No. 636,547. Patented Nov. 7, 1899.

T. D. OAKLEY.

PLATE FOR PRINTING PRESSES.

(Application filed May 17, 1899.)

(No Model.)

Fig. 1

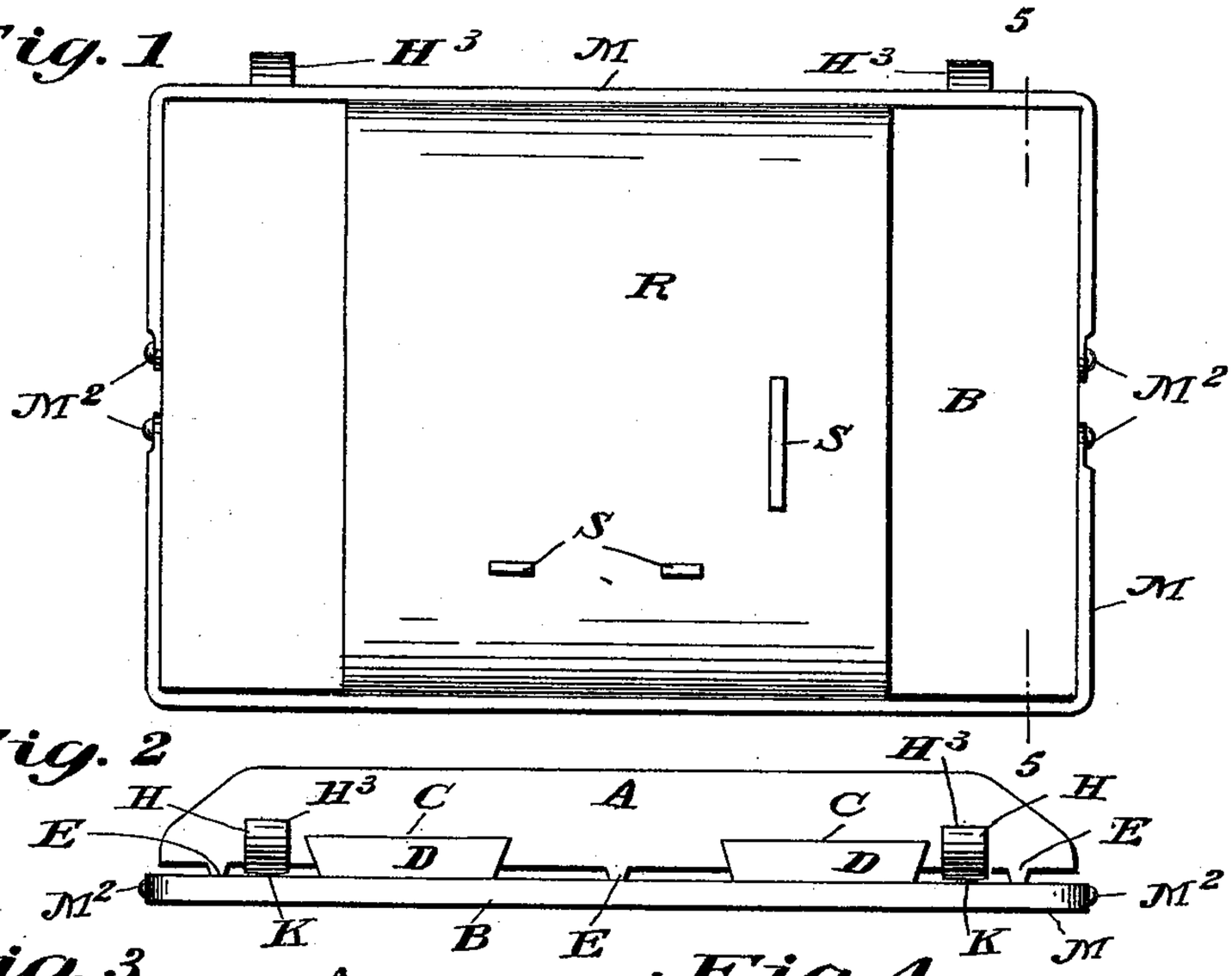


Fig. 2

