Sept. 6, 1932. G. M. HUME 1,876,231

TYPE FORM TIE

Filed May 1, 1931

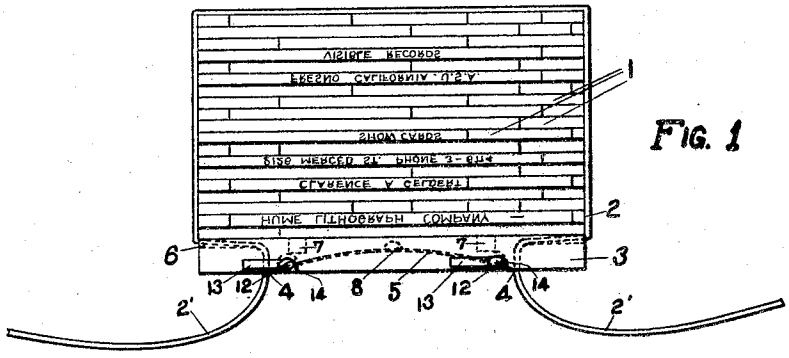


FIG. 1.

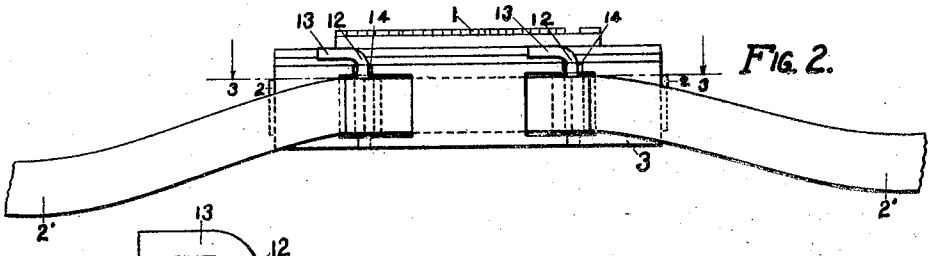


FIG. 2.

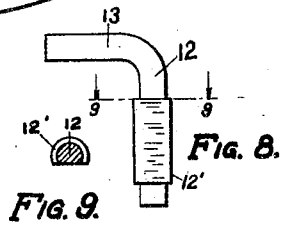


FIG. 8.

FIG. 9.

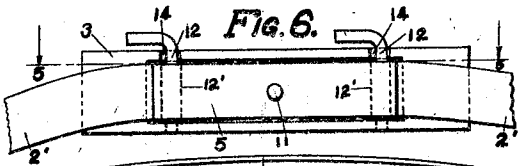


FIG. 6.

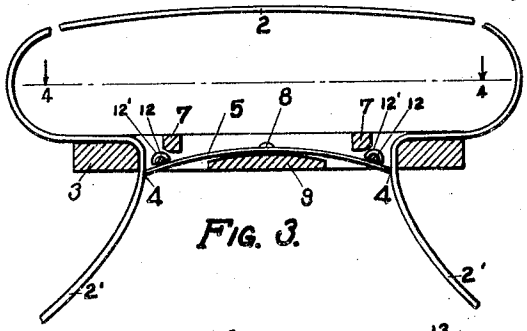


FIG. 3.

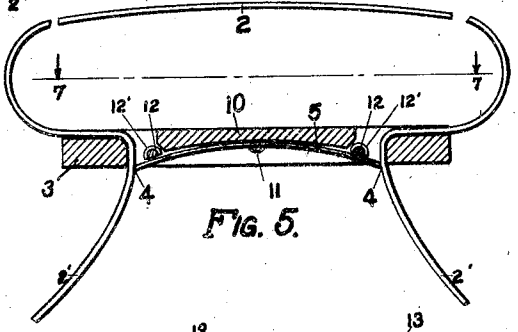


FIG. 5.

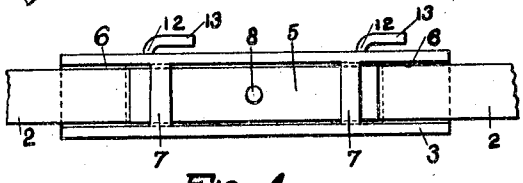


FIG. 4.

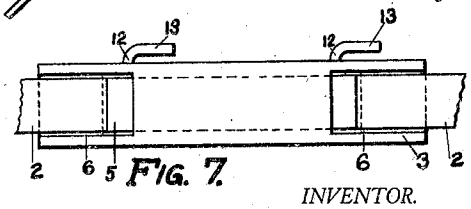


FIG. 7.

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TYPE FORM TIE

Application filed May 1, 1931. Serial No. 534,233.

This invention relates to the making up of type forms and has for its objects more effective means for tying the type together before taking it from the galley than the usual means of tightly winding a string several times around the type.

In the drawing accompanying this application—

Fig. 1 is a plan view of a type form tied with my device.

Fig. 2 is a front elevation of Fig. 1.

Fig. 3 is an enlarged horizontal section of the tie device only, taken along the line 3—3 of Fig. 2.

Fig. 4 is an elevation of the inner side of the tape bar as seen from the line 4—4 of Fig. 3.

Fig. 5 is an enlarged horizontal section of the tie device similar to the view of Fig. 3 but showing modification in attachment of the tape clamping spring.

Fig. 6 is a front view of Fig. 5.

Fig. 7 is an elevation of the inner side of the tape bar of the device of Fig. 5.

Fig. 8 is an enlarged elevation of the releasing device.

