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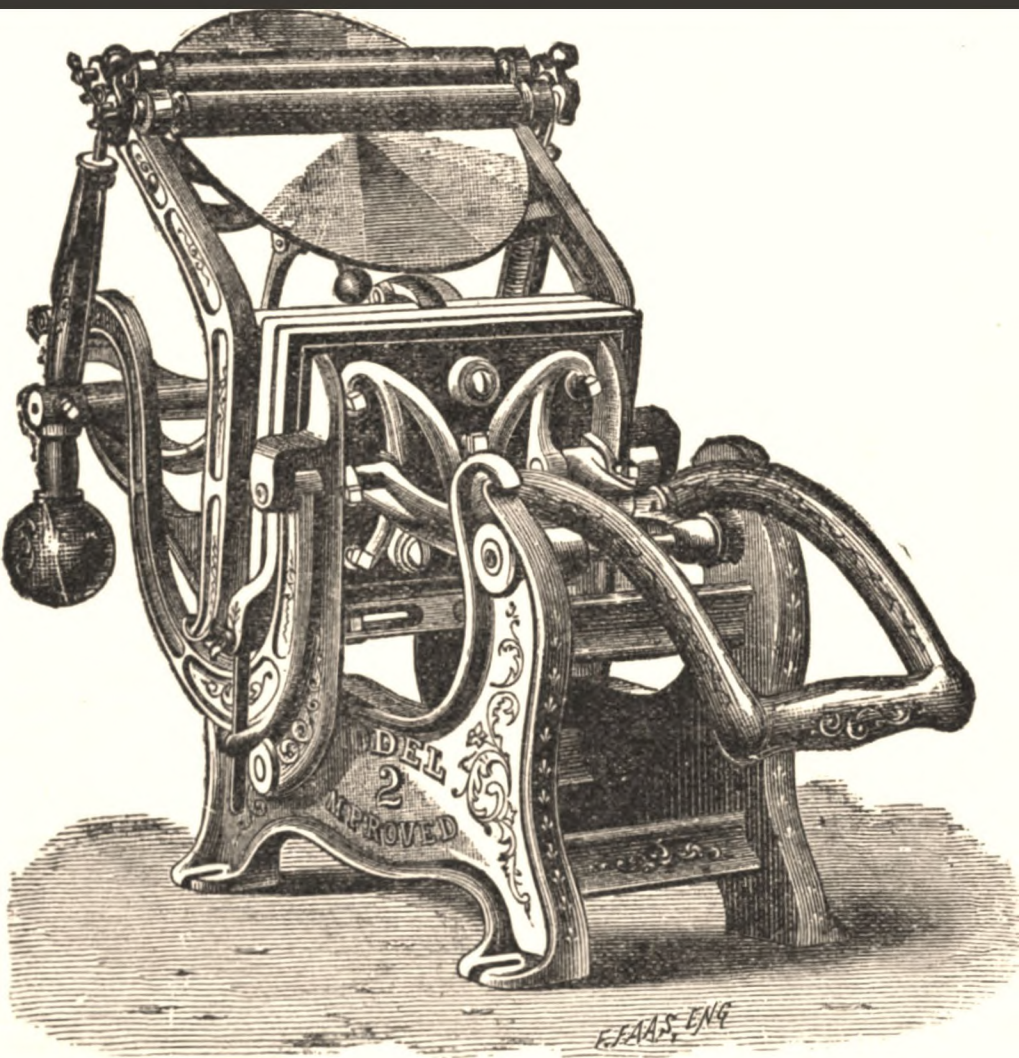
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How to print

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HOW TO PRINT

A BOOK OF INSTRUCTIONS

IN THE

ART OF PRINTING

PUBLISHED BY
THE ROBERT W. TUNIS MFG. CO.

Makers of the Celebrated
MODEL PRINTING PRESS
708 CHESTNUT STREET
PHILADELPHIA

SPECIAL NOTICE.

There is at the end of this book a carefully compiled Dictionary of printers' terms. When a word or a term is used in the explanations and instructions given in the following pages, with which you are not familiar, refer to this classified list and find out the meaning.

WILSON

MANUFACTURING

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By The Robert W. Tunis Manufacturing Co.,

Philadelphia, Pa.

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## A WORD BEFOREHAND.



**D**ESIRE to print is inborn. To direct this remarkable impulse to print into a practical and profitable channel is the object of this little book. The mission of the printing press is helpfulness. Its capabilities for useful service are unlimited. It can be employed in every school, in every profession and business, in every home and for every church and Sunday-school. The printing press in the office of the professional and business man has proved a sure means of honorable success. In the hands of bright boys it has paved the way to most lucrative and trustworthy positions. As an educator of the most practical kind it stands pre-eminent. To learn to print is to learn the structure and use of words and language. It exercises the taste and forms the habit of forcible and correct expression. It instills a rigid observance of neatness and order. It teaches industry and self-reliance, and can be made a source of considerable income. Hundreds of clergymen are using the printing press in their church and Sunday-school work with flattering results. In a word the benefits arising from the proper use of a good printing press in almost every avenue of life are almost incalculable.

With the hope that this little work may not only prove interesting, but that its careful perusal will result in the helpful use of the printing press by every reader,

We subscribe ourselves,

**THE PUBLISHERS.**

# How to Print.



PRINTING PRESSES, Typewriters, Telephones, Photographs and such like, are becoming part of the furnishings of the modern business office. The most comprehensive of them all is the Printing Press. With it the business man reaches out in all directions, dispensing good will and talking solicitations for trade into numberless ears far and near. The typewriter and the telephone can address but one at a time:—the printing press speaks to a hundred, a thousand or ten thousand as its owner wills.

Printing is not a difficult thing to do, and it is our object in these pages to describe the different processes somewhat in detail so that anyone with ordinary intelligence will be able to print all kinds of cards, letter-heads, bill-heads, circulars, wrappers, labels, cuts and designs, and even small newspapers and books at the trifling cost of the blank paper.

There are many bright boys who could soon prepare themselves to take entire charge of the printing department of the business office and command a good salary for it. Every boy takes naturally to printing. There is a fascination about a printing press and types that is almost irresistible and it is surprising how soon he is able to turn out a very creditable job of printing. A boy will learn more in one year at home with his own press and a small assortment of type than he can learn in two years in the ordinary job printing office under half a dozen bosses, where his first year's duties consist of sweeping out, running errands, distributing "pi" and being subject to the calls of everybody about the place. In his own little office, he is not only learning the principles of honorable trade but at the same time is cultivating his artistic taste and skill and developing business tact and ability which will prove a life-long benefit. And all the time he is earning money.

In advocating self-teaching, we do not advance the theory that every detail of the finest book and job printing can be mastered

without some personal instruction. The ordinary job printing office does not pretend to teach its apprentices everything. We do claim that by proper application, the art of general printing can be self-learned and the business profitably conducted if the student is endowed with everyday intelligence, understands the common rules of orthography, can speak good English and has a mind to accomplish whatever he undertakes.



## THE PRESS.

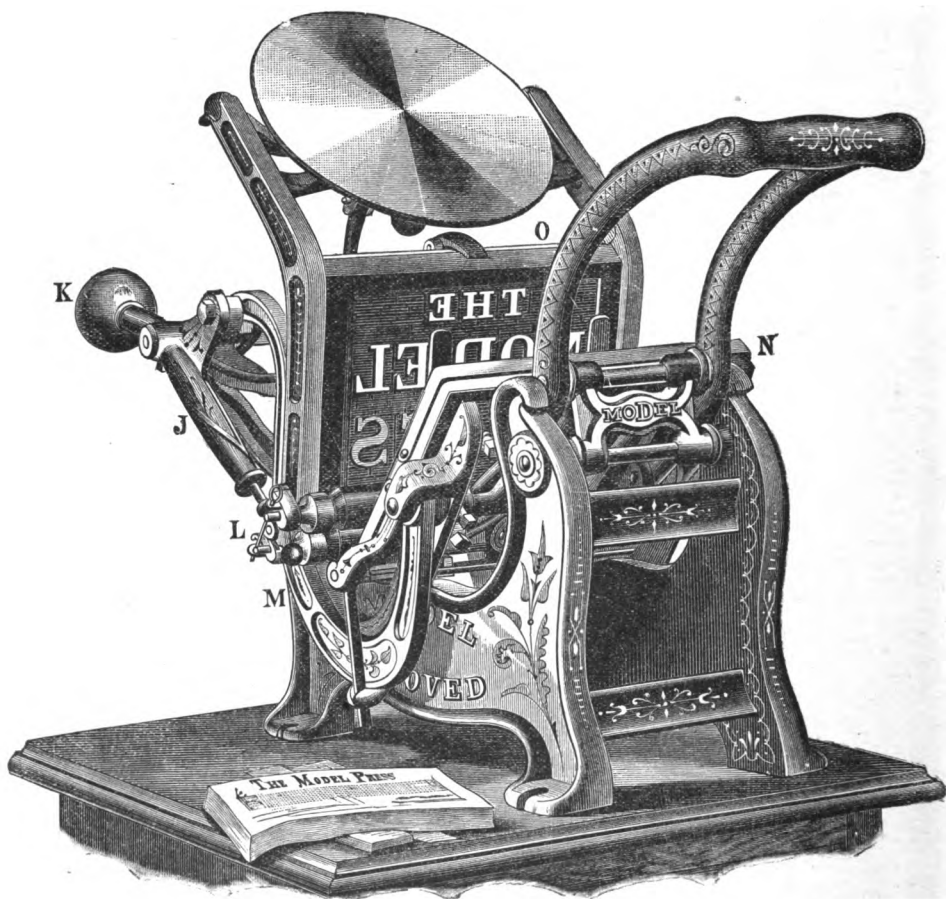


THE first thing to consider in beginning to print is the press. All else, such as types, ink, cuts, ornaments, etc., are only accessories to the press, and would be utterly useless without it. It is therefore important that no mistake be made in the selection of a press that will meet all the varied requirements of general printing. It must combine simplicity of construction, durability, speed, be easy to operate and produce good work.

