(No Model.) 2 Sheets—Sheet 1.

D. REID.

DEVICE FOR MOUNTING AND LOCKING INTERCHANGEABLE STEREOTYPE AND ELECTROTYPE PLATES TO THEIR BASES.

No. 471,432. Patented Mar. 22, 1892.

Fig. 1.

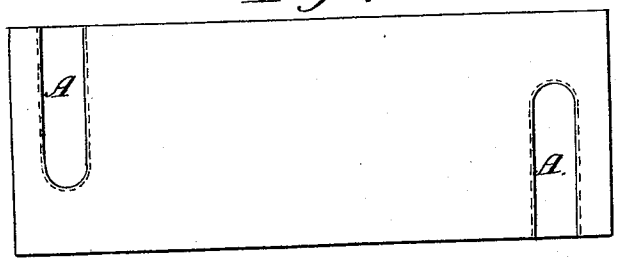

Fig. 2.

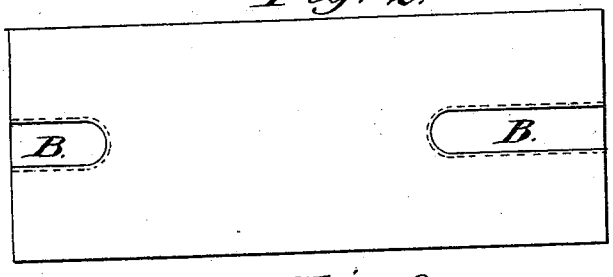

Fig. 3.

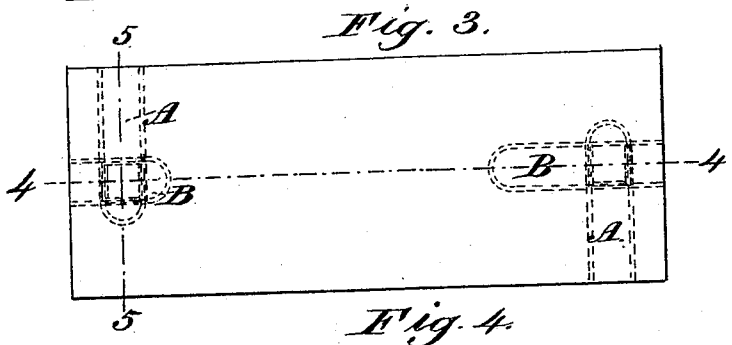

Fig. 4.

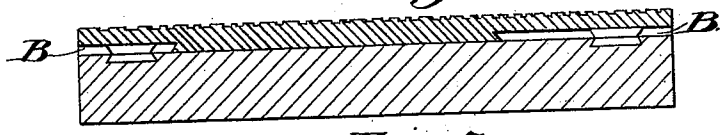

Fig. 5.

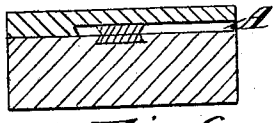

Fig. 6.

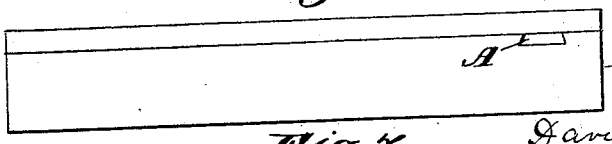

Fig. 7.

Witnesses:
E. B. Bolton
H. Kusterer

Inventor:
David Reid

Fig. 8. Fig. 9.

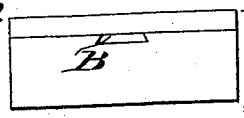

Fig. 10. Fig. 11.

By Richards & Co.
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D. REID.

DEVICE FOR MOUNTING AND LOCKING INTERCHANGEABLE STEREOTYPE AND ELECTROTYPE PLATES TO THEIR BASES.

No. 471,432. Patented Mar. 22, 1892.

Fig. 14.

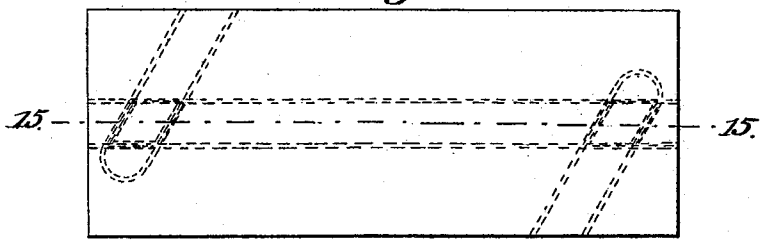

Fig. 15.