Fig. 9 is a cross section of Fig. 8 as seen from the line 9—9 thereof.

Briefly described, the invention comprises a tape adapted to go around the outer sides of an assembled lot of type or form, and a tensioning and locking plate at one side of the form by means of which the tape may be tensioned and locked around the type, thus doing away with the common practice of winding a string around it some ten to twenty times.

In the drawing 1 shows the type and slugs arranged as a form and tied together by means of my device comprising a tape 2 passing tightly around the type and with its ends 2′ extending through a bar or block 3 and securely held in tensioned position by the ends 4 of a flat spring 5.

Block 3 is a rectangular bar of lesser height than the type, preferably of light metal such as aluminum, and formed with a channel 6 in its inner surface so as to freely pass the tape yet seat firmly against the type along its upper and lower edges and vertical bars 7. The free ends of the tape extend forwardly through openings in the block, and the flat spring 5 is either riveted as at 8 to the back of a convex lug 9 as in Fig. 3, or to the front of a concave lug 10 by a rivet 11 as in Fig. 5, in a manner to cause its ends to resiliently bear against the tape adjacent its points of emergence from the block so as to prevent the tape pulling inwardly but leaving it free for pulling outwardly at either end so that it may be tensioned around the type from either end to thus put a uniform pressure around the form.

In order to lift the spring ends from impinging engagement with the tape I provide little cams or pins 12 provided with offset upper ends 13, and which pins are enlarged in the central portion of their shanks as at 12′ and flattened on one side as shown in Fig. 9. These pins are rotatably mounted in the block just in back of each end of the flat spring with the upper portion of the pin seated in an open notch 14 so that it may easily be inserted or withdrawn if not wanted. When these cam pins are used either end of the tape may be released by simply giving the pin a half turn. But if the pins are not used the tape is released by the printer inserting the end of his tweezers in the notch 14 and prying out the spring.

The device as shown entirely overcomes the nuisance of wrapping the type with string and makes it extremely easy to tightly bind the type against the danger of pieing. It may be placed in the galley as the form is built up within it, and if desired, may even be locked up with the type in the chase, and returned to the galley after printing without releasing from the form.

The device is made with various lengths of bar or block, and with various lengths of tape, and the extreme ends of the tape are dipped into varnish or glue and dried so that they will not ravel out, and so that if by chance a loose end should get under the type it may easily be pulled out.

When using the end of the tweezers to release the spring and slack off on the tape, the tension of the spring will hold the tweezers so that they may be lifted vertically to re-

move the whole device from the type without danger of pieing the same.

Having thus described my invention I claim:—

1. A type tying device comprising a block adapted to lie alongside the form, a tape extending through the block and around the form, and means on the block for locking the tape under tension around the type, said means disposed at opposite ends of the block and adapted to separately lock opposite ends of the tape.

2. A type tying device comprising a block adapted to lie alongside the form, a tape extending through the block and around the form, and means on the block for locking the tape at both ends under tension around the type and a portion of the tape at opposite ends thereof extending freely outwardly from the block for grasping respectively by an operator for tensioning the portion around the block.

3. A type tying device comprising a block adapted to lie alongside the form, a tape extending through the block and around the form, and means on the block for locking the tape under tension around the type, said block being of lesser height than the type and adapted to lie along one side only of the form.

4. A type tying device comprising a block adapted to lie alongside the form, a tape extending through the block and around the form, and means on the block for locking the tape under tension around the type, said block being of lesser height than the type, and recessed for the tape adjacent the type so that the tape is free for sliding while being tensioned.

5. A type tying device comprising a block adapted to lie alongside the form, a tape extending through the block and around the form, and means on the block disposed at opposite ends thereof for locking the tape under tension around the type, and means for individually releasing the tape locking means respectively.

6. A type tying device comprising a block adapted to lie alongside the form, a tape extending through the block and around the form, and a flat spring mounted on the block with its end arranged to impinge the tape to prevent retraction thereof after tensioning around the type.

7. A type tying device comprising a block adapted to lie alongside the form, a tape extending through the block and around the form, and a flat spring mounted on the block with its opposite ends arranged to respectively impinge opposite ends of the tape to prevent retraction thereof after tensioning around the type.

8. In a structure as specified in claim 6, a notch in said block for insertion of a device for releasing the spring.

9. A type tying device comprising a block adapted to lie alongside the form, a tape extending through the block and around the form, a flat spring mounted on the block with its end arranged to impinge the tape to prevent retraction thereof after tensioning around the type, a releasing cam under the spring for releasing its hold upon the tape.

10. A type tying device comprising a block adapted to lie alongside the form, a tape extending through the block and around the form, a flat spring mounted longitudinally on the block with its opposite ends arranged to impinge opposite ends respectively of the tape to prevent retraction thereof after tensioning around the type, a releasing cam under opposite ends of the spring for releasing the hold of either end upon the tape.

11. A type tying device comprising a block adapted to lie alongside the form, a textile tape extending through the block and around the form, and means on the block for locking the tape under tension around the type, the ends of said tape being impregnated with an adhesive solution and dried.

12. A tying device comprising a block adapted to lie alongside material to be tied, a tape extending through the block and around the material, means on the block for locking the tape under tension around the material and the opposite free ends of the tape extending freely outwardly of the block for individually grasping by an operator for tensioning the portion around the material, the means on the block for locking the tape spaced apart and adapted to separately and automatically lock the opposite ends of the tape respectively.

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