S. E. DITTMAN.

GUIDE FOR PLATEN PRESSES.

APPLICATION FILED DEC. 27, 1913.

1,116,682. **Patented Nov. 10, 1914.**

Fig. 1.

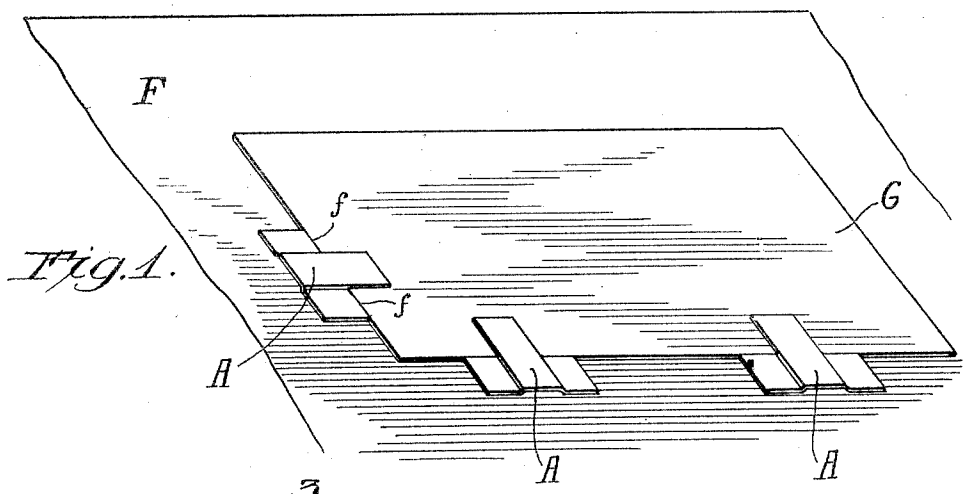


Fig. 2.

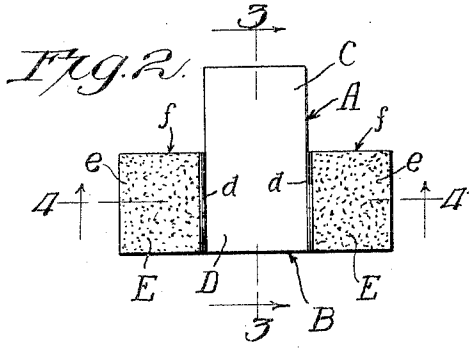


Fig. 3.

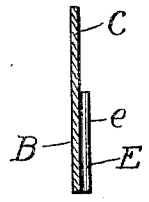


Fig. 4.

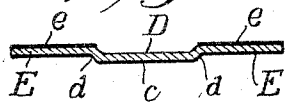


Fig. 5.

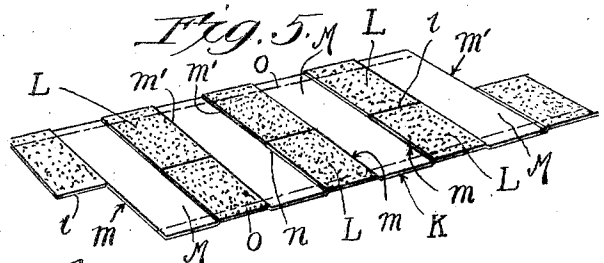
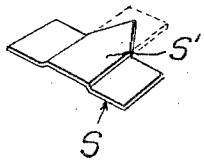


Fig. 6.



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GUIDE FOR PLATEN-PRESSES.

1,116,682. Specification of Letters Patent. Patented Nov. 10, 1914.

Application filed December 27, 1913. Serial No. 808,960.

To all whom it may concern:

Be it known that I, SAMUEL E. DITTMAN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Guides for Platen-Presses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in guides for use in connection with platen printing presses, and more particularly to devices of the character described constituting a means for retaining sheets of paper or cards upon the tympan of a press, during the operation of printing, and for effecting the proper positioning or registering of the sheet or card with respect to the printing form during the movement of the tympan to and from the form.

