Aug. 20, 1946. H. ALFANDRE 2,405,934

MEANS FOR ASSEMBLING SAFETY PINS

Filed April 25, 1944

Fig. 1.

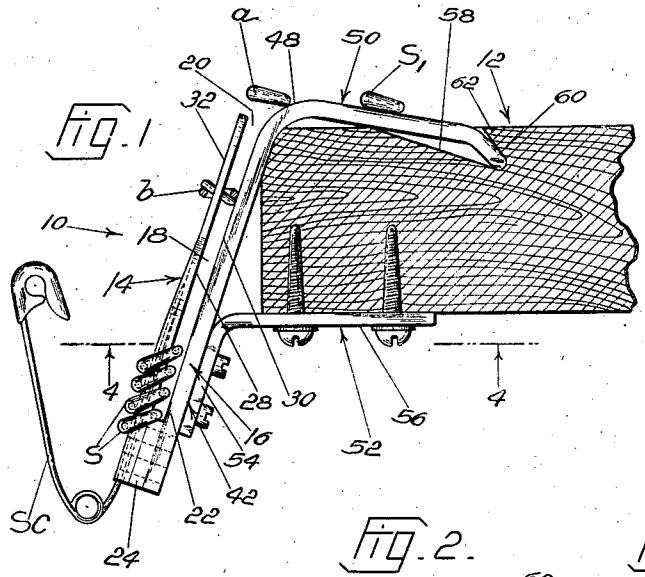


Fig. 3.

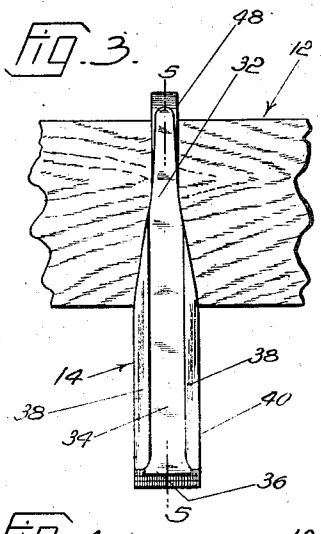


Fig. 2.

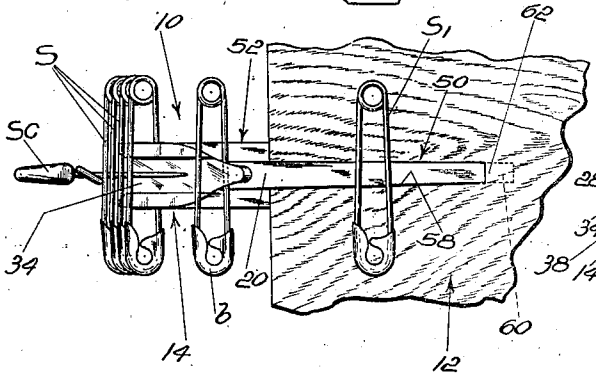


Fig. 4.

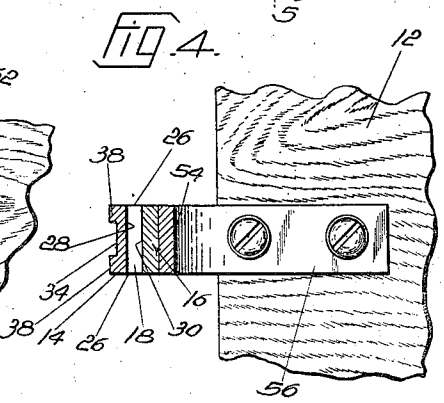


Fig. 7.

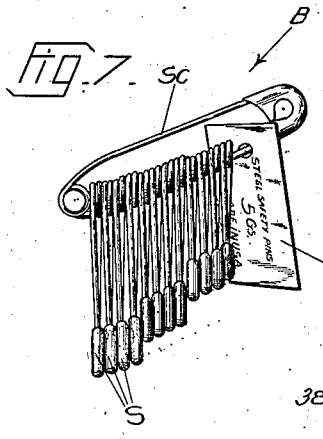


Fig. 5.

