

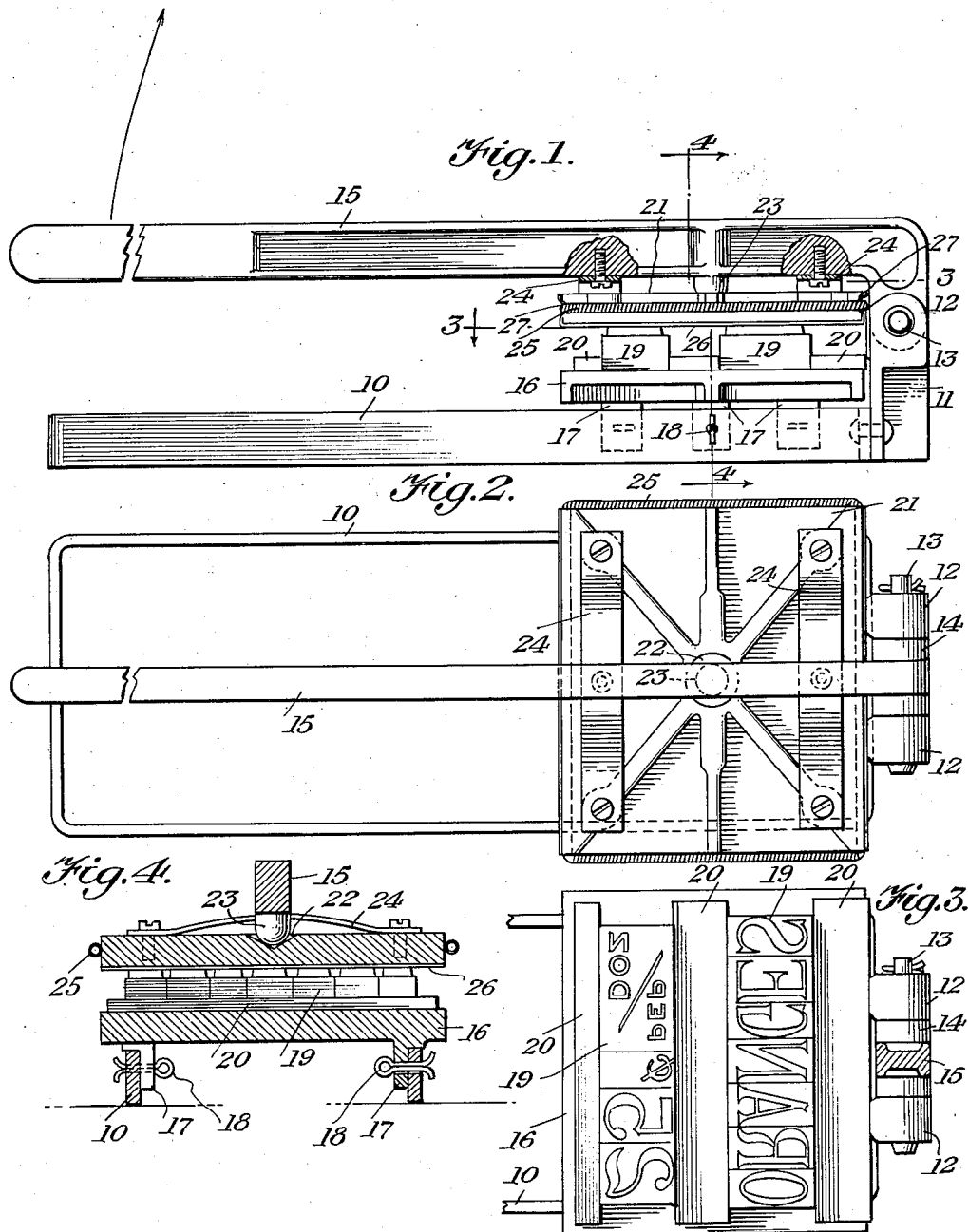
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S. Q. KLINE

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PRINTING PRESS

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PRINTING PRESS

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2 Claims. (Cl. 101—297)

The invention relates to a printing press and more especially to a hand operated printing press.

The primary object of the invention is the provision of a press of this character, wherein the construction thereof is for small jobs, for example, show case cards, merchandise price cards or the like, requiring but one or several for the respective merchandise or commodities, the press being of novel construction to avoid the requirement of type setting, framing or otherwise locking the type in the press and assurance of uniform pressure during the printing operation.

Another object of the invention is the provision of a press of this character, wherein the type support is mounted in the bed of the press at three-point connection therewith, while the platen is supported under universal connection with the operating lever therefor. Thus the printing from the type can be carried forth uniformly and with dispatch.

A further object of the invention is the provision of a press of this character, wherein the setting of the type can be carried forth expeditiously and likewise the printing therefrom had with dispatch, the press being designed for small jobs, such as show case cards, price memoranda for merchandise, small exhibitor signs, plaques or the like.

A still further object of the invention is the provision of a press of this character which is extremely simple in construction, thoroughly reliable and efficient in its purpose, readily and easily operated, strong, durable, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawing:

Figure 1 is a side elevation partly in section of a press constructed in accordance with the invention.

