

**1,051,664.**

Fig. 1.

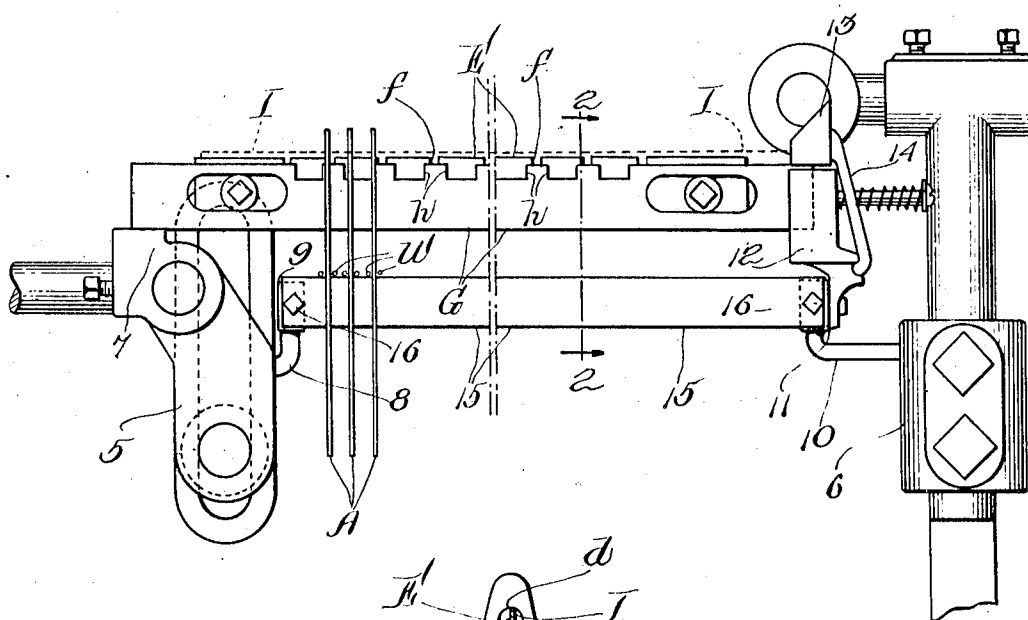
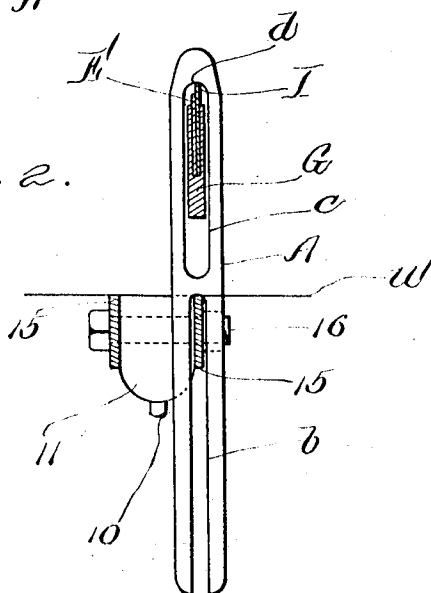


Fig. 2.



In witness whereof:  
William H. Baker.  
Jury  
Henry J. Miller atty.

# UNITED STATES PATENT OFFICE.

WILLIAM H. BAKER, OF BRIDGEPORT, CONNECTICUT.

METHOD OF THREADING DROPS ON SLIDE-BARS.

1,051,664.

Specification of Letters Patent.

Patented Jan. 28, 1913.

Application filed July 30, 1912. Serial No. 712,232.

*To all whom it may concern:*

Be it known that I, WILLIAM H. BAKER, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a new and useful Method of Threading Drops on Slide-Bars, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

This invention has reference to an improved method of threading drops, so called, on the slide bars of warp stop motions.

The object of the invention is to facilitate the threading of the drops on to the notched slide bars of warp stop motions and also to facilitate the selection by the drawing in operation of the drop wires.

The invention consists in the method of mounting a series of warp stop motion drop devices in alinement and in then threading through the slide bar receiving openings of said drops slide bars having notches in their edges without engaging said notches with said drops.

Figure 1 represents a view in elevation of the means for alining the warp drop devices, showing a series of drop devices thereon and the slide bars threaded through said drop devices. Fig. 2 represents a sectional view of parts of the same taken on line 2—2 Fig. 1 and showing the manner in which the warp threads are sustained and the means for preventing the engagement of the notched slide bars with the drops during the threading operation.

Similar reference characters indicate similar parts in both figures.