Such is the well-known Model Printing Press. It was originally made twenty-five years ago, and sprung into almost instant popularity and maintains its place to-day as the leading press of its kind in the world. There was something so practical in its appearance that it attracted attention everywhere, both throughout this country and abroad, while the printing which was done on it compared favorably with the best that could be turned out from the largest and most expensive printing machines. From year to year until the present time, valuable improvements have been added, keeping it right up-to-date and making it not only the cheapest but the most desirable press on the market.

It would be strange if the unusual success of the Model Press had not inspired numerous imitators, and for awhile new presses cropped out in profusion, but as it required more than mere imitation to command patronage, very nearly all of them have dropped out of sight.

The Model Press is constructed on the "bed and platen" principle, the impressions being produced by a twin-toggle combined with a lever. A square, direct, steady and powerful pressure is brought to bear upon the face of the type by a simple downward motion of the lever or handle. The very instant sufficient impression is given, the motion is arrested and there is a momentary "dwell" on the type to set the ink on the printed paper or card. No other similar press possesses this valuable feature, which is really one of the most

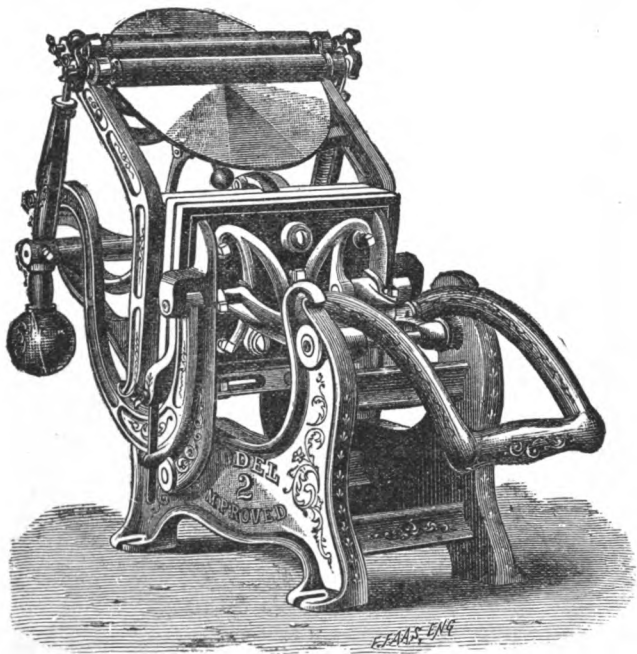


important points to consider in the selection of a press for good printing. In the high-priced job presses this "dwell" is produced by an expensive contrivance. The same result is produced in the Model Press by a simple patented device, and it is this that gives the Model Press such value in the estimation of practical printers.

In the above cut we show the Improved Self-Inking Model Press. This cut is engraved from a photograph made direct from the press



itself. It will be observed that it is well built, and mechanically about perfect. It is so simple in its construction and operation that any boy can at once comprehend it and manage it without trouble. The bed of the press is cast solid with the sides and is therefore very strong and perfectly rigid. The platen *N* is connected by a strong toggle, and the lower portion is pivoted to the sides of the bed-frame. The toggle is operated as shown in the front of the cut, by the handle, so that by simply pressing down with the hand, the platen is moved toward the type seen in the chase *O*, and the impression produced. At the same time that the forward movement of the platen takes



place, the curved arms *M*, (a similar arm being on the other side of the press) operate the balanced roller-arms *J*, and the inking rollers *L* pass upward over the face of the type to the ink-disc *I*, and the press then assumes the position as shown below, with the ink-rollers upon the ink-disc where they take up a new supply of ink. The platen is closed up on the face of the type in the act of taking the

impression. The chase O, shown on the bed of the press, in which the type-form is locked, is detachable, and is secured in its place by a thumb screw and clamp shown at the top under the ink-disc. The ink-disc revolves slightly with each impression by a pawl and ratchet underneath, not shown in the cut. This motion of the disc produces a good distribution of the ink over the whole surface and keeps the rollers at all times properly supplied.

The power is applied in such a manner that there is no "lost motion" or increased force required to operate the self-inking apparatus. At the instant when the whole power of the press is needed to produce the impression on the type, the inking device has finished its work and remains stationary until the impression is completed, when the surplus power moves the rollers back over the form again, inking it for a new impression. The economy of power, and the consequent ease with which the Model Press is worked, is the delight of everyone who sees it in operation.

A description of the foot-power Model Presses will be found on another page.

The Model Press is packed for shipment without taking apart, and when received should be taken out of the packing case, so as not to injure any of the parts. The nails and screws which secure the wooden strips and cleats holding the press in place should first be carefully removed, when the press can be readily lifted from the box. Then place it on a low table or on the box itself turned on its side or end. The chase, ink rollers, ink-disc or table, and grippers are all detachable and are generally removed from the press before packing. After placing these parts in their proper positions the press is ready to begin work. It has been thoroughly tested before shipping and will be found properly adjusted to type-height so that no trouble should be experienced in its use, if the directions given are observed.



## THE TYPE.

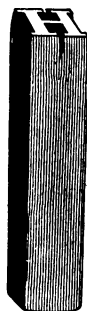


HAVING described the Press and placed it in position ready for use, we will now take up the next most important appliance of the printing office—The Type, together with the necessary type cases, composing stick, stands, galleys, imposing stone, furniture, reglets, quoins, etc.

Before speaking of how to handle type and set it up into proper form for printing, it may be well to briefly refer to how it is made, which is a most interesting series of operations.

The first process in making a type is the cutting or engraving on the end of a piece of steel, the letter or character to be produced

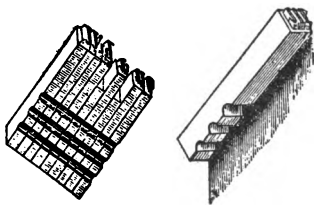
This steel engraved letter is called a punch. After being cut this punch is hardened and used to make the matrix or die for the face of the type, by driving it about one-sixteenth of an inch deep into an oblong piece of soft copper. This copper die or matrix forms the bottom of a mold for the type-casting machine in which types are very rapidly cast. This mold is made of steel with adjustable bearings, so that it can produce a letter as thin as an i, or as thick as a W. The utility of types depends entirely upon



the facility with which they can be combined. They must fit each other with geometrical precision and an inaccuracy that would be regarded as of little importance in other workmanship would be fatal to types.

Each type, when first cast, has a small piece of metal attached to its base called the jet, which is the surplus metal poured into the mould. After this is broken off, the flat sides are rubbed on a level stone, until smooth and true. The types are then set up alphabetically in long lines, and finished by planing a groove in the center of the base where the jet has been broken off.

The letter or character which appears on the face of a type is always in reverse from the true position to the eye when printed.



The accompanying cuts show a type and also two or three words "set up." All matter for printing, type, cuts, diagrams, etc., must be in reverse. To overcome the difficulty in placing the types together in proper order, they are always "set up"

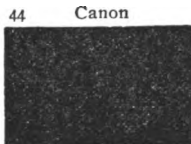
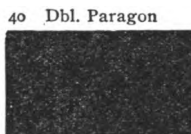
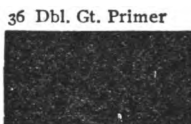
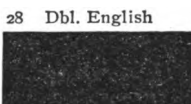
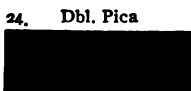
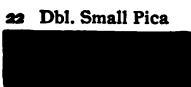
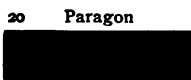
and handled with the lower side of the type uppermost. To quickly tell the lower side of a type there is cast on that side one or more nicks which show how to turn it when setting up.