Figure 2 is a top plan view.

Figure 3 is a sectional view on the line 3—3 of

Figure 1.

Figure 4 is a sectional view on the line 4—4 of Figure 1.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, the press constituting the present invention comprises a bed or base 10, preferably in the form of an open substantially rectangular-shaped frame made from metal, although it can be made from other material and solid if found desirable. At one end of the frame and medially thereof is a bracket 11 formed with double pintle eyes 12 accommodating a pintle or pivot 13 which engages the pintle sleeve end 14 of an operating lever or arm 15 adapted to overhang the bed or base 10. This lever or arm 15 at its pivot or pintle end is bent downwardly at right angles to provide sufficient space between the bed or base 10 and the lever or arm 15 when in lowered position for the occupancy of such space by the equipment hereinafter described in detail.

Detachably mounted upon the frame 10 is a type supporting table or rest 16 in the form of a smooth flat plate having the depending legs or ears 17, there being two at one side and one at the opposite side for a three-point connection of the rest 16 with the frame 10. These ears have passed therethrough cotter pins 18 which are also engaged in suitable openings in the sides of the frame 10 for the detachable fastening of the rest in position above the frame and perfectly level as shown in Figure 1 of the drawing. Upon this rest 16 are placed a group of type 19, these under selection effecting the printing job, as for example, show case cards, merchandise price cards, exhibitor signs or work of small kind. It is preferable to assemble the type 19 between spacer blocks or strips 20 although these are non-essential for a printing job, they being merely usable at the option of the operator of the press. The printing spaces of the type 19 are inked in any desirable manner, for example, through the use of an inking roller (not shown).

Beneath the lever or arm 15 is a platen 21 which has formed therein centrally thereof a bearing socket 22 for a universal fulcrum bearing 23 carried by the lever or arm 15, while secured to this lever at opposite sides of the bearing 23 are leaf tensioning springs 24, these at their ends being secured to the platen 21 so that the said platen by its fulcrum and under the action of the springs 24 will automatically adjust itself for a uniform pressure throughout the group of type 19 and a like impression on the work from the type 19. The matter to be printed is carried by the platen 21 in any suitable manner at the impression side thereof.

Embracing the platen 21 marginally is a coiled retractile spring 25 which serves to hold a pad or covering 26 over the impression side of said

platen and this spring is held seated in grooves or channels 27 therefor in opposite ends of the platen.

It will be apparent that by placing the cards 5 or the like to be printed in place on the platen 21 at the impression side thereof and by operating the lever or arm 15, the printing of such cards will take place when contacting with the group of type 19 upon the rest 16 therefor and 10 this contact is had by lowering the lever or arm 15 and exerting the required pressure thereon when contact of the card is had with the group of type 19.

It should be obvious that by reason of the 15 length of the bed or base 10 when the press is being operated, particularly on pressure applied to the lever or arm 15, there is no liability of the press becoming tilted as the bed or base will constitute a firm and solid foundation.

By the disposition of the fulcrum or bearing 20 23 centrally with respect to the platen 21 there is a direct and solid centralized pressure upon the platen instead of the pressure being exerted through the springs 24 or the equivalent as may be employed, the springs being for the purpose 25 of holding the bearing 23 to its seat or in the socket 22, and also to assure universal action of the plate with respect to the confronting type upon the rest with a resultant uniform contact of the work with said type.

The lever or arm 15 at its hinged or pivoted 30 end is right angularly bent downwardly, so as to have the said lever or arm for its major portion elevated with relation to the plane of the rest 16 and to effect a raising of the platen 35 with relation to the bed at the edges next to the pivot or pintle 13 instantly on the swinging of said lever or arm 15 upwardly subsequent to the impression stroke thereof. In other words, 40 when the lever or arm 15 has been raised to

perpendicular position the angular portion of the same will offset the platen 21 with respect to the rest 16 to relieve any interference after the setting of the type upon said rest or the removal 80 of the same therefrom and thus giving full and free access to the rest.

By reason of the fact that both the rest 16 and platen 21 have extremely accurate surfaces and combined with the self adjustment of said 85 platen this will allow the printing of any number of lines over a wide area by one impression and with very slight pressure.

What is claimed is:

1. In a hand printing press, an elongated bed, 90 a type-supporting table having depending perforated ears for a three-point connection with the bed, cotter pins engaged with the bed and said ears for the detachable mounting of the supporting table upon the bed, a hand operable 95 lever bridging said table and having a downturned end, a bearing on the bed for said downturned end of the lever, a pivot connecting the downturned end with said bearing, and a self-adjusting platen carried by said lever.

2. In a hand printing press, an elongated bed, 100 a type-supporting table having depending perforated ears for a three-point connection with the bed, cotter pins engaged with the bed and said ears for the detachable mounting of the 105 supporting table upon the bed, a hand operable lever bridging said table and having a downturned end, a bearing on the bed for said downturned end of the lever, a pivot connecting the downturned end with said bearing, a self-adjusting 110 platen carried by said lever, a center fulcrum on the lever for said platen, and leaf springs arranged between the platen and said lever and engaged at its ends with said platen and intermediate thereof with said lever.

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