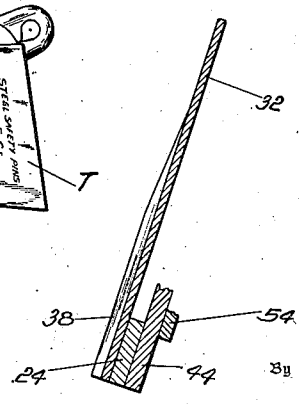
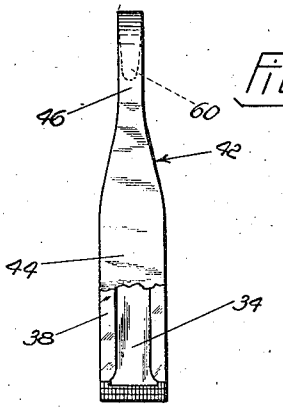


Fig. 6.



Inventor

HARRY ALFANDRE

By Edwin Reisoder

Attorney

Patented Aug. 20, 1946

2,405,934

UNITED STATES PATENT OFFICE

2,405,934

MEANS FOR ASSEMBLING SAFETY PINS

Harry Alfandre, Jamaica, N. Y.

Application April 25, 1944, Serial No. 532,617

9 Claims. (Cl. 163—8)

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This invention relates to means for use in assembling a plurality of safety pins or other looped members on a carrier.

According to one well known method of merchandising articles, such as safety pins, the latter are put up in bunches composed of a plurality of safety pins, usually of different sizes, mounted on one of the safety pins of the bunch, said last mentioned safety pin constituting a carrier for the other pins of the bunch. Heretofore, in accordance with one method of making up a bunch of safety pins, the closed safety pins are mounted one by one on the prong of an open safety pin which is mounted in a fixture which holds the open safety pin in vertical position with the pointed end of the prong uppermost. That method of making up bunches of safety pins is slow and therefore appreciably affects the production cost. Furthermore, that method presents a substantial occupational hazard since the upwardly projecting prong of the safety pin on which the other pins of the bunch are mounted constitutes a prevailing source of possible injury to the worker or assembler who makes up bunches of pins in the manner referred to.

In accordance with the present invention, the production of bunches of safety pins is facilitated whereby to reduce the cost of the assembling operation, and in addition the danger inherent in the previously utilized method referred to above is substantially eliminated. The accomplishment of these results constitutes a prime object of the present invention.

Another object of the invention is the provision of a device of simple construction by which the above mentioned results are accomplished.

The above and other objects, features, and advantages of the present invention will be fully understood from the following description, considered in connection with the accompanying illustrative drawing.

In the drawing:

Fig. 1 is a side view of the means provided in accordance with the present invention for use in assembling a plurality of closed safety pins on a safety pin carrier forming part of the bunch;

Fig. 2 is a top plan view thereof;

Fig. 3 is a front view thereof;

Fig. 4 is a sectional view on the line 4—4 of Fig. 1;

Fig. 5 is a sectional view of a part on the line 5—5 of Fig. 3;

Fig. 6 is a view similar to Fig. 3, with a portion broken away for the purpose of illustration;

Fig. 7 is a view of a bunch of safety pins.

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As illustrated in Fig. 7, a plurality of safety pins S of different sizes are mounted on the prong of another safety pin SC which forms part of the merchandising put-up or bunch B and constitutes a carrier or holder for the first mentioned pins of the bunch. Also, as here shown, the put-up is provided with a price tag T which is slipped over the prong of the pin carrier SC.

The means provided in accordance with the present invention for use in assembling pins on the pin carrier SC comprises the holder 10 which is mounted in juxtaposition to the top 12 of a table or bench in front of which the worker sits and on which there are arranged in any way convenient to the worker supplies of safety pins of various sizes. The holder 10 comprises laterally spaced parts 14 and 16 which define a slot 18 which is open at its top as indicated at 20 and which is closed at its bottom as indicated at 22. Parts 14 and 16 are spaced from each other by a spacing member 24, the upper edge of which forms said closed end 22 of slot 18. Parts 14 and 16 are fixedly secured to spacing member 24 in any suitable way. Slot 18 extends longitudinally of part 14 and is open at both sides 26 thereof as illustrated in Fig. 4. The inner surfaces 28 and 30 of parts 14 and 16 are smooth flat planer surfaces and the distance between said surfaces, disposed in confronting relation as shown, is such that the slot 18 is comparatively narrow as shown by Figs. 1 and 4.

