J. K. DIAMOND.

HOLDER FOR BELT FASTENERS.

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1,044,358. Patented Nov. 12, 1912

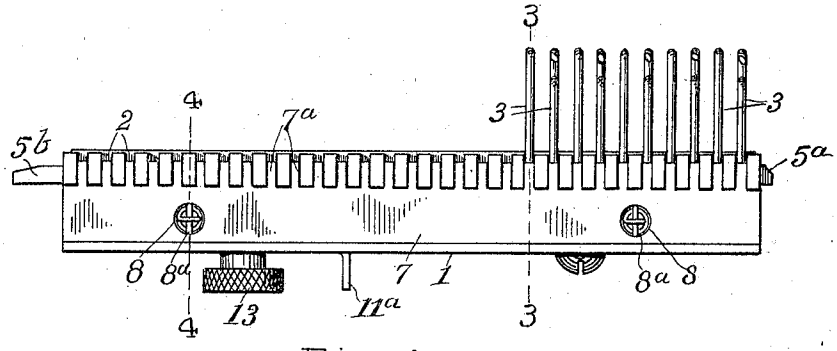

Fig. 1.

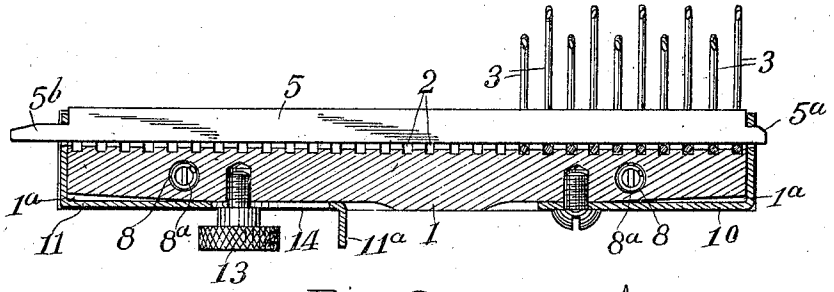

Fig. 2.

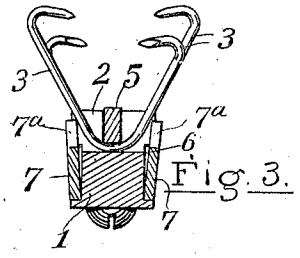

Fig. 3.

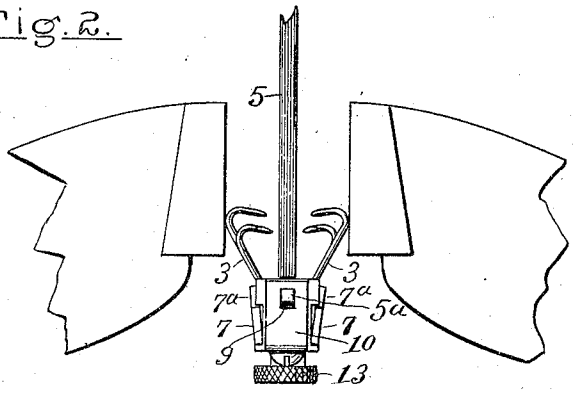

Fig. 6.

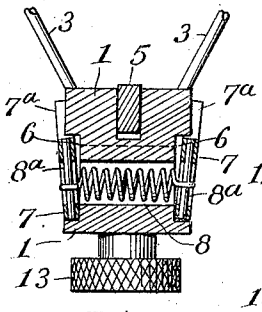

Fig. 4.

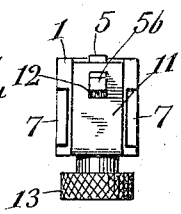

Fig. 5.

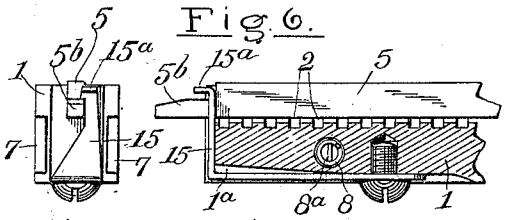

Fig. 7. Fig. 8.

Witnesses

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UNITED STATES PATENT OFFICE.

