of water；and difcharging his left hand of the quire， draws it through the water with his right ；but as the quire comes out he nimbly catches the edge of the quire again in his left hand，and brings it to the Heap，but by lifting up his left hand bears the under fide of the quire off the dry paper，laid down before，left the dry fheet fhould fick to the wet，before he has placed the quire in an even pofition，and fo perhaps wrinkles a fheet or two，or elfe put a dry fheet or two out of their even pofition．

But this drawing the quire through the water he performs either nimbly or flowly：if the paper be weak and fpongy he performs it quickly ；if ftrong and ftubborn，flowly．

To place this quire in an even pofition，he lays the back of it exactly upon the open creafe of the former，and then lets the fide of the quire in his left hand fall flat down upon the Heap； and difcharging his right hand，brings it to the edge of the quire；and with the affiftance of his left hand thumb（ftill in its firtt pofition）opens or divides，either a third，or half，of the whole quire，according to the quality of the paper；and fpread－ ing the fingers of his right hand as much as he can through the length of the quire，turns over his opened divifion of it upon his right hand fide of the Heap．

The reafon why he fpreads the fingers of his right hand as much as he can through the length of the quire，is，becaufe

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the outfide half fheet is wet, and confequently quickly limber; fo that if the paper be weak, it would fall down before the reft of his opening, and double into wrinkles, which thas fpreading his fingers prevents.

In the fame manner he wets all the quires of his dry Heap.
But having wet his firf Token, he doubles down a corner of the upper fheet of it on his right hand, fo as the farther corner may lie a little towards the left hand of the creafe in the middle of the Heap, and fo as the other corner may hang out on the hither fide of the Heap about an inch and an half: this theet is called the Token fheet, as being a mark for the Prefsman when he is at work to know how many Tokens of that Heap is worked off.

Having wet the whole Heap, he lays a wafte fheet of paper upon it, that the Paper Roard to be laid on fpoil not the laft fheet of the Heap : then three or four times takes up as much water as he can in the hollow of his hand, and throws it all over the wafte fheet, that it may moiften and foak downwards into the unwet part of the laft divifion of the quire.

The paper being thus wet, he takes up the whole Heap upon the Paper board, and fets it by in a convenient place of the room, and lays another Paper board upon it ; and upon the middle of the Paper board, fets about half an hundred weight, and lets it ftand by to prefs, commonly till next morning : for Prefs-men generally wet their paper after they have left work at night.

The menner how paper is Set out, fhall be fhewed when 1 come to the office of the Warehoufe keeper:

## KNOCKING UP BALLS.

Ball Leathers are either Pclts or Sheep-fkins; if Pelts, they are chofen fach as have a frong grain, and the greafe well worked out of them : they are either wet or dry before they come to the Prefs-mans wife: if wet, he having before-hand provided

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provided 2 round board, of about nine inches and an half diameter, fuppofing the Ball ftocks to be fix inches diameter, lays the round board upon the whole Pelt, and cuts by the outfide of the board fo many round pieces as he can out of the Pelt, referving two for his prefent ufe.

And hanging the reft up (commonly upon the Braces of the Prefs) to dry, that they may not fink or mould before he has occafion to ufe them.

But if his Pelts are dry, he lays them to foak (by choice in chamber-lye) but we can not find why it is preferred before fair water: for the purpofe of foaking them is only to fupple them.

If he works with leather, it is chofen with a frong and clofe grain : though by experience it is found that the neck piece, and indeed all along the back of the fkin is beft; but is commonly fubject to be greafy, which gives the Prefs-man fometimes a great deal of trouble to make his Balls Take. He alfo lays the Ball Leathers in foak to fupple them.

When they (either Pelts or Leathers) are well Soaked, he rubs them well with both his hands, and then twifte and wrings them to get the water out again.
Having Knocked up one Ball well, he Knocks up the other, as the firft.

Balls are well Knocked up, when the wooll is equally difperfed ahout all the fides, and the middle fmoothly covered with the Leather ; that is, not rifing in hillocks, or falling into dales; not having too much wooll in them, for that will fubject them to foon hardening, and quickly be uneafy for the Prefs-man to work with; or too little, for that will make the Leathers, as the wooll fettles with working, foon flap, and wrap over itfelf into wriakles; fo that he cannot fo well diftribute his Balls: but the Ealis ought to be indinierently plump, to feel like an hard fuffed bed pillow, or a frong fponge 2 little moiftened with water.

Having knocked up the Balls, and rubbed out the Ink, he tries if his Balls will Take ; that is, he dabs the top of one three

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three or four times lightly upon the hither part of the Ink block: if he finds the Ink fticks to it equally all about, and that fo much as has touched the Ink block is black, it Takes: but if fcarce any of the Leather is black, or that it be black and white in blotches, then the Balls do not Take: wherefore he corrfiders whether his Ball be too wet, or elfe greafy, for each of thefe inconveniences will hinder the Taking of the Ball.
If it be too wet, he burns half a fheet or an whole fheet of wafte paper, and waves his Ball to and fro over the flame of it; but fo quick and cautioufly that he neither fhrinks the Leather or drys it too much: in winter time when a fire is at hand, he dries it gently by the fire.

If it be greafy, he takes oil and fpreads it well all over the whole Ball-leather; and then holding the Ball knife in his right hand with its edge a little floping downwards that it cut not the Ball leather, and the handle of the Ball Stock in his left hand, turns the Ball about by its handle, preffing it hard againft the floped edge of the Ball knife, and at once drives the laid on oil and greafe before the floped edge of the Ball knife; but he keeps the handle of the Ball Stock, and confequently the whole Ball, conftantly turning, that the whole circumference of the Ball may be Scraped; and as the Ball has performed a revolution againft the floped edge of the Ball knife, he draws gtadually his left hand a little back, that the floped edge of the Ball knife may by feveral fpiral revolutions of the Ball, fcrape up to the very top of the Ball and carry before it the oil and greafe thither; which he gathers up on the Blade of his Ball knife, and difpofes of it as fo much dirt and filth.

## RUBBING OUT INK.

Before the Prefs-man goes to work, he rubs out his Ink.
If the Ink has lain long on the Ink block fince it was Rubbed ont, the fuperficies of it generally is dried and hardened

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hardened into a film or fkin, for which reafon the Prefs-man carefully takes this film quite off with the Slice before he difturbs the body of the Ink; for fhould any, though ever fo little of it, mingle into the Ink, when the Ball happens to take up that little particle of film, and delivers it again upon the Face of the Letter, it will be a Pick, and print black, and deface the work; and if it get between the Face of two or more Letters, or the Hollows of them, it will obliterate all it covers : and if it be Pulled upon, and the Prefs-man not careful to overlook his work, it may run through the whole Heap.

Wherefore having carefully fkined off the film with the edge of the Slice, he fcrapes his Slice clean with the Ball knife left fome fmall parts of the film fhould yet ftick to, or remain on the Slice : and then with the Slice brings the body of Ink into the middle of the plane of the Ink block, and fearches the fides of it, by thrufting the edge of the Slice forwards along them and all the angles of the Ink block, and fo fcrapes off all as clean as he can, and gathers it to the whole mafs; then with the Slice he turns it about half a fcore times over and over to mingle it well, together, left fome part of it fhould be more confolidated than the reft; and to mingle it yet better, he then falls to Rubbing it with the Brayer, gra!ping the handle of it in his right hand, and begins to Rub with' all his ftrength at the hithermoft fide-boundings of the body of Ink; and keeping Rubbing through the almoft whole length of the Ink-block, he then gradually proceeds to the further fides of the body of Ink on the block. In this manner of Rubbing he bears hardeft upon the further edge of the Brayer, becaufe the hither fides of the Ink-block are not fenced in with rails about them; and fhould he rub with the bottom of the Brayer flat upon the Ink-block, he might draw too great a body of Ink to the unfenced fides; fo that the Ink would be fabject to run off: this Rubbing is only to fpread the Ink pretty equally over the Ink-block: wherefore he now begins a circular Rubbing, obferving in the circulation of the Brayer
that he always a little mounts the part of the edge of the bottom, which in its progrefs is ready to approach a prominent body of Ink, that it may fomewhat flide over it, that the Ink be not licked up high on the fides of the Brayer.

Then with the handle of the Slice in his left hand and the handle of the Brayer in his right, he joins the bottom edge of the Slice to the fide of the Brayer, holding the flat of the Slice horizontal, and the bottom of the Brayer perpendicular both over the Ink-block, and keeping his Brayer and Slice in this pofition, by turning the Handle of the Brayer in his right hand, held pretty ftiff againft the edge of the Slice, he fcrapes off all the Ink that the fide of the Brayer has lick'd up: and fetting down his Brayer, he takes the Slice in his right hand and lays what Ink he fcrapes off the fide of the Brayer again upon the Block, and Slices the whole mafs into the furthermoft corner.

This Rubbing of the Ink may ferve when the Ink-block had Ink on it before.

He alfo is to confider what work he is going on ; whether it be fmall or great Letter; if it be fmall or curious work, the Ink muft be Strong : but if it be great Letter or flight work, he makes Soft Ink ferve, or at leaft mingles but a little Hard Ink with it.

If the Ink be too Hard, as fometimes in froity weather it will be, then, though his work be curious, yet he muft Rub in a little Soft Ink becaufe it will not otherwife Diftribute well upon the Balls ; efpecially if the Leathers be too wet, or greafye: befides, it may and many times does pull and tear the grain off the fkin ; which not only fpoils the balls, but fills the Form full of Picks.

## BEATING.

The Prefs-man imagines, or by his eye judges the length of his Form divided into four equal parts or rows; which four rows,

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for diftinction fake, I shall number from the left hand to the right, with firf row, fecond row, third row, fourth row, juft as an Octavo Form is exactly divided by four rows of Pages.

He places his left hand Ball at the hither end of the firt row, fo that though the Ball be round, yet the fquare encompaffed within that round fhall fufficiently cover fo much of the fquare of the hither end of that row as it is well capable to cover ; and his right hand Ball he fets upon the hither end of the third row : he fets his Balls clofe upon the Face of the Letter, with the Handles of the Ball-ftocks a little bending towards him : but as he preffes them apon the Face of the Letter, he mounts them perpendicular ; and lifting at once both the Balls lightly juft clear off the Face of the Letter, he removes them about the fifth part of the breadth of the Form towards the further fide of the Form, and again fets them clofe down upon the Face of the Letter, with the handles of the Ball-ftocks again bending a little towards him, as before: and as he prefies them upon the Face of the Letter, mounts them perpendicular, as before: thus in about four or five, or fix fuch motions, or rather removes of the Balls, according to the breadth of the Form, he Beats over the firft and third rows. Thus Beating from the hither towards the further fide, is in Prefs-mens phrafe called, Going up the Form.

The reafon why he bends the Handles of the Ball-ftocks a little towards him, is, that the Ball-leathers drag not apon the Face of the Letter; for then the edges of the hellows between the Lines or Words, or the edges of the cavities below the Face would fcrape Ink off the Balls to ftop up or choak the Form. And the reafon why, before he removes them, he mounts the Handles of the Ball-focks a little perpendicular, is, that the Balls may touch in their greateft capacity upon the Face of the Letter.

To Come down the Form, he flips his Balls both at once from the firft and third row to the fecond and fourth row, 'and brings them down as he carried them up: only, as before, he


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Heap, the better to fee he takes but one fheet off, which he loofens from the reft of the Heap by drawing the back-fide of the nail of his right thumb on his right hand nimbly over almoft the whole length of the Heap, and receiving the hither end of the fheet with the infide of his left hand fingers and thumb, catches with his right hand about two inches within the further edge of the fheet near the upper corner, and about the length of his thumb below the hither edge of the fheet, and brings it nimbly to the Tympan; and, at the fame time, twifts his body again before the Tympan, only a very little moving his right foot from its firt fation forwards under the Carriage Plank; and as the fheet is coming to the Tympan, we fuppofe now he works on White Paper, he nimbly difpofes the fingers of his right hand under the fruther edge of the fheet near the upper corner; and having the fheet thus in both his hands, lays the further fide and two extream corners of the fheet down even upon the farther fide and extream further corners of the Tympan-fheet, but he is careful the upper corner of the fieet, be firt laid even, upon the upper corner of the Tympan-fheet; that he may the fooner difengage his right hand; but if by the nimble cafting his eye, he perceive the fides of the theet lie un even upon the 'Tympan fheet, he with his left hand at the bottom corner of the fheet, either draws it backwards, or pulls it forwards, as the fheet may lie higher or lower on the hither corners of the Tympan-fhcet, while his right hand being difengaged is removed to the backfide the Ear of the Friket, and with it gives it a light touch to double it down upon the Tympan. And by this time his left hand is alfo difengaged, and flipt to the hither under corner of the Friket, to receive it, that it fall neither too hard or too quick down upon the Tympan; for hard falling may frake the loofe fheet on the Tympan out of its place; and fo may the quick preflure of the air between the Tympan and Frifket, after the fheet is well laid; and while his left hand receives the Frifket his right is difengaged from the Ear of the Friket, and removed to the middle of the back-fide

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the Tympan; which he grafps between the balls of his fingers and thumb, to lift it off the Gallows, and doubles it and the Friket together on the Form. And while the Tympan is coming, he tlips his left hand fingers from under the Friket to the hither outer corner of it, as well to keep the fheet clofe to the Tympan in its pofition, as to avoid the jobbing of the lower fide of the Friket againtt any fimall fquare fhoulder, either of the Furniture, Quoins, Chafe, or the corners that may fand higher than their common plain.

Then nimbly flipping his left hand, he with it grafps the Rounce, and with a moderate ftrength, nimbly gives its Winch about one turn round; but to regulate his Running in, he made a mark before on the further rail of the Tympan, to which mark he Runs the Carriage in, till he brings the mark in a range with the fore edge of the Plattin; and as it is coming, Ikips his hand to within an inch or two of the end of the Bar, and then at once gently leans his body back, that his arm as he Pulls the Bar towards him may keep a fraight pofture; becaufe in a Pu'l it has then the greateft flrength. And he alfo lips his right foot upon the Foot-ftep, while his left hand holds faft by the Rounce; as well to reft on the Foot ftep and Kounce, as to enable his body to make a flronger Pull; which will prove Longer or Shorter, according to the ftrength put to it, and alfo the Hard or Soft Juftifying of the Head.

Then difengaging his right hand again from the Handle of the Bar, he flips it to the Bow of the Bar, before the handle fly quite back to the Cheek of the Prefs: for fhould the Bar by its forcible fpring knock hard againft the Cheek of the Prefs, it might not only fhake fome of its parts out of order, but fubject the whole machine to an untable pofition : befides, the further the Bar Hies back the more he hinders quick riddance in recovering it again. But yet he muft let the Bar fly fo far back as that the Tympan may juft rife clear off the Plattin; left when he Runs in his Second Pull, the Face of the Plattin rub upon the Tyinpan, and fhoves the fhect upon the Face of

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the Letter, which fometimes Slurs, and fometimes Doubles it, by which the fheet is deftroyed.

Having Pulled the Firft Pull, and having the Rounce ftillin his left hand, he turns the Rounce about again, till the Carriage runs in fo far as that the fecond mark on the rail of the Tympan comes into a range with the hither edge of the Plattin, as before the firt mark did; and then Pulls his fecond Pull, as he did his firt; and flips his right hand again off the Handle of the Bar to the Bow, guides the Bar up to its Catch leiiurely, that coming now near the Cheek it knock not againft it: and juft as he has Pulled his Sccond Pull, he gives a pretty quick and flrong preffure upon the Rounce, to turn it back, $a^{\text {nd }}$ the Carriage out again: and fo foon as he has given that onc preffure, he difengages his left hand from the Rounce, and claps te fingers of it under the middle of the Tympan, and on the Ear of the Frifket: and while this is doing, removes his right hand to the now upper, but immediately it will be the under fide of the Tympan Rail, within four or five inches of the upper end of it, to reccive the Tympan, as it is lifted up off the Form by his left hand. And having thus received it, lets it defeend gently on the Gallows. And as it is defcending, flips his left hand fingers under the hither lower corner of the Friket, and gives the Friket a tofs up; while by this time his right hand being difengaged from the Tympan, is ready to catch the Friket by che Ear, and convey it quick and gently to its Stay : and while the Frifket is going up; he flips the end of the middle finger of his left hand, or fometimes the ends of his two middle fingers with their balls upwards, under the hicher lower corner of the Pulled off Sheet, and at the inftant he has got them under, he nimbly bows his Joynts upwards, to throw up the corner of the fheet, to make it mount a little, for him to gather about two inches hold of it between the balls of his thumb and fore finger. And heaving the whole fheet by this corner a little upwards, he at the fame time lifts it off the Points, and draws it fomewhat towards him; and as it
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comes, catches it near the uper corner of the fame fide of the fheet, between the foremoft joynts of his fore fingers and ball of the thumb of his right hand, and nimbly twiting about his body towards the Paper bank carries the fheet over the Heap of White paper to a Paper board, which before he placed beyond that Heap on his right hand, and lays it down upon a wafte fheet laid for that purpofe on that Paper board; but while it is coming over the White paper Heap, though he have the fheet between both his fore fingers and thumbs, yet he holds the fheet fo loofely that it may move between them as on two centers, as his body twifts about from the fide of the Tympan towards the fide of the Paper bank.
Thus you fee both the Prefs-man's hands at the fame time alternatively engaged in different operations: for while his right hand is employed in one action, his left is bufy about another, and thefe exercifes fo fuddenly varied, that they feem to flide into one another's pofition; beginning when the former is but half performed.
Having thus Pulled one fheet, and laid it down : he turns his body towards the Tympan again, and as he is turning gives the next fheet on the White paper Heap a touch with the backfide of the nail of his right thumb, as before, to draw it a little over the hither edge of the Heap, and lays it on the Tympan, \&c. as he did the firt ; and fo fucceffively every fheet till the whole Heap of White paper be Worked off.
As he comes to a Token fheet, he undoubles that, and fmooths out the creafe with the back fide of the nails of his right hand, and the Face of the Letter may print upon fmooth paper. And being printed off; he folds it again, as before, for a Token fheet when he works the Reteration.
Having Worked off the White paper, he removes the Heap to his left hand; then takes up the Paper board, and lays it on his right hand: and if it be Twelves, or any Form Impofed like Twelves, as Twenty fours, \&c. he turns it from one long

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fide of the paper to the other; that is, the long fide of the paper that fands on his right hand when the printed fide lies upwards, he turns over to his left hand, and lays the unprinted fide upwards. In performing this, he grafps off the Worked off Heap fo much at once between both his hands as he can well govern, without difordering the evennefs of the fides of the Heap, viz. a Token, or more, and lays that upon the Paper board; then takes another grafp, and fo fucceffively, till he has turned the whole Heap, grafp by grafp.

Having now turned the Heap, and made Regifter on the Reteration Form he works off the Reteration: but he fomewhat varies his pofture in the Laying on his Sheets: for as before, when he worked White Paper, he caught the fheet by the upper further corner with his right hand, he now having heaved up the fheet catches it as near the further fide of the further Point hole as he can, with the ball of his right hand thumb above the fheet, and the ball of his fore finger under the fheet the readier to lay the Point hole over its refpective Point: which having done, he flips his body a little backwards, and both his hands with it, his right hand towards the hither Point hole, with the back fides of the nails of his fingers to draw or flroke it over the Point: and the fingers of his left hand, as they come from the farther corner, nimbly flipping along the bottom edge of the theet, till they come to the hither corner; and then with his fore finger and thumb, lays hold of it, to help guide the Point hole on that Point alfo: then Pulls that fheet, as before, as he did the White Paper, and fo fucceffively all the reft of the Reteration. Only, the Token fheets, as he meets with them, he folds not down again, as he did the White Paper.

PRINTING RED, OR OTHER COLOURS WIT臬 BLACK.

When Red and Black are to be printed upon the fame fheet, the Prefs man firt Makes Regifter, and Makes Ready his Form

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Having mingled the Red, or any other intended colour with Varnifh, he Beats the Form; and Pulls it very lightly, left thefe Underlaid Words flanding higher than the reft of the Matter, print too Hard.

## MIXING AND GRINDING COLOURS WITH VARNISH.

Varnifh is the common Menftruum for all colours that are to be ufed in printing.

Red is the chief colour that is ufed with Black in book printing : of Reds there are two forts in general ufe, viz. Vermillion and Red Lead; Vermillion is the deepeft and pureft red.

Yet may other colours alfo be ufed to print withal ; as Lake and Ruffet, which are Reds deeper than Vermillion; Verditur, Indico, and Bice for bleus; Orpinent, Pink, Yellow Oaker, for yellows: Verdigreafe, and green Verditur, for greens: or what other colours may be fancied.

But all colours for printing muft be ground with Soft Varnih ; efpecially thofe colours that are of themfelves dryers; as Red Led, Vermillion, Orpiment, Verdigreafe; for fhould, they be ground with Hard Varnifh the coloured Ink would dry and harden fo quick and faft upon the Form, that it would foon be choaked up, and confequently want Wafhing e're the Form be Worked off; which would be very troublefome to the Prefsman, becaufe he muft expect to have all his Underlays to new fit to their places: and befides, it will fo dry and harden upon the Balls, that the grain of the Leathers would quickly tear off, and fill the Form full of Picks.

The fitteft colours therefore for printing, are fuch as are of the lighteft body and brighteft colour.

They are to be ground with a muller on a fmooth marble ftone, fo long that the culour becomes impalpable, and is thoroughly mingled with the Varnifh.

RULES

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RULES AND REMEDIES FOR THE

The Prefs-man is to make a Proof fo oft as occaion requires : if he takes off his Form to make a Proof, he Unlocks and lays the Quoins,' in fuch a fituation as he may know how they were difpofed of before; but many Printing houfes have an empty Prefs ftands by to make Proofs on.

The Compofitor having brought the Form to the Prefs, lays it down on the Prefs ftone, and the Prefs-man places it even under the Plattin, that the Plattin Bear not harder on the hither or further fide of the Form : then Beats the Form four or five times over that he may be fure it Take; then he lays the Proof fheet on the Form, fo as by his judgment it fhall have an equal Margin on all its oppofite fides, and a double Blanket on the Proof fheet; and Running in the Carriage, Pulls the Proof fheet: having Pulled it, he Runs out the Carriage again, and takes the Proof fheet off the Form. Then with the Lye brufh he Rubs over the Face of the Letter three or four times, to wafh off what Ink may remain on it, and carries the Form again to the Correcting ftone and lays it down : and the Proof he carries to the Compofitor's Cafe.

If the Form he works on be Small letter or Old Letter, he ufes Strong Ink; and Beats Lean : for Weak Ink and Fat Beating, will quickly choak up the Face of the Letter. But to fetch off Hard Ink thin Beat on the Face of the Letter, he Pulls Hard. But if the Form be great Letter or Black Englifh Letter, it will allow Fatter Beating.

He keeps a conftant and methodical pofture and gefture in every action of Pulling and Beating, which becomes habitual to him, and eafes his body, by not running into unneceffary diverfions of poftures or geftures in his labour, and it eafes his mind from much of its care, for the fame caufes have con-

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ftantly the fame effects. And a Pull of the fame frength upon the fame Form, with the fame Beating, and with the fame Blankets, \&c. will give the fame colour and impreffion.
That every two fheets, if the Form be fmall Letter (rarely three, unlefs Great Letter) he takes Ink; and that fheet when he Takes not Ink he fteps to the Heap to overlook the colour, and fee whether he has Taken too much or too little Ink; and to fee if any accidents have befallen the Form, that is, that no Letters, Quadrats or Furniture, \&c. rife, that no Letters are Battered; that the Regifter keep good; that no Pick be got into the Form, or any other accident that may deface the beauty of the Work, but all this while ftill keeps his Balls Diftributing.
If he has taken too much Ink, which fometimes may happen (but moflly through carelefinefs) he will not take Ink again, till he has worked his Bails to a good and moderate colour. But if the fheet already Pulled be fo Black that it may not tolerably pafs, he doubles or folds it in the middle and lays it crofs the Heap, that the Gatherer may take or leave it, in cafe the Heap falls fhort. If he forefees the next fheet will alfo be too Black, he takes a dry fieet of wafte paper between his B.ills and Diftributes upon that dry fheet, that it may take off the Ink.