Part 14 of holder 10 is constituted by a bar which has an upper portion 32 of reduced width. The front of bar 14 is provided with a longitudinally extending groove 34 which is open at the lower end of the holder 10 as indicated at 36. The sides of groove 34 are defined by the marginal edge portions 38 of the wider portion 40 of the bar which constitutes part 14, the upper ends of said edge portions 38 terminating in the narrower part 32 of said bar and tapering in thickness to the thickness of said narrower portion and tapering also in width to the width of said narrower part as shown more clearly in Figs. 3 and 5. Part 16 comprises a portion 42 which is in the form of a flat bar having a wider lower portion 44 and a narrower upper portion 46, said portion 42 corresponding in width throughout its length to that of part 14. The upper end of the narrower portion 46 of part 16 projects above the top or adjacent end of part 14 and is curved rearwardly as indicated at 48 in Fig. 1 and merges into the integral rearwardly extending part 50.

As illustrated in Fig. 1, the holder 10 is secured

to the table or bench in such position that the slot 18 in the holder extends vertically downwardly from the entrance opening 20 and is inclined forwardly of the table or bench, this being accomplished as here shown by a mounting bracket 52 which has one arm 54 thereof fastened to the back of part 16 of the holder and an arm 56 secured to the table or bench, the angle between said arms of the bracket being greater than 90°, in order to position the holder 10 in the inclined relation illustrated in Fig. 1. The portion 50 of part 16 of the holder extends downwardly in a direction running from the upper end 20 of slot 18 rearwardly of the latter and engages the top 12 of the table or bench in a groove 58 as illustrated in Fig. 1. Said part 50 has a bent end portion 60 which is positioned entirely below the upper surface of the top 12 of the table and is overlapped by a portion of the table top as indicated at 62 in Fig. 1. As will hereinafter more fully appear, part 50 provides means for guiding the safety pins during the transfer thereof by the assembler from the table top into the open end 20 of slot 18.

In using the above described means of the present invention for putting up bunches of safety pins or other looped members, the assembler sits in front of the table, that is to the left of the holder 10 viewing Fig. 1 and places safety pins in the holder 10 with either side of the pin positioned in slot 18 and the opposite side of the pin disposed at the front of part 14 and extending across groove 34 in said part as illustrated in Figs. 1 and 2 which show a few of the safety pins disposed in slot 18 in the relation just described. The safety pins thus placed in the holder are in substantially stacked relation, one of the sides of the lowermost pin of the stack being supported on the edge portion of spacing member 24 at the closed end of the slot 18. When the pins are thus positioned in the holder 10, the part 14 of said holder projects through the openings in the safety pin between the opposite sides thereof. When the desired number of safety pins are positioned in the holder, another safety pin which is to constitute the carrier pin SC, is positioned with the pointed end of the prong of the pin in the lower end of groove 34 below the lowermost safety pin in the holder, and then said safety pin SC is moved upwardly to project the prong of said pin through the openings in the safety pins in the holder, that is between the forward sides of the pin and the bottom of the groove 34, and as a continuation of this operation, the pin SC together with the other pins S through which the prong of said pin SC projects are moved upwardly until the lowermost pin in the holder clears the upper tip of part 14, thus to remove the stack of pins from the holder while said stack of pins is mounted on the prong of the carrier pin SC. Then, while the carrier pin SC is still opened, the price tag T, if one is attached to the bunch as shown in Fig. 7, is placed on the prong, the closing of said carrier pin SC completing the operation.

In transferring the pins from the respective supplies thereof on the table top 12 to the holder 10, the part 50 of the holder is utilized by the assembler to facilitate the movement by the assembler of the pins on the top of the table to the entrance opening 20 of slot 18. In thus using part 50 of the holder for guiding the pins in the transfer thereof from the top of the table to the holder, the assembler moves a pin by hand from the pile of pins on the surface of the table toward

opening 20 of slot 18 and utilizes part 50 as a guide to the slot so that the assembler is not required to carefully watch the movement of the pin in the transfer thereof from the table to the holder. The manner in which part 50 is utilized as a guide will be more clearly understood by reference to Figs. 1 and 2 which show a safety pin S1 positioned transversely of part 50 so that as the assembler moves said pin longitudinally of said part and toward the front of the table, the said pin is guided to the entrance opening 20 of the slot 18. The position of pin S1, at the entrance to slot 18, is indicated at *a* in Fig. 1, and the position of said pin after it enters said slot and is moving by gravity down said slot is indicated at *b* in Figs. 1 and 2. In actual practice, the assembler after a few practice operations in the use of the present invention is able to transfer the safety pins in the proper sizes from the respective supplies thereof on the table top 12 to the holder 10 very quickly and efficiently and with little effort in comparison with that required in accordance with the previous method of mounting the pins directly on the prong of the pin carrier. Thus it is apparent from the above description that the present invention greatly facilitates and expedites the assembly of pins on a carrier pin for producing the bunch type of put up. In addition, the invention eliminates a substantial part if not all of the danger of injuries which resulted from the prior method of mounting safety pins directly on the pin prong of the carrier pin.