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HOLDER FOR BELT-FASTENERS.

1,044,358. Specification of Letters Patent. Patented Nov. 12, 1912.

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To all whom it may concern:

Be it known that I, JAMES K. DIAMOND, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Holders for Belt-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in holders for belt fasteners and its object is to provide a simple and improved device to hold staple-like wire belt fasteners in perfect alinement and properly spaced apart while they are being attached to the belt and to provide the device with various new and useful features hereinafter more fully described and particularly pointed out in the claims.

My invention consists essentially of an elongated body member, preferably rectangular in shape and provided with transverse recesses in its upper side at regular intervals to receive the belt fasteners and hold them spaced apart and parallel means for holding the same in alinement; means for quickly securing the fasteners within these recesses; means for readily releasing the same therefrom after they have been attached to the belt, and in various features of construction and arrangement as will more fully appear by reference to the accompanying drawings, in which:—

Figure 1 is a side elevation of a device embodying my invention; Fig. 2 is a longitudinal vertical section of the same; Fig. 3 is a transverse vertical section on the line 3—3 of Fig. 1; Fig. 4 is a transverse vertical section on the line 4—4 of Fig. 1; Fig. 5 is an end view of the device; Fig. 6 an end view of the holder with staples therein placed between the jaws of a vise and ready for clenching upon the belt; Fig. 7 an end view of the holder showing a modified form of fastening the end of the clamping bar; and Fig. 8 a longitudinal vertical section of one end of the device illustrating this modified form of fastener.

Like numbers refer to like parts in all of the figures.

1 represents the body of the holder which is preferably in the form of a rectangular bar provided in its upper side at regular intervals with transverse slots 2 spaced apart and of sufficient width to receive the belt fasteners 3 and hold the same parallel. A longitudinal slot extending through the walls between the transverse slots 2 is also cut in the upper side of the body. A clamping bar 5 fits within this longitudinal slot and engages the concave side of the middle bend of the fasteners. Longitudinal grooves 6 are also provided in the opposite sides of the body. Alining bars 7 fit within these grooves and are provided with upwardly extending projections 7^a spaced apart at regular intervals to enter the transverse slots 2 and engage the fasteners at each side of their middle bend and hold the fasteners in alinement. These alining bars 7 yieldably engage the fasteners so that different sizes of fasteners may be used in the same holding device. These bars are yieldably held with the projections 7^a within the grooves by springs 8 which extend through transverse openings in the body of the holder and have their respective ends attached to the respective alining bar 7 by transverse pins 8^a in the bars removably held in place by the opposite walls of the grooves.

It will be noted that the upward extensions 7^a oppositely engage the outwardly diverging arms of the fasteners, holding the fasteners in perfect alinement.

One end of the clamping bar 5 is shouldered and has an extension 5^a which is inserted in an opening 9 in a spring clip 10 which clip is fixed to the body of the device and the other end of the clamping bar is also shouldered and provided with an extension 5^b which has an inclined upper surface engaged by a slidable spring clip 11 having an opening 12 and so arranged that it may be moved outward to release or engage the clamping bar 5. When said clamping bar is arranged in position the clip 11 is moved back so that the extension 5^b on the clamping bar can be inserted through the opening 12 and brought snugly down into position by means of the inclined upper surface and the resilience of the clips, the bar being cut away or recessed beneath the same as at 1^a. The clip 11 is then secured in place by a thumb screw 13 inserted through a slot 14 on the clip and into the body of the holder.

As a modified fastening means I have illustrated in Figs. 7 and 8 a hook-shaped clip 15 which is adapted to engage the ex-

tension 5^b on the clamping bar and is securely fastened to the under side of the body of the holder so that it will automatically spring back to operative position when the clamping bar is in place. A small outturned member 15^a is provided at the upper end of this clip as a finger grip so that the hook may be sprung to disengage the clamping bar when it is desirous to release the same.

In operation the fasteners 3 are placed within the transverse slots and the projection 5^a at one end of the clamping bar 5 is inserted through the opening 9 in the clip 10 and the other end is brought down and secured in position drawing the fasteners snugly into place between the alining bars 7. The staples are now in condition to be attached to the end of the belt 16. This may be done in any convenient way as for instance by squeezing them between the jaws of a vise, hammering them down on an anvil or by means of any convenient press, the object of this invention being merely to hold the fasteners in perfect alinement during the clenching operation.

