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H. R. RETTER ET AL
FORM COMPENSATING MEANS

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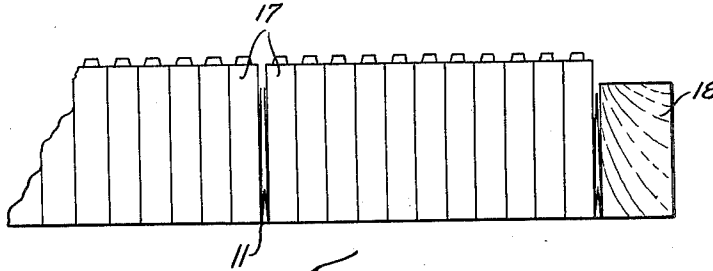


Fig. 1

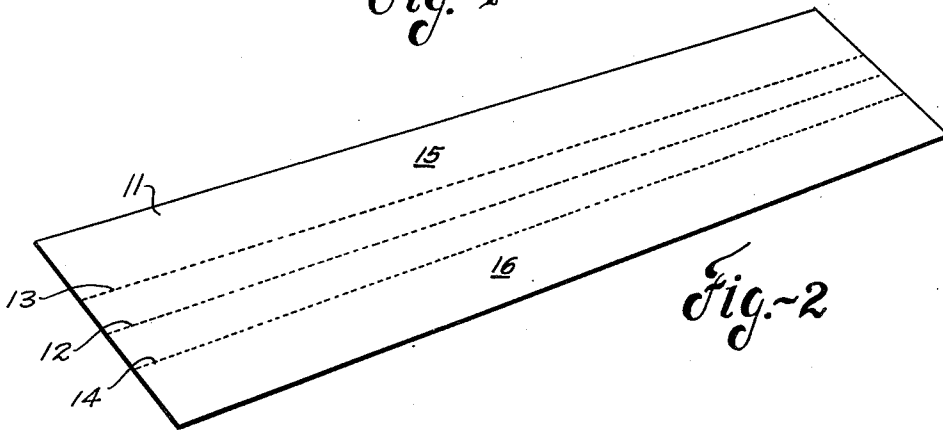


Fig. 2

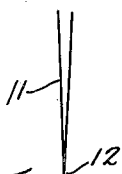


Fig. 4

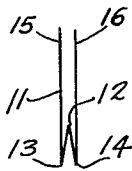


Fig. 5

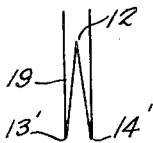


Fig. 6

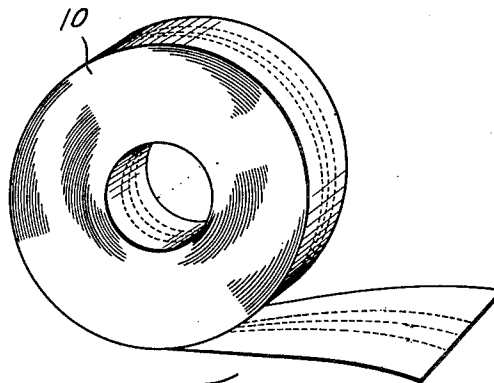


Fig. 3

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FORM COMPENSATING MEANS

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1 Claim. (Cl. 101—404)

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This invention relates to space compensating devices for use in printing type forms and to methods of making and forming such devices.

Articles of the class to which the invention pertains have especial application in letter press printing or the like, wherein type is contained and locked in a chase. In order to gain impressions of uniform weight and clarity, it is important that all the type area be brought and retained solidly against the press bed. Displacement of the type sometimes occurs, and rows of type have a tendency to arch, due in part to a tapered formation of the type elements and in other part to unequal clamping pressures. To guard against type displacement and arching, it is the practice of printers to insert between lines of type and between the type and the chase walls compensating means in the form of locking strips. The function of these strips is to hold the type more securely in position within the chase, and the strips preferably are so adapted and arranged as to exert a greater pressure against the bases of the type elements than against the upper portions thereof to inhibit arching.

The compensating devices as heretofore used for this purpose have been metal strips variably constructed and arranged in permanent forms and sizes. Frequently they are fabricated or assembled elements including springs or clamps, or both, for engagement with the bases of the type slugs. Accordingly, a number of disadvantages are inherent in the use of the prior art devices, including relatively high cost, loss of effectiveness through wear, the necessity for having on hand a large stock in varying lengths, and also the not inconsiderable objection in a busy print shop that the locking strip of the length desired may be misplaced or elsewhere in use.

It is the general object of the present invention to obviate the objections above noted to the use of presently available locking strips.

More specifically, it is an object of the invention to obtain a compensating device or locking strip of increased adaptability and effectiveness in its application in counteracting any inherent or developed springing or distortion of a typographical form when locked in a chase.

Another object of the invention is to obtain a compensating device and method of making such device which incorporates in locking strips the features of easy adaptability to any space requirements, and of inexpensiveness so that strips once used may be discarded.

A further object of the invention is to make

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printing type form compensating means which is available to the printer or typesetter in the form of rolls or continuous strips of a foldable material and from which strips he may sever portions of desired lengths, the foldable material being scored or cut in a predetermined pattern for folding or forming to the proper shape whereby locking strips of any length may be easily and quickly made by the typesetter himself, and once used, discarded.

A further object of the invention is to provide a form compensating means of the character described, having the advantageous structural features and possessing the inherent meritorious characteristics, and the method of use herein set forth.