Guides of the character described are particularly designed for use in connection with platen presses, which type of press is commonly used for the printing of sheets of paper in the form of circulars or cards, or for other job printing. This type of printing press ordinarily embodies a stationary printing form in which the type or printing plates are held, and has a rocking platen carrying the tympan. The sheets are fed to the press by hand, which operation is accomplished by placing a single blank sheet or card upon the tympan, during the movement of the carriage to and from the printing form, immediately following the removal of a sheet which has been printed.

The operation of removing a printed sheet and replacing a blank sheet requires considerable dexterity on the part of the operator by reason of the rapid and continuous movement of the carriage or platen. To facilitate the operation of feeding the sheets to the press, guides or gages are usually provided, which are secured to the tympan in such positions as the size of the sheet and relation of the sheet to the type requires. Various forms of guides commonly used for this purpose have been constructed of metal in an elaborate manner, involving considerable cost in the manufacture thereof. The ordinary forms of guides are those secured to the tympan by means of pins inserted through the tympan, which tend to mutilate the surface of the same in instances where frequent rearrangement of the guides is required.

One of the principal objects of my invention is to provide a guide that is exceedingly simple and inexpensive in construction so that a single guide need only be used once; a guide that can be easily applied and removed without injuring the surface of the tympan, and which will securely hold the sheets in position and avoid the liability of the sheets being improperly delivered to the printing form.

Further advantages and novel features of my invention will be hereinafter set forth, more particularly specified in the appended claims and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective, showing a portion of a tympan, the guides mounted thereon, and a card held in position to be printed; Fig. 2 is a plan view of the bottom surface of a single guide; Fig. 3 is a sectional view taken on line 3—3 of Fig. 2; Fig. 4 is a sectional view taken on line 4—4 of Fig. 2; Fig. 5 is a view in perspective showing method of manufacturing a number of guides in the form of strips or "gangs"; and Fig. 6 is a view in perspective of a guide, showing the manner in which the tongue portion may be trimmed.

Referring to the drawings, a single guide A, as represented in Figs. 2 and 3, is formed from a sheet of material of a thickness substantially that of a sheet of heavy paper or of cardboard which may be of a quality ordinarily used for cards. As a preferred material for making these guides, a tough fibrous paper having waterproof qualities obtained by a paraffining process is used, although any other material having like qualities, or sheet metal, may be employed in the manufacture thereof. The materials suggested are best suited for the construction of the guides in that they combine the qualities of sufficient thinness to approximate the thickness of the sheets or cards to be held, and have sufficient body or stiffness to be pressed into and retain the desired form, and are sufficiently durable to withstand considerable usage, and low in cost of manufacture withal.

Referring now to the guide A, composed by preference of the hereinbefore men-

tioned fibrous paper, the same comprises a rectangular body portion B, and a similarly shaped tongue or guard portion C, integral with the body portion and extending at right angles to the length thereof. The said body portion B comprises a central section D and two end sections E at either side of the central section. The tongue portion C is approximately equal in width to that of said central section D. The central section D lies in a plane slightly above the plane of the end sections E, E, as shown in Figs. 3 and 4, the distance said central section is raised above the end section being approximately equal to the thickness of the material of which the guide is made. In this manner the central section is, in effect, bent or pressed upwardly along the transverse lines *d*, *d*. In like manner the tongue portion B lies in a plane slightly above that of the end sections and, by preference, in the plane of the central section D. By this construction, therefore, is obtained a guide having a body portion provided with end sections adapted to engage the surface of the tympan, a central section raised above the end sections, and a tongue portion extending from said central section. The said end sections are preferably provided with straight margins *f*, *f*, in alinement one with the other and acting as shoulders, against which the margins of the card may abut, thereby assuring the proper placement of the cards or sheets to be printed within the guides. When a guide embodying these features is secured to the tympan with the end sections in contact therewith, a space is formed between the surface of the tympan and the under surface of the tongue portion, sufficient to permit a card or sheet of paper to pass under the tongue and abut firmly against the margins *f*, *f* of the end portions. The central section D being raised above the end sections in the manner suggested, permits the card or sheet to pass beneath the tongue portion and in contact with said margins *f*, *f*, without interference. The lower or bottom faces of the end sections E, E are preferably provided with a coating of adhesive material *e*, by means of which the guide may be secured to the surface of the tympan.