Types are cast from a white metal composed mainly of lead, tin and antimony. The peculiar property of the type-metal is that in cooling it expands slightly in the mold in which it is cast, instead of contracting, as most metals do when cooling. This slight expansion of the type before it hardens forces it into every interstice of the matrix, thus producing upon the face of the letter a smooth sharp character, a perfect fac simile of the steel punch that made the die.

Types are all made of uniform length which is known as height. This is a little over seven-eighths of an inch and must be absolutely accurate, to print properly. The size of the different type bodies corresponds with the letter on its face.

Formerly each size of type had a distinctive name, such as Nonpareil, Brevier, Long Primer, Pica, etc. These names have been dropped and the size of type is now indicated by the "Point" measurement. As it is very important to become thoroughly familiar with this "point system," we give a diagram showing the exact proportions of type, from the smallest to the largest in general use. The "Point," which is the unit of type-measurement, is one seventy-second part of an inch. Originally a size of type called Pica, which measures one-sixth of an inch, was the standard. In the "Point" system the Pica standard was taken as a basis of measurement, and this one-sixth of an inch was divided into twelve parts, each of these parts being called a "Point." Hence in the diagram, the sizes shown will correspond exactly in width with the number of points indicated. As no type is made smaller than three points, sizes less than three points are used for leads, brass rules,

|    |             |
|----|-------------|
| 1  | American    |
| 1½ | German      |
| 2  | Saxon       |
| 2½ | Norse       |
| 3  | Brilliant   |
| 3½ | Ruby        |
| 4  | Excelsior   |
| 4½ | Diamond     |
| 5  | Pearl       |
| 5½ | Agate       |
| 6  | Nonpareil   |
| 7  | Minion      |
| 8  | Brevier     |
| 9  | Bourgeois   |
| 10 | Long Primer |
| 11 | Small Pica  |
| 12 | Pica        |
| 14 | English     |
| 16 | Columbian   |



etc., and by using them a perfect justification or fitting together of all the type bodies can be secured.

The "point system," upon which all types, leads, brass rules, etc., are now made, guarantees uniformity. Leads, which are thin strips of type-metal to go between the lines of type to space them apart, are generally 2 points thick. A 6-point type and a 2-point lead will make a line 8 points wide, and is the same as an 8-point type. Twice 6 points make a line 12 points. Three times 8 points make a line or fill a space equal to 24 points. And so it goes on almost indefinitely. Double them up, add, subtract or divide, and you are sure of the results, and that your type will fit together and lock up solid and safe. Further on, when we go into the details of "setting up" the type you will be able to clearly see the practical application of the point system.

When very large letters and characters are required, such as poster work, etc., the type used for the display is generally made of hard end-wood. The face is engraved by

special instruments made for the purpose, and produce beautifully designed letters at a comparatively low cost.

After all the different letters or characters for a certain size and style of type are cast, and finished up ready for printing, they are assorted and placed together in proper order in packages called fonts. The quantity of characters in a font of type is designated by the number of a's it contains. If you examine a printed page you will find that some letters are used much oftener than others. Notice for example the preponderance of A's and E's over X's and Z's in all written and printed matter. Therefore the letters in a font of type will be in proportion to their actual use. We show below a proof from a font of type as it is put up at the type foundry. There are 6 capital A's and 10 small a's. This would therefore be called "a 6 A 12 a font."

AAAAAABBBBCCCCDDDDDEEEEEEEFFF,  
GGGHHHHIIIIJJJKLLLLMMMMNNNNN,,  
NOOOOOOOPPPQRRRRRRSSSSSTTT-  
TTUUUVVWWWWWXYYZZaaaaaaaaaaaa  
abbbbbdccccccddddddeeeeeeeeeeeee.  
eeffffffffggggghhhhhhhhhiiiiiiiiiijjkk,  
kklllllllmmmmmmmmnnnnnnnnnnnnnnnooooo!  
ooooooooopppppppqqrrrrrrrrrrrrrrsssssss!  
ssssstttttttttttuuuuuuuvvvwwwwwxxyyy  
yzzzzl122334455667788899000œœæ-  
ÆCE&&£\$ \$????.....,,"""""--",,,,"

Spaces and quadrats, more commonly known as spaces and quads, are pieces of blank types, used to separate words and to form other blank parts of a printed page. Spaces and quads are cast the same as the types themselves, in the several sizes of the type with which they are to be used. The usual widths are as follows: In quads, 3 ms, (an em being square, the same in depth and width) 2 ems, 1 em and  $\frac{1}{2}$  em or en quad. In spaces there are the 3 em (that is three spaces make the width of 1 em) the 4 em and the 5 em space.

In addition to the usual type and spaces and quads there are cast in type-metal, in various sizes to correspond with type, ornate characters called Borders, Type Ornaments, etc., which fit together

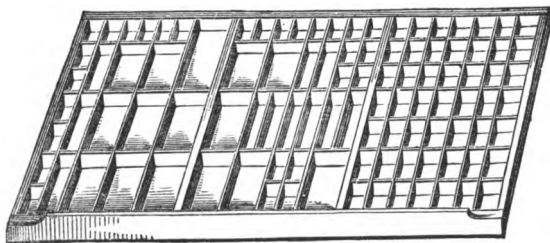
and form numerous designs, which add much to the attractiveness of printed matter.

The different parts of a type are known as the face, the body, the feet, and the nick. The face is the letter or character that prints; the body, the shank that supports it; the feet, the part upon which it rests when printing; the nick, the notch or notches on the side which indicate the bottom of the letter. By referring to the cuts of type on page 17 the different parts of a type can be observed.

### THE TYPE CASE.



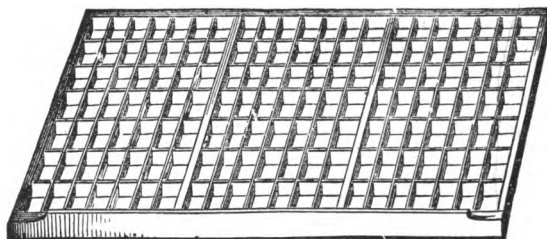
YPES, to be convenient for use, are assorted into type cases, which are wooden trays, sub-divided into boxes or compartments for the different letters and other characters. Type cases are made in many different sizes and forms. The case here shown is called the job case, and is designed to hold a complete font of type of both small letters and capitals, the letters being placed in the series of square boxes to the right. The small letters are placed in the boxes to the left, covering two-thirds of the length of the case. There are cases made also to accommodate brass rules and leads when cut into different convenient lengths. The separate



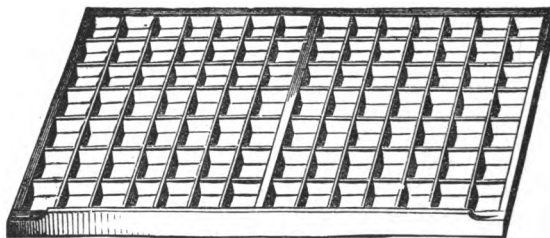
case in which the capital letters are placed is called the "upper case," and that holding the small letters, figures, points, etc., is called the "lower case." In printers' parlance, the capital letters of a font of type are called "upper case" letters, and the small letters are called "lower case" letters. These printers' terms have their origin from the position of the type cases when in use on the sloping top of the stand, or support for the cases, the case containing the capitals being



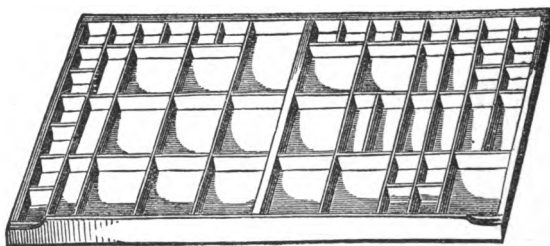
placed above the one holding the small letters. When the case is constructed to hold both capitals and small letters it is called a job



TRIPLE CASE.



UPPER CASE.



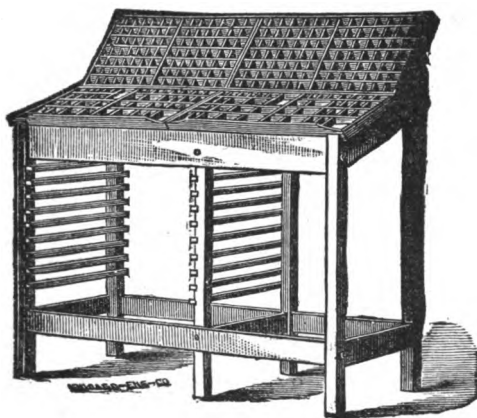
LOWER CASE.

case. This form of case is also used for italic fonts. We will speak more fully of the case and how the type are placed therein under the heading "Laying the Case."