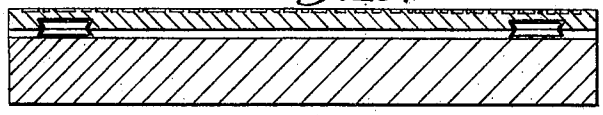

Fig. 16.

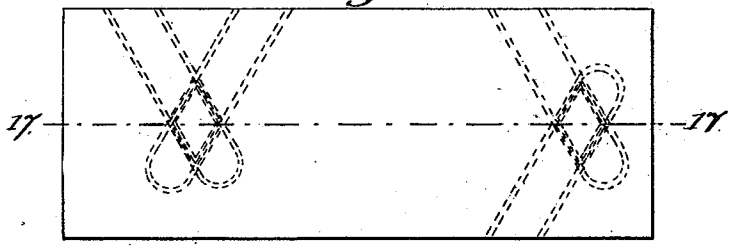

Fig. 17.

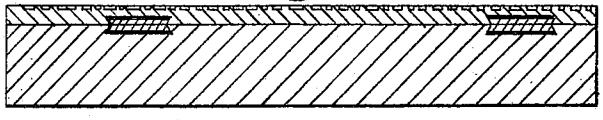

Fig. 18.

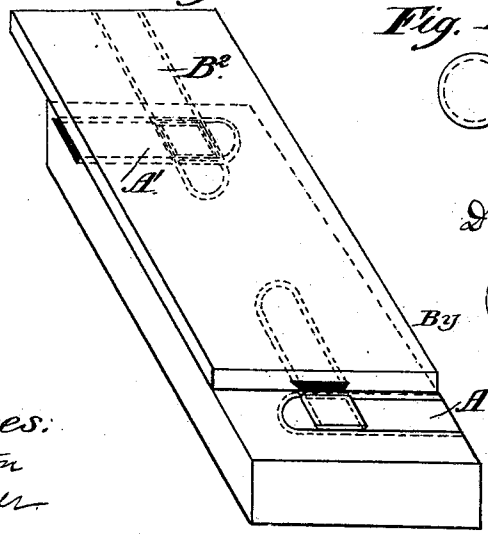

Fig. 12.

Fig. 13.

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H. Kusterer

Inventor.
David Reid
By Richards & Co.
his Attorneys.

UNITED STATES PATENT OFFICE.

DAVID REID, OF MELBOURNE, VICTORIA.

DEVICE FOR MOUNTING AND LOCKING INTERCHANGEABLE STEREOTYPE AND ELECTROTYPE PLATES TO THEIR BASES.

SPECIFICATION forming part of Letters Patent No. 471,432, dated March 22, 1892.

Application filed August 21, 1891. Serial No. 403,316. (No model.)

To all whom it may concern:

Be it known that I, DAVID REID, publisher, a subject of the Queen of Great Britain, residing at Caxton Buildings, Little Collins Street, in the city of Melbourne, in the British Colony of Victoria, have invented new and useful Improved Devices for Mounting and Locking Interchangeable Stereotype and Electrotype Plates on or to their Bases, of which the following is a specification.

This invention has been devised for the purpose of providing better means for mounting and locking interchangeable stereotype and electrotype plates on or to their bases than those already known. Those which I have invented enable the plates to be mounted with greater ease and facility, and when mounted are more securely fixed in position than by other means, and, furthermore, such plates are automatically justified when being locked up in the form.

It is well known that keys of various shapes, and especially double-dovetailed keys, have been used for the purpose of fitting into corresponding grooves in the under side of the plate and the upper face of the base; but hitherto such keys and such grooves have been made in one direction only and generally from one end of the base and plate to the other.