A guide embodying the features hereinbefore described may be formed in any desired manner, as for instance, by subjecting the same to pressure between suitably constructed dies, whereby the proper bending or forming of the central and tongue portions is accomplished.

To apply the guides in the operation of printing and assuming that a quantity of cards G (Fig. 1) are to be printed, the position of the card upon the tympan F is first determined, so that the same will properly register with the type or printing form of the press. A suitable number of guides A are then secured to the face of the tympan by means of the adhesive, the number used depending upon the size of the cards to be printed. In Fig. 1, three of these guides are illustrated, two of which are placed in position to engage the longer margin of the card, the remaining guide being placed in position to engage the shorter margin. These guides are arranged in such a manner that the margins *f*, *f* of the end sections adjacent to the tongue portions shall coincide with an imaginary line indicating the margins of the card. So positioned, the tongue portions of the guides will project over the space to be occupied by the card during the operation of printing, and when the latter is inserted beneath said tongue portions they will act to hold the card in place, with the margins adjacent to the guides in abutting relation with the shoulders formed by the margins *f*, *f* of the guides. These margins, lying in a straight line, assure the proper alinement of the card, without requiring any particular degree of care on the part of the operator in placing the card in position to be held by the guides. As a preferable method of manufacturing these guides in large numbers and at low cost and of placing them on the market in a convenient form, I propose to employ the following method wherein a strip K (Fig. 6) of the fibrous material of any desirable length and of a width slightly greater than the transverse dimension of the guides to be formed, is subjected to pressure at intervals along its length, by any suitable process, so that the portions thus subjected to pressure are offset from the plane of the intermediate portions. In this manner there are formed transversely extending and alternately spaced offset portions L and M. The amount of the offset thus applied to the strip is preferably equal to the thickness of the paper. The width of the offset and intermediate portions L and M is preferably equal, respectively, to the width of the end sections E, E, and the central and tongue portions D and C of the guides A (Fig. 2) to be formed. The surface of each alternate offset portion L, L is supplied with a coating of adhesive material. The strip K is then subjected to a cutting process whereby the individual guides may be formed. This cutting process consists in providing a plurality of transverse and longitudinal cuts or slits in the strip, as follows: One set of cuts *l*, *l* is located on an imaginary central line bisecting the strip longitudinally and extending throughout the width of the portions L, L, said cuts terminating at the dividing lines *n*, *n* between the offset and intermediate portions. From the extremities of the cuts *l*, *l* extend transverse cuts *m*, *m*, *m'*, *m'*, which extend from

the said extremities outwardly toward the margins of the strip and along the dividing lines *n*, *n*. These transverse cuts are arranged in pairs *m*, *m* and *m'*, *m'*, said pairs joining the adjacent extremities of the longitudinal cuts *l*, *l* and extending alternately in opposite directions. These pairs of transverse cuts *m*, *m*, *m'*, *m'* do not extend to the margins of the strip, but terminate short of the same, and preferably at the lines *o*, *o* extending parallel with and located adjacent to the margins of the strip. The lines *o*, *o* may be indicated in any suitable manner.

