

UNITED STATES PATENT OFFICE

1,957,670

HOLDER FOR FASTENER ELEMENTS AND
THE LIKE

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Application January 23, 1931, Serial No. 510,752

6 Claims. (Cl. 112-106)

This invention relates in general to a holder for articles for the purpose of transporting and storing the articles and supplying them to a machine designed to perform operations involving the articles. More particularly the invention is directed toward a holder for supplying garment fastener elements to a magazine for feeding the fastener elements to a machine for attaching the elements to garments or the like as more particularly described in my copending application Serial No. 510,751 filed January 23, 1931.

One object of the invention is to provide a holder for receiving and holding a plurality of articles end to end or in a train or row so that the articles may be discharged from the holder in the same order, the holder including a latch for preventing passage of the articles from the holder until it is desired to remove the articles.

Another object is to provide a holder of this character embodying novel and improved features of construction including a body having a channel to receive articles such as fastener elements at one end and discharge the articles at the other end, and a latch adjacent the discharge end of the holder for preventing passage of the articles from the discharge end.

Other objects are to provide such a holder consisting of a tube to receive the articles at one end and discharge them from the other end, said tube having an opening in one wall and a latch projecting through the opening into the tube to prevent passage of the articles from the discharge end of the tube; to provide such a holder in combination with a structure having an opening to receive the articles from the holder, for example, the magazine of a feeding apparatus, said latch and said structure being constructed to cooperate so as to actuate the latch and release the articles from the holder as the latter is connected to the structure; and to obtain other advantages and results as will be brought out by the following description.

Referring to the accompanying drawing in which corresponding and like parts are designated throughout the several views by the same reference characters,

Figure 1 is a front elevation of a holder for fastener elements embodying my invention.

Figure 2 is a side elevation thereof.

Figure 3 is a rear elevation.

Figure 4 is a transverse vertical sectional view through the holder.

Figure 5 is a view similar to Figure 4 showing the holder mounted upon a structure such as a magazine of a feeding apparatus for the articles.

Figure 6 is a rear elevation of the construction shown in Figure 5.

Figure 7 is a fragmentary perspective view of the discharge end of the holder viewing it from the rear thereof.

Figure 8 is a horizontal sectional view on the line 8-8 of Figure 1.

Figure 9 is a fragmentary transverse vertical sectional view through a modified form of the holder and

Figure 10 is a horizontal sectional view on the line 10-10 of Figure 9.

Specifically describing the invention, the holder is shown as formed of a strip of sheet metal bent to provide a split tube having a rear wall 1, side walls 2, at right angles to the rear wall, and front flanges 3 parallel to the rear wall with their edges spaced apart at substantially the center of the front of the holder to provide a longitudinal slot 4. This particular form of holder is designed for holding hook fastener elements designated A, although the holder may be utilized for containing eye fastener elements or other articles, and need not be provided with the slot 4. This slot is utilized to provide a clearance for the bill portions B of the hooks. The thickness of the holder, that is, the distance between the rear wall 1 and front flanges 3 is such as to nicely receive the base portions C of the fastener elements.

The holder is open at both ends and the fastener elements may be slid into the holder through one end, in the present instance the end 6, and discharged from the other end 7. Adjacent the discharge end 7, the rear wall 1 is formed with an opening 8 through which projects a latch head 9 mounted on a spring strip 10 secured to the outside of the rear wall 1. The spring strip 10 normally influences the latch head through the opening 8 into the holder so that the holder is abutted by one of the fastener elements so as to prevent the fastener elements from passing from the discharge end, as clearly shown in Figures 1 and 4 of the drawing. By pulling the latch head 9 outwardly through the opening 8, the fastener elements are released and may slide by action of gravity or be pushed from the discharge end of the holder.

The holders above described are specifically intended to be used with a structure having an opening to receive the fastener elements, for example, the magazine of an apparatus for feeding fastener elements to a machine for sewing the elements upon a fabric tape or a garment. Such a structure is generally designated D in Figures 5 and 6 of the drawing, and has a groove or pocket 11, the upper end of which is adapted to telescopically receive the discharge end 7 of the holder, as clearly shown in Figures 5 and 6 of the drawing. This structure D has a slot 12 at its upper edge to provide a clearance for the latch 9 when the holder is applied to the structure, and the base of this slot 12 is beveled at 13 to cooperate with a correspondingly beveled surface 14 on the latch head 9, so that as the holder is fitted into the groove 11, the beveled surfaces 13 and

14 cooperate with each other to force the latch head outwardly through the opening 8 to release the fastener elements from the discharge end of the holder into the groove 11. After all of the fastener elements have been removed from the holder, the holder may be detached from the structure D by simply pulling the holder out of the groove 11.