If Letters, Quadrats or Furniture Rife, he puts them down: the Letters and Quadrats with his Bodkin, and the Furniture with his Hammer, and Locks the Quarter they are in, a little harder.

If any Letters are Battered, he Unlocks the Quarter they are in, and defires the Compofiter to fut others in their room.

If Bearers fail, that is, fyuceze thinner with long Pulling on, he takes thofe Bearers off, if they are on the Friket, and puts on thicker: but if the Furniture is Underlaid, he Unlocks the Quarter they are in, and Underlays them according to his judgment.

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If Regifter be Out, which fometimes happens by the ftarting of the Quoins, he mends it.

If a few Picks are got into the Form, that is, little bits of paper, Ikin or Film of Ink, greafe or other filth which may ftick to the Face, or get into the hollowis of the Letter, he with the point of a needle picks them out : but if many be gotten in, he takes off the Form and wafhes it.

And though he every other fheet overlooks the Heap, yet his Companion that Pulls, by an habitual ufe cafts his eye upon every fingle fheet; yet rarely hinders his riddance by it, for while he is taking the Theet off the Tympan, he gives a quick fpreading glance upon it, and lays it down, unlefs he perceive fomewhat to mend: for then he lets it lie on the Tympan till he has mended what was amifs.

And that he may Take Ink more equally, to keep the Balls of an equal fatnefs, he keeps the Rubb'd out Ink on the Inkblock of an equal thicknefs; which to do, he with the under-edge of the bottom of the Brayer, draws often from the mafs of Ink a fmall, and as near as he can guefs an equal quantity of Ink, and with the Brayer rubs and difperfes that Ink of an equal thicknefs, all over the hither corner of the Ink-block: While this is doing he holds the Balls upright on one another in his left hand, leaning the handle of the uppermoft Ball-ftock againft his breaft.

The equal and often Taking of Ink in a fmall quantity, and conftant Diftributing of the Balls; is the only means to keep the Heap throughout of an equal colour; and to avoid Leaying of Friars.

If he meets with fheets in his work; torn; or ftain'd, \&c. he prints them not, but throws them under the Paper-bench; and if any creafe or wrinkles be in any theet, he laying the back of his four left hand fingers upon a fmooth place in the fheet, rubs with the back of the nails of his right hand fingers from him upon the wriackles; till he has fmoothened them.

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Sometimes, through the loofe Hanging of the Plattin on its Cords, or through the much wearing of the Hofe, or the Garter, or the Worms in the Nut and Spindle, or the irregular wearing of the Toe of the Spindle, in its Nut, or too much play of the tenons of the Head in their mortiffes, or the irregular drynefs of the Tympan, or through irregular Running in of the Carriages, it will happen that the Letter will double upon the fheets, that is, print double.

If the loofe hanging of the Plattin be the caufe, it is eafily mended by turning about the Female Screws fitted to the tops of the Hofe.

If the Hofe be worn, or the fquare holes the Hofe works in, it may for the prefent be botched up by putting fcabbord between the Hofe and the fquare holes of the Till, but to mend it perfectly either another Till muft be made, or new Hofe, or both.

If the Garter be worn too wide ; the fmith muft either mend the old, or make a new one.
If the Worms of the Nut or Spindle be worn, the Spindle muft be examined by the fmith, and made true, and have a new Nut caft on it.

If the Toe of the Spindle and its Nut, or either of them be worn irregularly, it is fmith's work to mend.

If the tenons in the Head have too much play in their mortiffes; which though it feldom happens, yet if the Head were not made of well feafoned ftuff, the tenons may be fubject to flrink, and fo have too much play. There is no fubftantial remedying this fault, but by making a new Head.

If an unproper temperature of the Tympan be the caufe; that is, when it is dry in one place and moift in another, the dryed place may by its fpring force the paper againit the Face of the Letter, and in part print it before it come to feel the force of the Plattin; but this is rather flurring than doubling, and when the force of the Plattin does come, the fpring in the dryed part will again remove the paper, and the force of the Platin

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Plattin give its full impreffion where the paper is thus removed: but when it is real Doubling, it happens generally on the whole fheet.

This Doubling or Slurring is mended, by reducing the dryeft part of the Tympan to an equal moift temperature with the moiftef.

Doubling often happens in the middle of the Form, and the reafon is, becaufe the forefide of the Plattin prints beyond the middle of the Form at the firft Pull, and the hindfide of the Plattin by the fecond Pull reprints part of the Firt Pull : fo that a fpring in the Tympan removes the paper in this interval of time.
This fault is eafily mended by exact obferving the Running in of the Carriage.

Doubling may alfo happen by the too loofe and flapping ftraining of the Tympan, when it was firt drawn.

This cannot be mended without taking the Tympan off, and Drawing on a new one.

If the joints are fo faulty (as fometimes old Joints are) that the Prefs-man cannot keep Regifter with them, the fmith mulf make new or mend the old.

When he leaves work, he covers the Form with the Tympan, to keep it from duft or filth that may fall on it; and takes out the Blankets to cover his Heap.

[ $N$ the preceding Pages we have given a particular Defcription both of the Prefs and all the different Parts that compofe that ingenious Machine; and alfo the methods made ufe of in the practical Application of it ; wherein we bave been minute in the Defcriptions, in order to convey its ufe; notwithftanding which we make no doubt but fome may think we have treated it in too explicita Manner ; to obviate which, we Thall only fay; that this Work is calculated for the perufal of fuch as are, as well as fuch as are not, converfant with the practical Ufe of it.

In the following Pages we fhall treat of the Compofitors Employ, in which improvements are made every Day; as a Teftimony of it, we thall refer our Readers to the Productions of a few Years paft.


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Another evil that refults from difregard to the point under confideration, affett's chiefly a matter; in that fome Compofitors, rather than charge their memory with the different fituatron of fome few forts, tranfpofe them into fuch boxes as contained them at their laft place of work; whereby the difpofition of letters, in that roman cafe at leaft, is deftroyed; and the tranfpofed forts not being replaced, the boxes become receptacles of confufion: for the right forts being diftributed upon, the undermoft are remaered ufelefs, becaufe they are not expected to lodge in quarters that were not alligned them ; and therefore, if the buried forts happen to run fhort, they muft be caft.

Another inflance of difadvantage that arifes from the different difpofition of forts into cafes, is, that when at auctions, or other occafions, letter is bought in cafes, all fuch forts muft be tranfpofed whofe fituation does not agree with the plan by which the buyer's letter is laid.
We therefore repeat it, as our opinion, that-it would prove a prefervative to a clean pair of cafes, were they filled and provided withletter for a new Compofitor to begin his work upon; that by compofing firft, he may acquaint himfelf with the contents of his boxes, and be the better prepared for diftributing.
And now we have fhewn the reafonablenefs for making compofing the firtt of a Compofitor's bufinefs in a new place of work; we may with the more freedom fay, that it is unreafonable even to permit a beginner to attempt diftributing, till we are well affured, that he has acquired a competent knowledge as well of his letters as boxes, by compofing. To make therefore a young apprentice the fooner fit for diftributing, he fhould be told, that there are fome letters that refemble others; and at the fame time be fhewn how to diftinguifh one from another; viz. b from $\mathrm{q}, \mathrm{d}$ from $\mathrm{p}, \mathrm{l}$ from $\mathrm{I}, \mathrm{n}$ from $\mathrm{u}, \& \mathrm{cc}$. And to try whether he has a perfect knowledge to diftinguifh fuch letters as are fimilar to others, let the young compofitor diffribute a handful of broken matter into an empty cafe; and if upon examining

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examining the before-mentioned forts are found in their proper boxes, he may be trufted to diftribute for himfelf. But before he proceeds, he fhould be cautioned;
I. Not to take up much at firft, that if he fhould break his handful, he may have the lefs pie to diftribute: which he is to do before he takes up a frefh handful.
2. Not to throw letters in with their face downwards ; becaufe it batters them.
3. Not to diftribute his cafe too full ; becaufe it creates pie : with other fuch admonitions as fhall be of fervice to him.
Tho' it is common in diftributing to begin taking up at the head of pages, and to hold the face of the letter toward us ; as alfo with the two fore-fingers of our right hand to draw forwards as much of the matter as we can conveniently hold between them and the ball end of our thumb; yet fome Compofitors chufe a contrary method ; in which they begin taking up at the botoom of pages, holding the face of the letter from them, and ufing the thumb of their right hand to pufh forwards as much of the Matter as their two fore-fingers can conveniently turn upon the ball end of their thumb: but which of the two has the advantage, we fhall not pretend to fay, becaufe both are obliged to purfue the fame thing; both muft read and fpell what they take between their fingers; and both muft fquabble and work the letters akkew, to drop each Sort with. more quicknefs inta its proper Box.
Sometimes letters are more or lefs flippery in diftributing, and their wetnefs affects the fingers and thumb, by making them fupple, and unfit for the nimble difpofing af the former into their proper apartments ; which commonly happens when a Form is not well rinced, efpecially where the Letter is fmall, and old, and withal walhed with old lye that has much ink in it ; which makes it difficult to rince a Form fo clean as to prevent Letter from being gilippery. In fuch cafe it is cuftomary to keep a piece of Alum in a convenient Box ${ }_{2}$ to pinch it now and then between our fingers: which contrauts the grain of 3 C
the
the flkin, and the dilated pores of the fingers again; or elfe we wet our flippery Letter with water which Alum has been diffolved in. But to fave our fingers, without applying this remedy, we ufe the more paips in laying up a Form, the Letter whereof we apprehend will be flippery.

New Letter that is not well dreffed, and harbours Burs or other irregularities, is apt to ftick; and therefore it is very neceffary to wet it with water in which foap has been diffolved; which makes the Letter glide freely from between our fingers. But when Letter fticks on account of having long ftood in Chares, or being put up without rincing, the common way for opening it is, to pour boiling hot water over it ; and if that takes no effect after half a hour's foaking, repeat the experiment, which then commonly fucceeds.
LAYING OF CASES.

Implies nothing elfe but filling them with Sorts of a new Fount of Letter. In laying of Cafes we obferve, whether they are whole, clean, and lined. If they are new, they do not want lining in courfe; as we approve of the Joiners wav of lining them; who pafte paper all over the bottom, before they faften the Frame of the Boxes on.

When we are about laying our Cafes, we confider the weight of the Fount, that we may lay no more Sets of Cafes than the Fount will carry on Hands: for to lay too many Sets, would be but weakening a Fount; Seventeen Sets of Cafes have been laid of the fame Letter, to carry on the fame number of Hands, upon the fame Work; which thews the very uncommon Weight of that Fount.

Being now prepared with proper Cafes, we begin to lay our Letter, filling each Box moderately with its Sort, and putting the reft up in their Coffins; in which every one follows his own judgment, and places them fo as to find without much trouble the Sorts which he fhall want to perfect, or to fill his Cafe again. Accordingly when we have filled our Boxes, we put the remaining Sorts by in the following manner, viz.

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The Latin Sorts, $c, i, m, q, u, v, x, x, \infty_{3} \cdot \varepsilon_{s}$,

The Long-box Sorts, $\boldsymbol{b}, \mathrm{f}, \mathrm{g}, \mathrm{l}, \mathrm{f}, \mathrm{f}, \mathrm{w}, \mathrm{y}$;
 Accennted Letters, Small Capitals, and Figures, Large Capitals; Spaces, and Quadrats.
Though tanging the Sorts in this orker Mould thake up lix different plates at firft, they will foon be reduced to lefs, if the Letter is making up; and to ftill lefs, after it has been made perfect; when all the fuperfluous Sort perhaps will go into dne Bafket. But inftead of Baßkets, well eftablibhed Printers ptovide Fount Cafes, for holding Sorts as do not always circulate alike; which cannot fail proving of fetvice, and might be of ftill more benefit, were the Model of a Fount Cafe differdnt from a compron Lower Cafe; as to length and breadth, ahd not of fuch'an extraordiary depth; whereby the bottom of the fmall Botes is rendered inacceffible. Hence it is no great matter of aftonißhment, if a Sort fhould be reckoned wanting that cannot be got out of thefe inclofures without mitch trouble and lofs of time, befides damaging the letters; in gatting thdm out by the help of a bodkin, \&c. Nelther can it bd fuppofed, that after the Boxes of the feveral Sets are filled with them, all the remaining petty Sorts in a Fount Cafe fhould be wanted befides. The Plan of Fount Cafes, therefore, calls for an alteretion, if they are to be more ufeful than they are it prefent. But left we fhould be thought too forward, by thofe who approve of the modern make of Fount Cafes, we would be underfodd to mean here all along thofe of the antiquate contrivance, thint
 Lower Care, in every refpect befides the profundity of the former. And that we may explain ourfelves the better upon this head, we fhall give a draft of our intended Fount Cale.

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## COMPOSING,

Is the mean and grand occupation of the perfon that has made himfelf perfect in the Art of ranging and digefting Fafil Types into that order and harmony in which they appear upon paper, when printed.

Compofing is a term that includes feveral other exercifes as well of the mind as body; for when we are faid to Compofe, we are at the fame time engaged in Reading and Spelling what we are compofing, as well as in taking care to Space and to Juffify our Matter. But that we may obferve a method in treating of Compofing, we will make our beginning with what goes immediataly before it, and confifts in making the Meafure for the Work a Compofitor is to go upon.

For making of Meafures we ufe m's, laid the flat way, for that parpofe. But before a Compofitor begins a work, he is, or ought to be directed, how many m's wide, and how many lines long he is to make a page of it. Accordingly if our work is a Manufcript, we put the ordered number of m's into our Compofing ftick, and faften them between the Head and Sides of it, as tight as we are ufed to jultify all our Matter, Bat if it is printed Copy, and we are to keep it to the fame lines and pages, we do not content ourfelves with having made our meafure to fuch a number of $m$ 's as anfwer to the width of our Copy; but we compare the Face of the Letter in the Copy, and of the Letter before us; and examine, whether they are caft thiner or thicker; to find out which, we look for a very clofe line in the Copy, which we fet off, to fee how it comes into the meafure made to m's. Accordingly if we find that the Letter of our Copy is either cut or caft thicker than the Letter before us, and we apprehend that we thall be cramped to get in line for line where the matter runs clofe, we make our meafure an n-quadrat wider, for our own convenience, and Ikrew our line up tight and fiff. On the other hand, if a clofe line comes freely into our meafure, and admits of fome Spaces be-

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fides, we judge that the Letter of the Copy is either cut or caft thicker than the Letter we are to ufe, and therefore make our meafure an n-quadrat narrower, rather than to fquander away Spaces, by fetting wide and open.

Tho' it is common to take our meafure by m's of the Letter on which the work is to be done, it would be neverthelefs more advantageous, were it made, a Rule, that All meafures for Folio's and Quarto's fhould be made to m's of the Englifh Body : all meafures for Octavo's, again, to Pica m's and all meafures for Twelves, and lefs fizes, to m's of the Long Primer. And becaufe in large Printing-houfes it happens that different Founts of the fame Body, but not of the fame Size, are fometimes employed, it is abfolutely neceflary to ufe always m's of one and the fame Fount of Letter, to make our meafures by. The benefit of fuch a regulation would foon be rerceived, in faving the trouble of cutting Scabbord, Leads, Rules, \&c. to feveral meafures that differ fometimes not a common Space of each other, on account of the different Sizes of the fame Body of Letter not filling the fame meaiure alike full.

Having made and fecured our meafure, we look for a fetting Rule; which, if it anfwers exactly to the meafure, ferves to give us notice when qur Stick by falling, or other accidents, has Given: otherwife we cut a rule, to fit the meafure exactly, by which we can fee when our Stick has had any cafualties.

Being provided with a Cafe full of Letter, a true Compofing Stick, and a fquare Galley, we go about Compofing; but firt look our copy over, which we will fuppofe to be a Manufcript. Accordingly we take notice whether it is written in Half Sheets, Whole Sheets, or in Quires : whether only one pr both fides have writing on them; and whether each fide, or each leaf only, have folio's. But what we look more narrowly for is, Whether the Copy is written fair and legible; and whether it is fpelled and pointed according to the modern way. If therefore it happens that the Copy turns oat to our liking, we wifh the Work to laft long; whereas if it proves otherwife, we

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are glad to have done with, efpecially if the Author fhould chance to be a humaurous Gentleman, and unacquainted with the nature of Printing; for then a Compofitor is obliged to conform to the fancy of his Author, and fometimes to haddle his work up in fuch a manner as is no Credit either to him or his Mafter; whereas the Gentleman that leaves the gracing of his Work to the judgment of the Printer, feldom finds room to be diffatisfied upon that fcore.

By the Laws of Printing, indeed, a Compofitor fhould abide by his Copy, and not vary from it, that he may clear himfelf, in cafe he fhould be charged with having made a fault. But this good law is now looked upon as obfolete, and moft Authors expect the Printer to fpell, point, and digeft their Copy, that it may be intelligible and fignificant to the Reader; which is what a Compofitor and the Corrector jointly have regard to, in Works of their own language, elfe many good books would be laid afide; becaufe it would require as much patience to read them as books did, when no Points or Notations were ufed $;$ and when nothing but a clofe attention to the fenfe made the fubject intelligible.

Pointing, therefore, as well as Spelling and Methodizing fome Authors Copies being now become part of a Compofitor's bufinefs, it fhews how neceffary it is for Mafter Printers to be deliberate in chufing Apprentices for the Cafe, and not to fix upon any but fuch as have either had a liberal education or at leaft are perfect in writing and reading their own language, befides having a tafte of Latin, and fome notion of Greek and Hebrew ; and, withal, dif̣cover a genius that is capable of being cultivated and improved in fuch knowlege as contributes to exercife the Art with judgment.

In order to enable Compofitors to know the Value of any Number of Pages, of a Piece of Work, at any Price we fhall here introduce a Table, that will anfwer their defired Purpofe, and which we doubt not but will be acceptable to many.

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But that we may not go, further in this digreffion, we will return to obferving the mof material circumftances that come under the confideration of Compofitors in purfuing their bufinefs.

Having therefore taken notice of the fate of our Copy, and knowing into what Heads and Sub-heads the Matter is divided, we fold and place one leaf or more of it before us, and begin our work, with compofing as many lines as the length our pages are to conifift of, befides one line more, inftead of the direction line; and then we cut a Gage, to meafure and to make up all our pages by. But before we actually begin to compofe, we fhould be informed, either by the Author, or Mafter, after what manner our work is to be done; whether the old way, with Capitals to Subftantives, and Italic to Proper names; or after the more neat practice, all in Roman, and Capitals to Proper names, and Emphatical words. Accordingly if the firt method is to be obferved, we put a Capital letter, not only to all Subftantives, but alfo upon the following occafions; viz.

1. After a Full-point, that denotes the conclufion of a Sentence; but not after one that ftands for a mark of Abbreviation.
2. To Proper names of Men and Women; which are put in Italic befides.
3. To names of Kingdoms, Provinces, Cities, Mountains, and Rivers; which are put in Italic befides.
4. To names of Arts and Sciences; as alfo of thofe that profefs them.
5. To names of Dignity and Qaality, whether Ecclefiaftical, or Civil.
6. To names of Feftivals.
7. To words that exprefs the Title of the Subject.

On the other hand; if a work is to be done in the more modern and neater way, we pay no regard or put any thing in Italic but what is underfored in our Copy: neither do we drown the beauty of Roman Lower-cafe Sorts by putting every

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Subflantive with a Capital; but only fuch as are Proper names, or are words of particular fignification and emphafis.

It being a rule to begin the firft page of the work with the nominal part of it, and to fet it off confpicuoufly befides, we confider the fize of our work, and chufe a Head-piece for it ; which we place at the top of the firft page, and then fet the Name of the work, by way of a Half-Title, each line in Letter a fize lefs than we propofe to ufe in the main Title; which lines we branch out, with fuitable diffances between.

But becaufe the conftruction of Flowers depends upon fancy; we willingly leave every one to his own judgment, or refer him to any he may have feen in this or other works.

Befides Head pieces, Flower-pieces, and broad Slips, that are ufed to drefs the Head of the firt page of the Body of a work, we are fometimes direfled to fet a Head off with nothing elfe but a double, or two double Rules; which we call, a Plain Head; but which Rules are not fo readily applied as may be imagined: for they ihould be dreffed fo as to appear of the fame Face, and of the fame exact length ; and with fuch diftances between Rule and Rule, as hew a connexion to each other, and difplay that fymmerry which they are capable of, provided they are under the management of a neat Compofitor.

Having made up the Head of the firft page, we cut it off by a rule, or row of neat flowers, and put fo much of the matter after it as the length of the Page will admit of; obferving to ufe a Fac or a Flower'd Letter, after a Cut; and a Fac of Flowers, after a Metal Flower-Picce; as alio a fuitable large Capital after a Plain Head that has Rules over it for its decoration.

The firlt page being made up to the length of the number of lines of which it is to confif, we fet the Direction line, that fhews the firft word of the next page. But becaufe it is the the firt page of a fheet, we put a Signature to it ; and becaufe it is the firt page of the Body of the Work, we begin the feries of Signatures with B; which is praaifed in England only, but not always obferved neither, becaufe fometimes the

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Body of a work is begun with A, conformable to the method of all other Printing nations; in which laft cafe it will be difficult for a Compofitor to alter his folio's by the Tables of them, unlefs he remembers at every Impofing, that the work was be. gun with A, and that therefore he ought to advance his folio's to a whole fheet from what they are in a Table of folio's. Confidering therefore that we begin the Body of almoft every work with the Signature of B, it ought to be made a General rule, to begin the Body of every work with B; whereby the Table of folio's will be of real fervice to alter the figures of each theet by.

In fpeaking of Signatures, it will not be impertinent to mention, that $W$ is not ufed to ferve for a Signature ; and that it would be more proper to employ the confonant than the vowel U for that purpofe; the V being of that original form as has given $W$ its hape ; whereas the open $U$ is of a more modern formation.

Signatures being always taken care to be put to the proper pages, our chief concern fhould be (as often as we are finifhing a firt page of a fheet) to confider, whether any thing elfe is to go into the Direction line of the firf page for if the work makes feveral Volumns, each firf page of a fheet exprefles them refpectively at the beginning of the Direction line : and if it is a work that is publihed in Numbers, the fucceffion of them fometimes is carried on in the like manner; tho' we fee no reafon for making this incroachment upon the Direction line, when Proprietors are at the charge of printed Covers to each Number; which will ferve to take off that reflection which hereafter poffibly may be made, that Gentlemen in fuch times could not purchafe a confiderable Work, unlefs by fmall parcels.

Our firf page having now its length to the Gage; the room which the Running title occupies is ftill to be filled up; which is done without much trouble, by driving the Head out fo much more, unlefs it fhould be thought beft to drive the Head-

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piece down as much as the Running title makes; which however is done but by few, efpeciaily where it is of a confiderable proportion, as to depth. But where pages have Flower-pieces, Slips, or Rules at the head, it is cuitomary to put the Folio, inftead of the Running title, over them; yet, for our part we can affign no reaion why the feries of Running titles fhould be interrupted, on account of a frelh part of the work beginning a page, tho' at the fame time comprehended under the fame general title. Neither is it a trifle to a Compofitor, to alter his Running titles, in this care, when they are divided, and therefore muft be parted and repeated according to the turn of an cven or uneven page.

