

G. R. SMITH.
 PRINTER'S TIE-UP.
 APPLICATION FILED AUG. 5, 1910.

984,976.

Patented Feb. 21, 1911.

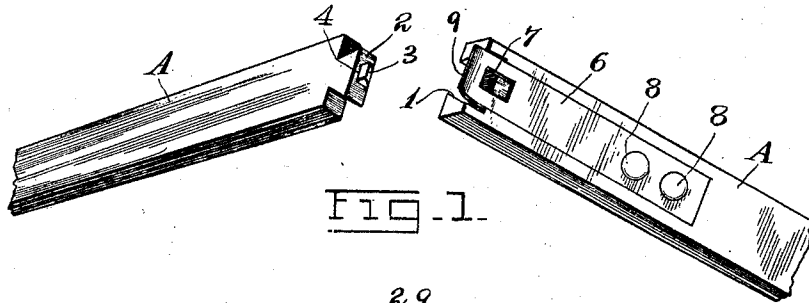


FIG. 1.

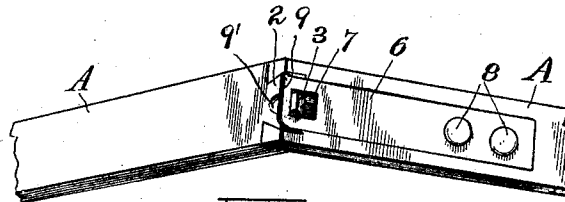


FIG. 2.

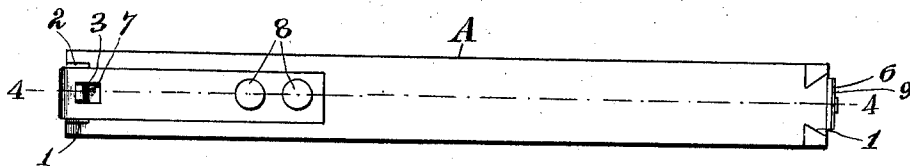


FIG. 3.

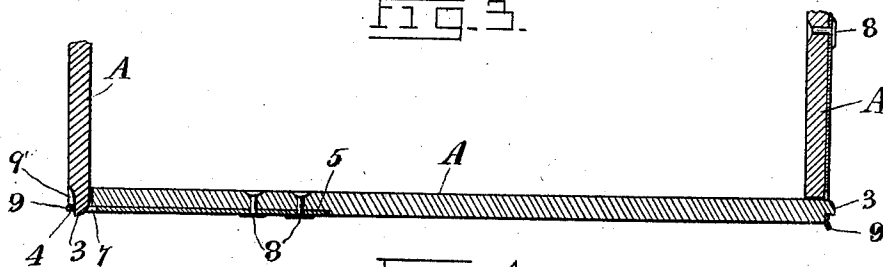


FIG. 4.

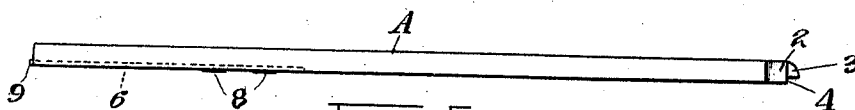


FIG. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE R. SMITH, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO JOSEPH P. RYAN,
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PRINTER'S TIE-UP.

984,976.

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To all whom it may concern:

Be it known that I, GEORGE R. SMITH, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Printers' Tie-Ups, of which the following is a specification.

This invention relates to printers' tie-ups or holders for standing matter, and it has for its object to produce a bar or slug of simple and improved construction provided at the ends thereof with fastening means enabling two bars or slugs to be securely joined together at right angles, thus enabling four bars or slugs of suitable longitudinal dimensions to be utilized to form a frame in which standing matter may be easily and quickly secured and held temporarily without resorting to the unsafe and cumbersome method of tying the matter with a cord which is now commonly practiced.

Further objects of the invention are to simplify and improve the construction and operation of the locking means of the device.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawing,—Figure 1 is a perspective view showing the ends of two slugs or bars slightly separated ready to be joined together. Fig. 2 is a perspective view showing the ends of the two slugs joined together. Fig. 3 is a side elevation of a frame constructed in accordance with the invention. Fig. 4 is a horizontal sectional view taken on the line 4—4 in Fig. 3. Fig. 5 is a top edge view of one of the bars or slugs.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved frame or tie-up is composed of four bars or slugs A which may be of any suitable length, it being obviously the

intention to make these bars or slugs in many different sizes so that those of the desired length may be readily selected. The bars or slugs A are preferably made of steel, and each bar is provided at one end with a dovetailed notch 1 and at the other end with a correspondingly dovetailed projection 2 so that two bars may be joined together at right angles by inserting the lug of one bar into the notch of the other. The lug 2 is provided with a wedge-shaped projection 3, the heel end of which terminates short of the outer face of the bar A, thus producing a nick or shoulder 4 adjacent to the heel end of the wedge-shaped projection. The outer face of the bar is provided with a shallow recess 5 adjacent to the end having the dovetailed notch 1, and in this recess is secured a flat spring 6 which projects adjacent to the notch 1 where said spring is provided with a slot or opening 7. The spring may be held securely in the recess 5 by fastening members such as rivets 8, and the free end of the spring which projects over slightly beyond the end of the bar A is slightly upturned, as shown at 9.

When a form is to be tied up, and the slugs or bars A of the desired length have been selected to snugly engage the sides and ends of the form, the said bars or slugs may readily be joined at the ends by inserting the dovetailed projection 2 of each bar into the dovetailed notch 1 of the proximate bar, the wedge-shaped projection 3 being permitted to slide under the upturned end 9 of the spring 6, which is forced outwardly until the wedge 3 engages the slot 7 of the spring, thereby locking the parts securely together. To disengage the bars from one another it is only necessary to force the free end of the spring 6 slightly in an outward direction, thereby permitting the wedge member 3 to be disengaged, when the bars may be readily slid or moved apart.

The improved device is simple in construction, easily manipulated and thoroughly efficient for the purposes for which it is provided. While the construction is simple, it is of such a nature as to be readily able to resist any strain that may be put upon it.

Instead of providing the spring 6 with a projecting upturned end 9 forming a finger hold, the end of the slug or bar having the lug 2 may be provided with a thumb-notch, as shown at 9' at the left side of Fig. 110

3; or the notch 9' may be formed auxiliary to the spring portion 9, as seen in Fig. 2.

Having thus described the invention, what is claimed as new, is:—

5 1. In a device of the character described, interengaging bars, one of which is provided with a dovetailed notch and the other with a dovetailed projection having a wedge-shaped lug, the notched bar being provided
10 with a spring secured exteriorly upon the bar, projecting beyond the end of the bar and having in its projecting end a slot for engagement with said wedge-shaped lug.

15 2. A printer's tie-up composed of four bars, each bar being provided at one end

with a dovetailed notch and at the other end with a dovetailed projection having an outwardly extending wedge-shaped lug, each bar being provided adjacent to its notched end with a shallow recess, and a spring secured therein, said spring having an out-turned end projecting slightly beyond the end of the bar, and a wedge engaging notch adjacent to its free end.

In testimony whereof I affix my signature 25 in presence of two witnesses.

GEORGE R. SMITH.

Witnesses:

THEODORE TOSTESEN,
GEO. P. BRADY.