## THE STAND AND CABINET.



THE printers' stand is an upright frame or support, upon which the type cases rest. They are made both double and single. The single stand being long enough to support two cases, one above the other on the sloping top, and the double stand long enough to support four cases, each two or pair being placed end to end. Under the top, between the posts are cleats or runways to slide type cases in when not in use.



Type cases are frequently fitted up in cabinet form, which for small offices is the most convenient plan, as the type can be kept more compact and better protected from dust and curious eyes. The top of the cabinet can be used to support the cases or can be divided lengthwise by strips of wood with ledges at the ends, and used to place type that has been set up, cuts, leads, etc. Cabinets are made of different heights and of a width sufficient to accommodate the case. A very handy type case cabinet for the young printer starting out is one holding from 10 to 12  $12\frac{1}{2} \times 12\frac{1}{2}$  type cases, a size quite large enough for one font.

## THE GALLEY.

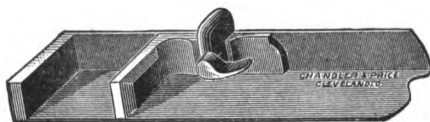


**ANOTHER** important article for the printing office is the galley. Gallies are made of wood, wood and brass or of all brass. The galley is simply a square or oblong tray with raised margins or ledges somewhat less than the height of type, on one side and end, when made of thin hard wood. When made of brass, or partly of brass, the ledges are placed on one end and on the two sides.

They are used to receive the type from the composing stick, while it is being set up in proper form for printing.

## THE COMPOSING STICK.

To properly set up type a composing stick should be used. It is made of steel or brass and is adjustable, so that the width of the line of type can be varied to suit the job. When very wide lines of



type are to be set, a composing stick of hard wood is used. Under the heading "Setting Up the Type" the use of the composing stick will be more fully explained.

## THE IMPOSING STONE.

From the galley the type is transferred to the imposing stone, which is simply a slab of marble or slate, or other hard smooth and perfectly level surface, either supported on a stand of its own or laid upon a table.

## FURNITURE, REGLETS AND QUOINS.

Furniture and reglets are strips of hard wood about five-eighths of an inch in height, and of various widths or thicknesses. They are used to fill the space around a form of type when placed in the chase, preparatory to "locking up" for printing. These strips of wood are generally graduated from 6 points to 120 points in width.

The thinner pieces, 6 point, 12 points and 18 points in thickness, are known as *reglets*. The thicker pieces, larger than 18 points are known as *furniture*. Furniture is made 24 points and upward. In furniture, however, the sizes are designated by "lines" instead of points as *reglets* are. A line is equal in width to the Pica standard of one-sixth of an inch. Hence in ordering *reglets* you designate by points—6 point, 12 point and so on. Furniture you will designate by lines—2 lines (being 24 points) 3 line and so on.

There is made also Furniture cast from type metal, that is much used for locking-up and imposing forms. Metal furniture is made in assorted widths and lengths and is sold by the pound.

Quoins are used for "locking up" the type in the chase after the furniture has been carefully adjusted, space being left on two sides of the chase next to the margin to admit them. They are wedge-shaped so as to drive together, thus clamping the form of type in the chase solid, so that it will not fall out when "lifted" to be placed in the press. Quoins were formerly made of hard wood, such as box-wood or hickory, about two inches long, five-eighths of an inch high and varied in thickness from a quarter of an inch or less to one inch or more. They were made tight by driving them with a wooden or iron piece called a "shooting stick." Metallic quoins are now almost in general use. They are low in price, are easily tightened by a simple key, and are far superior in every way to the old-style quoins of wood.

## PRINTERS' INK AND ROLLERS.



EXT in order come printers' ink and the rollers with which it is placed on the face of the type. Printers' ink is the coloring substance with which a visible impression is made by type. It must be a preparation that will pass from the soft adhesive state to that of a perfectly hard and dry substance, and this change of condition must be to some extent under control. It must not affect the soft elastic rollers which are employed to convey it to the type. It should penetrate but very slightly into the paper and remain mostly upon the surface and to dry up in a very short space of time into a hard, inodorous, unalterable solid. It should possess the additional advantages of keeping the rollers in good working order,

distribute freely, work sharp and clean, and to be of permanent color. Printers' ink is made in many colors and shades. Black is most generally used and most easily managed. To distribute the ink for use upon the type a roller is employed. In the early days of printing, types were inked by what was termed "balls," which were a sort of semi-spherical cushions covered with soft leather with a handle to manipulate them. The ink was first distributed as evenly as possible on the round leather surface and then transferred to the face of the type, a little spot at a time, until the whole was covered. Of all inventions connected with the processes of printing none were more important than the printers' roller. By it the inking of a form became not only easy but extremely rapid. The earlier rollers were generally cast from a compound of glue and molasses in proper proportion. More recently glycerine and glue are used as a basis, and the casting of printers' rollers is carried on as a business by a number of large establishments. The simplest method to distribute the ink is to use a hand roller (called in the printing office a "brayer") and after placing a small portion of ink upon it from the can, roll it over a smooth piece of marble or plate of glass or other flat smooth surface. Lift the roller with each roll, back and forth, until the ink is evenly and thoroughly spread over both the face of the roller and plate. "The Care of the Rollers" will be treated of later on.



## LAYING THE CASE.



HAVING now learned something of the press, type and other accessories necessary to begin the work of printing, we will proceed to set in order the press, type and other printing materials for practical use. We will first place the type with the proper spaces and quads into the type cases. This is called "laying the case."

Unroll the font carefully and by taking hold of each end of the paper, holding it close to the type, turn it over on its face. Take a small galley, fit it over the bottom of the font close into one corner, then by means of the paper turn the font again on its feet, being careful to see that the A's are on the upper right hand side. The string around the font can then be removed and the type will, of course, be confined by the sides and back of galley and ready for distribution into the case. By slightly dampening the type the probability of "pi" will be greatly lessened, as dampened types slightly adhere to each other.

Take up one line at a time by putting a piece of reglet or brass rule, cut the same length as the line of type, in front of it. Hold it in the left hand with the nicks uppermost and place each letter in its appropriate box with the right hand. The diagrams of cases, showing how the type are to be "laid," will be seen below. In script