Fig. 3

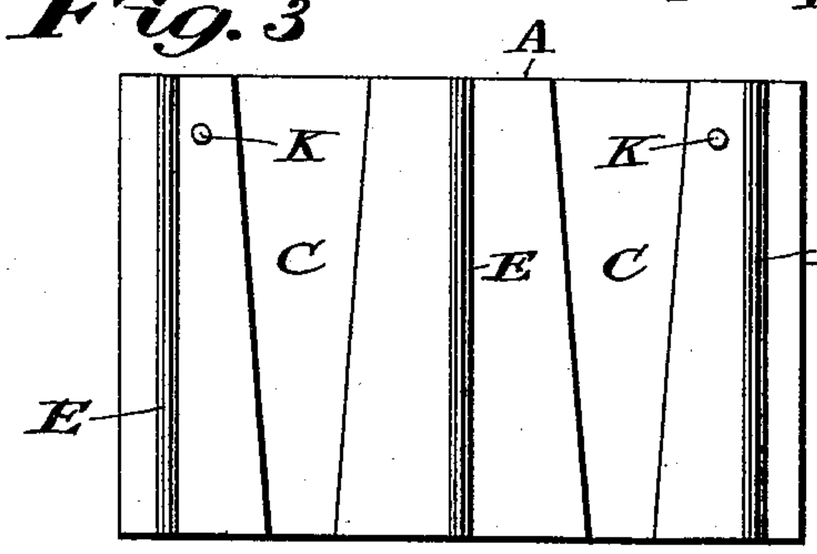


Fig. 4

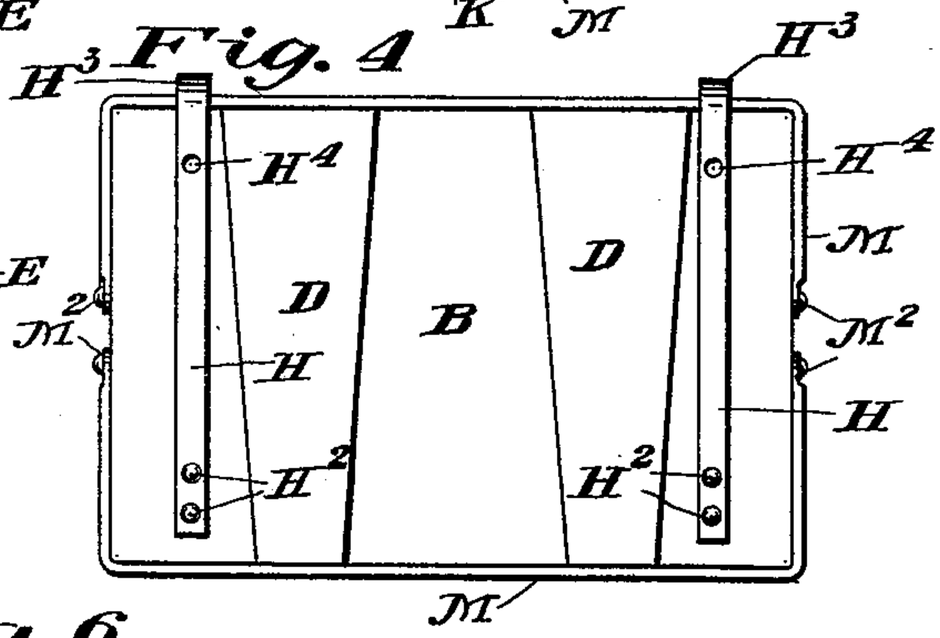


Fig. 5

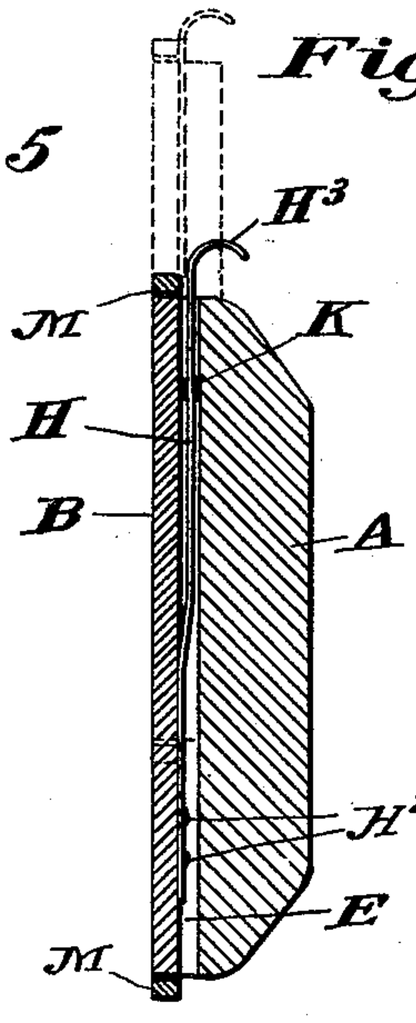
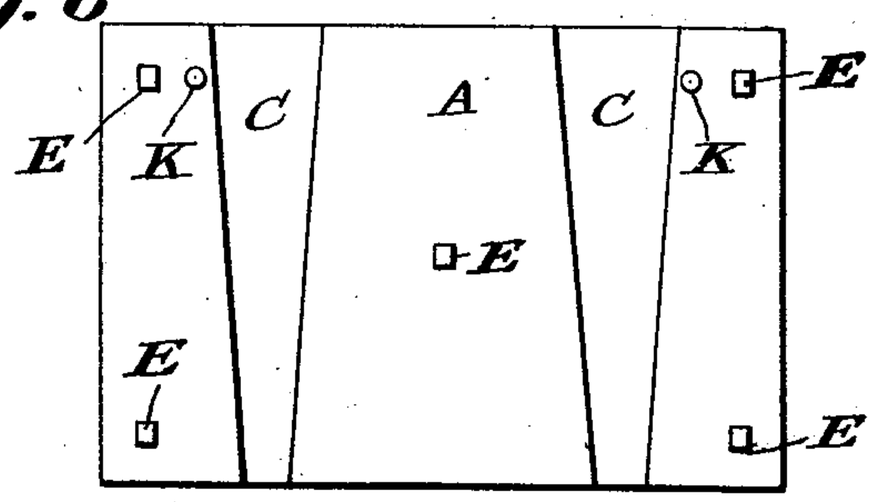