This device is adapted to receive various sized fasteners as the alining bars used may be sprung outward to the required distance to admit the base of different sizes of fasteners. It is the custom, however, to make the different sized fasteners all of the same gage of wire so that they will all fit snugly within the transverse receiving slots 2 and be held parallel thereby. Obviously the alining bars may be secured rigidly if preferred and the device will be operative.

What I claim is:—

1. A holder for belt fasteners, comprising a body member having transverse receiving slots, alining members to engage the opposite sides of the diverging arms of the belt fasteners, and a detachable bar mounted to engage the inner side of the middle bend of said fasteners.

2. A holder for belt fasteners, comprising a member having receiving grooves, three separate bars arranged in parallel relation and extending within said grooves to engage each fastener at respective points spaced apart and means for retaining said bars in place.

3. A holder for belt fasteners, comprising a middle bar to engage the inner side of the fasteners and two other bars in parallel relation to the middle bar and spaced apart therefrom to oppositely engage the opposite sides of the fasteners at a distance from the middle bar, a grooved body member to space the fasteners apart and means for attaching the bars to said body member.

4. A holder for belt fasteners, comprising an elongated rectangular body member having transverse receiving slots arranged at regular intervals in the upper side, means for retaining fasteners within the slots, and oppositely yieldable means oppositely engaging the fasteners for alining the same in the slots.

5. A holder for belt fasteners, comprising an elongated rectangular body member having transverse slots in its upper side arranged at regular intervals to receive and space apart the fasteners and also having a longitudinal slot in the upper side intersecting the transverse slots, a retaining bar adapted to fit within the longitudinal slot means for holding the retaining bar in the slot and means for holding the fasteners in alinement.

6. A holder for belt fasteners, comprising an elongated rectangular body member having transverse receiving slots arranged at regular intervals in its upper side, and also having a longitudinal slot in the said upper side intersecting the transverse slots and of less depth, a retaining bar to fit within the longitudinal slots, said bar being provided with projecting end portions one of said end portions having an inclined upper face, a fixed attaching clip at one end of the body having an opening to receive one end projection of the bar, a slidable attaching clip at the opposite end of the body provided with an opening to receive the inclined projection of the retaining bar and a thumb screw inserted through a slot in the slidable clip to clamp the clip to the body.

7. A holder for belt fasteners, comprising an elongated rectangular body having transverse receiving slots in its upper surface means for retaining fasteners within the slots, an alining bar at each side of the body having upwardly extending portions adapted to enter the transverse slots to engage the fasteners and means for adjustably holding the alining bars in place.

8. A holder for belt fasteners, comprising an elongated body member having transverse receiving slots in its upper side, means for retaining fasteners within the slots, longitudinal recesses in the opposite sides of the body member communicating with the transverse slots, alining bars in the recesses having upward extensions projecting into the transverse slots to engage the diverging arms of the fasteners, and contractile springs attached at their respective ends to the alining bars.

9. A holder for belt fasteners, comprising an elongated rectangular body member having transverse receiving slots arranged at regular intervals and a longitudinal slot the longitudinal slot being of less depth than the transverse slots, a retaining bar to fit within the longitudinal slot provided with a projecting portion at each end of said projections having an inclined upper surface, an attaching clip fixed at one end of the body member having an opening to

receive one of the projections on the retaining bar, a slidable attaching clip at the opposite end of the body provided with an opening to receive the inclined projection on the retaining bar, a thumb screw inserted through a slot in the slidable clip to clamp the clip to the body, longitudinal recesses in the sides of the body communicating with the transverse slots, alining bars to fit within the recesses having upward extensions to enter said transverse slots and engage the diverging arms of belt fasteners, springs extending through transverse openings in the body and attached at their respective ends to the alining bars to hold the bars within the recesses and yieldably engage their upward extensions with the diverging arms of the fasteners substantially for the purpose set forth.

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

JAMES K. DIAMOND.

Witnesses:
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