| h | b | m | m | k | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | 537 | 538 | 539 | 540 | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 553 | 554 | 555 | 556 | 557 | 558 | 559 | 560 | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 573 | 574 | 575 | 576 | 577 | 578 | 579 | 580 | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 640 | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 | 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 850 | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 890 | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 900 | 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 | 909 | 910 | 911 | 912 | 913 | 914 | 915 | 916 | 917 | 918 | 919 | 920 | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 930 | 931 | 932 | 933 | 934 | 935 | 936 | 937 | 938 | 939 | 940 | 941 | 942 | 943 | 944 | 945 | 946 | 947 | 948 | 949 | 950 | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 963 | 964 | 965 | 966 | 967 | 968 | 969 | 970 | 971 | 972 | 973 | 974 | 975 | 976 | 977 | 978 | 979 | 980 | 981 | 982 | 983 | 984 | 985 | 986 | 987 | 988 | 989 | 990 | 991 | 992 | 993 | 994 | 995 | 996 | 997 | 998 | 999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1030 | 1031 | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1050 | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1060 | 1061 | 1062 | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 | 1070 | 1071 | 1072 | 1073 | 1074 | 1075 | 1076 | 1077 | 1078 | 1079 | 1080 | 1081 | 1082 | 1083 | 1084 | 1085 | 1086 | 1087 | 1088 | 1089 | 1090 | 1091 | 1092 | 1093 | 1094 | 1095 | 1096 | 1097 | 1098 | 1099 | 1100 | 1101 | 1102 | 1103 | 1104 | 1105 | 1106 | 1107 | 1108 | 1109 | 1110 | 1111 | 1112 | 1113 | 1114 | 1115 | 1116 | 1117 | 1118 | 1119 | 1120 | 1121 | 1122 | 1123 | 1124 | 1125 | 1126 | 1127 | 1128 | 1129 | 1130 | 1131 | 1132 | 1133 | 1134 | 1135 | 1136 | 1137 | 1138 | 1139 | 1140 | 1141 | 1142 | 1143 | 1144 | 1145 | 1146 | 1147 | 1148 | 1149 | 1150 | 1151 | 1152 | 1153 | 1154 | 1155 | 1156 | 1157 | 1158 | 1159 | 1160 | 1161 | 1162 | 1163 | 1164 | 1165 | 1166 | 1167 | 1168 | 1169 | 1170 | 1171 | 1172 | 1173 | 1174 | 1175 | 1176 | 1177 | 1178 | 1179 | 1180 | 1181 | 1182 | 1183 | 1184 | 1185 | 1186 | 1187 | 1188 | 1189 | 1190 | 1191 | 1192 | 1193 | 1194 | 1195 | 1196 | 1197 | 1198 | 1199 | 1200 | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1207 | 1208 | 1209 | 1210 | 1211 | 1212 | 1213 | 1214 | 1215 | 1216 | 1217 | 1218 | 1219 | 1220 | 1221 | 1222 | 1223 | 1224 | 1225 | 1226 | 1227 | 1228 | 1229 | 1230 | 1231 | 1232 | 1233 | 1234 | 1235 | 1236 | 1237 | 1238 | 1239 | 1240 | 1241 | 1242 | 1243 | 1244 | 1245 | 1246 | 1247 | 1248 | 1249 | 1250 | 1251 | 1252 | 1253 | 1254 | 1255 | 1256 | 1257 | 1258 | 1259 | 1260 | 1261 | 1262 | 1263 | 1264 | 1265 | 1266 | 1267 | 1268 | 1269 | 1270 | 1271 | 1272 | 1273 | 1274 | 1275 | 1276 | 1277 | 1278 | 1279 | 1280 | 1281 | 1282 | 1283 | 1284 | 1285 | 1286 | 1287 | 1288 | 1289 | 1290 | 1291 | 1292 | 1293 | 1294 | 1295 | 1296 | 1297 | 1298 | 1299 | 1300 | 1301 | 1302 | 1303 | 1304 | 1305 | 1306 | 1307 | 1308 | 1309 | 1310 | 1311 | 1312 | 1313 | 1314 | 1315 | 1316 | 1317 | 1318 | 1319 | 1320 | 1321 | 1322 | 1323 | 1324 | 1325 | 1326 | 1327 | 1328 | 1329 | 1330 | 1331 | 1332 | 1333 | 1334 | 1335 | 1336 | 1337 | 1338 | 1339 | 1340 | 1341 | 1342 | 1343 | 1344 | 1345 | 1346 | 1347 | 1348 | 1349 | 1350 | 1351 | 1352 | 1353 | 1354 | 1355 | 1356 | 1357 | 1358 | 1359 | 1360 | 1361 | 1362 | 1363 | 1364 | 1365 | 1366 | 1367 | 1368 | 1369 | 1370 | 1371 | 1372 | 1373 | 1374 | 1375 | 1376 | 1377 | 1378 | 1379 | 1380 | 1381 | 1382 | 1383 | 1384 | 1385 | 1386 | 1387 | 1388 | 1389 | 1390 | 1391 | 1392 | 1393 | 1394 | 1395 | 1396 | 1397 | 1398 | 1399 | 1400 | 1401 | 1402 | 1403 | 1404 | 1405 | 1406 | 1407 | 1408 | 1409 | 1410 | 1411 | 1412 | 1413 | 1414 | 1415 | 1416 | 1417 | 1418 | 1419 | 1420 | 1421 | 1422 | 1423 | 1424 | 1425 | 1426 | 1427 | 1428 | 1429 | 1430 | 1431 | 1432 | 1433 | 1434 | 1435 | 1436 | 1437 | 1438 | 1439 | 1440 | 1441 | 1442 | 1443 | 1444 | 1445 | 1446 | 1447 | 1448 | 1449 | 1450 | 1451 | 1452 | 1453 | 1454 | 1455 | 1456 | 1457 | 1458 | 1459 | 1460 | 1461 | 1462 | 1463 | 1464 | 1465 | 1466 | 1467 | 1468 | 1469 | 1470 | 1471 | 1472 | 1473 | 1474 | 1475 | 1476 | 1477 | 1478 | 1479 | 1480 | 1481 | 1482 | 1483 | 1484 | 1485 | 1486 | 1487 | 1488 | 1489 | 1490 | 1491 | 1492 | 1493 | 1494 | 1495 | 1496 |
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Often one case will answer for two or even three small fonts if there is some difference in the size of the types. For example, a font of 6 points, 12 points and 18 points may be laid in the same case, if not too small, as, owing to the considerable disparity of the

|   |   |   |   |        |                     |   |
|---|---|---|---|--------|---------------------|---|
| 1 | 2 | 3 | 4 | 5      | 6                   | 7 |
| 8 | 9 | 0 | & | Æ<br>Œ |                     |   |
| • | ¢ | £ | : | ¼      | ½                   | ¾ |
| A | B | C | D | E      | F                   | G |
| H | I | K | L | M      | N                   | O |
| P | Q | R | S | T      | V                   | W |
| X | Y | Z | J | U      | SPACES<br>AND QUADS |   |

12½ BY 12½ CASE.

sizes, either kind could be selected from the others without causing much inconvenience. Two fonts of type of the same size body should never be laid in the same case, as it would be impossible to set up either kind without looking at the face of each letter. As type cases are not expensive it will be found much more convenient to have a separate case for each font.

## SETTING UP A JOB.



**A****FTER** the fonts have all been properly distributed into their several cases, you will then be ready to begin to set up a job for printing. At first select something not too large or too elaborate—a plain card, circular or note-head.



1st. Decide upon the size of the paper or card to be used. Also the most prominent line, which is generally the business or the special object for which the card or circular is printed. Then set your composing stick to the proper width, by moving the adjustable knee and fastening it.

2nd. Make this prominent line the full width of job, if possible. Where there are a number of important lines a good effect is produced by running them in in same type, something after this style:



# The Model Press

## 3 World's Fair Medals

### 40.000 Thousand Sold

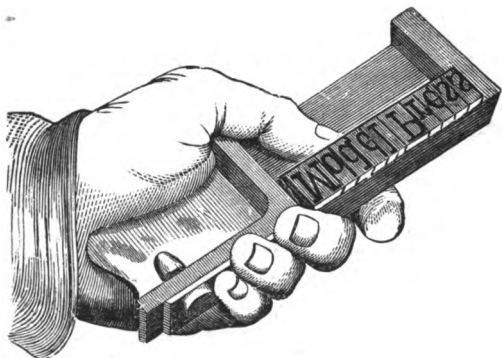
3rd. The heavy faced and the light faced type should be tastefully harmonized or contrasted.

4th. The firm-name, business, location, etc., should be in plain, readable type.

5th. Special attention should be given to "spacing out," that is, do not crowd the words and lines together nor spread them too far apart.

6th. Be careful about dividing words that are broken at the ends of lines upon the proper syllables. If there is not room for at least two letters, carry the whole word over. Never divide on one letter, even if that letter is the first syllable.

The composing stick should be held in the left hand, as shown in the engraving.



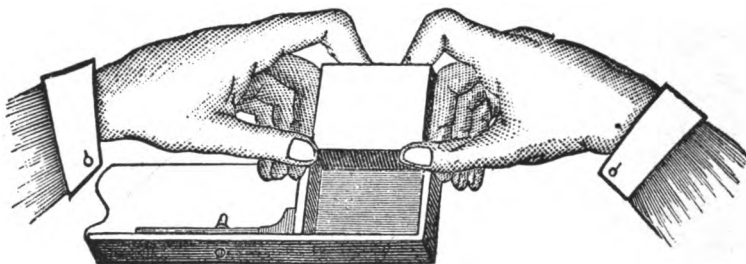
Cut a piece of brass-rule to fit the length to which the composing stick is set and place in the stick to set the line of type against. This is called a composing rule.

With the type case before you the types are picked up one by one with the thumb and forefinger of the right hand and placed in the "stick," beginning at the left, with the nick uppermost, holding the

thumb of the left hand against the line of type as it increases in length. After each word put in a 3 em space. When a line is full, take out or put in spacing until it fits tightly enough to hold. Don't space too tightly, but be careful that each line is spaced uniformly in this respect. Spaces are made in different thicknesses for this purpose. The first line of every paragraph should be indented an em quad, of whatever type the work may be set in. When the measure is very wide, a 2 or even 3 em quad may be used.

Type may be set either solid or leaded. As an example, this paragraph is solid. There are thin strips of type metal between the lines of the remainder of the page which space the lines apart. In this paragraph these strips of metal are left out, and is therefore called solid matter. In job composition, the type is set up much more open than in book and newspaper work.

When the "stick" is full, it is emptied in the following manner. The type is taken hold of as represented in the engraving;



the rule is placed in front of the last lines, and with the middle finger of each hand pressing tightly against the sides of the type and the thumbs pressing in the rear, lift the whole out of the stick and place it upon a galley, where it should be kept until the whole job is in type. It may be better, at first, to empty two or three lines at a time, until you can manage a whole stick full.

### DISPLAY.

We submit a few examples of job display, in which the type selected is used to good effect.