A modification of the holder is shown in Figures 9 and 10 of the drawing wherein the latch is formed integral with the holder. In this form of the invention, the rear wall 1 of the holder is provided with two parallel slits 15 which form a tongue 16, and the free end of this tongue is returned upon itself and inclined outwardly at 17 with the extremity 18 projecting into the holder. This tongue 16 with its returned portion 17 and extremity 18 thus serves the same purpose as the spring strip 10, latch head 17 and beveled surface 14 of the latch construction shown in Figures 1 to 6 inclusive. The inclined portion 17 of the tongue may cooperate with the beveled portion 13 of the structure D just as does the beveled surface 14 of the latch head 9.

Other modifications in the details of construction of the holder and the latch will readily occur to those skilled in the art as within the scope of the invention.

The holder above-described may be utilized for receiving the fastener elements directly from a machine in which the fastener elements are made, and may also serve as a container for the fastener elements during transportation and storage. For preventing the fastener elements from falling from the filling end of the holder, any suitable device may be utilized, but I prefer to use a latch 19 identical in construction with the latch 9, 10. This also permits either end of the holder to be inserted in the groove 11, either latch 9 or 19 being adapted to cooperate with the beveled surface 13 on the structure. The latch 19 may be held in releasing position while the fastener elements are being inserted in the holder or may be slipped by the latch due to the inclined nose 20 thereon and the yielding of the spring.

While I have shown and described the now preferred embodiment of the invention, it should be understood that this is primarily for the purpose of illustrating the principles of the invention, and I do not wish to be understood as limiting myself in the construction and use of the invention except as required by the following claims when construed in the light of the prior art.

Having thus described my invention, what I claim is:

1. The combination of a structure having an opening to receive articles, a holder for articles to supply the latter to said opening having a channel to receive said articles at one end and discharge them at the other, said holder and said structure being constructed to cooperate to removably mount said holder on said structure with said discharge end of the holder located to deliver said articles to said opening, a latch to prevent passage of said articles from said discharge end, and means for actuating said latch as said holder is mounted on said structure to release said articles from said discharge end of the holder into said opening.

2. The combination of a structure having an opening to receive articles, a holder for articles to supply the latter to said opening having a channel to receive said articles at one end and discharge them at the other, said holder and said structure being constructed to cooperate

to removably mount said holder on said structure with said discharge end of the holder located to deliver said articles to said opening, a latch on said holder to prevent passage of said articles from said discharge end of the holder, said latch being actuated by engagement with said structure as said holder is mounted thereon to release said articles from said discharge end into said opening.

3. The combination of a structure having an opening to receive articles, a holder for articles to supply the latter to said opening having a channel to receive said articles at one end and discharge them at the other, said holder and said structure being constructed to cooperate to removably mount said holder on said structure with said discharge end of the holder located to deliver said articles to said opening, a latch on said holder to prevent passage of said articles from said discharge end of the holder, said latch and said structure having cooperating beveled portions engageable as said holder is mounted on said structure so as to actuate said latch and release said articles from said discharge end.

4. The combination of a structure having an opening to receive articles, a holder for articles to supply the latter to said opening having a channel to receive said articles at one end and discharge them at the other, said opening being constructed to telescopically receive said discharge end of said holder to mount the holder on said structure with said discharge end located to deliver said articles into said opening, a latch adjacent said discharge end of said holder to prevent passage of said articles from said discharge end, and means for actuating said latch as said holder is fitted into said opening to release said articles from said discharge end.

5. The combination of a structure having an opening to receive articles, and a holder having a channel to receive and discharge articles at either end, and a latch adjacent each end to prevent passage of said articles through the corresponding end of said channel, said structure and said holder being constructed to cooperate to removably mount said holder on said structure with either end of said channel and said opening related to permit passage of said articles from one to the other, and means for actuating the said latch at the end of said channel adjacent said opening as said holder is mounted on said structure to permit passage of said articles through said end of the channel.

6. As an article of manufacture, a portable storage holder for garment fastener elements comprising a body having a channel extending longitudinally therethrough and opening through both ends to hold a plurality of fastener elements in a row and to receive fastener elements at either end and discharge them at either end by action of gravity on said fastener elements, and releasable means at each end of said channel having a part extending into said channel transverse of the path of movement of said fasteners therethrough for selectively preventing or permitting passage of said fastener elements out of or into either end of said channel respectively, upon movement of said parts of the releasable means respectively into or out of the path of movement of said fastener elements.

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