Beiore we have done fpeaking of the Firt page, that begins the Body of a work, we fhall obferve, that neither Direction nor Signature were ufed in the infancy of Printing: and that the French fill favour the former, by putting a Direction to no other than the laft page of each fheet; whereby the reft of the pares are fecured by a line of quadrats at the bottom. And as to Signatures, they likewife chufe the antient way; to number them by Numerals, intead of Figures. Otherwife they agree with us, and put One Signature to a flicet in Folio; Two to one in Quarto ; Four to a fheet in Octavo; and Six to one in Twelves.

We proceed now to the Second page; to which we begin to fet the Running title, in proportion to the Letter of the work, and accordirig to the quantity of matter, either in all Capitals, Small Capitals, or Icalic: for it is not often that Running titles are fo concife as to admit of being fet in large Capitals; but are commonly diviced into two lines; and fornetimes made very troutlefome to the Compofitor befides, by crouding the Parts and Sub-parts of a work, fuch as Book, Chap. \&c. into the corners of them; or by changing the Running title with the Head of every Chapter: in which cafes, particularly, it would feern an ungenerous view in one who fhould difpute comprehending
prehending Running titles under our calculations concerning the price of a work.

The Running title being fet, we put a fuitable diftance between that and the Matter; and therefore confider the Bearings off of our letters in the Running title: for if it confifts of all Capitals that have no defcending letters amongft them, and runs throughout the work, three Scabbords of a middle fize, will be fufficient to feparate the Running title from the Matter; whereas four thick Scabbords will make no more than a proper diftance, where Running titles are in Italic, or mixed with it ; and withal have defcending letters among them. But in this cafe, as in others, we have regard to proportion, and make a difference in diftances, agreeable to the fize as well of the Letter as Page.
The Firt page of the Work being fettled, and the Running title begun with the Second page, we proceed in our work, according to fuch rules as have been obferved by Compofitors that have been diftinguifhed for the folidity of their judgment. But becaufe we fear that we cannot enter upon mentioning even the moft frequent Circumftances in Compofing, without running into a prolixity that might offend fome of our Readers, we will avoid it by giving a curfory fketch of the following inftances, viz.

When our Copy is very wide we ufe a Diviforium (commonly called Viforum), we chufe to move it each time downwards, to compofe what by that means appears from under the Viforum; becaufe we find it more fafe againft Outs and Doubles to compofe from above it rather than under it.

In Compofing we employ our eyes with the fame agility as we do our hands; for we caft our eyes upon every letter we aim at, at the fame moment that we move our hand to take it up; neither do we lofe our time in looking at our Copy for every word we compofe; but take as many words into our memory as we can well retain; which we fell as we take up the letters for them: and having done with what we had taken

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into our thoughts, we give a glance to our Copy again, to furnifh our memory with a frefh fupply of words. But this can be done only in printed Copy, and in fuch Manufcripts as are written fair, and are free from Infertions and Interliniations; a bad written or intricate Copy requiring a much longer and clofer application of the eye, and keeps it continually upon the ffretch. In the mean time, as often as we juftify a line, we fee whether we have taken wrong letters up, and change them accordingly.

In taking up a letter we make our aim at one that hies with its Face towards the right hand, and with the Nick from us, that fo we may take the letter up by the Head, and convey it nimbly into the Compofing Stick, without hugging it between our fingers, or knocking it about the Stick.
If we are upon Work in fuch language as we are well acquainted with, we take notice to correct or change fuch words as we are fure to be wrong. But this care is not acknowleged by every Author; for fome obftinately refufe to truft to a Compofitor's judgment, and rather propagate errors than permit a Printer to correct fuch faults as fome Authors cannot mend, but rely upon the rectitude of the book from which they copied.
Where work is divided into Heads and Sub-heads, the fritt are diftinguifhed by Letters of a fize larger than the Subject matter; whereas Sub-heads are fet in Italic of the Body of the work; which is alfo done to Heads in work of larger Letter than Englifh, and fometimes even in work of that fize.
After a Fac, Flowered letter, and Two Line letter, it is cuflomary to put the next letter a Capital, when the word confifls of more than one fyllable ; or fet the whole word in Capitals, if it is a monofyllable. It would therefore have the look of a blunder, were we to fullow the French, who often put a Capital after a two line letter, and the reft of the word in Small Capitals.

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If a Fac or Flowered letter be deeper than the Compofingftick, we meafure the exact width of it by Quotations, or cotit ${ }^{5}$ mon Quadrats; which we put into our Stick, and the Facinto the Galley, and then compofe, and empty each time fo many lines as our meafure in the Stick will allow, till we have compofed fo m:ny as reach fomething beyond the Depth of the Fac, that by juftifying it up to the lines, its touching the letters underneath may be prevented.

Capitals being enfigns of honour and dignity, we fpace, proparly, all fuch Words as are fet in Capitals, to fet them off more confpicuoully; and this we do not only to words at length, but alfo to fuch as are abridged; yet not to dates of years that are expreffed by Numeral Capitals.

Where a line breaks off at the end of a Paragraph, we endeavour to make it of a tolerable length; and therefore obferve to fet fome lines before a Break-line accordingly, that by driving out, or elfe by getting in, we may come to a handfome Break-line : for it is difagreeable to a Compofitor, when a Break-line happens to be too fhort, or too long. And though it is very common with the French to begin a page with a Break-line whofe major part confilts of matter, it does not fait an Englifh eye; for in fuch cafe we make a page either a line longer, or fhorter, rather than fee a piece of a line at the Head of a page. But at the fame time that we regard this, we take care to hide the cafualty in one page, by making the reverfe fide of the fame length: for the true length of a page does not confift in its being filled up with Sticks and Quadrats to the mark of the Gage; but rather in making the latt lines of two retrogate pages to fall on the Back of each other: hence a page cannot be faid to be of a right length, that has a Break-line at the bottom, with a Catch-word, or Direction, and fometimes even with a Signature in it. Nor is it elegant to fuffer the next to the laft line of a page to be a fhort Break line, with a Whic-lin: between that and the Direction-line, to make the page anfwer the length of the Gage; but which does not excufe

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if from being called too fhort: that therefore it would be advifeable to defift from fancying it improper to make the firt line of a Paragraph the very laft line of a page: of which all other Printing Nations make not the leaft fcruple. But the method of putting a White between the Direction and Matter that runs on, is a glaring inflance of a Compofitor's being either very ignorant of his bufinefs, or elfe anxious after Fat ; for the fake of which fome will hazard their credit rather than lofe a line that can be drove out, by Spacing, or otherwife.

Every Firft line of a new Paragraph or Sentence, that does not begin with a Two Line letter, we indent an $m$-quadrat, of whatever fize the letter of our work is of. In this Article of breaking off the Matter, Gentlemen vary, as in other inftances: for fome carry the Argument of a Pofition to a great length, before they relieve a reader in his attention, by breaking off a Paragraph; whereas others are fo fententious in their writing that they break off almoft at every place that will admit of a Full-point. But in this as well as the preceding cafe we always follow a Gentleman's choice, unlefs the Printer, upon particular occafions, finds it neceffary either to multiply or to reduce the Breaks in the Copy, where it may be done with propriety, in order to conduct the compars of a piece or fragment of work; in which cafe Gentlemen ought not to crofs a Printer's judgment, by obftinately refufing to comply with the endeavours that are ufed to make work look uniform. In the mean time it is requifite for Writers to make the beginning of a new Paragraph always confpicuous to a Compofitor, by indenting the firt line thereof far enough to diftinguifh it from the preceding line, in cafe it fhould be quite full.

Though our work fhould be done all in Roman, yet where words intervene of a foreign language, we put them in Italic, unlefs Authors will have them appear in their proper characters : in which cafe it is highly neceffary fuch words fhould be written fair and right, that it will admit of no error.

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Many more Hints, relating to Compofing, might be added to thefa, for the information of Learners of our Art, were we not fure that Practice and taking notice how things are đone by Good Workmen, will be of more fervice to them than laying down Rules for managing Work, fince this is the duty of him that has an Apprentice under his tuition; and therefore ought to forward him in every thing that can give him an early apprehenfion of his bufinefs: in which every generous man takes pleafure to acquit himfelf, provided he finds that his endeavours are beftowed upon a Youth that is tractable, and, befides capacity, fhews an eagernefs to become acquainted with the Principles of the Art; that he may practife the fame with the more readinefs, to the fatisfaction of his Mafter, and to the advancement of his own intereft. Whatever Apprentice engages in a chofen profeffion upon thefe principles, cannot fail of fucceeding in his emulation, becaufe every one will be ready to fatisfy his inquiries concerning bufinefs; whereas fluggifh and indolent Youths, that difcover an innate averfion to fettled bufinefs, and take no advantage of their education, are left to themfelves and their idle habit, that they may rue their negligence when they become lefs dependent on their Mafter. To roufe fuch from the lethargy of their untowardnefs, we flall give ourfelves no trouble: but it is for the fake of the former, that we conclude this Chapter with the following obfervations, viz.

After the body of a Volume is done, the Contents, fometimes, follow next, though they belong more properly to the beginning part of a Book; for which reafon we fhall defer fpeaking of them to another place. But what commonly is put after the Matter, is the Index; which is cuftomary to be done in Letter two fizes lefs than that of the Work, provided the compafs thereof, or other circumftances will fait it.

We always begin an Index upon an uneven page, and put a Slip or double rule at the Head thereof. And though we fet Running titles to an Index, we rarely put Folio's to them;

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unlefs it is to recommend a Book for the extraordinary number of its pages: for as an Index does not refer to its own Matter by figures, they feem needlefs in this cafe. The Signatures, however, are always carried on regularly, to the laft whole, or half theet, of the work.

It is common to fet the Subject word of each Article in Small Capitals, or Italic, and all the reft in Roman; indenting all the matter an $m$-quadrat that makes above one line.

If we find that we have room for it, we make a line of the word Page ; which we juftify to ftand over the ends of the lines, where the figures fall : elfe we prefix the faid word to the firft figure or figures of each Page, or Column.

We take notice, whether the Subject words are ranged Alphabetically; and we tranfpofe them and what belongs to them accordingly, if we find them otherwife, though it is not a Compofitor's duty ; efpecially where he has no expectation of being fatisfied for it.
Where Figures have a regular fucceffion, we put a Comma after each folio; and where their order breaks off, we ufe a Full-point. Thus, for example, after 5, 6, 7, 8, we put Comma's; whereas after 12. 16. 19. 34 we ufe Full-points. But to fave Figures and Comma's, we denote a fucceffion of the former by putting a Rule betwixt the firf and laft figures; thus, 5-8.

We put no Full-point after the laft figures, becaufe we judge, that their fanding at the end of a line is a fufficient fop.

Neither do we put a Comma nor Full point to the laft word of an Article, in a wide meafure and open matter: but it is not improper to u fe a Comma at the end of every Article, in narrow columns; or where figures are pyt after the matter, inftead of running them to the end of a line.

If we have occafion to drive out, we put each leading letter of the Alphabet in a line by itfelf, with fuch diflances before and after as do not look prepofterous. On the other hand if we

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apprehend that we fhall want room, we begin the matter at the change of each Alphabetical letter, only a White-line before it.

In cafe the Index fills the laft fheet or half fheet, the Work is faid to be finithed, though in reality it has not been begun, becaufe the Title, Dedication, Preface, İntroduction, and whatever elfe precedes the Body of the work, is fthll to do; and are fuch Parts as try not only the Compofitor's judgment, but alfo patience: for as to the Title, it is a Relation of the main r.bject on which the Work is founded : and though it confifts but of one fingle page; yet to difplay its feveral members in fuch a manner that the whole may appear of an agreeable proporion and fymmetry, is counted a mafterly performance. And though fetting of Titles is generally governed by fancy; yet does it not follow that the excurfions of every fancy fhould be tolerated, elfe too many Tides would be taken to belong to Chapmens books. It is therefore proper that Titles fhould have the revifal of one that is allowed to have a good judgment in gracing one. But to change and alter a Title to the mere fancy of Pretenders, is the ready way to fpoil it. When therefore we go about a Title, we confider as well the quantity as quality of our matter, that we may fet out accordingly, and either branch our matter out to the beft advantige, or elfe crowd it toge ther by way of Summaries; which laft cannot produce a handfome Title. But where the matter for a Title is fo contrived that it may be divided, now into Emphatical lines, and then into fhort articles, it is a Compofitor's fault, if his Title makes a bad appearance. Were it not that every Title differs from another in fubfiance, it would not be difficult to lay down rules for their formation: but this being impracticable, the beft method is, to take example by fuch Titles as are known to be well executed.

As Titles are governed by fancy, fo they run upon mode and fafhion: for different countries ufe different ways to difplay them; and for that reafon we take a view after what manner I atin,

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Latin, French, Italian, or other foreign Titles are contrived, that have been done in their native countries; and keep to the genius of them; which confifts in making them look open and airy; fetting them off with fome neat cut rather than ufing large and gouty Letter for that purpofe, efpecially in Latin Titles, the matter for which is commonly drawn up fo that it will admit to be fet all in Capitals; which if they are properly varied according to their emphafis and fignification, make a very agreeable parade. Of this the French are not ignorant, and feem inclined to drefs their Tiles all in Capitals, were their language as expreffive as the Latin. Neverthelefs, to fhew their fondnefs to Capitals, they fet the firf line of a Titular Summary all in Capitals; where they make a better appearance than when they are feen fraggling in fingle words among a feries of Lower-cafe matter.

After the Title of a Book follows the Dedication; which fometimes is but of one fingle page, and is branched out much after the manner of a Title: but when it has Matter of Addrefs with it, we commonly fet it in Letter two fizes larger than that of the Work; beginning it with a fuitable letter, and putting fo much of the matter to the Dedication as fills the depth of the initial Capital, and, at the very leaft, two lines after that, to cover the foot of the faid letter. We put neither folio or any thing elfe over the very Dedication, nor a Direction under the fame; thou ${ }_{\mathrm{o}} \mathrm{h}$ we cannot avoid putting a Signature, if it makes the third page of a fleet in Quarto, or leffer fize. But in Matter of Addrefs we make tlee word Dedication (in Capitals of the fame fize) our Running title, without folio's to them. "And thus we go on till we come to the Compliment, for which we contrive to have room enough to make proper breakings off, that run out to the right-hand fide; after which we juftify the name of the Dedicator within an $n$-quadrat, obferving to put double the diftance between the Compliment and Name, that we do betwixt the divided lines. In this point, other Nations, and efpecially the German, are very particular,
ticular, becaufe they fancy, that by fetting a Dedicator's name, in fmall letter, and at a great diftance, denotes a profound fubmiffion. Another circumftance that demands our attention, is to fet the Name of an Author's refidence, and the Date, to the left-hand fide of the page, over againft the bottom of the Compliment; yet fo that they may not range againft each other; which is the eafier prevented, by fetting this fignature of place and time in fmall Letter, and indenting them one and two m-quadrats.

We come now to the Preface, which is a difcourfe drawn up by an Author in recommendation of the Work. Formerly it was a rule to fet the Preface in Italic ; but at prefent we do not regard fuch punctilio's, and rather ftudy to make every part of the work witnefs a Compofitor's endeavours to fet it off to the beft adivantage. In purfuance of this, with the concurrence of a Mafter, we fet the Preface in Roman, of one fize larger than the Letter of the worls; tho' fometimes we go to two fizes, efpecially where a Preface is but fhort, and whese an Introduction follows after it. In the mean time we make no great fhew at the Head of a Preface, but fet it off either by a Head piece, or a Double rule, and ufe either a Fac, or a plain Letter, accordingly. As to running titles, the word Preface, commonly fet in Capitals fuitable to the fize of the page is fufficient : at the fame time we remember to put folio's in Numeral letters to our Running titles, beginning with [ii] over the fecond page of a Preface, and continuing the reft in the ufual manner. But becaufe fome chufe, to put Numerals to Dedication matter, we appeal to fuperior judgment, whether they do not make a Dedication part of a Work, in prefixing the fame to a Preface, or Introduction, and making a feries of the folio's of the Dedication, and of the Preface; which laft we regard as pertinent to a Work; whereas we judge a Dedication to have no relation to a Work, and therefore ought to bear no connexion with any part of it. This we filently
filently confefs, when we put no Signature to Dedication matter that has the General Title before it, but comprehend that, and what elfe comes in, under the Signature of the Title-fheet, viz. great $A$; which makes the Bookfellers Alphabet (confiiting of 23 letters) complete, provided that the Body of a Work is begun with B . To know therefore more readily how many fheets more a Book confifts of than what are marked with Signatures in Capital letters, we put Little a to the firft fheet after the Title fheet, and thus carry our Lower-cafe Signatures • on till the beginning of the Body of the Work.
What we have obferved concerning Prcfices, may equally be faid of Introductions, that are drawn up and calculated for the elucidation of their refpective Works; whence Prefaces and Introductions have a great affinity, in that the one often includes the other, whence both are treated aiike, by Printers, as to fetting off their Heads to the beft advantage.
The Contents take place after the Preface, or an Introdaction. They are generally fet in Italic, commonly of the fize of the work; the firft line of each Summary full, and the reft indented an m -quadrat ; with the referring figures juftified to the ends of the refpective lines.
What fill remains to be taken notice of, are the Errata's, which fometimes are put immediately before the Body of the Work, and at other times after the Finis. Soinetimes they are put by themfelves on the even fide of a leaf, fo as to face the Title. But tho' this is very feldom done, it is fity that it fhould ever have come into the thoughts of any one to do it at all; for it is a maxim, to bring Errata's into as narrow a compafs as we conveniently can, and to put them in a place where they can make no great fhew ; fince it is not to the credit of a book, to find a Catalogue of its faults annexed. It is therefore wrong policy in thofe who make Errata's appear numerous, and parading, in hopes of being thought very careful

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and accurate; when they only ferve to witrefs an Author's inattention at a time when his thoughts thould be otherwife engaged. But the fubterfuges that are ufed by Writers upon this occafion, are commonly levelled at the Printer, to make him the author of all that is amifs; whereas they ought to afcribe it to themfelves : for, were Gentlemen to fend in their Copy fairly written, and well corrected and prepared for the Prefs, they would have no occafion to apprehend that their work would be neglected, were they to leave the whole management thereof to the Printer, efpecially when it is written in his native language. But bad Copy, not revifed at all by the Author is one obftacle; and altering and changing the matter after it has been compofed, is another means that obdructs the correctnefs of a Work; not to mention the feveral accidents to which it is expofed before it has paffed thro' the hands of a Prefsman. It would therefore be generous in Gentlemen to examine the circumftances that may have occafioned an Error, before they pronounce it a Typographical one: for whoever has any ideas of Printing, muft confequently know that it is impolfible to practife that Art without committing Errors; and that it is the province of an Author to rectify them. For thefe feveral reafons it will appear how material it is not to make an Erratum of every trifling fault, where the fenfe of a word cannot be conftrued to mean any thing elfe than what it was de. figned for; much lefs to correct the Punctuation, unlefs where it perverts the fenfe. By, this means, and by running ©rrata's together in Brevier, or Long-primer at fartheft, they would appear lefs odious to the eye, and not make a Book fufpected.
La:tly, Where Errata's are fpecified in a Book that is to be reprinted, care flould be taken to mark every one of them in their proper places in the Copy, to avoid their being conveyed into the new Edition.

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## S PACING.

CONSISTS in puting a proper diftance between words, either by Spaces, or $m$ and $n$ quadrats.

Matter is fpaced either Wide, or Clofe. Thus, lines in Large and Small Capitals require an $n$ quadrat between word and word ; whereas in Lower-cafe matter a middling Space makes a fufficient feparation.

Capitals being generally fet with Spaces between each letter, regard fhould be had to thofe letters that bear off each other, and therefore admit of a thinner, and fometimes of no Space at all, between them, as VA AW FA AT.

In common Roman Matter, a moderate equal difance between word and word, is counted. True Spacing, and recommends a Compofitor greatly for a good workman-which epithet, at leaft, He deferves, who perfeveres in performing, for neatnefs fake; what is prejudicial to his prefent intereft, and meets with very few judges befides.

In fpacing clofe lines, with Capitals in them, we leffen the Spaces before large letters, to gain the more room between common words.

It is an old rule, To put an n-quadrat after an $f$ : but this is not always regarded, unlefs the arch of that letter is fo very projecting, that no lefs than fuch a fpace will feparate it well from the next word.

It is alfo a rule, to put an n-quadrat after a Comma, Semicolon, \&c. but it is no law either ; tho' (were it of any fignification) it might be made one, in matter that makes no full lines.

Another rule that is inculcated into beginners, is, to ure an m quadrat after a Full-point: but at the fame time they fhould be informed, not to do it, where an Author is too fententious, and makes feveral fhort periods in one Paragraph. In fuch cafe the many Elanks of m-quadrats will be contemptuoufly called

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Pigeon holes; which, and other fuch trifles, often betray a Compofitor's judgment, who may be a good workman elfe.

The j requires a ftrong fpace before it, efpecially after aword that ends with g . The fame is to be obferved between words whereof the one ends, and the other begins with, afcending letters, whofe perpendicular fide face each other; as, $d$ b, qh, dk; dlb, lh, lk, 1 l.

To ufe Spaces where n-quadrats will ferve, is making the former fcarce; which is often done by thofe who think n -quadrats betwixt words too much; and at the fame time do not confider that two thick Spaces extend themfelves further. And again', to ufe n-quadrats wherever there is room for them, would too foon leffen them: both therefore ought to be ufed difcretionally, according to the plenty of one and the other. And tho' there may be no want of $n$-quadrats for ordinary matter ; yet as Figure-work requires a large quantity of them, they fhould be faved out of common matter, to ferve upon the like occafions.
Spacing being an Article of moment to a Compofitor, it is a daty in one who has the care of inftrusting a beginner, to acquaint him with every thing that. can forward him in wellfpacing; that fo he may accuftom himelf to a method which fhall feem beft to him ; though moft Compoftors chufe to put a thick Space, called the Compofing Space, afier a word. But this (in our opinion) is not the molt ready way; becaufe if the fpelling part at the end of a line does not admit of them, the trouble of changing them is confiderable; and therefore thofe who put Spaces as they come up, have a better chance to juftify the contents of their lines to equal diftances. Add to this, that putting nothing at all after a Comma, Semicolon, or even after a Full-point, in compofing, fhews mere readily (towards the clofe of a line) how much more or lefs may be taken in, and what Space may be allowed after a Point or Points in a line.

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To fpace open and wide, is no advantage to a Compofitor, and waftes Spaces; for want of which fometimes Letter lies ufelefs.in Cafes. What farther attends fetting wide, is, that it difcovers where an Out has happened, by the clofenefs of the matter where the fame has been got in : and as to Doubles, they are confpicuous by the Pigeon-holes which are made to drive out what was doubled; either of which accidents may be remedied much fooner in matter that is fpaced between both.