Lovely  
Lansdowne



---

Foot=Ball  
AND  
Basket=Ball  
Outfitters

A most captivating style of display can be set in dark-faced type, all in one series, of different sizes like the following:

Everybody

reads  
the

Bold    
Displays

Where the article and the price are both to be brought out prominently they can be set up something like this:

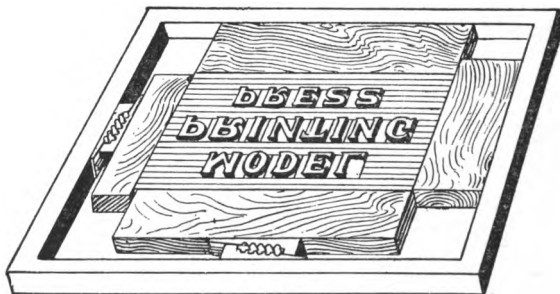
# Fireplace \$ Mantel 25

## Ornamental Red Brick

Put the article in two lines, and the price in one line double the size, which will exactly justify together.

Display is really the life of job composition and should be made the subject of careful study. The best object lesson in display may be found in the advertising pages of the monthly magazines and daily city newspapers. The skill and taste there exhibited is the delight of every one interested in up-to-date typography, and particularly to the young printer who desires to excel.

After a job is all in type and placed on the galley it should be tied up, which will make it much easier to handle. This is done by taking a piece of strong thin twine and winding it tightly around the type form three or four times, securing one end over the corner as you wind, and fastening the other end by thrusting it between the type and twine itself, drawing it tight on the corner. Always remove the string before locking up the form in the chase for the press. When in the galley the type will look something like the cut which shows the form locked up in the chase, ready to put in the press, as described on page 29, under the heading, "Locking up the Form."



Careful composition and accurate justification will greatly facilitate the process of locking up. Where a job is not properly spaced it is very difficult to lock it up so that the letters will all remain in their places when the form is lifted.

## TAKING A PROOF.



WHEN you finished setting up a job, and placed it on the galley properly tied up, it will then be known as a "form." The next thing to do is to take a proof of this form, so that the errors may be marked and the corrections made by taking out the wrong letters and substituting with the proper ones. It is a very unusual thing for a printer to set up a job entirely free from errors.

To take a proof you should have a proof-planer, which is a flat, smooth-faced, oblong block of hard wood the face being covered by a piece of felt or thick fine cloth. Place the form on the marble imposing table and ink the face of the type lightly with the hand roller. Then lay a piece of soft thin printing paper over the form of type and with the planer pressing firmly down on the paper tap it gently with a light mallet or hammer. Move the planer so that you will cover the whole form, being careful not to slur or smear the impression during this process. After taking the proof, which will print in this way much easier if the paper is slightly dampened with a sponge, proceed to mark the errors with a pencil on the side margins. This is called "correcting the proof." The ink should be cleaned from the face of the type before it is corrected. This can easily be done by rubbing it over with a soft cotton cloth dampened with our cleaning fluid, called The Model Ink Reducer and Cleaner. This is made especially for cleaning type and rollers, and for thinning ink when too heavy to work properly. The price is 25 cents for a half-pint bottle. The use of a bodkin and tweezers will much facilitate the correction of the type form.

After correcting, it is customary to take a second proof of the form, which is called a "revise." Compare this revise with the original corrected proof sheet and note if all the alterations have been made. If so the "revise" is marked "O. K." and the form is ready to be locked up in the chase.

## CORRECTING A PROOF.

Below we give an example of a corrected proof sheet, and the same after the corrections have been made.

*Explanation. □ means indent, = straight line  
letter - d, abbreviation of delete, take out -  
Mr. transposition letters - Slet. let it stand -  
Other marks are self-explanatory*

The Art of Printing.

Printing is a very simple thing to do. Any <sup>caps</sup>□/dash boy who can read, can print Cards, Letters <sup>=/d/</sup> Heads, Bill Heads, Statements, Circulars, Envelopes, Wrappers, Labels, Cuts and Designs and <sup>a/d/7/7/</sup> even small newspapers, at the trifling <sup>E/10/X/</sup> cost of <sup>of lead</sup> blank paper. The business man will readily <sup>m/</sup> see not only the economy but the profit <sup>fi/</sup> accruing in being able to appeal to a wide circle of customers as often as he pleases, at next to no expense. One of the secrets of our most successful merchants is the fact that they do ~~their~~ own printing, and flood the community with their advertisements just in the nick of every auspicious time. <sup>Lead d/</sup> <sup>Slet/</sup> <sup>i/d/</sup>

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## LOCKING UP THE FORM.



WHEN you are ready to put the type in the press, place the galley with the form upon it on the imposing stone. Then carefully slide the form, from the galley to the stone, and turn it so that the top of the form is toward you. The type will be then in the same position to the eye as when being set up. Take the chase and lay it over the form, with the lower side of the chase toward you or to the right hand side as it will fit the best. Secure the form temporarily by fitting furniture of such width and lengths as will be required to fill the chase. The quoins should be inserted at the bottom and left hand sides of the form near the chase, as shown in the cut. When locking up the form in the chase do so gradually, until it is solid enough to lift without any of the type or spacing falling out or moving. It does not require a great pressure from the quoins to hold the form securely, provided you have the lines properly spaced and otherwise adjusted. Before the form is locked completely tight, it should be "planed," that is, lightly beaten down until the types are all exactly level. This is done with a "planer," which is a thick oblong wooden block, with the face made perfectly true and smooth. Put the face of the planer on the form and gently strike it with light mallet, moving the planer slightly after each stroke.

## TAKING AN IMPRESSION.



THE form being properly locked in the chase you are ready for the first operation with the press. First take out the gripper by loosening the thumb-screw at the side. In other presses than the Model the gripper can not be removed, and it is very difficult in the smaller presses to make ready a form with the gripper in place. See that the form rollers are properly in position, and that they and the ink-disc are clean and free from dust and lint. With the hand roller, roll up the ink-disc with ink until it is well-covered. Don't use too much ink! It takes but little ink to print, if it is well distributed. A little ink or *just enough* and no more, evenly distributed, is the secret of good printing, provided everything else is right. Now, start up your press by pushing down the handle and raising it again as far as it will go, which will cause the rollers to pass up



and down and over the ink-disc. Continue this for a few moments until the ink is thoroughly distributed on the rollers.

Then make a bedding on the face of the platen, by stretching thereon under the platen-bands about four or five sheets of printing paper. This is called a "tympan." Now put in the chase containing form, being careful that it is secured in its place by the thumb-screw under the disc. Place then on the platen a sheet of printing paper, holding it in place by the top margin with the left hand, and with the right hand press down the handle of the press firmly, but cautiously. If the impression appears too heavy, relieve it by the impression screws in the front of the platen. Then press down the handle as far as it will go. Raise the handle again, holding on to the printed sheet, which may have a tendency to adhere slightly to the type. Examine the impression you have made and see if it uniformly printed throughout. If any parts are "weak" strengthen them by slightly moving one or more of the four corner impression screws. If any part is too strong relieve it in the same way. Examine the back of the sheet as well as the face. When the impression appears to be even, then screw up the center impression screw until you can feel the inner end just touch the platen plate. Be careful not to tighten this screw too much so as to disturb the impression. This screw is simply to support the center of the platen.

### MAKING READY.



**A****FTER** the impression is made level sometimes there is a slight inequality in the height of the different types or cuts used. This may be remedied by using tissue paper to overlay the parts that are light, and cutting away with a sharp-pointed knife the parts that are high. This is done by taking an impression on a fresh thin sheet of paper and overlay on this sheet with tissue lightly pasted, the light or low parts and cut out where the impression is too heavy. Attach this "make-ready" sheet to the tympan with a little paste at the corners exactly in the position the impression was made. This process is called "making ready."

When there are cuts to be printed some skill must be exercised in making ready, by cutting away the light portions and overlaying the dark portions so that the proper effect of the picture may be

brought out. To one interested in printing the process of making ready a form will be a few minutes very enjoyably spent. It will be like seeing the artistic beauties of a picture grow under the skillful hand of the artist.

Sometimes an underlay may be required to bring up a very black letter or dark cut. This is done by pasting a piece of paper on the bottom of the type or cut, being careful that the underlay is not too large, so that it might bear up other parts of the form. An underlay forces the part underlaid up and allows it to print evenly with the remainder of the form.

When the "make-ready" is completed put the gripper in place, and see that the gripper fingers are spread wide enough apart to avoid coming in contact with the form. These fingers are adjustable on the gripper bar so that they can be set to the right or left. They should grasp the sheet about one-quarter of an inch from the edges of the form, and will lift it away from the type after each impression.

## THE GAUGE PINS.



WHEN the gripper is adjusted, then set the gauge pins to hold the sheet in place on the tympan while being printed. The gauge pins are placed so that two are at the bottom, well toward the ends of the sheet, so that it will rest on them level with the form, and one at the left hand end of tympan. The gauge pins must be placed so that the sheet will be printed with proper margins. Quads or bits of card-board are sometimes pasted on the tympan to feed against, but we advise the use of gauge pins. They are made for the purpose, are not very costly, are quickly adjusted and will last indefinitely.



