

(No Model.)

W. B. HAMILTON.
PRINTING FORM.

No. 535,582.

Patented Mar. 12, 1895.

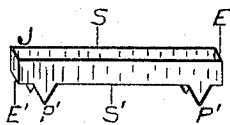
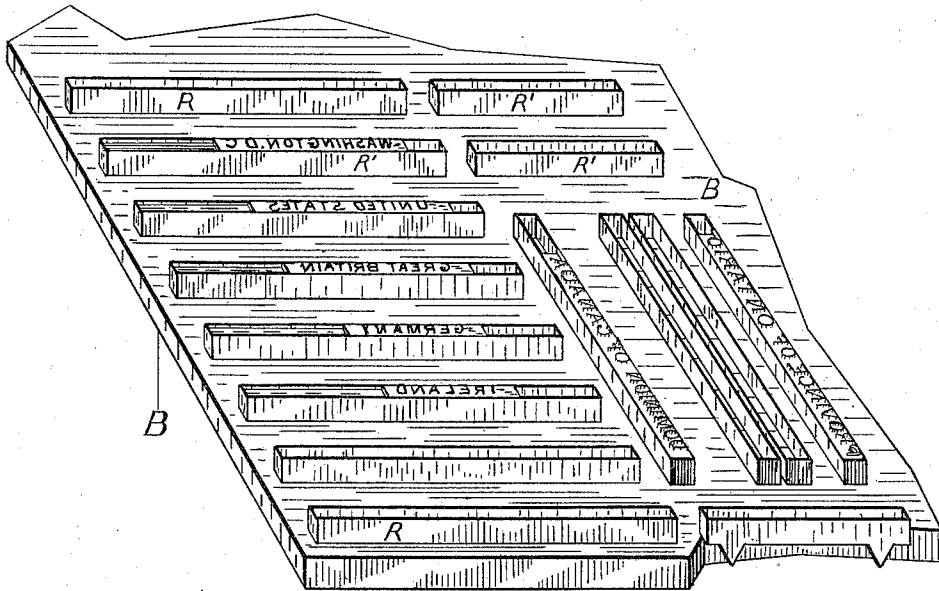


Fig 2

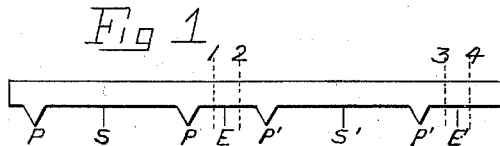


Fig 3



Fig 4

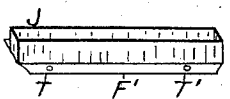


Fig 5

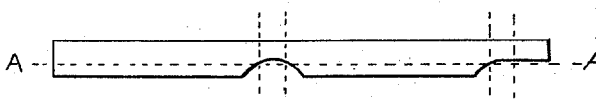


Fig 6

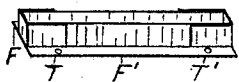


Fig 7

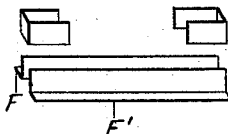


Fig 8

WITNESSES

L. P. Poulton
Donald B. Ridgway

INVENTOR

W. B. Hamilton

UNITED STATES PATENT OFFICE.

WILLIAM B. HAMILTON, OF TORONTO, CANADA.

PRINTING-FORM.

SPECIFICATION forming part of Letters Patent No. 535,582, dated March 12, 1895.

Application filed February 20, 1894. Serial No. 500,929. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. HAMILTON, of the city of Toronto, Province of Ontario, Canada, have invented a certain new and useful Type-Chase or Instrument for Holding Type in Position Ready for Printing, of which the following is a specification of my invention.