Fig. 6



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UNITED STATES PATENT OFFICE.

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PLATEN FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 636,547, dated November 7, 1899.

Application filed May 17, 1899. Serial No. 717,148. (No model.)

To all whom it may concern:

Be it known that I, THEOPHIELD D. OAKLEY, a citizen of the United States, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Platens for Printing-Presses, of which the following is a specification.

One of the principal objects of my invention is a multiplying platen. By the use of the same I am enabled to save much time, labor, and expense, as will be hereinafter apparent.

The several features of my invention and the various advantages resulting from their use conjointly or otherwise will be apparent from the following description and claims.

In the accompanying drawings, making a part of this specification, and in which similar letters of reference indicate corresponding parts, Figure 1 represents a front view of a platen illustrating my invention and provided with the usual packing and rules (guides) for enabling the paper to be printed to register correctly with that form of type from which the said paper is to be printed. Fig. 2 is an edge view of the top of the platen—viz., of that edge which is at the top in Fig. 1. Fig. 3 is an elevation of the inner face or side of the rear piece or portion of the platen. Fig. 4 is an elevation of the rear side of the front piece or portion of the platen. It is to be understood that the sides shown in Figs. 3 and 4 face each other when these two portions of the platen are interlocked. Fig. 5 is a cross vertical section of the platen. This section is taken in the plane of the dotted line 5 5 of Fig. 1. That face of the section is shown which in Fig. 1 faces toward the right. Fig. 6 is an elevation of the inner face of the rear portion of the platen, being a view similar to that shown in Fig. 3, but having certain of its projecting parts modified, as hereinafter specified.

I will now proceed to describe my invention in detail. In the first place I provide a foundation-piece A. This piece is adapted to be suitably located in the press and to remain there as a constituent part of the latter. In the second place I provide an acting platen-piece B. This piece B is to be carried by the foundation or bed piece A, and I provide means to carry this purpose into effect. Such means may be varied. I herein illustrate a preferred kind of such means and also adapt these means to admit of the ready adjustment of the piece B to place in connection with the foundation-piece A and of the ready withdrawal of the piece B from the piece A. Thus the front surface of the piece A is provided with grooves C of a wedge-shaped form, the lower portion of these grooves being narrower than the top. These grooves are also in cross-section or in end view of a dovetail form.

On the rear side of the front piece B, I provide dovetail projections D, substantially as shown. The projections are respectively adapted to enter the dovetail recesses C and fit therein after the manner of dovetailed joints. Thus the piece B can be readily united to the piece A by bringing the lower edge of piece B near to the upper edge of piece A and then inserting each dovetail D into its adjacent recess C and then dropping the piece B down until the dovetail projections D are fitted closely in place within their respective recesses C. The pieces A and B will then be united, as shown in Figs. 1, 2, and 5.

In order that the platen-piece B may rest perfectly true upon the piece A, I provide projections E upon the piece A. These projections E may take the form of studs, as in Fig. 6, or the form of elongated projections—*i. e.*, ribs—as shown in Fig. 2. The form shown in the last-named figure is the preferred one. Of course the piece B might rest directly and flatly upon the piece A. Theoretically there could be no objection to such an arrangement and construction, but practically I have ascertained that it is difficult to plane both of the adjacent surfaces of the pieces A and B perfectly true. Therefore when applied flatly face to face and subjected to that pressure to which a platen is customarily subjected some part of the platen-piece B would spring more or less out of a true plane. Furthermore, in the expansion and contraction to which the piece is subjected the extended flat surfaces get out of true planes. Also any expansion of the dovetail projections and the edges of their recess

would operate to throw the front surface of the platen out of true. The projections E extended to a proper elevation obviate this difficulty. They prevent any rocking of one piece on the other. The dovetail projections D may be fixed on the piece A, and the recesses C may be formed in the piece B; but while such an arrangement (being a mere reversal of parts) is the same in principle as that first described it is objectionable, because it compels me to make my piece B much thicker than I otherwise would do. The bed-piece A is of ample thickness to receive the recesses C without injurious diminution of its strength or efficiency.