Were it poffible to keep each fort of Spaces feparate, the thickeft, then, would beft fuit Italic, becaufe that Letter requires to be fpaced more open than Roman, on account of its kerned and projecting letters. Thus the $f \mathrm{~g} j \mathrm{p} \mathrm{f} \mathrm{y}$ require a ftronger Space before them than words that begin with any other letters; and $\mathrm{d} f 1$ demand one of the fame force after them, when they are the laft letters of a word. But to feparate Italic Capitals properly and equidiftantly, is what tries a Compofitor's judgment in Spacing: for the various approaches which they make to each other, on account of their obliquity, and being kerned befides, makes it difficult to bring them to an harmony; and would make them more fo, were it not for Hair-fpaces, which in that cafe are of fingular fervice; and which ought not to be ufed profufely, that they may not be wanting upon proper occafions. Accordingly, after Italic Capitals have been fpaced all alike, it will foon appear which of them ftands too nigh another; and which bear off too much; both which inequalities a judicious Workman rectifies by hifting and changing his Spaces till they feem to fand equidiftant: though it is work that always turns out to a Compofitor's difadvantage.

In work of Poetry, it wiil recompence a Compofitor's trouble to collect and to pick as many thick Spaces as he can, that he may fpace his Matter all alike, and not be interrupted by Spaces that are too thin to be put between open matter. On the other hand, it will be equally convenient to throw out

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The ragged $r$, of which we have taken this fhort notice, witnefferh, that the German letters owe their being to the Gothic or Black characters that were firf ufed for Printing: for the Germans have a ragged $r$, which they call the round $r$; but which, in mofelizing their letters to the prefent fhape, they have caftrated, by depriving it of its tail. But that they do not know the proper application of that letter, may be gathered from their ufing it in very clofe lines, inftead of common r's, thereby to gain the room of a thin Hair-fpace: which obfervation we have made on purpofe to affift thofe who delight to exercife themfelves in that painful ftudy which attends writing De origine rerum.

## TYING UP A PAGE.

It muft be Tied up with a Packthread Cord, coarfer or finer according to the bignefs of his Letter and Page : for Small Letter, which really is ufed to large Pages, he chufes a fine Packthread, ftrong and limber: but for great Letter and large Pages a fronger that will better endure hatd pulling at: for which reaion he feeks a Cord that will ferve his turn, and taking the end of it in his Right Hand lays that end about an inch within the Direction-line, and a little lower than the middle of the Shank of the Letter, and holds that end there with the two Fore-fingers of his Left Hand, then he flides his Right Hand along the Cord, pulling it as tight as he can along the right fide of the Page, and turns it about the Head as clofe down to the Ledge of the Galley as he can, and fo dides his Hand over the Cord till he draws it about all the fides of the Page: and when he comes to the firft end of the Cord, he doubles it fo as that it may fland above the Face of the Letter, and whips the Cord over it, that it may not flip; then he twifts part of the remaining Cord about his Right Hind, and graiping his Left Hand Fincers about the Direction corner of the Page, as well to hold the end of the Cord

Cord from flipping, as to keep the' Page tight in its pofition, with his Right Hand he pulls the Cord as hard down the fide of the Page as he can; and keeping the Cord tight, turns it again about the Head and other fides of the Page, and fo again about all the fides of the Page, it fill ftraining: and always as he comes to the Right Hand fide of the Page, pulling hard, and taking care that it lip not; having turned the Cord twice about the Page, holding his left hand fingers againft the Direction corner upon the Cord, with the ball of the thumb of his right hand, and the balls of his fingers to affift, thrufts againft the oppofite diagonal corner of the Page, and removes it a little from the Ledges of the Galley, that he may with the nail of the thumb of his right hand have room to thruft the Cord bound about the Page, lower down upon the Shank of the Letter, to make room for fucceeding turns of the Cord; and then thrufts or draws the Page clofe to the Ledges of the Galley again; till he has gone four or five times about the Page, taking ${ }^{\circ}$ care that the feveral turns of Cord lie parallel to each other, not lapping over any of the former.

Having turned the Cord four or five times about the Page, he with his Bodkin or the corner of a Brafs Rule faftens the Cord, by thrufting a noofe of it between the feveral turnings and the right hand fide of the Page, clofe up to the Direction line, then draws the lower part of that noofe clofe up to the very corner of it, that it may be the better faftened between the Page and the Cords: if his Cord be not of a juft length, he cuts it off, leaving fo much length to it as that the end of it may fland upright an inch or two above the Face of the Letter; the reafon will hew itfelf when we come to Impofing. He then removes the Page pretty far from the Ledges of the Galley, to fee if the turns of Cord lye about the middle of the Shank of the Letter; if they lie too high, as moft commonly they do, he thrufts them lower, and (if the Page be not too broad) he places his Fore or Middle Finger,
or both, of his right hand on the right fide of the Page, and his thumb on the left; and bowing his other firger or fingers under the Head of the Page, he rears up the Handle end of his Galley with his left hand almoft upright, and fo difcharges the Galley of the Page, by delivering it upright into his right hand. Having his Page upright in his Right Hand, he claps the fingers of his Left Hand about the Foot of the Page, upon the ends of the Lines on the right hand fide of the Page, and his thumb on the left hand fide of the Page, with the palm of his hands towards the Face of the Letter, and fuch fingers as he can fpare bowed under the foot of the Page, turning the Page with the Face of the Letter from him, and letting it reft upon the infide of his fingers, under the right hand fide of the Page, and takes a Page Paper into the palm of his Left Hand, and claps it againft the bottom of the Page, and turning his left hand outward, receives the Page flat upon the paper on the palm of his hand: then with his right hand grafps the fides of the Page athd the fides of the paper, which turn up again above the bottom of the Page, and fets it in a convenient place under his Cafe. He places that Page on the left hand with the foot of the Page towards him, that the other Pages that are in like manner fet down afterwards, may ftand by it in an orderly fucceffion againgt he comes to Impofe them.
If it be a large Folio Page, or a Broad fide he has Tied up, he cannot take that into his hands, becaufe it is too broad for his grafp; therefore he carries his Galley, Page, and all to the Correcting fone, and turns the handle of the Galley towards him, and taking hold of the handle with his right hand, he places the ball of his thumb on his left hand, againft the infide the Head ledge of the Galley, to hold it and keep it feady, and by the Handle draws the Slice with the Page upon it, out of the Galley, letting the Slice reft upon the Correcting flone: then he thrufts the Head end of the Slice fo far upon the Correcting tone, that the Foot of the Page may ftand an inch or two within the outer edge of the Correcting fone; and placing

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his left hand againft the Foot of the Page, in the fame pofture he laft placed it againft the Head ledge of the Galley, he draws the Slice from under the bottom of the Page.

## I M P O S I N G.

This Article comprehends not only the knowledge of placing the pagesthat they may follow each other, after theyare printed off, and the fheet folded up; but alfo the way of dreffing Chafes; and the manner of making the proper Margin. Accordingly we fhall have occafion to make three divifions, that we may treat of the Branches of this Article feparately.
I. Having compofed fo many pages as go to a Whole Cheet, Half fheet, or lefs part of a fheet, of what fize foever, we take them from under our Frame, and carry them to the Impofing Stone; taking care to put the Firft page in its right pofition, to our left Hand.

Sixteens, 'Twenty-fours, Thirty-two's, are but the Octavo's and Twelves doubled, or twice doubled and Impored in Half Sheets. For example, the Sixteens are two Oitavo's Impofed on each fide the Short Crofs; the Twenty-fours are two Twelves Impofed on each fide the Long Crofs, and a Thirty two is four Octavo's Impofed in each Quarter of the Chafe. And thus they double a fheet as oft as they think fit. But as we faid before, they are Impofed on each fide the Crofs, or in each Quarter of the Chafe, as the volume that is doubled or redoubled is impofed in the whole Chafe.

In Hadf fheets, all the Pages belonging to the White Paper and Reteration are Impofod in one chafe. So that when a Sheet of Paper is printed on both fides with the fame Form, that Sheet is çut in two in the Short Crofs, if Quarto or Octavo, and in the Short and Lorg Crofs, if Twelves, and folded as Otavo or Twelves; the Pages of each Half fheet fhall follow in an orderly fuccetion.

When a Compofitor proceeds to impofe he takes up the Päges he fet by on papers in an orderly fucceffion when he Tyed them up, grafping the edges of the papers that fick up on both


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fides of the Page tight, that fo the bottom of the paper may ftand the ftronger againft the bottom of the Letter, to keep it from falling out ; and bringing it thus to the Correcting-fione, he gets the two laft fingers of his right hand under the Head of the Page, but not under the paper flicking up about the Head of the Page ${ }_{3}$ keeping his other two fingers and thumb on the fides of the Page, and flips or Gides his left hand, fo as the palm of it may turn towards the hottom of the Page; and rearing the Page up on end on his right hand, he difcharges his left to take away the paper behind the Page; then he grafps his left hand about the Foot end of the Page in the fame pofture that his right hand grafps the Head end. And having the Page thus between his hands with the bottom of the Letter towards him, he directs both his hands to the place on the Stone where the Page muft fand, and claps it down on the Stone fo nimbly, that the whole bottom of the Page comes all at once to the face of the Stone, left otherwife he endanger the Breaking, Squabbling, or Hanging, \&c. of the Page. And thus he fets down all the Pages of the Form.

In putting down our pages, we place them in the fame order as they prefent themfelves upon the Prefs, for turning the paper either Octavo, or elfe Twelves way. And though Compofitors do not lay the pages of fome Sizes down in the fame manner, they neverthelefs make them have their right fucceffion, without embarraffing the Preffiman.

The Pages for a Form being put down, we follow them, and fee whether the Direction anfwers to the firft word of the next following page. But we do not trulf to this in Work that abounds with Titles and Heads, where pages often have the fame word for their beginning. In this cafe we juftify the number of fuch pages into the Direction-lines, rather than run the hazard of tranfpofing them ; fince it is more eafy to put an n-quadr at into the room of a figure, than to rectify a miftake of that kind, after the pages are untied. But in clofe and ordinary matier we take notice, firft, whether the uneven outer

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pages hive their right Signatures; then, whether the number of an out-fide page, and the number of the page next to it, amount to one more than there are pages contained in a fheet, or half fieet of our work. Thus, for example, in Folio, one and four make five': In Quarto, one and eight make nine: In Octavo, one and fixteen make feventeen. And in this manner we may examine every iwo pages in all other fizes; whether their joint number exceeds the number of pages in a fheet by one; which if it does, is a proof that the pages are in their right places.
II. Being fure that our pages are laid down right, we proceed to Dreffing of Chafes; which we will fuppofe to be for a fheet of Octavo. Accordingly we endeavour to come at a good pair of Chafes that are fellows, as well in circumference, as in other refpects: and having laid them over the pages for the two different Forms, we confider the largenefs of the paper on which the work is to be done, and put fuch Gutter-fticks Betwixt page and page, and fuch Reglets along the fides of the two Croffes, as will let the Book have proper Margins, after it is bound. And having drefied the in-fide of our pages, we obferve to d a the fame to their out-fides, by putting Side-fticks and Foot-fticks to them. Our pages being now fecured by the Furniture about them, we begin to untie them, Quarter after Quarter, the inner pane firft, and then the outer: driving at the fime time the Letter towards the Crofles, and ufing every other means to prevent it from hanging, or leaning; for which purpofe, and to keep it from other accidents, we fecure the piges of each Quater by a couple of Quoins. This being done, we examine the Fiarniture of our Form; whether the Gutter-ficks and Side-Atcks are of a proper length, or whether they bind, that they may all be brought to their right length, which confilis in be:ng about a thick Sc:ubbard fhorter than the pages. And here, again, we might obferve the inconvenience, and lofs of Fumiture, which aries from Letter of the fame Body being ceif to different Sizes, in that the Furniture cut to
the length of pages of one Fount of Letter will not ferve for wurk of another Fount, tho' of the fame Body, and the pages, of the fame number of lines; to prevent which it is neceffary to have the Gutter-fticks a line too long, and by adding a line of quadrats to the bottom of the pages to be impofed.

The pages of a Sheet, or Half heet, being now dreffed, our next bufinefs is to make the Margin ; or, to try whether our Furniture is fo proportiened as that each page may occupy one fide of a leaf, fo as to have an equal margin of white paper left at the fides as well as at the Head and Foot thereof.

The method of makiug Margin by Rule, is practifed by no other Printing nation, befides the Englifh; and it would be in vain to perfuade Printers and Bookfellers in Foreign Parts to come into our meatires, as to making Margin ; fince they would difoblige the Literati, were they to deprive them of a large Mirgin, to write their Notes and Annotations to books of learning ; and as to narrow Gu:ter-fticks in School-books and other circulating works, they are commoniy contrived for the juint inteest of the Printer and the Proprietor of fuch books.

To make proper Miargin, fome ufe the following method, for Ottavo's ; viz. they meafure and mark the width of four pages by Compaffes, on a fheet of paper defigned for the work, beginning to meafure at the one extremity of the breadth of the theet. The reit of the paper they divide into four equal parts, allowing two fourths for the width of two feparate Gutter-iticks : the two other two-fourths they divide again into four equal parts, and allow one fourth for the Margin along eacil fitie of the Short Crofs; and one fourth for the Margin to cach out-fide page. But beczufe the thicknefs of the Short Crofs adds confaderably to the Mingria, they reduce the Furniture in the Eack accoriingly, and thereby colarge the out-fide Margin, which requires the greatelt fhare, to allow for the unevenefs of the paper itfelf, as well as for Prefsmen laying fheets uneven, whiti it is rot the paper's fault. And having thus made the Miagin between pare and page to the breadth

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of the paper, they proportion the Margin in the Head in the fame manner to the length of the paper, and accordingly meafure and mark the length of two pages; dividing the reft into four parts; whereof they allow one fourth for each fide of the Long Crofs, and one fourth for the Margin that runs along the foot of the two ranges of Pages. But tho' they count each part equal to another, they do not prove fo upon examination; for as they did at the Short Crofs, fo they leffen the Furniture on both fides the Long Crofs, to enlarge the Bottom Margin, for the fame reafons that were affigned for enlarging the Side Margin.

This being the method that is ufed by forme, in making Margin to Otavo's, they go the fume way to work in Twelves; where their chief care is to fix upon a proper fize for the Head fficks, or Bolts; and according to them allow in the following manner ; viz. For the outer Margin along the Foot of the pages, the amount of two thirds of the bre:dth of the Head-fticks; and the fame for the within Margin, that reaches from the foot of the fifth page to the center of the Groove for the Points : and from the centre of that Groove to the pages of the Quire, or that cut off, they allow half the breadth of the Head-ftick. As to the Maroin along the Long Crofs, it is governed by the Gutter-fticks; and it is common to put fo much on each fide of the Long Crofs as amounts to half the breadth of the Guttertrick, without deducing almoft any thing for the Long Crofs; fince that makes allowance to anfwer the outer Margin-expofed to the mercy both of the Prefsman, and Bookbinder.

Thus much may futfice to fpeak about making Margin the above way; which, tho' it is different from what others ufe; is weverthelefs the Befis for making proper Margin. Accordingly fome Compofitors chufe to make Margin in the following manner, viz. Having dreffed their Chafes with fuitable Purniture for Octavo, they fold a fheet of the right paper to that fize: then, opening it to the fize of a leaf in Quarto, they hold, or lay one extrenity thereof againft the hind fide of the

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Fifteenth page, if it is an Inner Form ; or againft the hind fide of the Thirteenth page, if it is an Quter Form, to obferve, whether the oppofite extremity of the paper (folded in Quarto) reaches to and fairly covers the Third, or the Firft page, according to the Form under hand; which, if it does, proves the Margin of that Quarter to be right, and that the others may be adjufted to that. And having in this manner made the Margin to the Breadth of the Paper, they proportion it alfo to the Length thereof, by trying, whether the depth of the Paper, (folded in Quarto) reaches to ard fairly covers the Direction line of the Fifteenth, or of the Thirteenth page, when the upper end of the paper (folded in Quarto) is held or laid againft the Back of the Running title of the Tenth or of the Twelfth page; which, if it does, proves that the Margin to the Length of the paper is right. But in making Margin we fhould always have regard that the Gutter-ficks may have their proper Breadth; which may be tried by holding one end of the paper (folded in Quarto) to the centre of the Groove in the Short Crofs, to obferve whether the Fold for Octavo falls in the middle of a Gutter-ftick ; which if it does, proves that the Gutterftick is of a proper fize. In this manner we may alfo try the Margin of Twelves, and other fizes: for having folded with exactnefs a fheet of the right paper to the work, one Quarter of a Chare may be firt dreffed, and the Margin to it made, before we go further; for if the Foldings fall in the middle of the refpective parts of the Furniture, it proves that the Margin is right throughout.

As leffening and widening of Gutter-flicks is fometines unavoidable, and withal troublefome to Componitors, we propofe here an expedient that will facilitate the bringing Gutter-fticks to any proportion that fhall be required: In order to this we would recommend to cut two Reglets, either of Broad or Narrow Quotations, to the length of our pages, that fo we may put betwixt them as much as is wanting to bring our Gutterfticks to a proper breadth; or elfe reduce them, by changing broader

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broader Reglets for narrower ones. The making of Gutterfticks in which manner would be found not only convenient to Compofitors, but alfo commodious to Prefsmen, in work that has its Margin altered upon the Prefs.
The Chafes being now dreffed, and the proper Margin made, nothing remains but Quoining and Locking up the Forms. But before we go about to do this, we cut Slips of Scabbords, of which we put one, or fometimes more, along both fides of the Long as well as of the Short Crofs; not upon account of enlarging the Margin, but to fupply the inequality of one Crofs to another, and to be of help to Prefsmen, in making Regifter: for tho' we find fome of that fuperlative nicety as to fancy here a thin Scabbard too much, and there one too little, it amounts to no more than mere imagination, and, perhaps, a Thew of authority; confidering that the very parts of the paper whofe Margin is adjufted by Scabbards, are fubject to the Bookbinder's Plough ; and that it is dubious whether he will have the fame regard to Margin with the Printer ; fince we are induced to think, that the abolifhing of large out-fide Margin is owing to fome penurious Bookbinders that gave themfelves more concern about White-paper Shavings than the handfome appearance of a Book: hence, to prevent murdering Books in this manner, it is ufual in Germany to make the Title page confiderably wider and longer than thofe of the work; which fometimes has a good effect.
All that has been faid concerning making of Margin, relates properly to Impofing the Firft fheet of a work; for after that is true dreffed, a Second, or more fheets, may be dreffed with lefs trouble ; ạnd then we impofe from wrought-off Forms; where we have nothing elfe to do but to put the Chafe and Furniture about the pages in the fame manner as we take it off the Form we are fripping; after which we put the Running titles over the pages, and untie them, to make room for the Quoins, which we put to each Quarter in the fame order as we take them off the Form we impofe from.

A SHEET


THE HISTORY OF PRINTING. $4 I$

A SHEET IN BROAD QUARTO. outer form.


Two
HALF SHEETS IN QUARTO, WORKED TOGETHER. outer formi.


A SHEET OF COMMON OCTAVO.

OUTER FORM.
A
$I$
$A$ 16 234

INNER FORM.

$\qquad$


3 H

4: THE HISTORY OF PRINTING.

A SHEET OF BROAD OC.TAVO. outerform.


HALF A SHEET OF COMMON OCTAVO.

TWO QUARTERS OF A COMINION OCTAVO.


TWO HALF SHEETS OF COMMON OCTAVO WORKED TOGETHER.



THE HISTORY OF PRINTING. $4: 3$

A SHEET OF TWELVES. OUTER FORM.


A COMMON HALF HALF SHEET TWELVES SHFET OF TWELVES. $\mid$ WITHOUT CUTTING.

| $\tau$ | II | 21 | 1 | 2 | 11 | 21 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | 10 | 9 | 4 | 3 | 10 | 9 | 4 |
| A2 |  |  |  | $A_{2}$ |  |  |  |
| 5 | 8 | 7 | 6 |  |  |  | $\varepsilon_{V}$ |
| $\mathrm{A}_{3}$ |  |  |  | 9 | $L$ | 8 | 5 |




414 THE HISTORY OF PRINTING.

A SHEET OF TWELVES WITHOUT CUTTING.

OUTER FORM.


A SHEET OF LONG TWELVES. outer form.

INNER FORM.


THE HISTORY OF PRINTING. 415

A COMMON SHEET OF TWELVES.

OUTER FORM.


| 5 |
| :--- |
| $A_{3}$ |

$\left[\begin{array}{c}9 \\ A_{5}\end{array}\right.$ ${ }^{16}$ I3 12

INNER FORM.

${ }^{11}$


A SHEET OF SIXTEENS WITHOUT CUTTING. OUTER FORM.

INNER EORM.


416 THE HISTORY OF PRINTING.

A SHEET OF EIGHTEENS WITHOUT CUTTLIG.


(1)


FORM.


THE HISTORY OF PRINTING. 417

A COMMON SHEET OF EIGHTEENS.

OUTER FORM.


INNER FORMI.


418 THE HISTORY OF PRINTING.
A SHEET OF TWENTIES.


A HAIF SHEET OF TWENTY FOURS, WITH TWO SIGNATURES.

| - 4 | $\infty$ |  |
| :---: | :---: | :---: |
| 0 | $\square$ | ๙ |
| m | $\sim$ | N |
| + | in 8 | $\therefore$ N |
| $m$ a | 10 | $\stackrel{\sim}{\sim}$ |
| $\pm$ | $\cdots$ | $\sim$ |
| n | $\bigcirc$ | $\stackrel{+}{\text { N }}$ |
| $N$ | - | $\wedge$ |

THE HISTORY OF PRINTING, 419

A SHEET OF TWENTY-FOURS, WITH TWO SIGNATURES:


INNER FORM.


420 THE HISTORY OF PRINTING.

A HALF SHEET OF LONG TWENTY-P'OURS


A HALF SHEET OF TWENTY-FOURS. WITHOUT CUTTING.


券

THE HISTORY OF PRINTING. 421

A COMMON HALF SHEET OF TWENTY-FOURS.


A HALF SHEET OF THIRTY-TWO'S DIFFERENT FROM THE FOLLOWING.



422 THE HISTORY OF PRINTING.

A HALF SHEET OF TWENTY-FOURS.


AN HALF SHEET OF THIRTY-TWO'S.


| A | $3^{2}$ | 25 | $8$ | $\left[\begin{array}{l}\text { a } \\ \mathrm{A}_{4}\end{array}\right.$ | ${ }^{26}$ | ${ }^{31}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

THE 'HISTORY OF PRINTING. 423

A SHEET OF THIR'TY-TWO'S.
, outerform. .


INNRR FORM。


| $\overline{58} \|$39 $\overline{26}$ $\overline{31}$ $\overline{34}$ <br> 63    |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |



THE HISTORY OF PRINTING. 425

A COMMON HALF SHEET OF THIRTY-SIX'S.

A 15 A


426 THE HISTORY OF PRINTING.
A HALF SHEET OF FORTIES.


A QUARTER SHEET OF FORTY-EIGHTS, WITH TWO SIGNATURES.


THE HISTORY OF PRINTING. 427

A HALF SHEET OF FORTY-EIGHTS, WITH TWO SIGNATURES.


428 THE HISTORY OF PRINTING.

A QUARTER SHEET OF FORTY-EIGHTS, WITHOUT CUTTING.


A COMMON QUARTER SHEET OF FORTY-EIGHTS.


THE, HISTORY OF PRINTING. 429

A QUARTER SHEET OF SIXTY-FOURS.


A QUARTER SHEET of SIXTY-FOURS, DIFEERENT FROM THE FORMER.