By providing the strip with the cuts which divide the adjacent offset portions in the manner suggested, a plurality of guides are formed, each guide consisting of a portion M, comprising the offset or raised central section and tongue portion thereof and one-half of two adjacent portions L, L, properly supplied with adhesive, forming the end sections. The several guides thus cut from the strips remain connected by the narrow continuous marginal portions of the material between the margins of the strip and the broken lines *o*, *o*. To separate the guides therefrom, it is only necessary to cut along the lines *o*, *o*, permitting the guides to be easily detached one from the other. This manner of forming the guides in the form of strips, each comprising a multiplicity of connected guides, as described, not only provides an efficient and inexpensive method of manufacture, but further affords a convenient method of placing the articles upon the market and for maintaining a sufficient supply at hand.

It is to be understood that the offset tongue portion of the guides may be of any desired shape or size, as the nature of the work or the convenience of the user may dictate. For this reason the tongue portions are, by preference, made of ample size and rectangular in shape, so that the user may trim the tongue portion in several ways, as for instance in the form of a point as shown in Fig. 6.

It is to be understood that a guide embodying the features hereinbefore set forth may be formed of various materials, as, for instance, of sheet metal, and for that reason the method of manufacturing the same and the details of construction may vary to considerable extent without departing from the spirit of the invention. I do not wish to be limited to the features described and illustrated except as set forth in the appended claims.

I claim as my invention:

1. A guide for platen presses, for retaining sheets upon the tympan thereof, comprising a sheet of material formed to provide a body portion adapted to be secured to the surface of the tympan and having a margin forming a shoulder against which the margins of the sheets abut, and a portion offset above said body portion and located laterally of said margin, and a tongue portion attached to said offset portion and extending above and beyond said margin.

2. A guide for platen presses, comprising a body portion having a section adapted to be secured throughout its under surface to the upper surface of the tympan and provided with a margin forming a shoulder adapted to engage in abutting relation the margin of a sheet to be printed, said body portion having an upwardly offset section located above and laterally of the first named section, and a tongue portion forming a continuation of said upwardly offset section and extending beyond and above said margin of the first named section.

3. A guide for platen presses, comprising a body portion having end sections and an intermediate central section, said end sections being provided upon their under surfaces with a coating of adhesive material, and provided with margins in longitudinal alinement forming a shoulder adapted to engage in abutting relation the margin of a sheet to be printed, said central section being offset upwardly from said end section, and a tongue portion integral with said body portion throughout the central section and extending beyond and above the said margins of the end sections.

4. An article of manufacture, comprising a strip of flexible material having alternately arranged and transversely extending offset portions, each alternate offset portion being provided with a cut extending longitudinally of the strip, said cuts acting to separate said alternate offset portions to form the end sections of a plurality of undetached guides, substantially as and for the purpose described.

5. An article of manufacture, comprising a strip of flexible material having alternately arranged and transversely extending offset portions, each portion of said strip intermediate of the offset portions being provided with a cut extending longitudinally of the strip, and a coating of adhesive applied to the undepressed surfaces of said intermediate portions, said cuts acting to separate the intermediate sections to form the end sections of a plurality of undetached guides, substantially as and for the purpose described.

6. An article of manufacture, comprising a strip of flexible material having alternately arranged and transversely extending offset portions, each portion being provided with a cut extending longitudinally of and between the margins of the strip, and pairs of the transverse cuts extending from the adjacent ends of the first mentioned cuts alternately in opposite directions, said cuts

thereby forming a plurality of detachable guides, substantially as and for the purpose described.

7. An article of manufacture, comprising a strip of flexible material provided with transversely extending and alternately arranged offset portions, the portions intermediate said offset portions having a coating of adhesive upon their undepressed surfaces, and provided with cuts extending parallel to and between the margins of the strip, and pairs of transverse cuts extending from the ends of said first mentioned cuts alternately in opposite directions and terminating short of the margins of the strip, each of said offset portions thereby forming the tongue portion and central section of the body portion, and the portions intermediate the offset portions forming the end sections of the body portions of a plurality of detachable guides, substantially as and for the purpose described.

In testimony, that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 15th day of December A. D. 1913.

SAMUEL E. DITTMAN.

Witnesses:
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NELLIE H. EFROS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."