Having arrived at this point you are now ready to print the job. Count out the number of sheets or cards, cut to the proper size to be printed, and proceed to feed them into the press carefully, one by one, until they are run off. Keep the ink replenished from time to time

as needed on the ink-disc with the hand roller, so that the impressions are all uniformly black and clear. After being printed handle the sheets or cards very gently until the ink is set and dry, when they can be gathered up and packed for delivery to your customer.

## DISTRIBUTING THE TYPE.



**PLACE** for everything and everything in its place is the first law of the printing office, whether it be large or small. After a job is run off, the chase is taken out and placed on the imposing stone and the ink cleaned from the type with The Model Ink Reducer and Cleaner, referred to on page 43. Then unlock the form and you begin distributing the types back again into their respective cases and boxes. It is very important to keep your types that have been printed from well cleared up. It only takes a few minutes to put away into the cases after being used, and then they are in proper order for the next job you wish to set up. Distributing type is really only reversing the order of setting them up.

First, dampen the form with a sponge, on the stone, and remove the furniture from around it, leaving a piece against the bottom and one side to support it. Then take a number of lines from the top of the form, on a lead or piece of brass rule, and hold it in the left hand with the nicks uppermost, and the face of the type toward you. With the thumb and forefinger take off the first word, or as much of it as you can hold safely, and throw each letter into its proper box one at a time. Suppose the word you have taken up is "Press." You simply detach from the others one letter at a time and throw it into the box for it, as you spell the word—P-r-e-s-s. The next word may be "Model." You take it up in the same manner, with the space after it, and spell it into the proper boxes—M-o-d-e-l—space. After a little practice you will be able to take more than one word at a time if the type is not too large.

To distribute the types into the case rapidly you must become perfectly familiar with the location of the different boxes. Any inaccuracy in distribution, by putting the letters into the wrong boxes, will afterwards cause an error in what you set up, as it is not necessary to look at the face of each type as you set it. This is done when you distribute it. Get the position of the box for each letter, figure, point or other character as well as for the quads and spaces,

fixed in your mind by careful study and practice, and after a little while the hand will almost unconsciously place the type properly.

As the character on the face of the type is the reverse of how it appears to the eye when printed, at first some difficulty may be experienced in quickly distinguishing b from the d and the p from the q. Apparently the b on the face of the type looks like a d and the d like a b, the p like a q and the q like a p. A good rule in distributing is to remember this and when a type appears like a b it is really a d and so with the other letters. After a little practice, however, even this perplexity will disappear and the b, d, p and q will be distinguished from one another as readily as the other letters. The old saying, "Mind your p's and q's," had its origin in the instructions to the young printer.

### CARE OF THE ROLLERS.



THE rollers of the press must have good care to get from them the best results. As soon as you are done printing for the day, the rollers should be taken out of the press and the ink thoroughly cleaned from them with a cotton cloth slightly wet with Model Ink Reducer and Cleaner. After being cleaned they should be placed in a long, narrow box with a cover, supported from the ends on notched blocks. This will protect them from the dust and the drying action of the air. They should be kept in a moderately cool place and where it is not damp. Rollers readily absorb moisture, which may prevent their taking the ink perfectly. If too dry they will likely shrink on the face and lose the "tacky" surface which good rollers should have. If you suspect them being too damp, place in a current of air for awhile until the moisture is somewhat driven off. If too dry, wet a sponge and squeeze out all the water possible, then sponge the surface of the rollers thoroughly by rubbing them lengthwise from end to end. Let them stand a few minutes, when they will be ready for use. While roller composition can readily be obtained in bulk, we advise having your rollers made for you by those whose business is to make printers' rollers. By mailing the iron roller stocks, stripped of the composition, to the manufacturers of the press, new ones will be recast and returned within two or three days. If the distance is too far and the delay of getting

new rollers made too great, you should order a roller mold and a few pounds of roller composition with the press and be prepared to recast your own rollers when required. The needed directions will be sent with the roller mold if requested.

Rollers are made of material that is susceptible to heat and cold. Hence rollers made for summer use may be found too hard as the weather grows cold, and the winter roller too soft when the weather becomes warm. Generally rollers should be changed two or three times a year, and if much used, oftener than that.

## COLOR AND BRONZE PRINTING.



COLOR and bronze printing require considerably more care than printing in black. When the form is all to be printed in some one color or in bronze (silver or gold), it is made ready by first inking it with black, with a hand roller, so that the rollers and ink-disc may be clean to receive the colored ink when you are ready. Then make ready, the same as for black. When made ready and the gripper and gauge pins adjusted, take out the form and clean it thoroughly, as the least black ink left on the face of the type will spoil the brilliancy of the colored ink. Then ink up the press by putting a small quantity of colored ink from the can direct upon the ink-disc, and operate the press until the ink is thoroughly distributed. Put in the chase again and proceed to print the same as with black.

If the job is to be done in gold or silver bronze, instead of using ink upon the rollers you must use gold size. This is a very sticky, yellowish substance like ink, but much more tenacious. When the size has been well distributed, proceed to print the same as with ink. After printing a few sheets, however, which must not be laid upon one another, take some of the bronze on a piece of clean raw cotton and rub lightly over the printed impression. The bronze will adhere to the size readily but not to the paper, or card. This you continue to do as you print the sheets, being careful not to allow them to remain unbronzed too long, as the size sets quickly when printed. After remaining several hours, each sheet or card should be well rubbed off with a clean piece of raw cotton, which will remove any loose powder that remains.

If more than one color is to be used—for example, the body of the job in black and the display lines or initials in red, two forms must be used. The portion that is to be in red should be put in the chase and printed first and finish with the black. In setting up a job to be printed in colors, proceed the same as if the whole were to be in black. When set up and placed in the galley take out the lines or portions that are to be in red and lock up in the chase, spaced out exactly into the position those lines occupied in original form, so that when printed they will fall into the space left for them in the black form. When the red is printed replace this form in the chase by the form to be printed in black, leaving open the space occupied by the red. Then print in the black. If bronze is to be used instead of red, use size and bronze the sheets in place of using color.

Sometimes a quick bronze effect can be produced by printing the form all in black (or some other ink) and then before the ink is dry, carefully bronze the lines desired, and when entirely dry, brush off the surplus powder with clean cotton. The ink, however, will not hold the bronze powder effectually and this process would not be considered good bronze work.

Immediately after printing with colored inks or size, the rollers, ink-disc and form should be thoroughly cleaned off, as it would be almost impossible to remove when dry.

### ESTIMATING ON A JOB.



IN estimating the cost of a job so as to fix the price, a number of things should be considered. Taking an ordinary business note-head as an example, when the paper costs seventy-five cents per 1000 sheets, the following would be a fair price to charge:

|                                    |        |
|------------------------------------|--------|
| Cost of paper.....                 | \$ .75 |
| Profit on paper 20 per cent.....   | .15    |
| Setting up the type, etc.....      | .50    |
| Press work.....                    | .85    |
| <hr/>                              |        |
| Price of first 1000.....           | \$2.25 |
| Less setting up the type, etc..... | .50    |
| <hr/>                              |        |
| Price of each subsequent 1000..... | \$1.75 |

From the above estimate, which is lower than similar jobs are furnished usually, you would get \$2.25 for what actually costs in material 75 cents, or a profit of \$1.50. Such a job on a Self-Inking Model Press should be set up and printed in about two hours.

When selecting your stock it would be to your advantage to get complete price lists from dealers, and, if possible, samples of the different papers, cards, bill and letter-heads, note-heads, envelopes, etc. These price lists and samples will be cheerfully furnished by us upon application.



## A DICTIONARY OF PRINTERS' TERMS.



O assist you in more fully understanding the instructions and explanations given in these pages we have carefully compiled an alphabetical list of printers' terms in general use. Should you therefore run across words and terms with which you are not familiar, refer to this list and find out the meaning. Further than this we would suggest that you carefully study the whole list, so that you may be able to use the terms intelligently when required.

**AD.**—An abbreviation of advertisement.

**ALTERATION.**—Changing words or letters in the proof, so that it reads differently from copy.

**BED.**—The part of the press against which the type rests.

**BLUR.**—A printed sheet where the ink looks dauby and ragged.

**BODY.**—A term applied to the size of type.

**BODKIN.**—An awl used in correcting a type form.

**BOX.**—A compartment in a case in which a certain type is kept.

**BRASS-RULE.**—Strips of brass of the height of type used for forming lines.

**BRONZE.**—Powdered metals, used with size to imitate gold and silver printing. Bronze is also made in other colors.

**CABINET.**—A piece of furniture designed to hold type cases, to protect them from dust.

**CAP.**—The abbreviation of capital as applied to letters in type.

**CASE.**—A receptacle for types.

**CHASE.**—An iron frame in which type is locked for printing.

**COMPOSITION.**—The setting up of type for printing.

**CONDENSED.**—A type with a narrow face.

**COMPOSING STICK.**—An adjustable iron or brass tool in which types are placed, in being set up.

**COPY.**—Any written or printed matter which is to be set up in type.

**COMPOSING RULE.**—A rule made of brass or steel to facilitate the placing of type in the composing stick.

**COMPOSITOR.**—One who sets type and makes up the forms.

**CORRECTING FORM.**—Removing wrong types and replacing them by proper ones.

**DWELL ON THE TYPE.**—Permitting the sheet to remain pressed to the face of type a moment so as to set the ink on the paper.