Now, my invention consists in connecting such plates to their bases by means of keys which have a double dovetailed groove all around them and by making single dovetailed grooves at or about right angles to each other in the under side of the plate and the upper face of the base, respectively, such grooves being made of the exact size to receive the double-dovetailed keys which I have just described. It will thus be noticed that where there is a dovetailed groove in the plate there is no corresponding groove in the base, and so with the dovetailed grooves in the base also; but these grooves are so made as to intersect each other when the plate is slid into its position on the base. I prefer to make these grooves running longitudinally from each end of the under side of the plate and crosswise from each side of the base near each end when two only are used. So long, however, as they intersect each other and so long as the key is made of such a shape as to correspond with the grooves at their intersection the precise position of such grooves may be altered or varied at will. In some cases—as, for instance, when the plate is wide enough for two or more columns of type—I increase the number of grooves, so as to admit of more than two keys being used for each plate. In the case of a plate which is wide enough to cover, say, four columns, I should prefer to make four longitudinal grooves at each end of the plate and two cross-grooves at each side of the base, so as to admit of eight keys being used for the one plate. It is obvious that by lengthening the grooves in the plate or running them from end to end three or more cross-grooves could then be cut in the base, so as to give a greater number of points of intersection, thus giving the opportunity of using a greater number of keys should such be found necessary for very large plates. I have found in practice, however, that four keys—two at each end—are sufficient to hold any ordinary plate. It is to be noted that the longitudinal grooves proceeding from one end of the plate must be made as nearly as possible twice as long as those proceeding from the other end of the plate, so as to admit of the plate being slid longitudinally over the first key or set of keys in a wide plate, with which the base is fitted sufficiently far to leave the other cross-groove at the other end of the base free to receive the other key or keys. The bases may be made in sections and pieced together, if so preferred, so as to fit all variations of shape and size of plates. Furthermore, the shape of these keys may also be varied by making them round, polygonal, or diamond-shaped, so long as they are susceptible of engaging in each of the grooves hereinbefore referred to.

Referring to my drawings, Figure 1 shows a plan of the upper face of a base having dovetailed grooves A made crosswise in its face, while Fig. 2 shows plan of the under face of the plate, having longitudinal dovetailed grooves B. Fig. 3 shows plan of the plate and base combined, the respective grooves in the plate and base being shown in dotted lines. Fig. 4 shows longitudinal section on the line 4 4, Fig. 3, while Fig. 5

shows longitudinal section on line 5 5, Fig. 3. Fig. 6 shows side view, and Fig. 7 end view of the plate and base combined. Figs. 8, 9, and 10 show, respectively, plan, elevation, and section of the double-dovetailed key. Figs. 11, 12, and 13 show, respectively, plans of keys of a different shape, the first two of which may be used as substitutes for that shown in Fig. 8, while Fig. 13 shows plan of a key which is suited for use in the event of the grooves being made as shown in Fig. 14, in which it will be seen that the grooves are somewhat differently arranged, there being only one continuous longitudinal groove in the under side of the plate instead of two, as shown in Figs. 2 and 3. This is necessitated by the different arrangement of the cross-grooves on the upper surface of the base. Fig. 14 is a view of a key in which the grooves are somewhat differently arranged. Fig. 15 is a longitudinal section on line 15 in Fig. 14. Fig. 16 shows plan of a plate and base in which there is a still further variation in the arrangement of the grooves and in the shape of the key. Fig. 17 is a section on line 17 17 in Fig. 16. From these drawings it will be seen that the double dovetail in the key is produced by simply making the edges V-shaped. Fig. 18 represents a plate which has been fitted over one key, which has been slid first into the cross-groove A′ in the base, and, secondly, into the longitudinal groove B^2 in the plate. This latter has then been pushed down into the position shown, so as to allow the second key being slid into the other cross-groove A^2 until it comes into line with the longitudinal groove in the plate, when the latter is slid over it, and the plate can then be adjusted either laterally or lengthwise with the greatest ease.

When about to connect a plate with a base according to my invention, I first slide one or more of the keys into the cross-grooves at one end of the base and then slide the long groove or grooves in the plate over the key and push it sufficiently far to admit of the second key or set of keys being slid into the cross groove or grooves in the other end of the base, when I slide the other end of the plate over said key, and when this has been done the plate can be adjusted laterally or longitudinally to any extent that may be required within the limit prescribed by the grooves, which are made sufficiently long to admit of any adjustment which is likely to be required in actual practice.

It will readily be seen that any keys which will admit of engagement with both sets of grooves will answer the purpose; but I prefer to make bases, plates, and keys as shown in Figs. 1, 2, and 3. The bases must of course be made of such a thickness as that when the plates are locked to them they will be exactly type high. The bases may be made of any suitable metal and the keys of any material which will answer the purpose, although I prefer these latter to be made of brass.

Plates that are mounted according to this invention can be readily slid off their bases and be replaced by others without disturbing their bases or the surrounding type or plates, which is a matter of very great convenience to the printer.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

The improved devices for mounting and locking interchangeable stereotype and electrotype plates on or to their bases, such devices consisting of the plate provided on its under side with single dovetailed grooves, the upper face of the base being provided with grooves, so that said grooves will intersect each other when the plate is placed in position upon the base, in combination with double-dovetailed keys, which will fit and engage with both of said grooves at their intersections, substantially as herein described and explained, and as illustrated in my drawings.

DAVID REID.

Witnesses:
WALTER SMYTHE BAYSTON,
EDWIN WILSON.