430 THE HISTORY OF PRINTING.

A HALF SHEET OF SIXTY-FOURS.

$$
\begin{aligned}
& {\left[\begin{array}{l}
-2 z \\
\varepsilon t
\end{array}\right.} \\
& \left.|+S| \begin{array}{l}
\square \overrightarrow{9 V} \\
11
\end{array} \right\rvert\,
\end{aligned}
$$

$$
\begin{aligned}
& \text { [9] } \\
& \left|\begin{array}{c}
6 \\
L_{1}
\end{array}\right| \\
& \begin{array}{|c|c|}
\hline 9 S & \left.\begin{array}{|c}
5 V \\
6 \\
\hline
\end{array}\right]
\end{array} \\
& {\left[\left.\begin{array}{l}
1 \\
A
\end{array} \right\rvert\,\right.}
\end{aligned}
$$

$\sigma$

432 THE HISTORY OF PRINTING,

A HALF SHEET OF NINETY SIX, with six signatures.



$$
\stackrel{\omega}{\omega}
$$




A HALF SHEET OF ONE HUNDRED TWENTY, EIGHT PAGES,

## WITH EIGHT SIGNATURES.



The foregoing Schemes confift, 1. Of Drafts for impofing all the Sizes that regularly defcend from Folio, viz. Quarto's, Ottavo's, Sixteen's, Thirty-two's, Sixty-four's, and one Hundred twenty-eight's. 2. Drafts of Compound Sizes; fuch as Twelves, Twenty-four's, Forty-eight's, and Ninety-fixes. 3 Drafts of fome Irregular Sizes, viz. Eighteen's, Thirty-fixes, and Seventy-two's. More Irregular Sizes we have not thought fit to introduce, except 20's, $40^{\prime}$ 's, and 80 's, or we might have drawn out Schemes for Impofing Six's, 10 's, 14 's, 28 's, $30^{\prime}$ 's, 42's, $50^{\prime}$ 's, $56^{\prime}$ 's, $60^{\prime}$ 's, $100^{\prime}$ 's, and 112 's; thefe and feveral more, being Sizes that have been found out not fo much for ufe as out of fancy, to fhew the poffibility of folding a fheet of paper into fo many various forms.

And now we come to a frefh inftance of our carefulnefs in Impofing; which fhews itfelf in Altering the Folio's of the refpective pages according to their regular fucceffion. In order therefore to know the Firf Folio of a fheet in Folio, Quarto, Octavo, Twelves, and Eighteens, we have added the following Tables.

THE HISTORY OF PRINTING. 435


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THE HISTORY OF PRINTING.
T
A B L E
    SHEWINGTTHE
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                                    437
    FIRST FOLIO IN A. SHEET OF OCTAVO,
FOR

FIVE ALPHABETS.

|  |  |  | 3 d | 4 | 5 th |
| :---: | :---: | :---: | :---: | :---: | :---: |
| . 4 | , | 353 | 721 | 1089 | 1473 |
| B | 1 | 369 | 737 | 1105 | 1489 |
| C | 17 | 335 | 753 | 1121 | 1505 |
| D | 33 | 401 | 769 | 1137 | 1521 |
| E | 49 | 417 | 785 | 1153 | 1537 |
| F | 65 | 433 | 891 | 1169 | 1553 |
| G | 81 | 449 | 817 | 1185 | 1569 |
| H | 97 | 465 | 833 | 1201 | 1585 |
| I | 113 | 481 | 849 | 1217 | 1601 |
| K | $129^{\circ}$ | 497 | 865 | 1233 | 1617 |
| L | 145 | 513 | 881 | 1249 - | 1633 |
| M | 161 | 529 | 897 | 1265 | 1649 |
| N | 177 | 545 | 913 | 1281 | 1665 |
| 0 | 193 | 561 | 929 | 1297 | 168 I |
| P | 209 | 577 | 945 | 1313 | 1697 |
| Q | 225 | 593 | 961 | 1329 | 1713 |
| R | 241 | 609 | 977 | 1345 | 1729 |
| S | 257 | 625 | 993 | 1361 | 1745 |
| T | 273 | 641 | 1009 | 1377 | 1761 |
| U | 289 | 657 | 1025 | 1393 | 1777 |
| X | 305 | 673 | 1041 | 1425 | 1793 |
| Y | 32 I | 989 | 1057 | 1441 | 1809 |
| Z | 337 | 705 | 1073 | 1457 | 1825 |

$43^{8}$ THE HISTORY OF PRINTING.

| A |  |  |  |
| :---: | :---: | :---: | :---: |
|  | $\cdots$ | $\therefore$ |  |
| T | A | B | L |

FIRST FOLIO OF EITHER
TWELVES TWELVES
OR
in shrits, in half sherts, EIGHTEENS.

|  |  | $2{ }^{\text {d }}$ |  |  | $3^{\text {d }}$ |  | 2 d |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | - | 529 | - | 265 | 541 | - | 793 |
| B | 1 | 553 |  | 277 | 553 | I | 829 |
| C | 25 | 577 | 13 | 289 | 565 | 37 | 865 |
| D | 49 | 601 | 25 | 301 | 577 | 73 | 901 |
| E | 73 | 625 | 37 | 313 | 589 | 109 | 937 |
| F | 97 | 649 | 49 | 325 | 601 | 145 | 973 |
| G | 121 | 673 | 61 | 337 | 613 | 181 | 1009 |
| H | 145 | 697 | 73 | 349 | 625 | 217 | 1045 |
| I | 169 | 721 | 83 | 361 | 637 | 253 | 1081 |
| K | $1{ }^{8} 8$ | 745 | 97 | 373 | 649 | 289 | 1117 |
| L | 217 | 769 | 109 | 385 | 661 | 325 | 1153 |
| M | 241 | 793 | 121 | 397 | 673 | 361 | 1189 |
| N | 265 | 817 | 133 | 409 | 685 | 397 | 1285 |
| O | 289 | 841 | 145 | 42 I | 697 | 433 | 1261 |
| P | 313 | 865 | 157 | 433 | 709 | 469 | 1297 |
| Q | 337 | 889 | 169 | $4+5$ | 721 | 505 | 1333 |
| R | 361 | 913 | 181 | 457 | 733 | 541 | 1369 |
| S | 385 | 937 | 193 | 469 | 745 | 577 | 1405 |
| T | 409 | ${ }_{961}$ | 205 | 481 | 757 | ${ }_{613}$ | 1441 |
| U | 433 | 1009 | 217 | 493 | 769 | 649 | 1477 |
| X | 457 | 1033 | 229 | 505 | 781 | 685 | 1513 |
| Y | 481 | 1057 | 241 | 517 | 793 | 721 | 1541 |
|  | 505 | 1081 | 253 |  | 805 | 757 | 158 |

## THE HISTORY OF PRINTING.

The Running titles, with the right folio's to them, being put to the pages, we proceed to locking-up our Forms; which is done by driving fit Quoins betwixt the Side and Foot-ftick of each Quarter and the Chafe, till the whole Form may be raifed. And though locking-up a Form may be thought a trifling function, it demands our attention neverthelefs in feveral inftances; for in the firft place, after we have pufhed the Quoins as far as we can with our fingers, we make ufe of the Mallet and Shooting-ftick, and gently drive the Quoins along the Side-fticks at firf, and then thofe along the Foot-fticks; taking care to ufe an equal force in our ftrokes, and to drive the Quoins far enough up the fholders of the Side and Foot-ftick, that the Letter may neither belly out one way, nor hang the other : and as to the lower Quoins, "they ought likewfe be droven to a ftation where they may do the office of keeping the Letter ftrait and even. And here we venture to difapprove the cuftom of flanting Quoins on both fides, and planing their edges and corners off; whereby all the bevelledoff purts are rendered ineffectual to do the office of a Quoin, or Wedge : for, the flanted fide of a Quoin running againf the fquare fide of the Chafe, mutt needs carry a cavity with it, and. confequently be void of binding with equal force in every part; whereas (in our opinion) it would deferve the name of an improvement, were Quoins flanted on one fide only; and their Gradation, and Variety of fizes preferred to fuperficial neatnefs, which anfwers no other end than that of making the beviledoff parts of a Quoin ufelefs, and incapable to do the fame execution with a plain one, that binds and bears alike in all its parts. And as to the edges that are planed off a-crofs the two ends of a Quoin, the want of them caufes the Shooting-ftick to fly off the Quoin almoft at every hard froke of the Mallet, becaufe the Quoin-end of the Shooting-tick is rounded off; for which reafon we fhould chufe to have that end made of a forked, or elfe of a fquare form, to be of the more fervice in unlocking a Form.

Our

Our Form, or Formas, being now locked up, and become portable, we deliver them to the Preffmen to pull a Proof of them. But here we cannot proceed before we have taken notice of a Corruption that prevails with fome Prefmen, in turning the Term of Firft Proof into that of Foul Proof, and often aequit themefelves in the function of pulling Proofs accordingly; whereas even a light knowledge of Printing is fuffcient to judge, that a Praof-fheet ought to be pulled as clean and as neat as any fheet in a Heap that is worked off. Hence it is a rule with curiouc Preffmen, not to give Proofs a higher colour, aor to ufe very wet paper for them, but inftead of thefe eafements to give them a long and flow pull, that the Matter may come off clean and fair, fo that every letter may appear full and plain: after which the Forms are rubbed over with a wet lie-brufh; then carefully taken off the Prefs, and the Proof and Forma delivered to the Campofitor's further care.

## CORRECTORS, AND CORRECTING.

It has ever been the purfuit of Eminent Printers to merit that character, by their particular care that the effects of their profefion fhould appear without faults and errors, not only with refpect to falfe letters, and wrong fpelling, but chiefly in regard to their correcting and illuftrating fuch words and paffages as are not fully explained or expreffed by Authors and Tranflators: which fhews, that the office of a Corrector is not. to be transferred upon one that has a tolerable judgment of his mother-tqngue only; but on a perfon of greater capacity, and has a knowledge of fuch languages, at leaft, as make a confiderable figure in Printing; fuch as Latin, French, Italian, and Spanilh. And becaufe Greek and Hebrew is interfperfed in moft Works of learning, a Corrector ought not to be 2 flranger to either. To have a competent knowledge of what has been recited, befides a quick and difcerning eye, are the proper accomplifhments by which a Corrector may raife his

## THE HISTORY OF PRINTING.

own and his Mafter's credit: for it is a maxim with Bookfellers, to give the firft edition of a work to be done by fuch Printers whom they know to be either able Correctors themfeives, or that employ fit perfons, though not of Univerfal learning, and who know the fundamentals of every Art and Science that may fall under their examination. We fay Examination: for in cafes where a Corrector is not acquainted with the fubject before him, he, together with the perfon that reads to him, can do no more than literally compare and crofsexamine the Proof by the Original, without altering either the Spelling, or Punctuation; fince it is an Author's province to prevent miftakes in fuch cafe, either by delivering his Copy very accurate, and fairly written, or by carefully perufing the Proof-fheet. But where a Corrector undertands the language and characters of a work, he bften finds occafion to alter and to mend things that he can maintain to be either wrong, or elfe ill digefted. If therefore a Corrector furpects Copy to want revifing, he is not to poftpone it, but to make his emendations in the Manufcript before it is wanted by the Compofitor, that he may not be hindered in the purfuit of his bufinefs; or prejudiced by alterations in the proof, efpecially if they are of no real fignification; fuch as far-fetched felling of Words, changing and thrulting in Points, Capitals, or any thing elfe that has nothing but fancy and humour for its authority and foundation.

What is chiefly required of a Corrector, befides efpying literal faults, is to Spell and Point after the prev.iiling method and genius of each particular language : but thefe being two points that never will be reconciled, but always afficd employment for pedantic Critics, every Corrector ought to fix upon a method to fpell ambiguous words and compounds always the fame way. And that the Compofitors may become acquainted with and accuftomed to his way of fpelling, the beit expedient will be to draw out, by degrees, a Catalogue off fuch ambiguous words and compounds. But it is with regret we

## 442 THE HISTORY OF PRINTING.

fee fome Correctors rather break the meafures for conformity, than lay the foundation thereto, that they may find fubterfuges for fpelling the fame word different ways; pretending at the fame time to have Derivation and Etymology on their fide, when it is rather with a view to make a Proof look foul, be caufe the Compofitor has not made fo many real faults as Correctors fometimes chufe to fee, left they fhould be fufpected of having been remifs in reading a Proof attentively.

As it is neceffary that Correctors fhould underfand languages,' fo it is requifite that they fhould be acquainted with the nature of Printing, elfe they will be apt to expofe themfelves in objecting againft feveral things that are done according to method and practice in Printing. It is for this reafon that Correctors in moft Printing-houfes are chofen out of Compofitors that are thought capable of that office; and who know how not only to correct literal faults, but can alfo difeern where improprieties in workmanfhip are ufed; which cannot be expected in Gentlemen who have no fuffici $n t$ knowledge of Printing: and it would be very ungenerous in a Compofitor to fiwerve from the common rules in practice, becaufe the Corrector is not Printer enough to find fault with it.

The manner in which Correctors take notice of faults in a Proof, is by particular fymbols and figns, that are marked in the Margin, oppofite the line that has the faults in it : for it is a Generallaw in Printing, That whatfoever fault is nct marked or taken notice of in the Margin, the Compofitor is nut anfwerable for, if it paffes unobierved, and not corrected. '「o make therefore Gentlemen acquainted with the characters that are ufed by Correctors, we will defcribe them in the following manner, viz.
I. If they efpy a wrong letter in a word, they draw a fhort froke through it, and make another hort ftroke in the Margin, behind which they mark the letter that is to make the word right; and this they do to all other faults that may happen in the fame line; always drawing a perpendicular ftroke thro' the

## THE HISTORY OF PRINTING. 443

wrong letter, and marking the right one in the Margin, with a fimilar itroke before it. In this manner they correct alfo whole words; drawing a froke crofs the wrong word, and writing the right one in the Margin, oppofite the faulty line, and with a ftroke before it.
2. If a Space is wanting between two words, or letters, that are to ftand feparated, they draw a parallel ftroke where the feparation is to be, and put this fign oppofite in the Margin. Again, where words or letters fhould join, but fland feparated, they make this mark - under the place of feparation, and and fignify the junction of them by the fame mark in the Margin.
3. If a letter or letters, word or words are fet double, or otherwife require to be taken out, they draw a dafh a crofs the fuperfluous word, or a parallel ftroke down the ufetefs letter, and make this mark of deleatur $\mathcal{C}$ in the Margin : but if a word is to be fupplied by another, they ftrike the wrong word out, and write the right or better word in the Margin.
4. If a letter is turned, they make a dafh under it, and put this mark (9) in the Margin.

The Article of marking turned letters, tries a Corrector's \{kill in knowing the true formation of them, without which it would be better to mark turned letters, in the fame manner as they do wrong letters, unlefs they are very fure that they can diftinguih bdnopfisuxz, when they are turned, from the fame letters when they ftand with their Nick the right way.
5. If a Space fticks up and appears betwixt words, or in other places, they fignify it by marking a parallel Aroke \| in the Margin.
6. If letters are to be tranfpofed, they are to be marked thus $\operatorname{tr}_{r}$; if words thus, (one Give me), inftead of, Give me one; but if feveral words are to be tranfpofed, they mark their order by figures over them, and put the fame number of figires (in a feries) in the Margin, in this manner, viz. | 123456

$$
3 \mathrm{M}
$$

7. Where

## 444

 THE HISTORY OF PRINTING.7. Where mâter is run on that hould begin a new Paragraph, they draw a froke down the place, and this mark, [ in the Margin : but where a pafagraph thould have gone on, "and be continued, they draw a fhort line after the broke-off matter, and write in che Margin, No Break.
8. If letters or words of one fort of characters are to be changed into another, they make a froke anderneath the word or letter, and intimate on the Margin in what Letter it is to be by marking Rom. or Ital. accordingly.
9. Where fo much of the Copy is leff out as will be troublefome to write it in the Margin, they draw a parallel froke where the omiffion begins, and write oppofite in the Margin, Out ; orèlfe, See Copy.
io. Whe here words are fruck out that are afterwards again approved of, they mark dots under fuch words, and write in the Margin, Stet.
'After théfe hints for Correcting the faults in a 'Proof, we add the following fummary obfervation, viz. That whatever is wrong and faulty in a Proof, is to be taken notice of either-by drawing a parallel ftroke through fingle letters; or by making a rectilinear dafh a-crofs the wrong word; or elfe by marking an even froke underneath the words that are to be changed into other characters; and that, whatever has been taken notice of as faulty in the matter, muft have all marked in the Margin, and oppofite the line, containing the fault or faults, either by Changing, Adding, or Taking away; obferving at the fame time to diftinguith one Correction from another by a froke between each. And this, we judge, will be fufficient to affit Gentlemen in properly correcting thecir works; without pointing out to them how to mark letters that fand out of line, or are of a wrong Fount; thefe coning more properly under the cognizance of a Corrector who is a Printer.

The Proof being now rend, and the real faults marked diftinctly and fair, the Cofrector examines the pages of the fheet, or Form, whether they are impoled right; likewife whether

## THE HISTORY O.F PRINTING.

the Signatures are put to the proper pages; and at laft, whether the folio of the firft page is right; and whether the reff follow. in a numerical order. After which the Proof is given to the Compofitor, to correct it in the metal.

## CORRECTING IN THE METAL.

BY Correcting we underftand here the reatifying of fuch Faults, Omiffions, and Repetitions as are made by the Com. pofitor, either thro' inadvertency, or elfe thro' carelefsnefs. And tho' the term of Corrections is equally given to the Alterations that are made by Authors, it would be more proper to diftinguin them by the name of Emendations; notwithflanding it often happens, that after repeatedly mending the matter, the firft conceptions are at laft recalled: for the truth whereof none can be better vouchers than Compofitors, who often fuffer by fickle Authors that know no end of making Alterations, and at laft doubt whether they are right or wrong; whereby; the work is retarded, and the workman greatly prejudiced in his endeavours; efpecially where he is not fufficieptly fatisfied for fpending his time in humouring whimfical Authors.

Correcting is the mott difagreeable work that belongs ta Compoftors; who therefore endeavour to do their woik not only expeditioully, but alfo clean and correct. Accordingly. fome are very accurate in pitributing, that they may truft to their taking up right letters in Compofing, when their attention perhaps is abf-nt; whereas othuss can neither-make difpatch, nor depend upon aecuracy, unlefs they confine themfelves to filence, and are not difturbed by idle, infignificant, and even indecent talking: and this being difagreeable to moft Compofitors, may be the reafon that Prefsmen do nat follow their exercifes' in the fame room with the former.
In correcting the Firf Proof, we feldom have any other faults to mend than thofe of our own committing, unlefs the Corrector heightens them by his peculiarities. But notwithftand-

## $44^{6}$ THE HISTORY OF PRINTING.

ing all the care that can be taken, the beff of workmen cannot boaft of being exempted from fetting Doubles, and leaving Outs-two accidents that are attended with extraordinary trouble, and are feldom reftified without overrunning. In fuch cafes a judicious Compofitor confiders firf well in what manner an Out may be got in, or a Double be drove out, without making a glaring Botch; and accordingly examines his matter, whether over-running forward or backivard, will beft anfwer his purpofe. But a great deal of trouble might be faved in cafes of Outs and Doubles, would Correctors try to add as much as will fill up the Double; or to fhorten the matter, to make room for an Out; unlefs both the one and the other are too confiderable for that expedient; which otherwife might be fafely ventured, without either caftrating or corrupting a Writer's meaning. This would be a fure means to fecure a neat Compofitor's workmanihip and care in true fpacing his matter; whereas that beauty is loft by Alterations and Over-running.
It fometimes happens that a Compofitor, by having two or more Pages in his Sheet with the fame Direction, or by miltaking the right place of his Page when he fet it by on a Paper under his Cafe, or by fome other accident that may happen; that he Tranfpofes two Pages, or more, in his Sheet: In this cafe he Unlocks that Quarter, or thofe Quarters the Pages are in, and loofening the Crofs or Croffes from thofe Pazes and their Forniture, takes the reft off the Correcting.fone with their Furniture about them : And if it be a Folio or Quarto he does not wet the Pages, becaure thofe Forms have Furniture about every fide of the Page, which will keep up the Letter from falling down; but he only places the Balls of his two Thumbs againft the outfide of the Furniture, about the middle of the Head and Foot of the Page, and the infides of his two middle fingers, affifted by his fourth and little fingers, in a parallel pofition to his middle fingers, to ftrengthen them againft the Furniture) about the middle of the Sides of the Page, letting the length of his fingers reach as far from each corner

## THE HISTORY OF PRINTING.

of the Page towards the middle of it as be can, and fo by a fteady preffing the balls of his thumbs and the balls of his fingers on each hand towards each other, he draws, or as he fees moft convenient, thrufts the whole Page out of its wrong place, and fets it by on the Stone, till in the fame manner he removes the other Tranfpos'd Page into the place of the firt remov'd Page : and thus if there be more than two Tranfpos'd Pages in the Sheet, he removes them all, and Sets the right Pages in their right places.

But if it be an Octavo or Twelves, or any other Form that has Gutter-fticks between two Pages, he muft wet thofe Pages on the Stone, becaufe when he removes one Page, by the help of the Gutter-ftick, one fide of the other Page will ftand Naked; and confequently with the fhaking, joggling, or trembling of the Stone or Floor, the Letters on that fide will be in great hazard of falling down, efpecially if the Face of the Stone happens not to be truly horizontal : we fay, happens not to be truly horizontal, becaufe the Stone is feldom laid with any caution, but only by guefs.

What is required of a Compofitor when he goes about correcting a foul Proof, is a fharp Bodkin, and Patience, becaufe without them the Letter cannot efcape fuffering by the fteel; and hurrying will not permit him to juftify the lines true. No wonder therefore to fee Pidgeon-holes in one place, and Pie in another.

If he finds by his eye the Letter Hangs: he muft Unlock and Loofen the Form, or that Quarter that Hangs pretty Loofe, that the Letter may be fet to rights; which he does with patting upon the Face of the Letter where it Hangs, with the Balls of the Fingers of both his Hands, to twift or turn them into a Square Pofition.

The Firt Proof being corrected, a Perfect fheet is pulled clean, to be ient to the Author, or to the perfon by him authorized; either of whom, if they underftand the nature of Printing, will not defẹr reading the fheet, but return it without any alteration

## $44^{8}$ DHE HISTORY OF PRINTING.

alterations perchaps, to be made ready for the Prefs. But becaufe fuch good Authors are very fcarce, Compofitors are difcouraged every time they fend a Proof away, as not knowing when and how it may be returned, and bow many times. more it will be wanted to be feen again, before the Author is tired, of rather afhamed, of alvering.
We have in the foregoing Pages thewed the accomplifinments of a good compofitor, yet wilt not a curious anthor truft either to his care or abilities in Pointing, Italicking, Capitalling, in making Breaks, \&e. Therefore it belongs to the Province of an author to examine his Copy very well e're he deliver it to the Printer, and to poist it, and mark it fo as the Compofitor may know what words to fet in Italick, Small Capitals, Capitals, \&c.

For his Ttalic words be fhould draw a line under them thus : For Small Capital words two lines under them thus; and for Capitals three lines thus, or elfe draw a line with red ink.
If his Copy, or any part of it, be written in any foreign language, he is frictly to fpell that foreign language right : becaufe the compofitor, takes no notiec of any thing therein but the very letters, points and characters he finds in his copy.
If any author has not (through hafte in writing) made breaks in proper places; when he comes to perufe his copy he may find caufe to make feveral breaks where he made none: In fuch a cafe he makes a crotchet thus, [ at the word he would have begin his new paragraph.
Thus in all particulars he takes care to deliver his copy perfect : for then he may expect to have his book perfectly printed. For by no means, he ought to mend it in the proof, the compofitor not being obliged to fit ; and it cannot reafonably be expected he fhould be fo good natured to take fo much pains to mend fuch alterations as the fecond dictates of an author may make, unlefs he is well paid for it.
If there are but few Faults, the Compofitor Gathers the Corrections in his Stick, beginning at the battom of every Page,

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Batter and fpoil the Face of thofe Letters it touches, and fo he creates himfelf a frefh trouble to mend them.