The projections E may be located on the piece B instead of on the piece A; but they are preferably located on the piece A, because that piece remains stationary, and it becomes a matter of indifference whether it is somewhat heavier by reason of the added weight of the projections E; but in the case of the piece B, as this is the one to be lifted and moved, the lighter it can be made consistent with efficiency the better. Therefore the projections E had best be formed with the piece A.

I provide a suitable device to prevent the piece B from accidentally slipping out of place on the piece A. A very convenient description of such device consists of the springs H and the detents K. These springs H are preferably fixed at H^2, as shown, to the rear side of the platen-piece B and extend upward and then over the top of the bed-piece A in the form of a hook-handle H^3. Each spring has an opening H^4. Detents or studs K are fixed in the upper portion of the front surface of the bed-piece A. When the piece B is made to engage with the piece A, each detent K comes opposite its adjacent hole H^4 of a spring H and is then received in said hole through the elasticity of the spring continually pressing toward the bed-piece A. When the operator desires to disengage the piece B from the piece A, the handle-hook H^3 affords suitable means for moving back the springs H, thereby disengaging them from the detents K, and for then lifting the piece B out of engagement with the piece A. The piece B may be carried by the handles H^3. The handles also serve as a convenient means for reinstating the piece B in connection with the piece A.

The piece B is provided with the customary bails or clamps M M, respectively hinged at M^2, substantially as shown. These bails or clamps M M are for the purposes of properly fixing to the platen the paper placed on the platen to form the tympan and to serve as a basis for overlaying and cutting out to improve the quality of the presswork.

In the illustrative Fig. 1, R indicates paper forming the tympan and held by the bails or clamps M M. On this paper are set (usually by paste or glue) the guide sticks or pieces S, whereby the paper or like article to be printed is held in the correct position for being printed and while receiving the impression. Further description of this common and well-known set of guides S is unnecessary.

Some of the advantages derivable from my invention are as follows: There are many classes of regular work of a constantly-recurring nature. Among such may be mentioned the bills of fare of restaurants and of hotels, labels, certain kinds of advertising matter, and the like. In such classes of work it is customary for printers to keep the form of type standing. In such event, with the kind of platen now in use suppose an order is received to print a certain number of copies of such recurring work. The type-form for the same is ready, but another job is in the press and the tympan of the platen in such press is fixed for the job now on. Now before I put the recurring job on I must tear off from the platen the tympan, or "make-ready and guide," as the latter is often termed, and make up a new tympan to suit the form already heretofore prepared and now to be printed. But by means of my invention I can save the tympan already in the press for further use. I take off the whole sectional top—*i. e.*, the piece B and its accompanying parts—together with the make-ready and guide. Then I place on the platen-bed A remaining in the press another sectional top piece B, with its parts, and having the make-ready and guide already previously prepared and used when I printed heretofore some recurring work of this kind. Thus I am enabled to save work hitherto done and obviate the necessity of repeating the work now or hereafter on and for the same kind of job. I am enabled to economize in the number and kind of hired help. I need to employ fewer mechanics and have boys to do much of the work thus simplified. I am also thus enabled to reduce the labor necessary in printing such jobs.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. A sectional platen having a bed-piece A and a front piece B and dovetailed connections, for enabling them to be securely interlocked, separated and adjusted at the will of the operator, a spring H, and connections between the bed and front pieces for enabling the piece B to be held stationary by the spring, and handles H^3 of the springs, substantially as described.

2. A sectional platen having a bed-piece and a front piece slidable thereon, and dovetail connections, for enabling them to be held together, slid, and separated, spring for locking the front piece on the bed-piece, and the binding or bail pieces, M, pivoted at the ends of the front piece and adapted to embrace the impression-sheet, substantially as described.

3. A sectional platen having a bed-piece A and a front piece B and dovetail connections for enabling them to be securely interlocked, separated and adjusted at the will of the op-

erator, a spring H, and connections between the bed and front pieces for enabling the piece B to be held stationary by the spring, the binding or bail pieces M pivoted on the front pieces and embracing the edges thereof, and handles H^3 of the springs, substantially as described.

4. A sectional platen, being a combination of a bed-piece having dovetail recesses, projections E, studs K, piece B having dovetail projections, spring H, having holes H^4 therein, handles H^3 of the springs, substantially as and for the purposes specified.

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Attest:
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