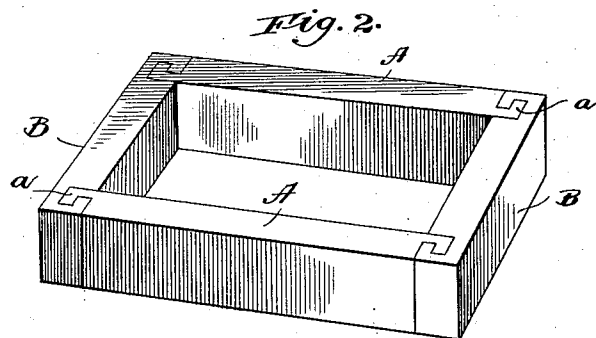
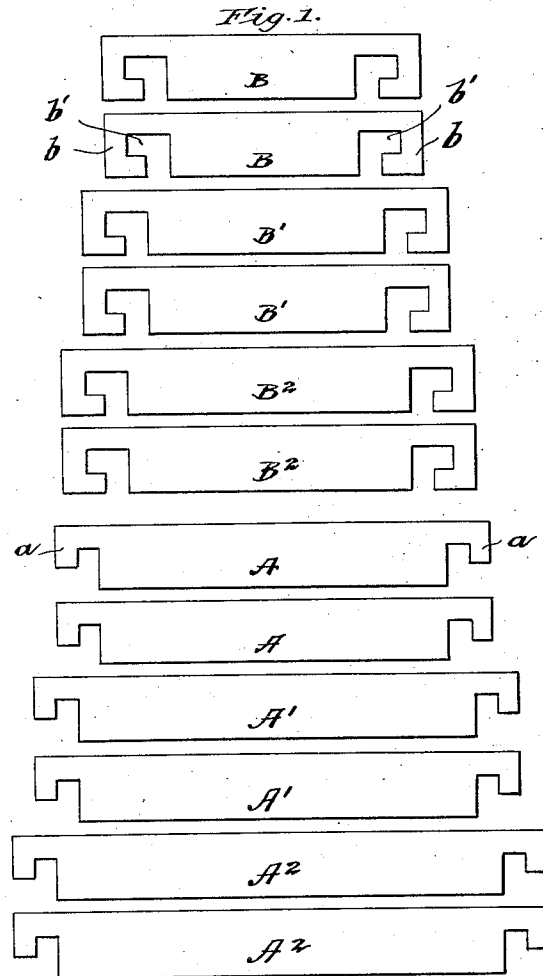


J. T. BARTON.
 PRINTER'S TIE-UP.
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1,012,185.

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UNITED STATES PATENT OFFICE.

JOSEPH T. BARTON, OF CHICAGO, ILLINOIS.

PRINTER'S TIE-UP.

1,012,185.

Specification of Letters Patent.

Patented Dec. 19, 1911.

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To all whom it may concern:

Be it known that I, JOSEPH T. BARTON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Printers' Tie-Ups, of which the following is a specification.

My invention relates to a device in the nature of a composition holder intended for use by compositors in printing establishments, and has for its main object to provide a simple and practical composition tie-up or holder that may be used in lieu of the almost universal practice of employing a string wrapped a number of times around the composition that has been set up to temporarily hold the type in place during the taking of a galley-proof and for other purposes, as well as to avoid the loss of time and labor involved in this practice.

My invention is based on what is known in the printing art as the "point" system, according to which the type, slugs, sticks, and all the accessories and furniture employed by the compositor in assembling and setting up a composition are accurately made to contain a certain number of "points" in length, width, and thickness; and the invention employs a plurality of pairs of bars varying in length by one or more points, said bars, in width and thickness containing a given number of points, and all of said bars being provided at their ends with integral interlocking rectangular hooks forming separable joints at the corners of the tie-up frame, so that when a composition of a given size is set up it can be tied together by simply bounding it on all four sides by tie-up bars of appropriate lengths. Moreover, the corner joints are of such a character that the frame can be assembled and separated only by moving the component bars bodily in a direction normal or perpendicular to the plane of the frame.