**DELE.**—A mark used in proof reading, to indicate that a letter, word, line, etc., should be taken out.

**DEVIL.**—The errand boy who spends a year or two in a printing office getting ready to learn to print.

**DISTRIBUTING.**—Returning types to the boxes after being printed from. Spreading ink evenly over a roller or disc of a press.

**DIRTY.**—The proof of a job with many corrections.

**DOUBLET.**—A repetition of words.

**ELECTROTYPE.**—A copper-faced plate blocked type-high. Generally a fac simile made of a type form or cut.

**EM.**—The square of the body of a type.

**EN.**—Half the width of an em.

**FACE.**—The letter on the end of a type.

**FAT.**—Printed matter with much space, such as break lines, leads, etc.

**FONT.**—An assortment of the different letters and other characters of any one kind of type in the proper proportion for use.

**FORM.**—The types after they are set up for printing.

**FOUNTAIN.**—A receptacle for ink which feeds it to the rollers automatically.

**FURNITURE.**—Wood or metal pieces to place around a form for locking up.



**FULL-FACE.**—Type having a broad face.

**GALLEY.**—A flat tray to hold the types when setting it up.

**GAUGE PINS.**—Brass or steel pins to hold the sheet in place when printing.

**GOLD BRONZE.**—A fine golden powder for printing in gold.

*gutters* **HAIR LINES.**—Very fine lines.

**HAIR SPACES.**—The thinnest spaces made.

**IMPRESSION.**—The pressure of the sheet or card upon the type when printing.

**IMPOSING TABLE.**—A level, smooth, surfaced slab of marble or slate, upon which type is placed when making up and locking in chase.

**IMPOSITION.**—The operation of preparing a form for the press.

**IMPRINT.**—The name of the printer when placed in small type on a job.

**JOB.**—Something to be set up and printed.

**JUSTIFYING.**—Spacing the lines of types so that they are exactly of the same length.

**LABOR-SAVING RULE.**—Brass rules cut into definite lengths from 12 points up.

**LEADS.**—Thin strips of type-metal, mostly 2 points thick, to put between the lines of type.

**LOCKING UP.**—Making the form secure in the chase.

**LOWER CASE.**—The case containing the small letters of a font.—The small letters of a font.

**LAYING THE CASE.**—Distributing new type into the case.

**LEADED MATTER.**—Type lines set up with leads between the lines.

**MAKING READY.**—Getting a perfect impression from a form of type.

**MAKING UP.**—Arranging type that has been set up into forms or pages.

**MARGIN.**—The blank edge on a sheet, around the printed portion.

**MEASURE.**—The width of a page or job.

**MATTER.**—Type that has been set up. If it has not yet been printed from, it is called "live matter." If ready for distribution it is called "dead matter."

**METAL FURNITURE.**—Pieces of type-metal of various lengths and widths, made to point measure, used for imposing forms and locking them in the chase.

**NICK.**—The notch or notches near the lower end of types.

**OFF ITS FEET.**—Types when they do not stand square on the bottom.

**OUT.**—Any thing omitted in setting up type, and marked for insertion by proof reader.

**OUT OF REGISTER.**—When a sheet is printed on both sides and the impressions do not come directly opposite. In color printing, when the colors do not fall in proper place.

**OVERLAYING.**—Pasting layers of thin paper on the tympan to bring out more plainly certain portions of the form.

**PI.**—Types which have been mixed up promiscuously.

**PLATEN.**—The part of a press that carries the sheet to be printed and presses it upon the form.

**PLATEN BANDS.**—The iron clamps which hold the tympan to the face of the platen.

**PLANER.**—An oblong block of hard wood used in leveling the face of the type in the form.

**PLANING THE FORM.**—Leveling down the form before finally locking up.

**POINT.**—The unit of type measurement. Points.—Instrument sometimes used on the tympan to insure good register. Points.—The punctuation marks.

**PRESS WORK.**—The various press operations required to produce printed sheets.

**PROOF.**—An impression from a form of type for the purpose of examination or correction.

**PROOF PLANER.**—A planer with the face covered with felt or cloth for taking a quick impression from a form.

**PROOF READING.**—Examining a proof and marking the errors for correction.

**QUADS.**—The abbreviation of quadrats. Pieces of type-metal to use with type in filling out blank lines.

**QUOINS.**—Small wedges of hard wood or metal used to lock up the form in the chase.

**REGISTER.**—To cause the printed pages of each side of the sheet to exactly back one another. In color-work, to have the different colors fall exactly in place.

**REGLETS.**—Thin strips of hard wood of varying thicknesses to space out a form or to lock up.

**REVISE.**—A proof taken of a form after it has been corrected.

**ROLLER.**—A cylinder of composition for distributing the ink on the face of type.

**SORTS.**—The separate characters in a font of type.

**SLUR.**—A printed sheet which has moved during the impression.

**SHOOTING STICK.**—A notched piece of iron, brass or wood for driving up quoins.

**SIZE.**—A soft adhesive substance to use instead of ink, for bronze printing.

**SILVER BRONZE.**—White metal powder to print in silver.

**SLUGS.**—Leads that are cast 6 points thick and upward.

**SPACING.**—Adjusting the distances between the words in a line of type.

**SPACES.**—Low blank types used to separate words in lines of type.

**STEREOTYPE.**—A plate to use for printing, made of type-metal.

**STICK.**—The common name for a composing stick.

**STET.**—A word used in proof reading meaning "let it stand"—when something has been marked out by mistake.

**TABLE, OR TABULAR WORK.**—Type matter consisting wholly or in part of rules and figures.

**TYMPAN.**—The bedding on the face of the platen.

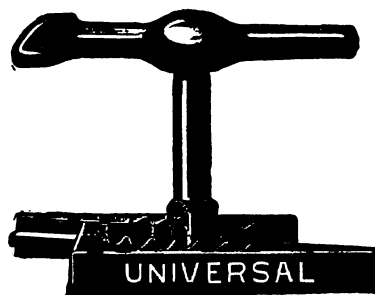
**TYPE-HIGH.**—Just the height of a type form.

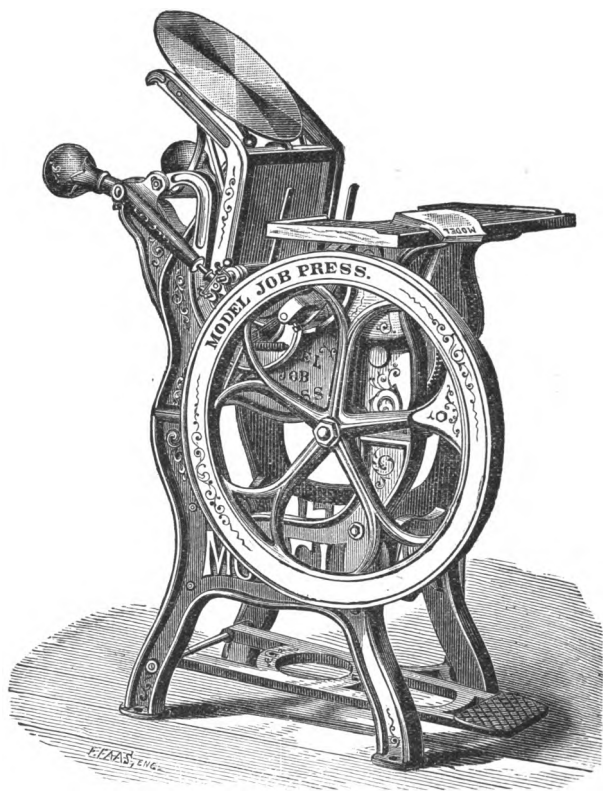
**TYPO.**—A familiar name for a printer.

**UNDERLAY.**—Pieces of paper pasted on the bottom of a form, when making ready.

**WORKED OFF.**—When a job has been printed.

A PAIR OF METAL QUOINS AND KEY.





We show in the above cut, our Improved Rotary Foot Power Model Job Press, inside size of chase 7x11 inches. This press is built upon the same excellent principle, which has made the Model Press famous all over the world. The directions given in the foregoing pages apply equally to our foot power presses. A full descriptive circular will be sent upon application.



7

PRINCETON UNIVERSITY LIBRARY

PAIR>



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nice Bank Account  
in his own  
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