The reafon why he holds the Blade of the Bodkin as flat to the Form as the can, i 3 , becaufe a fmall horizontal entrance of the Point of the Bodkin into the Neck of the Letter, will raife the Letter above the Face of the Form, the Blade of the Bodkin being fattened in the little hole it makes in the Neck of the Letter : but if he fhould ftick the Point of the Bodkin ftraight down upon any part of the Letter, it would make an hole, but not faften in the Metal, to draw it up; for the weight of the Letter would make it flip off the round and fmooth Point of the Bodkin. Befides the prefling the Point of the Bodkin with his right hand againtt the fide of the next Letter on his left hand, keeps the Point of the Bodkin faft in the little hole it makes in the Neck of the Letter, and therefore though the Bodkin has but a little entrance, yet it has hold enough to draw it up by.

Having taken the Fault out, he puts the Letter that the Corrector marked in the Margin of the Proof in the room of it. Suppofe o were marked and an n dafhed out, therefore when he has taken the $n$ out he puts an $o$ in the room : thefe two Letters being of equal thicknefs, give him no trouble to Juftify the Line again after the fault is Corrected; but if they had been of unequal thicknefles, as fuppofe an $m$ to come out and an $n$ to be put in ; in this cafe he puts in a Space between two words (where he finds moft convenient) to juftifie the Line again; or fuppofe an $n$ ta come out and an $m$ to be put in; now he mult take out a Space where he finds moft convenient to make room for the m , it being thicker by a Space than an n. Thus as he Corrects he ftill has a care to keep his Lines true Juftified; which he tries by preffing the balls of his two middle fingers pretty hard againft the ends of three Lines, to make them rife a little above the Face of the Form, whereof the Line he examines is the middlemoft; for if that Line is not hard enough Juftified, he will between the balls of his fingers
find it hollow, or it will not Rife with the other two : and if it be too hard Juftified, he will find the balls of his fingers Bear only, or hardeft, againft that Line, and the Line on each fide it will not Rife.

If there be a long word or more left out, he cannot expect to Get that in into that Line, wherefore he muft now Over-run; that is, he muft put fo much of the fore-part of the Line into the Line above it, or fo much of the hinder part of the Line into the next Line under it, as will make room for what is Left out : therefore he confiders how Wide he has Set, that To by Over-running the fewer Lines backwards or forwards, or both, (as he finds his help) he may take out fo many Spaces, or other Whites as will amount to the Thicknefs of what he has Left out: thus if he has Set wide, he may perhaps Get a fmall Word or a Syllable into the foregoing Line ; and perhaps another fmall Word or Syllable in the following Line, which if his Leaving out is not much, may Get it in : but, if he has Left out much, he muft Over-run many Lines, either backwards; or forwards, or both, till he comes to a Break: and if when he comes at a Break it be not Gotten in ; he Drives out a Line: In this cafe if he cannot Get in a Line, by Getting in the Words of that Break or by making lefs White to the Title of a Setion or Chapter (if any happen in that Page) he muft Overrun the next Page backwards or forwards, till that Line Comes in : thus fometimes he Over-runs all the fucceeding Pages of the Sheet, and at laft perhaps Drives out a Line to Come in the next Sheet.
If' he has Set a word or fmall fentence twice, he muift take that out, and Drive-out his Matter. If he be near a Break, and the White of that Break not very long, he may perhaps Drive it Out at the Break by putting in part of the next Line to fill up almoft fo much as he took outt ; but not quite fo much, unlefs his Matter was at firft fo Wide Set that he can Space out no more, or unlefs the Break-line he comes to, has fo much White in it that he fears Getting in that Line: if either of

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there inconveniencies happen, he Drives-out as much as he can backwards in the Matter; that is, he takes out fo much as he thinks he cannot Drive-out when he is at the Break: he takes it out at the beginning of the Line, and puts it in at the latter end of the Line before it : but firft he takes out almoft fo much of the beginning of his fecond upper Line, to make room for it : becaufe he intends to Space-out the reft if it were not too Wide Set at firf. And thus he runs on from Line to Line, fill taking out lefs and lefs at the beginning of every former Line, and putting it into the Line above that, that he may Space-out his Matter as he Over-runs, till his Double-Setting is Driven-out.

## CASTING OFF COPY.

To caft off Manufcript Copy is an unpleafant and troublefome employ, which requires great attention; and therefore ought not to be hurried, but done with deliberation. The firft thing that ought to engage our attention is, whether it is written tolerably even, or whether it varies, by being fometimes wrote clofe, and fometimes wide, or fmall in one place, and large in another; and whether it has infertions. In thus looking over the copy, and obferving the main run of it, we make fome mark when we obferve it to be written clofer, or fmaller than the main Writing; and fome other mark, where we perceive it wider and larger than ordinary; that by thefe means we may allow accordingly, when we come to the places that are differently marked.

Thefe neceffary preparations being made, we look in our Copy for fome that runs even, and which feems to be of the main hand-writing. Then, having made the meafure for the Work, we fet a line, in the Letter that is defigned for it, and take notice, what Copy comes into one line in the Stick; whether lefs, or more than a line of Manufript: then proceed to fet a fecond, third, or fourth line, till a line of Cupy falls even with a line in the Stick. And as vie did to the firt line of each line in the Stick and telling the letters in each, to fee how they balance againft each other. This being carefully done, we begin counting off each time as many lines of Copy as we know will make even lines in the Stick: for example, If 2 lines of Copy make 3 lines in print; then 4 make 6 ; 6 make 9 ; 8 make 12; and fo on; calling every two lines of Copy three line in print.
In like manner we fay, If 4 lines make 5 ; then 8 make ro and foon; comparing every four lines of Copy to five lines in print.

And in this manner we carry our calculation on as far as we have occafion; either for Pages, Forms, or Sheets.

The furegoing items for calculating, are intended to ferve in cafes where a line of Print takes in lefs than a line of Copy; and therefore, where a line of Print takes in more than a line of Copy, the Problem is reverfed, and inftead of faying, If 2 lines make 3, we fay, in this cafe, If 3 lines of Copy make 2 lines in Print, then 6 lines make 4; 9 make 6; 12 make 8, and fo on; counting three lines of Copy to make two lines in print. And in this manner we may carry our calculation to what number of Pages, Forms, or Sheets we will; remembering always to count off fo many lines of Copy at once, as we have found will make even lines in the Stick. Thus, for example, If 5 lines make 7 , the progrefion of the figure of 5 is, $10,15,20, \& \mathrm{kc}$. and the progreffion of 7 will be, 14,21 , 28, sic.

In counting off Copy after this manner, we take notice of the Breaks; and where we judge that one will drive out, we intimate it by a mark of this [ fhape; and again, where we find that a Break will get in we invert the mark thus ]. To render thefe marks confpicuous to the Compofitor, we write them in the margin, that he may take timely notice and keep his Matter accordingly.

We alfo take care to make proper allowance for Heads to Chapters, Sections, Paragraphs, \&c. and mention in the margin what Depth of lines is left for each, in cafe their Matter varies in quantity.

In examining the fate of the Copy, we look to fee whether it has Abbreviations, that we may guard againft them in cafting off, and allow for them according to the extent of the refpective words when written out at length.

Such is the circumfpection that is ufed in cafting off Copy, efpecially where every Column or Page is to be marked off; which though it is very tedious, is neverthelefs the fafeft way; becaufe if we fall into a miftake in one page, we may recover ourfelves in the next: which cannot fo eafily be done by thofe who count the Copy off from one Chapter to another, or from Break to Break. But though this method fometimes happens to fall out tolerably to their expectation, they are as often deceived by it, efpecially in a long run of clofe Matter; befides which, we do not find that it is a more expeditious way for Catting off than the firt; for the manner which the purfuers of this method obferve, is the foilowing; viz. They count their Copy off to lines for Printing, from one Chapter, Head, or Break, to another, taking notice how many lines each of the counted-off parts make; and having in this manner caft off all or the greateft part of the Copy, they collect the feveral fums of lines into one; which they reduce to Pages; the pages, again, iuto Forms; and thefe, into Shects: and thus they give a tolerable guefs, how much the caft-off Copy will make, in the Lettei and Size propofed for the Work: But to affign each Sheet, Half-fhect, or Page, its Matter, will be more difficult, and take more time, than marking off the Pages at firf. Such cafting off therefore is next to lumping the Copy; and no Compofitor is to anfwer for the contrary effects thereof; whereas when Copy is cait cff clufe, and the Pages marked off; the Compofitor taks notice how his Matter runs; and if he finds that it keeps not even with the Copy, he drives either

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out, or gets in, where he conveniently can, to fhew that he has regard to what he is about; but this precaution need not be taken where Copy is caft off the other way. In the mean time the before-mentioned method for cafting off Copy ought not to be challenged; becaufe it ferves feveral exquifite purpofes: for a parcel of Copy being caft off for fuch a Letter, Size, and number of Sheets, may eafily be known what it will make either in a larger or fmaller character than it was caft off for. But to explain ourfelves the better upon this head, we will endeavour to demonftrate our Propofition in the following manner ; viz.

Suppofe a parcel of Copy is caft off, that promifes to make 18 Sheets in Pica, at 28 lines long, and 20 m's wide.

Suppofe this Copy is to be done in Englifh ; the page 33 lines long, 18 m 's wide. How much will the whole Copy drive out ?

Anfwer, Five Sheets, and 576 letters, or half a page.
The Pica has 40 letters in a line. 40 times 38 make 1520 letters; which are contained in I page: 16 times 1520 make 24320; which is the number of letters in One fheet: 18 times 24320 makes $4,37,760$; which is the number of letters contained in 18 Sheets of Pica, of the above-faid dimenfions.
What has been faid about Cafting off, is underftood of fuch Copy as is fairly and regularly Written, as well as thoroughly Revifed. But it is not always the capacious genius that ought to be excufed for writing in too great a hurry ; for fometimes thofe of no exuberant brains affect uncouth writing, on purpofe to ftrengthen the common notion, "that the more learned the man, the worfe is his writing ;" which fhews, that writing well or bad is but a habit.

Writing fo as hardly to be read, is not the only grievance, becaufe Copy that is written without order or method, is as difagreeable, efpecially where matter has more than one fort of Notes, and where the Text, Notes, and Additions are jumbled together. Where this is the cale, Cafting off fuch Copy
to any certainty, will prove impracticable. Thofe Gentemen, therefore, who have a notion of Printing, and who are fenfible that regular Copy retards a Compofitor in his occupation, ufe the following methods:
They chufe Black Ink, and White Paper, to write their Copy on; and confider, that it contributes much to make a Manufript look fair, though it fhould not prove fo in all other refpects.
They write their Copy, either in Folio, or in Quarto; becaufe an octavo is too foon gilled.

They do not over-charge the paper, by writing to the very edges but leave room at leaft to make Me morandums.

They write the main matter of the work on the right-hand fide of the paper; and leave the left-hand fide for Bottom-notes, Additions, and other incidental Emendations. But fome who have a tlill better Method in writing for the Prefs, divide each fide of the paper into two Columns, filling one with Textmatter, and leaving the other Column for Infertions, Alterations, Notes, \&c.

They take care to put proper References to fuch places of the Text as are illuftrated by Notes; and another of the fame fhape before the note that illuftrates a paffage.

They chufe fuch marks and fymbols for References as prefent themfelves readily to the eye; fuch as Letters and Figures between Parenthefes, or Crotchets; Aftronomical figns, and other the like characters.

They ufe no Abbreviations or Contractions; and if they have accułtomed themfelves to any, they draw them out, and, together with their explanation, fend them with the Copy, to ferve the Compofitor in fetting fuch Abbreviated words at length.

## $\begin{array}{llllllllll}\mathbf{C} & \mathbf{H} & \mathrm{A} & \mathrm{R} & \mathrm{A} & \mathbf{C} & \mathrm{T} & \mathrm{E} & \mathrm{R} & \mathrm{S} .\end{array}$

* HARACTERS are of infinite advantage


 them, as we find ufed by different nations, muft be allowed to be a very confiderable obftacle to the improvement of knowledge; feveral authors have therefore attempted to eftablifh characters that fhould be univerfal, and which each nation might read in their own language; and confequently, which fhould be real, not nominal or arbitrary, but expreflive of things themfelves; thus, the univerfal characters for a horfe would be read by an Englihman, borfe; by a Frenchman, cbeval; by the Latins, equus; by the Greeks, smrer, \&c.
Alphabets of different nations vary in the number of their conflituent letters. The Englifh alphabet contains 24 letters, to which, if $j$ and $v$ confonant be added, the number will be 26 ; the

| French - 23 | Georgian - 36 | Dutch - ${ }^{26}$ |
| :---: | :---: | :---: |
| Hebrew - 22 | Coptic - 32 | Spanifh - ${ }^{27}$ |
| Syriac - 22 | Mufcovites - 43 | Italian - 20 |
| Chaldee - 22 | Greek - ${ }^{24}$ | Ethiopic - 202 |
| Samaritan - 22 | Latin - 22 | Tartarian-202 |
| Arabic - 28 | Sclavonic, - 27 | Indian of $\}$ |
| erian - 31 | Baramos | Bengal |
| Turkih - 33 |  |  |

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The Chinefe, properly fpeaking, have no Alphabet, except we call thei: whole language their Alphabet ; their letters are words, or rather hieroglyphics, and amount to about 80,000 .

The firf who made any attempts for an univerfal character in Europe, were bifhop Wilkins and Dalgarme. Mr. Leib. nitz alfo turned his thoughts that way; and Mr. Lodwic, in the Philofophical Tranfactions, gives a plan of an univerfal character, which was to contain an enumeration of all fingle founds as are ufed in any language. The advantages he propofed to derive from this character were, that people would be enabled to pronounce truly and readily any language that fhould be pronounced in their hearing; and that this charater would ferve as a flandard to perpetuate the founds of every language whatfoever.

In the Journal Literaire of 1720 there is a project for an univerfal character, by means of the common Arabic or numeral figures : the combinations of thefe nine, fays the author, is fufficient to exprefs diftinctly an incredible quantity of numbers, much more than we fhall need terms to fignify our actions, goods, evils, duties, paffions, \&c. and the Arabic figures having already all the univerfality required, the trouble is already faved of framing and learning any new character. But here the difficulty is not fo great to invent the moft fimple, eafy, and convenient characters, as to engage different nations to ufe thefe characters.
Literal characters may be divided, with refpect to the nations among whom they have been invented, into Greek characters, Hebrew characters, \&c. The Latin character, now ufed through all Europe, was formed from the Greek, as the Greek was from the Phoenician, and the Phonician, as well as the Chaldee, Syriac, and Arabic charaQers, were formed from the ancient Hebrew, which fubfifted till the Babylonifh captivity; for after that event, the character of the Affyrians, which is the fquare Hebrew now in ufe, prevailed, the ancient being only found on fome Hebrew medals, commonly called Sama-
ritan medals. It was in $10 g 1$ that the Gothic characters, in vented by Ulfilas, were abolifhed, and the Latin ones eftablifhed in their room.

Medallifts obferve, that the Greek character, confifting onty of majufcule letters, has preferved its uniformity on all medals, as low as the time of Gallienus; from that time it appears fomewhat weaker and rounder: from the time of Conftantine to Michael, we find only Latin characters; and after Michael the Greek characters recommence; but from that time they begin to alter with the language, which was a mixture of Greek and Latin. The Latin medals preferve both their character and language as low as the tranflation of the feat of the empire to Conftantinople : towards the time of Decius the character began to lofe its roundnefs and beauty; fome time after it retrieved, and fubfifted tolerably till the time of Juftin, when it degenerated gradually into the Gothic. The rounder, then, and better formed a character is upon a medal, the fairer pretence it has to antiquity.

## OF GREEK.

Greek is one of the Sacred Languages, and more frequently ufed in Printing than any of the reft ; which makes it neceffary almoft for every Printing-houfe to be furnihed with Greek characters, though not to the fame amount: for a quantity of Greek letter that will moderately fill a Cafe, and that confifts of no other than ufeiul forts, is fufficient to ferve the common tern for Notes, Motto's, Words, \&c. and fuch a parcel of wieful Sorts might be lodged in a Common pair of Cafes, were fome large Boxes reduced into fmaller ones. But this is impracticable where Ligatures and Abbreviations abound, and where Seven hundred and fifty Boxes are required for the different Sorts in a Fount of Greek. What induced the firft Founders of the Art to perplex themie'ves with cutting and cafting fo many different Abbreviations and Contractions, may be partly gueffed, by fuppofing that they were intended to imi3 O tate

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tate Greek Writing; and to grace them with the fame flourihes of the pen: but what could prompt them to confound themfelves with an infinite number of Ligatures, we cannot well account for; and only fuggef, that it was the contrivance of Letter-cutters, to promote their own bufinefs. But this unprofitable improvement has almoft entirely loft its credit ; and Greek, at prefent, is caft almoft every where without Ligatures and Abbreviations, unlefs where Founders will not forbear thrufting them in; or where they have exprefs orders to caft them for Claffical and other Works of confequence; in which cafe fome Ligatures not only grace Greek Letter, but are alfo Fat to a Compofitor who knows to ufe them properly. But kecaufe we have intimated, that the ufful Sorts of a Fount of Greek Letter may be lodged in a pair of common cafes that contain no more than 154 Boxes, we will make good our affertion by a Scheme for that purpofe; which will inconteftably prove, that a great many of the Sorts muft be needlefs, where their number occupies $75^{\circ}$ Boxes. It muft however be obferved, that almof Three-hundred of thefe Sorts are the fame, and have no other difference than that of being kerned on their hind fide; for we remember to have feen Greek with Capitals kerned on both fides. But before we fay any more about Ligatures, we will confider the fingle letters of the Greek, and accordingly exhibit.
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THE GREEK ALPHABET.

| A | a Alpha | a |
| :--- | :---: | :--- |
| B | $\left\{\begin{array}{l}\beta \\ 6\end{array}\right\}$ Beta | $b$ |
| r | $\left\{\begin{array}{l}\text { b } \\ \Gamma\end{array}\right\}$ Gamma | g |

E : Epfilon e fhort
$z\left\{\begin{array}{l}\} \\ \}\end{array}\right\}$ Zeta $\quad z$
H - $n$ Eta e long

- $\left\{\begin{array}{l}\theta \\ \theta\end{array}\right\}$ Theta th

| $\mathbf{I}$ | • | Jota | $\mathbf{i}$ |
| :--- | :--- | :--- | :--- |
| K | $\boldsymbol{x}$ | Kappa | k |

$\boldsymbol{\lambda} \quad \lambda$ Lambda 1
$\mathrm{M} \quad \mu \mathrm{Mu} \quad \mathrm{m}$

| $\cdot \mathrm{N}$ | $\nu$ | Nu | n |
| :--- | :--- | :--- | :--- |
| $\boldsymbol{z}$ | $\xi$ | Xi | $\mathbf{x}$ |
| o | $\circ$ | Omicron | o flort |

I $\left\{\begin{array}{c}\pi \\ \pi\end{array}\right\} \mathrm{Pi} \quad \mathrm{P}$
P $\left\{\begin{array}{l}\rho \\ \rho\end{array}\right\}$ Rho r
$\mathbf{z}\left\{\begin{array}{l}\sigma \\ C_{s} \\ s\end{array}\right\}$ Sigma fors

| T | $\left\{\begin{array}{c}\tau \\ 7\end{array}\right\}$ T u | t |
| :---: | :---: | :---: |
| $\boldsymbol{r}$ | ข Ypfilon | y |
| Ф | $\oplus \mathrm{Phi}$ | ph |
| x | $\chi \mathrm{Chi}$ | ch |
| $\Psi$ | $\psi \mathrm{Pfi}$ | pr |
|  | Omega | - lon |

This Alphabet contains Seventeens Confonants and Seven Vowels. Two Vowels make a Diphthong; of which there are Six that are called proper Diththongs.
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LOWER CASE.

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Every parcel of Greek Letter being charged with more or lefs different forts of Ligatures, Abbreviations, and Contractions, we have thought it immaterial to exhibit all their figures, confidering that they are of no other fervice than to heighten charges; to be ballaft in Cafes; and to frighten a young Compofitor, at the fight of the great number of Boxes which they undefervedly occupy; for what advantage can it be to a Compofitor to put himfelf out of his pofition, to come perhaps to at $\alpha \alpha_{1} \gamma_{\alpha}, \delta_{E} \eta_{v} \lambda_{\varepsilon} \lambda_{v} \mu \omega$, and hundreds of the like Sorts, in a piece, when he may take up two fingle letters fooner, out of Cafes of common dimenfions? In the mean time we have filled one fingle page with fuch Abbreviations as for the moft part vary from the fhape of their feparate letters; and at the fame time taken the liberty to diftinguifh them into fuch as we judge :o be either obfolete, inígnificant, ornamental, convenient, or ufeful; leaving every Printer at liberty to chufe what Sorts ine pleafes: fince we are of opi:ion, that Founders now would rather put by or deftroy the Punches and Matrices of obfolete and ufelefs Sorts, than thruft them upon the Printer, had they proper notice given them of what to introduce, or to leave out in a Fount: for we judge that it is lefs profitable to caft 500 pound wcight of Seven hundred, than of Towo hundred Sorts; which, however, was not regarded by former Founders, who feemingly ftudied their own intereft too abftractedly from that of a Printer's.
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THE HEBREW ALPHABET.


| d | Gimel | $g$ |
| :--- | :--- | :--- |
| 7 | Daleth | $d$ |

$\cdots \quad \mathrm{He} \quad \mathrm{h}$

| 1 | Vau | v |
| :--- | :--- | :--- |
| i Zájin | z |  |


| $\boldsymbol{\pi}$ | Cheth | ch |
| :--- | :--- | :--- |
| 0 | Teth | th |

, Jod

| $\boldsymbol{y}$ | Caph | $k$ |
| :--- | :--- | ---: |
| Lamed | .1 |  |

b Mem m
j Nun $n$
D Samech $\quad$ 个

| y | Ain | gr |
| :--- | :--- | :--- |
| g | Af | p |

Y Trade ta
P Soph - c
7 'Reach r
ש) Shin $\mathrm{fl}_{1}$
resemble others.


> final letters.
Caph Mem Nun Af Trade

$$
7 \quad 0 \quad 1 \quad \text { 毋 }
$$

The following five letters are caff broad, and are used at the ends of words, yet are not reckoned among the Final Letters, being contrived for juflifying, because Hebrew is not divided.

$$
\begin{array}{ccccc}
\text { Aleph } & \text { He } & \text { Lamed } & \text { Mem } & \text { That } \\
\sim & \square & \zeta & \square & \square
\end{array}
$$

The

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The Letters of the Hebrew alphabet are all confonants ; the Points underneath them are the vowels, which are feventeen in number; five of whom are pronounced long, five fhort, and feven very fhort.

Befides the Vowels, the Hebrews have various Accents, of which fome have their place over, and fome have their place under the letter. They are not ufed in all Hebrew Writings, but only in fome Books of the Bible, where they fland for Notes to fing by, and are therefore called Accentus tonici. Others, again, are named Accentus diftinctivi, becáufe they diftinguifh the fenfe, as Pointing does in Englifh : and fill others have the appellation of Miniftri, or fervi non diftinctivi, which fhew the Conftruction and Connexion of words.

The Hebrew has no Capitals; and therefore letters of the fame fhape, but of a large Body, are ufed at the beginning of Chapters, and other parts of Hebrew work.