My invention appertains to the art of printing, and within this art my invention appertains to that division, section or branch, of the art of printing, which comprises the work of printing on the blanks or spaces of a previously printed form or sheet the information or the instructions, for which the said blanks were preparatively provided; and my object has been to provide a printing form that will be suitable and adequate under the special and peculiar circumstances attending the particular branch or division of the art of printing to which my invention appertains or relates. I attain this object by my invention which is a device or instrument for holding type in position ready for printing, and which consists of an easily portable and otherwise suitable supporting base or bed, to which is attached independently locatable type-receptacles, having attaching prongs and type-engaging-walls.

My invention is illustrated by the accompanying drawings, in which like letters and numerals indicate corresponding parts in all the figures.

Figure 1 is a full sized perspective view of a corner of my device or instrument for holding type in position ready for printing. A part of the device is shown as broken away in order to show its construction. In the following description of this device or instrument I will speak of it as a "type-chase." Fig. 2 is a perspective view of a type-receptacle, standing on its prongs. Fig. 3 is a full sized plan view of the blank from which this type-receptacle is formed. Fig. 4 is a perspective view of a type-receptacle canted to one side. Figs. 5 and 6 are views of modified forms of the type-receptacle shown by Figs. 2 and 3. Fig. 7 is a full sized plan view of the blank from which the type-receptacle shown by Fig. 5 is formed. Fig. 8 shows the pieces from which the type-receptacles shown by Fig. 6 is formed.

In Fig. 1 "B" is the base or bed of my type-chase or instrument for holding type in position ready for printing. This bed is of uniform thickness and on it the type rests. It consists preferably of a composition of ground cork and oil rolled to a perfectly even thickness and is commonly known as "cork-carpet" or "linoleum." I prefer to use this material because it is very much lighter than metal, and because it is less affected by heat or dampness, than either wood or mill-board, and being flexible is not liable to warp or become twisted. This quality of flexibility combined with its heat and moisture resisting qualities or properties makes it a highly suitable material for the base of my special printing-forms. It has another advantage over wood inasmuch as it has no grain and the prongs of the type-receptacles can therefore be driven with equal facility, with the type receptacle lying in any direction on the base. It is also preferable to sheet-rubber owing to the fact that it is very much cheaper, and because it has all these advantages this "cork-carpet" contributes largely to the success of my invention.

The type-receptacles R R' preferably consist of sheet-metal, either tin, brass, or steel, &c., and they are preferably formed from blanks as shown by Fig. 3 of which the parts S and S' form the side-walls and E and E' form the end-walls and P P' form the attaching-prongs of the type-receptacles. The process of forming these type-receptacles consists in bending the blank to a right-angle at each of the points 1, 2, 3, 4, thereby forming an oblong-rectangular-type-receptacle having the sides S S', ends E E' and prongs P P' as shown in Fig. 2. It will be noticed that this type receptacle has not a bottom formed integrally therewith, the bottom being preferably supplied by the base B, thus avoiding any possible unevenness that might occur if a portion of the type-receptacle intervened between the type and the base B.

While I prefer to employ the style of type-receptacle shown by Figs. 2 and 4, principally because type-receptacles of this style may be located closer together on the base B than either of the styles of type-receptacles shown by Figs. 5 and 6 and this because they have attaching-prongs instead of attaching-flanges and tacks, it is obvious that a type-chase

equivalent to the one shown by Fig. 1 might be constructed with type-receptacles like either Fig. 5 or Fig. 6.

In forming the type-receptacles shown by Fig. 5 the portion below the line A A in Fig. 7 is first bent to a right angle with the portion above the line A A. The type-receptacle is then formed in the same manner as the type-receptacle shown by Fig. 2 is formed. The type-receptacle shown by Fig. 6 is formed from the separate pieces, namely, two ends and two side pieces as shown in Fig. 8. These are soldered together thus forming the type-receptacle Fig. 6. The flanges F F' are pierced or punched at the points T T' and through these holes a tack or small nail is driven into the base B, when these type-receptacles are being attached thereto. The type receptacles shown by Figs. 2, 4 and 5 are preferably soldered where the ends join at the point J but this is not always necessary.