In that class of warp stop motions for looms and similar machines having a notched slide bar operating continuously under normal conditions and adapted to be arrested under abnormal conditions by a gravity drop device or devices adapted, in its abnormal movement, to engage in one of the notches of said slide bar it is desirable that the engagement of said drop devices with the warp threads be facilitated and that the drop devices be quickly threaded on to said slide bar and its cooperating notched guide bar without disturbing the engagement of any of said drop devices with their warp threads. When the drops are furnished with closed slots such threading has heretofore been particularly difficult.

As shown in the drawings 5 and 6 represent supporting members which may form parts of loom frames or which may be at-

tached to any other suitable frames. The member 5 has the seat 7 and the bracket arm 8 having the spring block 9 while the member 6 has the arm 10 carrying the spacing block 11 on which is mounted the seat 12 having the keeper 13 mounted on the pivoted spring pressed arm 14. On the spacing blocks 9 and 11 are mounted the alining plates 15, 15 secured in place by bolts 16, 16 and spaced apart by the blocks 9 and 11 to permit two banks of drop devices to be mounted thereon.

The drop devices A referred to herein are usually formed of sheet metal and have two slots *b* and *c* of which slot *b* extends to the lower end of the drop A while slot *c* is preferably closed particularly at its upper end as the material or web *d* at this portion of the drop acts, in an abnormal position of the drop, as an arresting device for arresting the movement of the slide bar E having the notches *f, f* in its upper edge and slidable in a groove formed in the guide bar G which has in its upper edge the notches *h, h*.

In carrying this improved method into practice I stretch a series of warp threads W, W across the upper edges of the alining plates 15, 15 by which plates said warp threads are sustained. I next place a series of drop devices A, A along one or both of said plates 15, 15 by engaging the slots *b, b* of said drops both with a plate 15 and with the adjacent warp thread W as is shown in Fig. 2 of the drawing thus forming a horizontal series of said drops having all of their slots *c, c* approximately in alinement. I now take the slide bar E and its guide bar G and protect the notched edge of said slide bar with a riding member. In the preferred form shown in the drawings in Fig. 2 the groove of the guide bar G is sufficiently wide to permit the riding member or strip I to be located therein alongside the slide bar E with the upper edge of the riding strip I extending above the notched edge of the slide bar as shown in Fig. 2 and indicated by the dotted line I—I in Fig. 1. With the riding strip I in such position I now pass the guide bar G, the slide bar E and the riding strip I through the slots *c, c* of all the drop devices A, A of one series sustained by one of the alining plates 15, 15 and, for convenience, I may rest the ends of the guide bar G on or in the seats 7 and 12 while I remove the riding strip I by withdrawing the same lengthwise

through the groove in the guide strip G thus permitting all of the drop devices A, A to drop on to the notched edge of the slide bar. Instead, however, of placing the guide bar G on or in the seats 7 and 12, the riding strip I may be removed and the guide bar G and slide bar E may be connected with their coöperating parts of the loom.

In some cases, as where this method and device are to be used in warp drawing in frames, the riding strip I is placed in position in the groove of the guide bar G with the edge of the riding strip extending above the slide bar E. A series of warp drop detectors or drop wires having closed slots are suitably placed in the drawing-in frame. The warp to be drawn is placed in position and the operative selects a single drop wire and slides the same along the riding strip which, with the slide bar and the guide bar, is embraced by the slotted portion of the drop wire. This drop wire is thus moved along to a point adjacent the end of the warp which it is desired to draw in and said end is engaged with or drawn through said drop wire. This operation is continued until all the warp ends have been drawn in and the series of drop wires are sustained by the edge of the riding strip I, which strip may now be withdrawn. Such operation in the drawing in frame facilitates the placing

of the drop wires in their respective positions as, with the riding strip, the drop wires cannot be accidentally engaged with the teeth or slots of the guide bar or of the slide bar. Therefore this invention is particularly valuable in facilitating the mounting of drop wires having closed slots.

Having thus described my invention I claim as new and desire to secure by Letters Patent—

1. That method of threading warp drops having closed slots with notched members of a stop motion which consists in arranging said drops with their slots in alinement, protecting the notched edges of said stop motion members from engagement with said slots, and passing said members and their protecting device through said slots in the drops.

2. That method of threading warp drops having closed slots with notched members of a stop motion which consists in sustaining said stops with their slots in alinement, applying a riding strip to said members to guard these notched edges, and passing said members and their riding strip simultaneously through all the slots of said drops.

WILLIAM H. BAKER.

Witnesses:

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