But we muft not pronounce it a fault, if we happen to meet in fome Bibles with words that begin with a letter of a much larger Body than the main Text; nor need we be aftonified to fee words with letters in them of a much lefs Body than the main Text: or wonder to fee final letters ufid in the middle of words; for fuch Notes flew that they contain fome particular and myftical meaning.

Sometimes the open or common Mem flands in the room of a final one. Such are the peculiarities of fome Jewiih Rabbi's in Bibles of their publication; of which we caution Compofitors not to take them for faults, if fuch myfical writings fhould come under their hands.

Hebrew reads from the right to the left, like all other Oriental languages, except the Ethiopic and Armenian. In compofing Hebrew, therefore, the Jews begin at the end of the Com-pofing-ftick, and juftify the Vowels and Accents over and under the letters after the line of Matter is adjufted. But Points ferving often to make the fenfe of a word ambiguous, they are feldom ufed in any other than Theological and Grammatical Writings.

The

## THE HISTORY OF PRINTING.

The Hebrew, like the Greek, has more Sorts than are required in a complete Fount ; which renders it difficult to make room for them in Cafes of common dimenfions; confidering that the Powers of the Hebrew Alphabet are diffinguifhed by Points that letters have either in their venter, or over their body.

According to this Calculation the Lower-cafe for Hebrew Sorts fhould have above Four-fcore Boxes; which exceed the number of thofe in a common Cafe by Seven-and-twenty.

In the mean time we are perfuaded, that a Sketch of a Hebrew Cafe, as well as of a Greek one, is beft drawn out by him who firft has acquainted himfelf with the number of Sorts in a Fount, and who afterwards knows how to difpofe of them in fuch manner as to make their fituation both conformable and collateral : Hebrew being a Sacred language, is chiefly ftudied by Divines, who often make ufe of Points in Theological writings; tho' plain Hebrew as well as Greek are underfood, and very frequently printed, without Points or Accents. But that the ufe of fuch Pedantic Symbols will one time ceafe, is the hope of all that delight in beholding neat Letter difrobed of all intruders upon its native beauty.
THE SAMARITAN.

The difference between the Hebrew and the Samaritan Alphabets confifts in nothing more than the peculiar characters that are ufed for one and for the other ; the names and powers of the Letters being the fame in both Alphabets،

## THE COPTIC.

The Coptics are the native Egyptians; and their language, therefore, called the Coptic: but the Arabic prevails fo univerfally in Egypt, that the knowledge of the antient lan. guage of the country is utterly deltroyed. In the mean time the mof antient language of the world, the Egyptian, is preferved in the Coptic to the prefent time. But whether the

Coptic

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Coptic are the antient letters of the Egyptians, is much doubtad; confidering that they are nothing elfe but the Greek, with the addition of fome few Letters, to exprefs fome particular founds.

## THE ETHIOPIC.

The Ethiopic Characters are fuppofed to have been anterior to thofe of the Egyptians, notwithftanding fome affert that moft other nations have received their letters from the laft. To ftrengthen the firt, it is obferved, that the Ethiopians had two different kinds of Letters; that is, the facred and the vulgar: the firft for matters of importance, and the other for familiar correfpondence. And as the Egyptians obferved the fame diftinction in letters, it is faid that their facred letters were the vulgar Characters of the Ethiopians; which proves that letters have been very early among them : the Egyptians being now loft, the antiquity of Ethiopian Characters is queftioned.

## THE CHINESE.

It is obferved that not lefs than twenty languages are current in China, all differing from each other; but that the Mandarine is the moft elegant and iearned, and therefore the moft prevailing throughout that nation. They ufe pencils made of Hare's hair, to write, or rather to paint, their charaiters, in parallel lines, downwards; beginning at the right hand fide of the paper. The knowledge of Chinefe characters, as well as moit of the oriental and antient ones, can be of no fervice to Compofitors in general, therefore we have purpofely omitted inferting their Alphabets in order to admit what fhall be more afeful.

Yet, as the Saxon is frequently referred to, we Mould be inexcufable were we to omit that Alphabet.

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## THE, SAXON ALPHABET.

| A A | $\boldsymbol{A}$ | a | $a$ |
| :---: | :---: | :---: | :---: |
| B | B | b | $b$ |
| C | C | c | $c$ |
| D | D | ob | d |
| Đ | Dh | \% | db |
| G | E | e e | e |
| F | $F$ | $F$ | $f$ |
| I | G | б | $g$ |
| b | H. | h | $b$ |
| I | $I$ | 1 i | $i$ |
| K | $K$ | k k | $k$ |
| L | $L$ | 1 | $l$ |
| $\infty$ | M | m | m |
| N | $N$ | n | $n$ |
| 0 | 0 | 0 | 0 |
| P | $P$ | P | $\boldsymbol{p}$ |
| Q | ${ }_{2}$ | q | $q$ |
| R | $R$ | n | $r$ |
| 8 | $S$ | r | $\mathcal{J}$ |
| T | $\tau$ | $r$ | $t$ |
| U | $U$ | u | * |
| $w$ | W | $p$ | 20 |
| X | $X$ | x | $x$ |
| Y | $r$ | $\dot{\text { y }}$ | $y$ |
| Z | $Z$ | ${ }^{\text {z }}$ |  |

pp tb
$\ngtr$ that
3 and

The Letters of the Saxon Alphabet are not always of the fame formation; which we have thought proper to point out by inferting both.

## OF MATHEMATICAL, ÁLGEBRAICAL, AND GEOMETRICAL SORTS.

+ plus, or more, is the fign of real exiftonce of the quantity it flands before, and is called an affirmative or pofitive fign. It is alfo the mark of addition : thus $a+b$, or $6+9$, implies that $a$ is to be added to $b$, or 6 added to 9 .
- minus, or lefs, before a fingle quantity, is the fign of negation or negative exiftence, fhewing the quantity to which it is prefixed to be lefs than nothing. But between quantities it is the fign of fubtraction; thus, $a-b$, or $8-4$, implies $b$ fubtracted trom $a$, or 8 after 4 has been fubtracted.
$=$ equal. The fign of equality, though Des Cartes and fome others ufe this mark $D$; thus, $a=b$ fignifes that $a$ is equal to b. Wolfius and fome others ufe the mark $=$ for the identity of ratios.
$X$ into, or with. The fign of multiplication, fhewing that the quantities on eath fide the fame are to be multiplied by one another, as $a \times b$ is to be read $a$ multiplied into $b ; 4 \times 8$, the product of 4 multiplied into 8. Wolfius and others make the fign of multiplication a dot between the two factors; thus, 5 - 4 fignifies the product of 5 and 4 . In algebra the fign is commonly omitted, and the two quantities put together; thus, $b d$ expreffes the product of $b$ and $d$. When one or both of the factors are compounded of feveral letters, they are diftinguifhed by a line drawn over them ; thus, the factum of $a+b-c$ into $d_{2}$ is wrote $d \times \overline{a+b-c .}$ Leibnitz, Wolfius, and others diftinguif the compound factors, by including them in a parenthefis thus $(a+b-c) d$.
$\div b y$. The fign of divifion; thus, $a \div b$ denotes the quantity $a$ to be divided by $b$. Wolfius makes the fign of divifion two dots; thus, $12: 4$ denotes the quotient of 18 divided by 4=3. If either the divifor or dividend, or both ${ }_{2}$ be compored


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of feveral letters; for example, $a+b \div c$, inftead of writing the quotient like a fraction.

O involution. The character of involution,
wy evolution. The character, of evolution, or the extracting of ropts.
$>$ or Eare figns of majority; thus, $a>b$ expreffes that $a$ is greater than $b$.
<or are figns of minority; when we would denote that $a$ is lefs than $b$.
$\infty$ is the character of fimilitude ufed by Wolfius, Leibnitz, and others: it is ufed in other authors for the difference between two quantities, while it is unknown which is the greater of the two.
$::$ : 0 ist The mark of geometrical proportion disjunct, and is ufually placed between two pair of equal ratios, as $3: 6:: 4: 8$, Hews that 3 is to 6 as 4 is to 8 .
: or ${ }^{\circ}{ }^{\circ}$ is an Arithmetical equal Proportion; as, 7.3:13.9; i. e. 7 is more than 3 , as 13 is more than 9 .

- Quadrat, or Regular Quadrangle; as, $\square A B=\square B C$; i. e. the Quadrangle upon the line $A B$ is equal to the Quadrangle upon the line $B C$.
$\triangle$ Triangle; as, $\triangle A B C=\triangle A D C$.
$<$ an Angle; as, $\angle A B C=\angle A D C$.
$\perp$ Perpendicular; as, $A B \perp B C$.
$\square$ Reetangled Parallelogram; or the Product of two lines.
|| The character of parallelifm.
$\underline{\underline{V}}$ equiangular, or fimilar
$\perp$ equilateral.
$L$ right angle
i denotes a degree; thus $45^{\circ}$ implies 45 degrees.
' a minute ; thus, 50 ', is 50 minutes. ", "', '"", denote feconds, thirds, and fourths: and the fame characters are ufed where the progreffions are by tens, as it is here by fixties.
$\because$ the mark of geometrical proportion continued, implies


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the ratio to be fill carried on without interruption, as 2, 4, $8,16,3^{2}, 64 \div$ are in the fame uninterrupted proportion.
$\sqrt{ }$ irrationality: The character of a furd root, and hews, according to the index of the power that is fet over it, or afier $\mathrm{it}_{2}$ that the fquare, cube, or other root is extracted, or to be extracted; thus, $\sqrt{ } 16$, or $\sqrt{2}^{2} 16$ or $\sqrt{ }$ (2) 16 , is the fquare root of $16 . \sqrt[7]{25}$, the cube root of $25, \& c$.
-: the Differěnces, or Excefs.
Q or q, a Square.
Corc, a Cube.
QQ, The Ratio of a fquare number to a fquare number.
Thefe and fevcral other Signs and Symbols we meet with in Mathematical and Algebraical works; tho' authors do not confine them'elves to them, but exprefs their knowledge different ways; yet fo as to be undertood by thofe fkilled in the fcience. In Algebraical work, therefore, in particular, gentlemen fhould be very exact in their copy, and Compofitors as careful in fol-: lowing if, that no alterations may enfue after it is compofed; fince changing and altering work of this nature is more troublefome to a Compofitor than can be imagined by one that has. not a tolerable knowledge of printing. Hence it is, that very few Compofitors are fond of Algebra, and rather chufe to be employed upon plain work, tho' lefs profitable to them than the former; becaufe it is difagreeable, and injures the habit of an expeditious Compofitor. In the mean time we venture to fay, that the Compofing of Algebra might be made more agreeable, were proper cafes contrived for the Letter and Sorts belonging to fuch work, where it is likely to make a return towards its extraordinary charges.

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## CELESTIAL AND ASTRONOMICAL SIGNS.

TWELVE SIGNS OF THE ZODIAC.

| $\boldsymbol{r}$ Aries | $\Omega$ Leo | f Sagittarius |
| :---: | :---: | :---: |
| ४ Taurus | 吹 Virgo | rf Capricorn |
| II Gemini | $\sim$ Libra | 2m Aquarius |
| Cancer | m Scorpio | * Pifces |

THE SEVEN PLANETS.


The names of the Seven Planets imply fometimes the Seven Days of the Week in the following manner ;
Dies Solis, is Sunday
Dies Mercurii, Wednefday
Dies Lunæ, Monday
Dies Jovis, Thurfday
Dies Martis, Tuefday
Dies Vener:s, Friday
Dies Saturni, Saturday.
\& The Dragon's Head, and
8 The Dragon's Tail, are the two points in which the Eclipfes happen.

## A S PECTS.

ठ Conjunctio; happens when two Planets ftand under each other in the fame Sign and Degree.

8 Oppofitio; happens when two Planets ftand diametrically oppofite each other.
$\Delta$ Trigonus; happens when one Planet fands from another 4 Signs, or 120 degrees; which make one third part of the Ecliptic.

- Quadril; happens when two Planets ftand 3 Signs from each other, which make 90 Degrees, or the fourth part of the Ecliptic.
* Sextil; is the fixth part of the Ecliptic, which is 2 Signs, and make 60 Degrees.
$\Rightarrow$ New Moon.
D Firt Quarter of the Moon.
- Full Moon.
( Laft Quarter.
Many are the Signs and Symbols which Aftronomers have invented to impofe upon the credulity of the vulgar, who are the chief fupporters of Almanacks; and efpecially of fuch às abound in predictions of any kind : among which we reckon thofe Signs which give notice, on what day it is proper to let blood; to bathe and to cup; to fow and to plant; to have one's hair cut; to cut one's nails; to wean children; and many other fuch nonfenfical obfervations, to which the lower clafs of people is particularly bigoted; befides giving credit to the Marks that ferve to indicate Hail, Thunder, Lightning, or any occult phœenomena.
PHYSICAL SIGNS.

R2 Stands for Recipe.
$\stackrel{\rightharpoonup}{a}$, $\bar{a}$, or ana, of each a like quantity.
It a Pound.
3 an Ounce.
3 a Drachm.
Э a Scruple.
j for I , ij for 2 , and fo on.
fs fignifies femi, or half.
gr. denotes a grain.
M. a handful.
P. fo much as can be taken betwixt the ends of two fingers.
P. $x$ q. equal parts.
q. f. as much as is fufficient.
q. p. as much as you pleafe.
f. a. according to arto

## MUSICAL SIGNS．

Tune and Time are the two chief characteriftits of matical notes．In Time，the Diftinction，Meafure；and Proportion of Notes and Refts are to be oblerved．

As to Diftinction，they have different Characters ；and dif－ ferent Names with relation to Time．

The Refts or Paufes are of the fame length or quantity with the Notes that fland above them，according to the fub－ fequent Scheme：


The character of the treble Cliff．

产 Very quick Time．
Slow Time．
－天羊目 Refts：
을 A Semibreve．

A Minim：

A Crochet：

率
\％
A Quaver．

$$
3 i
$$

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A Semiquaver.

A Demifemiquaver.
A fharp note; this character at the beginning of a line denotes that all the notes in that line are to be taken a femitone higher, than in the natural feries; and the fame affects all the octaves above or below, though not marked ; but when prefixed to any particular note, it fhews that note alone to be taken a femitone higher than it would be without fuch charaعter.
$b$ or $b$, A flat Note: this is contrary to the other above, that is, a femitone lower.
\& A natural note: when in a line or feries of artificial notes; marked at the beginning $b$ or $*$, the natural note happens to be required, it is denoted by this character.
Direct.
:S: Repeat.

N.B. In diftributing of Mufical Notes, particular care ought to be taken to fave the edges of the trayerfing lines from battering.
$A x$, to cut with
Atts, Etatutes
B
Bacon, hogs-flefh
Beacon, to be fet on fire
Ball, to play with
Bawl, to cry
Band, of foldiers
Bond, writing
Barbary, the country
Barberry, the fruit
Bare, naked
Bear, the beaft
Barely, nakedly.
Barly, the grain
Barrow, for labourer
Borrow, take on credit
Burrow, for conies
Bafe, vile
Bafs, in mufick
Battle, fight
Battel, at Oxford
Bean, corn
Been, I have been
Belly, of man
Bely, to fpeak lies
Beer, the drink
Bier, for a corps
Berry, that grows
Bury, to lay in grave
Bile, on the body
Boil, to feeth
Blue, in colous
Blew, did blow
Buar, the fwine
Bore, to make a hole

Bony, full of bones
Bonay, pretty
Border, of a garment
Bordure, in heraldry
Bough, branch
Bow, to fhoot with
Bruit, report
Brute, beaft
Buy, to purchare
Buoy, of a hip.
By , near

## C

Call, by name
Caul, on the bowels
Cawl, like a net
Carnal, flefhly
Kernel, of a nut
Caufeys, ways
Caufes, matters
Career, full fpeed
Carrier, of letters
Cellar, to put goods in
Seller, of wares
Cenfer, for incenfe
Cenfor, roman officer
Ceniure, rafh judgment
Centaury, herb
Century, a 100 years
Chair, to fit on
Chare, work
Checker, that checks
Checquer, of the king
Choler, anger
Collar, neck-band
Cithern, for mufick
Citron, tree
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Claufe, a fentence Claws, of a bird Cleaver, a hatchet Clever, nimble Coming, approaching
Cummin, the herb
Common, publick
Commune, to difcourfe
Confirm, to prove
Conform, to become like
Conful, a magiftrate
Council, the affembly
Counfel, the adrice
Courier, foot-poft
Currier, of leather
Courfe, running
Corfe, dead body
Coarfe, mean
Cymbal, in mufick
Symbol, a mark
D
Dam, to ftop up
Damn, to condeman
Dane, by country
Deign, to vouchfafe
Dear, beloved
Deer, the beat
Debtor, that owes
Deter, to frighten
Decent, feemly
Defcent, of a place
Defend, to protect
Deaffened, made deaf
Defart, a wide place
Defert, merit
Difert, eloquent

Device, ftratagem
Devife to invent
Difeafe, of the body
Deceafe, dexth
Divers, in the water
Diverfe, different
Do, to act,

- Doe, the-deer

Dollar, coin
Dolour, grief
Done, made
Dun, of colour
Due, owing
Dew, on the grafs
E
Ear, of the head
Year, 12 months
Eaf, wind
Yeaft, for bread
Elder, in years
Eldern, of elder
Emeralds, ftones
Hxmmorhoids, difeafe
Employ, make ufe of
Imply, to entangle
Ended, accomplihed
Indeed, in truth
Endite, a letter
Indict, to accure
Exercife, labour
Exorcife, to conjure
Eye, of the body
I, my felf
Eyes, in the head
Ice, water frozen

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F
Fallow, ground
Follow, purfue
Fain, willingly
Vane, or weathercock
Feign, to invent Fair, beautiful
Fare, diet
Faun, young deer
Fawn, to flatter
Fin, of a filh
Fiend, evil fipirit
Find, to difcover

- Fin'd, amerced

Fir, tree
Fire, to burn
Far, didtant
Fur, a hairy fkin
Flay, top pull off the Ikin
Flea, the vermin
Flee, to efcape
Flie, the infect
Fly, to foar a loft
Floor, of a room
Flour, of meal
Flower, of the field
Forth, out of doors
Fourth, in number
Foul, filthy
Fowl, a bird
Franck, francis
Frank, free
'Freeze, as water
Frieze, cloth
Frees, deleafes

Garden, for flowers
Guardian, overfeer
Gentile, heathen
Gentle, meek
Gefture, behaviour
Jefter, jefting fellow
Guefs'd, conjectured
'Gueft, fojourner
Gilt, or gilded
Guilt, fault
Gray, of colour
Grey, the badger
Groan, to figh .
Grown, in years
Groat, four pence
Grot, cave

## H

Hail, a fone
Hale, to pull or.drag
Hairy, rough
Airy, full of air
Halloo, to cry out aloud
Hallow, to fanciify
Hollow, empty
Hare, in the woods
Hair, of the head
Heal, to cure
Heel, of the foot
Hear, to hearken
Here, in $t$ : is place
Heard, with the ear
Herd, of beafts
Heart, in the body
Hart, deer

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Heaven, above
Haven, port
Heir, to an eftate
Air, the element
Are, be
Higher, above
Hire, wages
Hoar, froft
Whore, harlot
Hole, bored
Whole, intire
Holy, facred
Wholly, altogether
Home, at my houfe
Whom, which man
Hoop, for a veffel
Whoop, to halloo
Hour, of time
Our, of us
Hue, colour
Hew, to cut
Hymn, a divine fong
Him, that man
I
I, my felf
$A y$, yes
Idle, flothful
Idol, a falle god
Imply, intimate
Employ, on work
In, within
Inn, for traveilers
Incite, to ftir up
Infioht, a difcerning
Indeed, truly
Ended, fnifhed

Ingenious, witty
Ingenuous, candid
Jouft, tournament
Juft, upright
Ifle, an ifland
I'll, I will
Oyl, of olives

## K

Kill, to flay
Kiln, for bricks
Knave, a fly fellow
Nave, of a wheel
Knight, honour
Night, after day
L
Latten, tin
Latin, a language
Leaper, a jumper
Loopard, the bealt
Leper, a difeafed perfon
Leafe, for a term
Leafh, of hounds
Leaft, fma:left
Left, for fear that
Leaven, for bread
Eleven, number
Leaving, forfaking
Led, conducted
Lead, the mineral
Leffen, to make lefs
Leffon, a lecture
Lettuce, the herb
Lattice, of winduws
Letice, a name
Levet, on a trumpst
Levite, a jew priet

Lice, vermine
Lies, untruths.
Line, of writing
Loin, of the body
Lo! behold
Low, of fature
Loam, a marl
Loom, of a weaver
Lofe, to forego
Loofe, to untie M
Made, done
Maid, virgin
Mail, coat for armour
Male, mafculine
Main, ocean
Mane, of a horfe
Mean, low
Mein, carriage
Manner, cuftom
Manor, lordhip
Marble, a fone
Marvel, wonder
Mafter, over a fervant
Mufter, of foldiers
Mcad, meadow
Mede, of Media
Meat, food
Meet, convenient
Mete, to meafure
Meffage, errand
Mefluage, tenement
Mighty, powerful Mity, full of mites Might, power Mite, an infect

Million, in numbers
Melon, the fruit
Moat, round a houfe
Mote, in the fun
Monument, memorial
Muniment, fortification
Moth, flie
Mouth, in the head
Mown, cut down
Moan, to bewail
More, in number
Moor, a black
Morning, before noon
Moursing, lamentation
Mues, for hawks
Mews, as a cat
Mufe, to meditate
Murrain, difeafe
Murrion, head piece
Mufcle, of the body
Mazzle, for the mouth N

Naval, of a navy
Navel, of a min
Naught, bad
Nought, nothing
Nay, no
Neigh, as a hoifs
Neat, handfome
Net, for binds
Need, want
Knead, dough
Nephew, kinfman
Navew, herb
Not, no
Knot, in a flring

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Raife, to lift up
Rays, of the fun
Rafe, to demolifh
Race, run
Reach, to extend to
Retch, to vomit
Wretch, wicked
Read, to perufe books
Reed, which grows
Red, of colour
Rear, to raife up
Rare, ftrange
Rebel, who doth rebel
Rabble, a mob
Reign, of a king
Rein, of the back
Rice, the grain
Rife, beginning
Rigger, of a hhip
Rigour, feverity
Right, juft
Rite, ceremony
Rod, a flender twig
Rode, I did ride
Road, high way
Roe, of a fin
Row, of trees
Rome, the city
Room, place
Roam, wander
Roof, of a houle
Rough, hairy
Rote, by heart
Wrote, I did write
Wrought, did work

Rowel, for a horfe
Roll, of the court
Rubbed, chaffed
Rubid, reddim
S
Sail, of the hip
Sale, of goods
Saviour, who faves
Savour, tafte
Scent, fmell
Sent, as a meffenger
Science, knowledge
Scions, of trees
Seizin, poffefion
Seafon, of the year
Seller, of wares
Cellar, a cave
Sever, to part
Severe, auttere
Share, part
Shear, fheep
Sheer, clear off
Sheep, of the flock
Ship, of the fea
Shoot, to dart
Shout, to make a noife
Sice, at dice
Size, dimenfion
Cize, for painters
Sight, to fee
Cite, to fummon
Sink, down
Cinque, at dice
Sleight, of hand
Slight, to defpife


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Sloe, the fruit Slow, tardy
So, thus
Sew, with a needle
Sow, feed
Soar, fly up
Sore, grievous
Swore, I did fwear
Sole, fifh
Soul, in the body
Some, one
Sum, of money
Son, of the father
Sun, in the firmament
Soon, quickly
Swoon, a fainting
Stare, to look on
Stair, a ftep
Steal, to rob
Steel, the metal
Succour, help
Sucker, of trees
Suit, of apparel
Sute, requeft $T$
Tale, that is told
Tail, of a beaft
Tares, grain
Tears, of the eyes
Team, of horfes
Teem, with child
Then, at that time
Than, in comparifon
There, in that place.
Their, or them

Through, by means of
Throw, to caft away
Tiles, of a houfe
Toils, to catch beafts
Time, of the day
Thyme, the herb
Title, diftinction
Tittle, a fpeck
Two, in number
Too, alfo
To, unto
Toe, of the foot
Tow, made of hemp
Towe, to drag
Tongs, for the fire
Tongues, languages
Toft, thrown up
Toaft, in ale

## V

Vane, a weather-cock.
Vain, foolifh
Vein, of the body
Vale, a valley
Vail, a covering
Valley, between hills
Value, worth
Volley, of thot
Vile, evil
Vial, a glafs
Viol, ih mufic
Umbles, of a deer,
Humbles, fubmits
Unit, a fingle number
Unite, to connest

Ure, practice
Ewer, for water
Your, of you
Ufe, to employ
Ewes, fheep
Utter, to vend
Outer, outward
W
Wales, the country
Wails, bemones
Wheals, pimples
Ware, merchandize
Wear, on one's back
Where, in what place
Wēre, or was
Waft, haft been
Wafte, to expend
Waift, the middle
Wait, to attend
Weight, burden
Way, paffage
Whey, ferum
Weigh, with fcales
Weary, tired
Wary, cautious
Weather, fair or foul
Wether, mutton
Whether, or no
Whither, to what place

The Utility of the foregoing Collection is a sufficient reafon for their infertion, we fhall therefore make no apology for their appearance, not regarding that, in the opinion of a few, 'it may be looked on as triffing, and too much refembling a Spelling Vocabulary.