My invention will be readily understood when considered in connection with the accompanying drawing which illustrates one practical form in which the same may be embodied, and in which—

Figure 1 is a group figure illustrating in top or bottom plan a series of pairs of frame bars differing from each other by a certain number of points in respect to length; and Fig. 2 is a perspective view of a sample tie-up frame or composition holder assembled.

Referring to the drawings, A designates

each of a pair of bars which I have shown as forming the longer sides of the frame, and B designates each of a similar pair of bars which I have designated as making up the shorter sides of the frame. Each of the bars A is formed at each end with a rectangular two-sided hook *a*, and each of the bars B is formed at each end with a rectangular three-sided hook *b*. The described formation of the hook *b* creates in one side of the bar B an L-shaped slot *b'* into which the two-sided L-shaped hook *a* of the bar A nicely fits when the frame is assembled, as shown in Fig. 2. The bars A and B are accurately made to contain a certain number of points in both their longitudinal and transverse dimensions; and it will be observed with reference to the hook formations at their ends that the engaging surfaces of said hooks are flat; that they lie throughout in planes normal or perpendicular to the plane of the frame; and that the planes of these flat engaging surfaces are also parallel to either the side or end members of the frame, so that the said bars are movable into and out of interlocked position only in planes normal to the plane of the tie-frame in which they are assembled, and, when assembled, constitute a rectangular frame of great rigidity and one that cannot "skew" out of exact rectangular form owing to the large number of cooperating surfaces forming the corner joints, and the disposition of half of these surfaces at right-angles to the other half.

In the practical use of the invention, the compositor is supplied with a large number of bars A and B varying, as stated, only in length by one or more points; such bars of greater length than those described being herein typically illustrated in the bars designated B' and B² and A' and A² in Fig. 1. The compositor, knowing approximately the rectangular dimensions of a given job, sets up on his galley the lower bar A and right-hand end bar B, and then proceeds to build up the composition until the same is completed. He then completes the tying up of the composition by adding the complementary upper and left-hand bars A and B; filling in, if necessary, enough thin slugs or spacers at one or more sides to bind the composition securely within the frame and insure against its falling out while being transferred to the galley-press or elsewhere. Another advantage of the described construction resides in

the interchangeability of the opposite bars of the frame, thus saving time in the selection of the bars for the building up of the frame. Still another advantage resides in the fact that the bars, being made according to the "point" system in width and thickness, as well as in length, are capable of use as "furniture," when other furniture may be missing or less conveniently at hand.

10 I am aware that composition holders comprising built-up frames have heretofore been proposed as a substitute for the usual string; but none of these devices have, so far as I am aware, proved sufficiently simple, flexible as regards adjustment, and reliable to constitute a practical substitute for the ancient practice of tying up the composition with a string. The device of my invention employs but four straight bars or bounding members to make a single holder or tie-up; and the peculiar structure and character of the corner joints produces a combination of practical advantages which I believe are found in no other metallic composition tie-up or holder heretofore known.

25 I claim:

1. A compositor's tie-up, consisting of a rectangular frame comprising a pair of parallel opposed bars of rectangular cross-section formed at their ends with identical

integral three-sided rectangular hooks, and a pair of parallel opposed complemental bars of rectangular cross section formed at their ends with identical integral two-sided rectangular hooks adapted to interlockingly engage the three-sided hooks of said first-named bars, said hooks lying wholly within the planes of the surfaces of the bars on which they are formed and having their engaging faces lying throughout in planes normal to the plane of the frame, substantially as described.

2. A compositor's tie-up, consisting of a rectangular frame comprising a pair of parallel opposed bars formed at their ends with integral three-sided rectangular hooks, and a pair of parallel opposed complemental bars formed at their ends with integral two-sided rectangular hooks adapted to interlockingly engage the three-sided hooks of said first named bars, the engaging faces of said hooks being flat and lying throughout in planes normal to the plane of the frame and parallel to either the side or end members of the latter, substantially as described.

JOSEPH T. BARTON.

Witnesses:

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