With the above primary and other incidental objects in view as will more fully appear in the specification, the invention intended to be protected by Letters Patent consists of the features of construction, the parts and combinations thereof, and the mode of operation, as hereinafter described or illustrated in the accompanying drawings, or their equivalents.

Referring to the accompanying drawings, wherein is shown the preferred but obviously not the only embodiment of the invention,

Fig. 1 is a view in cross-section through a printing type form showing locking strips fashioned in accordance with the present invention inserted therein;

Fig. 2 is a perspective view of a strip portion severed from the roll of Fig. 3.

Fig. 3 is a view in perspective of a roll of foldable material adapted and arranged for the making of locking strips therefrom;

Fig. 4 is a view in end elevation of the strip portion of Fig. 2 as it appears following the first folding step toward formation as a locking strip;

Fig. 5 is a view in end elevation of the strip portion of Figs. 2 and 4 as finally folded; and

Fig. 6 is a view similar to Fig. 5 showing a modified form of locking strip.

Like parts are indicated by similar characters throughout the several views.

In the drawings, Fig. 3 shows a coil or roll of paper stock 10 in strip form. The paper may be of any suitable weight and grade, the only requirements being that it be foldable and have sufficient body to retain its folded shape and to perform its function as a compensating insert.

Strip portions may be severed from the continuous roll in any desired lengths and such a portion is illustrated in Fig. 2, indicated at 11. The portion 11, or "strip" as it will hereinafter

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be referred to, is weakened along longitudinal lines 12, 13 and 14. The line 12 is in the approximate center of the strip, while the lines 13 and 14 are spaced equidistant from the central line 12, on either side thereof, a distance less than half of that between the central line and the side edges of the strip.

The lines 12, 13 and 14 are here shown as being formed by a series of notches or cuts in the paper, but they may be formed by a perforating method. The longitudinal lines may also be formed by a scoring or creasing process, since the principal purpose thereof is to serve as a guide and to facilitate folding of the strip into shape for use as an insert in the printing type form.

In folding the strip, it is desired to obtain a device which is thicker along one longitudinal margin thereof, which may be called the base, than along the opposite margin thereof, which may be called the top. One method of so folding the strip comprises the first step of folding the strip 11 along the central longitudinal line 12 to produce a formation as shown in Fig. 4. As the next step, the side portions 15—16 of the strip outwardly of the longitudinal lines 13 and 14 are reversely folded about the respective lines 13 and 14.

The resulting formation of the strip is as indicated in Fig. 5, where it may be noted that the folding steps have placed a four sheet thickness of paper at the lower or base portion and only a two sheet thickness at the upper or top portion. As so folded, the strip is ready for insertion in the printing form, the base or thicker portion of the strip being downward in order that the type slugs which frequently have a tapered formation may have substantially equal pressure exerted against the base and top portions thereof. If necessary, a number of strips may be placed alongside one another to compensate for the slightly tapered formation of the type slugs. Equalization of pressure upon the type slugs eliminates any tendency for the type to buckle when locked in the chase.

A section of a type form containing inserts according to the present invention is shown in Fig. 1, and it will be noted that one strip 11 appears in the center of the form, between type slugs 17, while others occupy the spaces between the type and the holder or chase 18. When the type form is disassembled, the strip 11 may be discarded, new strip lengths being cut and folded in accordance with the space requirements of each form.

While the material from which the locking strips are made is here described as paper, it will be understood that any suitable foldable material may be used. Further, in its uncut form the paper or other foldable material may be either wound in a roll, as shown in Fig. 3, or be supplied in elongated strips of a size convenient to handle and stock.

The height of the thicker base portion of the locking strip may be varied by spacing the longitudinal lines 13—14 greater or lesser distances from the central line 12. Thus, in the modified form shown in Fig. 6, the strip 19 is made from wider paper stock with the fold lines 13' and 14' spaced a greater distance from the central line 12. By so doing, the infold of the material is made to extend upwardly approximately three-fourths the height of the locking strip.

The several surfaces of the strip 11 which come into contact with one another when folded as explained above, may be coated with adhesive if desired. When so coated, the printer, after cut-

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ting the necessary length from the supply strip and appropriately conditioning the adhesive, folds the strip as described and produces thereby a compact substantially integral unit which may be easily handled and inserted in the block of type.

The present disclosure shows the locking strips in more or less exaggerated or expanded condition so that the method of fabrication may be clearly discernable. In use, however, the unit is of course compressed with the adjacent layers of material in contacting relation. If desired, the strips may be completely prefabricated, i. e., folded and the contacting surfaces thereof glued together to form an integral one-piece strip ready for use. In this form, the strips are cut in stock lengths which may be easily handled and stored by the printer, from which lengths the desired strips may be cut as necessary.

A relatively inexpensive compensating strip is thus provided which may be easily used, and is highly efficient notwithstanding its simplicity and inexpensive construction.

From the above description it will be apparent that there is thus provided a device of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, detail construction and arrangement of parts without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute the invention has been described in language more or less specific as to structural features, it is to be understood that the invention is not limited to the specific features shown, but that the means and construction herein disclosed comprise the preferred form of several modes of putting the invention into effect, and the invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the appended claim.

Having thus described our invention, we claim:

A disposable compensating insert usable in setting a block of type comprising a strip of compressible fibrous material, reversely folded upon itself transversely of the strip in alternating layers, a portion of said layers being of lesser extent than others, and adhesive coated areas on said strip, said areas being brought into contacting relation upon the folding of the strip to unite the reversely folded strip into a substantially integral one-piece assembly.

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