BUSINESSREQUISITE

IN THE

W A. R E H O U S.E.

## HANGING UP PAPER.

ORT HE Warehoufe-keeper takes the Hcap out of

 houfe, or other Drying-place, and fetting it upon a table or ftool of a convenient height,又 the Handle of the Peel in his left hand, and lays the top part flat down upon the Heap, fo as its upper edge may reach to almof three quarters of the length of the fheet: after which with the right hand he doubles over fo much of the printed off Heap as he thinks proper, perhaps a Quire, half a Quire, or about feventeen fheets, more or lefs, either as he can allow them time to Dry, or have room on his Racks to Hang them on. Having thus doubled his firft Doubling on the Heap, he removes the Peel almoft off the Heap, and doubles, as before, a fecond Doubling to hang over the firt towards the left hand about two inches, about the fame number of heets. And having thefe two Doublings on his Peel, he takes the Peel off the Heap, and holding the Handle a little aflope, that the Shorter Folding-over of the fheets may

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open from the Peel, he lifts it up, and places it at one end of his firt pole, and lets it hang on it, by drawing the Peel from under the paper. In like manner he loads and unloads his Peel again fucceffively, till he has hung up the whole Heap. The fides of the fheets are not to hang againft one another, but to lap over one another; nor are they hung up with their edges againgt the fide of the former hanging-up, but to lap over, fo as every right hand Doubling may lap about two inches over the left hand Doubling; that when the Books are taken down, the Warehoure-keeper clapping the flat fide of his Peel againft the right hand edge of the paper, fides feveral Doublings over one another and putting the Peel under them, takes them off the poles and lays them on the Heap again, on 2 clean wafte paper, and fets the Heap orderly by, till it comes to be Gather'd.
The Warehoufe-keeper is alfo very careful to lay all the fheets, fo as the refpective Signatures of every fheet may lie exactly over the Signature of the firt fheet, left when the Books come to be Gathered, fome fheets may be turned, which will give him a great deal of trouble to turn them right when he Collates the Books.

## LAYING THE HEAPS.

Laying the Heaps is to place them on benches or forms of a convenient height, in an orderly fucceffion, that is, the firt Signature which moft commonly is A muft be placed on the left of the bench, with either the fide or foot of the Page, as the Volume requires, that hath the fingle Signature A at the bottom of it up:vards, and towards the hither fide of the bench. On the right hand fide of the Heap. $A$ is $B$, and next it $C$, in like order D E F, \&ic.

## GATHERING OF BOOKS.

Gathering of Books is to take one fheet off every Heap, beginning at the laft Heap firft, the Gatherer takes it off with his Sheet, to hold it faft. Then he takes a fecond theet off the fecond Heap from the left hand, via. towards the right; and lays the fecond fheet on the firt, and fo fecceffively a third, a fourth, a fifth, \&c. till he has Gathered the laft fheet on his right band; ftill obferving to lay the middle of each fheet under his thumb, and all the fingle Signatures on each fheet orderly and fucceffively on one another.

Thus he Gathers on, till one of all the Heaps comes off; which when done, he doubles or quires up all the other Heaps, and lays them by till he can Bundle and Tye them up properly; afterwards he writes upon them, The imperfections of (the Title of the Book) and mentions on it the Signature of the fheet that is wanting, and fets it by in a convenient place of the Warehoufe, that he may have recourfe to it on any occafion.

Having thus Gathered one Book, he Knocks it up, and he carries it to a table provided on purpofe near him ; and taking the ends of the Book between the two bows of the thumb and fore-finger of each hand, he grafps the ends loofely between them, and placing the hither long fide or edge of the Book on the plane of the table, he lifts the whole Book a little above the table, and while the whole Book is held loofely by its ends, lets it fall gently down on the table, that the edges of fuch fheets as fand out, or lower than the reft, may be drove cven with the reft of the edges of the Book, and alfo that the edges of fuch fheets as may lie above the edges of the Book may be forced downwards, and lie even in the fame range with the reft of the edges.

And as he is Knocking up the lower edge of the Book, he at the fame time evens the two ends by thrufing the bows of his thumbs and fingers againft the end of the Book, which being loofely grafp'd, and his thumbs and fingers bearing pretty ftiff towards each other, will drive in the ends of fuch theets as may flick out at their end.

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Having thus evened all the edges, he lays the Book flat on the table, and holding one end of it ftiff and tight in his left hand, he rubs the whole flat of his right hand hard upon the upper fheet, to prefs it and all the other fheets as clofe together as he can ; then Folds up, or Doubles the Book, ac. cording to its refpective Volume.

If it is Folio, Quarto, Octavo or Sixteens, he Folds it in the Short Crofs; but if it is Twelves, Eighteens, Twentyfours, he Folds it in the Long Crofs.

But moft times before he Folds the Books he will Collate them : therefore having Gathered the Book, he lays it by on a fheet of wafte paper, and Gathers a fecond Book as he did the firft, and lays that flat open on the firft, then Gathers a third, fourth, fifth Book, \&c. as before, and lays them fuccefilively on each other, till he has raifed an Heap of Books fo high, that he grows cautious of laying more on, left its heighth fhould exceed his management. Then Gathers on, and raifes another Heap or Heaps till one of the Signatures comes off.
C OLLATING B OOKS.

The Collating of Books, is,
Firft, to examine whether the whole number of fheets that belong to a Book are Gathered in the Book.

Secondly, to examine that two fhcers of one fort are not Gathered.

Thirdly, to examine whether the proper S:gnature of every fheet lie on its proper corner of the Gathered Book.

To do this, the Collater provides himfelf with a Bodkin; which has its thick end thruft falt inio a round piece of wood, about the thicknefs of a tobacco-pipc, and about three or four inches long.

Having the Heap of Gathered Books before him, with the fingle Signature A lying upwards on his right hand, and his left

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left arm crofs the Heap, and his hand near the Signature corner, with his Bodkin in his right hand, he pricks up the corner of the firtt fheet $A$, and at the fame time he pricks it up, flips the balls of the two fore-fingers of his left hand, and fecures it from falling back again on the Gathered Heap of Books between his thumb and hinder joint of his fore-finger, and immediately pricks into the fheet $B$, cafting his eye upon the Signature, as well to fee that it is $B$, as to fee that it is fingly $B$, and not B 2, B 3 3 \& $^{2}$. For if the fingle Signature lies nut on the fame corner of the Heap, the fheet mult be turned till it does. In like manner he pricks up and receives $\mathrm{C}, \mathrm{D}$, \&c. Aill cafting his eye that it be the right Letter, and fingle Signature, as aforefaid. If he finds two fheets of the fame Signature, he takes one out and lays it by, or elfe on the Heap, if they be not all Gathered.

If he finds one fhcet wanting, he fetches that fheet from the Heap; or if he wants it at the Heap the Book is laid by as Imperfect till he has Collated the whole Impreffion of Books, to fee if he can make it Perfect with fome other Book, that may have two of the fame fheets Gathered in it.

Having Gathcred, Collated and Folded thefe Books, he Tells them, to fee how the Impreffion Holds out; and as he Tells them, he lays a fet number of Books (if the Books be thick, five, if thinner, ten, if very thin, twenty five or fifty) with the Folded Side or Back one way, and the fame number of Books with the Folded or back-fide the other way; that is, the ediges of the latter number of Books upon the backs of the former Number: as well to diftinguif and count the Number of Books readily, as to keep the bundle in a flat and horizontal pofition. For if the backs of the Quired Books in a bundle fhould lie all onc way, the Fold of the back being more or lefs hollow in the middle of each Book, will in a Number of Books, by fpringing upwards, mount the backs; and confequently the edges of the Books in the bundle will be deprefied, fo that in a great bundle the Books will be fubject to filide off one another,

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Thefe Books being thus counted, he fets them by on wafte paper in convenient piles, of about three or four reams high, according as the paper may be thicker or thinner, range by range, till the whole Impreffion is fet by.

And before he ties them up, he puts them into the Standing Prefs, placing in it fo many Books as the Prefs will hold, both in width and height; obferving to fet in every Pile he puts range by range into the Prefs, an equal number of Books, that each Pile may equally feel the force of the fcrew.

Then with a ftrong iron bar he turns about the Spindle as oft as he can with his main ftrength, to fqueeze and Prefs the Books as clofe and tight as he can together; and fo lets them ftand in a Prcfs about a day and night. Then takes them out, and in like manner puts in more Bcoks.

As he takes out each number of Books, he ties them up with packthread, laying a wafte paper under and upon each Bundle; and writes the Title and number of the Books on the uppermoft wafte paper, and fets them by fquare and orderly on the fhelves in the Warehoufe, to deliver them out according to orders, or he fends them to the authors or bookfellers, without writing on the uppermoft wafte-paper.

## SETTING OUT PAPER, AND CULLING THE CORDED QUIRES.

- Each ream of paper contains twenty quires: thefe twenty quires are by the paper-makers fo difpofed that the back or doubling of each quire lies upon the opening or edges of the next quire.

Two of the twenty quires in a ream are called corded or Out-fide Quires; becaufe the whole ream is corded or tied up between them. They are alfo called Caffie Quires, becaufe they ferve for cafes to the ream. Thefe quires are by the paper-maker made up of torn, wrinkled, ftained, and other bad fhects; yet the whole quire does not perhaps con-
fift of fuch fheets, but commonly fome good fheets are in Culling found among them.

The Warehoufe-keeper therefore when he fets out paper, lays by the uppermoft Cording Quire, and Sets out fo many Tokens as bis Heap requires, yet always confiders how his paper Holds out, whether five and twenties, or but four and twenties: if it holds out five and twenties, he fets out in every fourth, fifth, or fixth Token eleven quires, to fecure the Impreffion to hold out. If but four and twenties, he Sets out eleven quires, in every fecond Token, and at laft a quire more to the whole Heap to make goed the wanting fheets of every quire, and to make Proofs, Revifes, Regifter-fheets, Tympanfheets, and to fupply other accidents that may happen at the Prefs, either by bad fheets, or faults committed in Beating; Pulling, Bad Regifter, \&c. for all or any of thefe accidents that happens to a fheet, the Prefsman doubles it, and lays by in the Heap as wafte; the warehoufe-man lays on the Heap another wafte fheet of paper, and fo brings it to the Prefs to be Wet.

The Culling the Cording Quires, is, to examine every fheet one by one. To do it, he lays the Cording Quires, or many Cording Quires open before him againft the light, and takes up every fheet fucceffively and obierves the goodnefs of it: fuch fheets as he finds good, he lays by for ufe, the bad ones he rejects. If a fheet has but a little of the corner torn off, fo much as he judges the Book-binder would take off with his Plow, to make the Leaf fquare with other Leaves, he accounts that a good fheet: but if more be torn off, he lays it by for bad; and fo he does wrinkled and ftained fheets.

Having thus Culled all the Cording Quires, he tells out the good paper into quires, allowing five and twenty to the quire; if the quires of the ream hold out five and twenty; or elfe but into four and twenty. And the good paper thus culled, he tells them into an Heap or Heaps, as far as it will go.

Some


USED IN PRINTING.

Abreviations. Marks to contracted words. Accents. Marks over vowels.
Ball-knife. A blunt knife ufed to ferape the balls.
Ball-nails. Tacks ufed in knocking-up balls.
Bank. A flage about four feet high, placed near the prefs.
beard of a Letter. The outer angle of the fquare fhoulder of the fhank, which reaches almoit to the face of the letter, and commonly fcraped off by founders.
Bearer. A piece of riglet to bear the impreffion off a blank page.
Bienvenue. The fee paid on admittance into a chapel.
Bite. Is when the entireimpreffion of the page is prevented by the friket's not being fufficiently cut out.
Blankets. Woollen cloth, or white bays, to lay between the Tympans.
Body. The fhank of the letter.
Bottle-Arsed. When letter is wider at the bottom than the top.
Воттом-ling. The taft line of the page preceding the catch line.
Brace. Is a character Caft in Mettle marked thus $\sim \sim$ of feveral breadths.

Brayr. Isa round Wooden Rubber, almoft of the fafhion of a Ball-ftock, but flat at the bottom, and not above three inches diameter : it is ufed in the Ink Block to Bray or Rub Ink.
Break. A piece of a Line.
Broad-side. A Form of one full Page, printed on one fide of a whole fheet of paper.

Broken Letter. By broken Letter is not meant the breaking of the Shanks of any of the Letters, but the breaking the orderly fucceffion the Letters ftood in a Line, Page, or Form, \&c. and mingling the Letters together, which mingled Letters is called Pye.

Bur. When the Founder has neglected to take off the roughnefs of the Letter in dreffing.
Cards. About a quire of paper, which Prefs-men ufe to pull down the fpring or rifing of a Form, which it is many times fubject to by hard Locking up.

Cassie Paper. Broken paper.
Сhoak. If a Form be not wafhed in due time, the Ink will get into the hollows of the Face of the Letter: and that getting in of the Ink is called Choaking of the Letter, or Choaking of the Form.

Clean Proof. When a Proof has but few faults in it, it is called a clean Proof.

Close Matter. Matter with few Breaks or Whites.
Correct. When the Corrector reads the Proof, or the Compofitor mends the Faults, marked in the Proof, they are both faid to Correct ; the Corrector the Proof, the Compofitor the Form.

Corrections, The Letters marked in a Proof are called Corrections.

Devil. The Errand-boy of a Printing-houfe.
Direction. The word that flands alone on the right hand in the bottom Line of a Page.
Direction-line. The Line the Direction flands in.

Double. Among Compofitors, a repetition of words; alfo, among Prefs-men, a fheet that is twice Pulled and lifted ever fo little off the Form after it was firt Pulled, does moft commonly (through the play of the Joints of the Tympan) take a double Impreffion: this fheet is faid to Double. Doubling alfo happens by the loofe hanging of the Plattin, and by too much play the tenons of the head may have in the Mortifes of the Cheeks, and indeed may be occafioned by the decay of feveral parts of the Prefs.

Dressinga Chase, or Form. The fitting the Pages and Chafe with Furniture and Quoins.

Drive out. When a Compofitor fets wide.
Empty Press. A Prefs that is unemployed; in general every Printing-houfe has one for a Proof-Prefs.
Even Page. The 2d, $4^{\text {th, }}$ 6th, or any other even nambered Page.

Fat Face, or Fat Letter, is a broad ftemmed Letter.
Fat Work. Is when there are many white-lines or breaklines in a Work.
Fat Form. When the Prefs-man has a fingle pull.
First Form. The Form the White Paper is printed on, which generally has the Firf Page of the fheet in it.

Fiy. The Perfon that takes off the Sheet from the Prefs in cafes of expedition.

Follow. That is, fee if it follows ; is a term ufed as well by the Corrector as by the Compofitor and Prefs-man. It is ufed by the Corrector and Compofitor when they examine how the beginning Matter of a fucceeding Page agrees with the ending Matter of the precedent Page; and how the Folio's of thofe Pages properly and numerically follow and finceed one another left the Pages fhould be Tranfpofed. But the Prefs-man only examines that the Folio and beginning word of the Second Page, and Signature of the Firt and Third Page, when the Reiteration is on the Prefs, follows the Folio and Direction of the Firf Page, and the Signature of the Third Page follows the

## THE HISTORY OF PRINTING.

the Signature of the Firf Page, left the Form fhould be laid wrong on the Prefs.

Foot of $\triangle$ Page. The bottom or end of a Page.
Fora. The Pages when fitted into a Chafe.
Foul Proof. When a Proof has many Faults marked in it.
Fount. Is the whole number of Letters that are Caft of the fame Body and Face.

Frier. When the Balls do not Take, the Un-taking part of the Balls that touches the Form will be left white, or if the Prefs-men flkip over any part of the Form, and touch it not with the Balls, though they do Take, yet in both thefe cafes the white places are called Friers.

Full Form or Page. A Form or Page with few or no Breaks, or White lines.
Full Press. When two men work at the Prefs.
Fudge. To contrive without neceffary Materials, or do Work in a bungling Manner.

Get-in. Matter is Got in in a Line, Page, Sheet or Book, if Letter be thinner Caft than the Printed Copy the Compofitor Sets from. Or Matter is Got in if the Compofitor Sets Clofer.

Good Colour. Sheets printed neither too black nor too white.

Good of the Chapel. Forfeitures and other Chapel dues collected for the Good of the Chapel to be fpent as the Chapel approves.

Good Work, is called fo in a twofold fenfe: the Mafterprinter calls it Good Work when the Compofitors and Prefsmen have done their duty; and the work-men call it Good Work, if it be Light Eafy Work, and they have a good price for it .

Half Press. When but one man works at the Prefs.
Half Work. He that works but three days in the week, does but Half Work.

Head Page. The beginning of a fubject.
Heap. So many reams or quires as are Set out by the Warehoufe-keeper for the Prefs-man to Wet.

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Heap hoids out. When it hath its full number of fheets.
Holds out, or hold's not out. Thefe terms are apd -plicable to the quires of White-paper, to Wrought off Heaps, to Gathered Books, and forts of Letter, \&c. If quires' of white paper, have twenty five fheets each in them, they fay, the paper holds out five and twenties. Of Wrought off Heaps, the Heap that comes off firt in Gathering is faid, not to hold out Of Gathered Books, if the intended number of perfeet Books are Gathered, they fay the Impreflion holds out: but if the intended namber of Perfect Books cannot be Gathered off the Heaps, they fay the impreffion holds not out. And fo for forts of Letter.

Horss. The ftage Prefs-men fet the Heaps of paper on on their banks.

Horse. If any journeyman fet down in his bill on Saturday night more work than he has done, that furplus is called Horfe.

Hours. Prefs-men reckon their work by hours, reckoning every Token to an hours work: and though it be the fame effectually with Tokens, yet they make their prizes of different work by the hour; and it paffes current for a Token. If two men work at the Prefs ten quires is an hour; if one man five quires is an hour.

Imperfections of Letters. When the Founder has not Caft a proportionable number of each fort of Letter, it is making the reft of the Fount imperfect.
Insertion. If the Compofitor has left out words or lines, the Corrector inferts it, and makes this mark a where it is left out.

KeEP in, is a caution either given to, or refolved on, by the Compofitor, when there may be doubt of Driving out his Matter beyond his Counting off, wherefore he Sets Clofe, to Keep in.

Krep out. A caution either given to or refolved on, by the Compofitor, when there may be doubt of Getting in bis Matter too faft, wherefore he Sets Wide, to Drive or Keep out.

Kern of a Letter, that part which hangs over the body or fhank.


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Press stands still. When they are not at work.
Pye. When a Page is broken, and the jetters confufed.
Quarters. Octavos and Tiwelves Forms are faid to be impofed in Quarters, not from their equal divifions, but becaufe they are impofed and locked up in four parts.

Register-sheet. Sheet or fheets printed to make regifter with.

Reiteration. The Second-form, or the Form printed on the back-fide of the White Paper.

Riglet. Is a thin fort of Furniture of an equal Thicknefs all its lenght. It is quadrat high, of feveral thickneffes.

Rise. A Form is faid to tife, when in rearing it off the CorreCting-ftone no Letter or Furniture, \&c. drop out.

Runs on Sorts; When Matters ufes only a few forts of letters.

Set off. Sheets that are newly worked off at the Prefs often fets off, and more particularly fo when beaten with foft ink.

Shank. The fquare Metal the Face of a Letter ftands on.
Signature. Any Letter of the Alphabet ufed at the bottom of the Firf Page of a Sheet, as a Direlion for the Binders to place the Sheets in a Volume.

Slur. When the impreflion of the fheets appear fmeared.
Smout. When either Compofitors or Prefs-men are employed for a fhort time and not engaged for a conflancy.

Sop the Balls. When a Prefs-man has taken too much Ink.

Sorrs. The Letters that lie in every Box of the Cafe are feparately called Sorts in Printers and Founders language; thus a is a Sort, b is a Sort, \&.c.

Seuabble. A Page or Form is Squabbled when the Letter of one or more lines are got into any of the adjacent Lines; or that the Letter or Letters are twifted about out of their fquare poftion.

Stem. The fraight Flat frokes of a ftraight Letter is called Stem.

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Supirior Lettrrs, are often. fet to Marginal Notes, References or Authorities; they are Letters of a Small Face, Juftified by the founder in the Mold near the Top of the Line,

Thin Spaee, ought by a frict orderly and methodical meafure to be made of the thicknefs of the feventh part of the Body; though Founders make them indifferently thicker or thinner.

Turn for a Lbtter, It often happens when Matter runs upon Sorts, efpecially in Capitals or fome other forts feldom ufed, that the Compofitor wants that fort the Matter Runs on ; wherefore he is loth to Diftribute Letter for that fort ; as perhaps his Cafe is otherwife full. Then inftead of that Letter or Sort, he turns a Letter of the fame thicknefs, with the Foot of the Shank upivards, and the Face downwards; which Turned Letter being eafy to be feen, he afterwards when he can accommodate himfelf with the right. fort, takes out, and puts the right Letter in its room. It is alfo a word ufed jocofely in the Chapel ; when any of the workmen complain of want of any thing, he fhall by another workman be anfivered, Turn for it ; that is, make flift for it.
Vantage, When á White-page or morehappensina heet, the Compofiter calls that Vantage: fo does the Prefs-man, when a Form of one Pull comes to the Prefs.

Undfriand. A phrafe ufed by Prefs-men for the Light and Eafy, or Heavy and Hard Running in of the Carriage. Thus they fay $_{2}$ the: Prefs goes light and eafy under Hand or ic goes heavy or hard under Hand.

UPPRR HANP, when the Spindle goes foft and eafy, the Psefs-men fay, it goes well under Hand, or Above Hand But the contrary if it goes Hard and Heavy,

White-hine, A line of Quadrats,
White Page. A Page that no Matter comes in.
White Paper. Although the firt Form be printed off, yet Prefs-men call that Heap White Paper, till the Reiteration be printed.


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