It is well known that rubber type is more suitable for the requirements in the branches of printing wherein it is used than metal type is suitable for these requirements, and it is my purpose to employ it in the particular branch of printing to which my invention relates.

I do not claim for my invention that it is an improvement on the ordinary type-chase employed for holding the type together in ordinary type-printing, but that in the particular branch or division of the art of printing to which my invention appertains or relates that it is more suitable and adequate under the peculiar circumstances involved therein than any device or instrument heretofore known or used.

In the branch of the art of printing to which my invention relates it is essential or requisite (a) that the printing-forms be so constructed that the composed words, &c., may be located in an exact prescribed relative position to each other, and that this may be done without employing an experienced or skillful and expensive compositor; and also that portions of the type may be readily and quickly removed and substituted by other type; (b) that the printing-forms be sufficiently light in weight and free from liability to injury that they may be lifted and carried about without special exertion or care on the part of those who handle them; (c) and as is the case with all printing-forms it is essential that they be free from liability to become either warped or twisted. In all these respects my printing-form is equal to the requirements. The type-receptacles R R' can be readily and quickly driven into the base B in the exact prescribed relative position to each other that it is necessary the type should occupy in the printing-form in order to coincide with the various blanks or spaces provided in a previously printed-form. When the type-receptacles are once placed in the correct position this question of position is

no longer a matter for consideration unless the location of the blanks or spaces in the printed-form is changed and when this occurs it is a very simple matter to change the location of the type-receptacles so that they will coincide with the new location of the blanks or spaces. The type set in any one type-receptacle can be removed without interfering in any way with the type set in the other type-receptacles. In respect to weight, freedom from liability to injury, and freedom from liability to be become warped or twisted the printing-form which I am enabled by my invention to provide is all that is required for doing the particular class or kind of printing for which I have provided it, and I believe that heretofore no printing-form having like capabilities and construction has ever been known or used, and I also believe that no printing-form heretofore known or used will answer all the requisites in the particular branch of printing to which my invention relates.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device or instrument for holding type in position ready for printing the combination with a flexible base of type receptacles having respectively side and end walls but not having a bottom formed integrally with the said walls, the bottoms of the said type-receptacles being the surface of the base to which the said bottomless type-receptacles are attached; substantially as and for the purpose specified.

2. In a device or instrument for holding type in position ready for printing the combination with a quadrilateral plane bed or base of independently locatable type-receptacles, the said type-receptacles being attachable to the said bed or base parallel lengthwise with any of its sides or edges; substantially as and for the purpose specified.

3. In a device or instrument for holding type in position ready for printing the combination with a cork-carpet bed or base of independently locatable and bottomless type-receptacles having type engaging walls and attaching prongs, said prongs being adapted to be driven into the said base; substantially as and for the purpose specified.

4. In a device or instrument for holding type in position ready for printing the combination with a base of a type-receptacle composed of a strip of sheet metal having a series of V-shaped prongs projecting from one of its edges said strip being bent to form a quadrangle of which the projecting V-shaped prongs are adapted to be driven into the said base; substantially as and for the purpose specified.

5. The herein described means for holding type in position ready for printing comprised of a quadrilateral plane bed or base of flexible grainless material to which is attached independently locatable type-receptacles of

which the type supporting bottoms are parts of the surface of the quadrilateral bed or base; substantially as and for the purpose specified.

5 6. The herein described bottomless rectangular type-receptacle adapted to receive and hold together a line of type, said type-receptacle being formed from a strip of sheet metal having a series of V-shaped prongs projecting from one of its sides or edges said prongs
10 being adapted to be driven into a base or bed; substantially as and for the purpose specified.

7. The herein described bottomless type-

receptacle comprised wholly of side and end walls and of attaching prongs adapted to be driven into a bed or base; and capable of se- 15 curing the side and end walls to said base substantially as and for the purpose specified.

In testimony whereof I affix my signature, in the presence of two witnesses, this 16th day of February, 1894.

W. B. HAMILTON.

Witnesses:

DONALD C. RIDOUT,

L. FOULDS.