While I have shown and described the preferred embodiment of my invention, it will be understood that the latter may be embodied otherwise than as herein specifically illustrated or described and that in the illustrated embodiment certain changes in the details of construction and in the arrangement of parts may be made without departing from the underlying idea of the present invention within the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. Means for use in assembling on a carrier a plurality of looped members which have openings defined by the loop forming portions of said members, respectively, said means comprising a holder having a slot closed at one end thereof and open at its opposite end for providing an entrance into said slot for said looped members, said holder having a part which extends longitudinally of said slot and projects through the openings in the looped members which are disposed in said slot, said part of the holder having an outer surface provided with a longitudinally extending groove which is traversed by parts of the looped members which are disposed in said slot, said groove forming a guide for part of said carrier to guide said carrier part for movement in said groove longitudinally thereof between said traversing parts of said looped members and said part of the holder at the outer surface thereof for gathering said looped members on said carrier and removing them as a group from said holder through said open end of said slot.

2. Means for use in assembling on a carrier a plurality of looped members which have openings defined by the loop forming portions of said members, respectively, said means comprising a holder having a slot closed at one end thereof and open at its opposite end for providing an entrance into said slot for said looped members, said holder having a part which extends longitudinally of

said slot and projects through the openings in the looped members which are disposed in said slot, and means in unitary relation with said holder for guiding said looped members into said open end of said slot, said part of the holder having an outer surface provided with a longitudinally extending groove which is traversed by parts of the looped members which are disposed in said slot, said groove forming a guide for part of said carrier to guide said carrier part for movement in said groove longitudinally thereof between said traversing parts of said looped members and said part of the holder at the outer surface thereof for gathering said looped members on said carrier and removing them as a group from said holder through said open end of said slot.

3. Means for use in assembling a group of closed safety pins on a carrier which comprises another safety pin, said means comprising spaced parts defining a slot to receive between said spaced parts either of the sides of a plurality of closed safety pins with the opposite sides of the latter disposed externally of said slot in confronting relation to the adjacent surface of one of said spaced parts, said slot being closed at one end thereof and open at its opposite end for providing an entrance into said slot for said first mentioned sides of said safety pins, and means on said one of the spaced parts at said adjacent surface thereof for guiding the open prong of the carrier safety pin for movement between the opposite sides of the safety pins which are disposed in said slot whereby to gather said last mentioned pins on said carrier pin and to remove them from said holder.

4. Means for use in assembling a group of closed safety pins on a carrier which comprises another safety pin, said means comprising spaced parts defining a slot to receive between said spaced parts either of the sides of a plurality of closed safety pins with the opposite sides of the latter disposed externally of said slot in confronting relation to the adjacent surface of one of said spaced parts, said slot being closed at one end thereof and open at its opposite end for providing an entrance into said slot for said first mentioned sides of said safety pins, said one of the spaced parts of the holder having a groove in said adjacent surface thereof extending longitudinally of said slot and traversed by said opposite sides of said safety pins which are disposed in said slot, said groove forming means for guiding the open prong of the carrier safety pin for movement between the opposite sides of the safety pins which are disposed in said slot whereby to gather said last mentioned pins on said carrier pin and to remove them from said holder.

5. Means for use in assembling a group of closed safety pins on the carrier which comprises another safety pin, said means comprising spaced parts defining a slot to receive between said spaced parts either of the sides of a plurality of closed safety pins with the opposite sides of the latter disposed externally of said slot in confronting relation to the adjacent surface of one of said spaced parts, said slot being closed at one end thereof and open at its opposite end for providing an entrance into said slot for said first mentioned sides of said safety pins, said one of the spaced parts of the holder having a groove in said adjacent surface thereof extending longitudinally of said slot and traversed by said opposite sides of said safety pins which are disposed in said slot, said groove forming means for guiding the open prong of the carrier safety pin for movement between the opposite sides of the safety pins which are disposed in said slot whereby to gather said last mentioned pins on said carrier pin and to remove them from said holder, the other of said spaced parts having a guide member extending transversely of said slot and leading to the open end of the latter for guiding the pins to said slot.

6. Means for use in assembling a group of closed safety pins on a carrier which comprises another safety pin, said means comprising a holder having spaced parts defining a slot to receive between said spaced parts either of the sides of a plurality of closed safety pins with the opposite sides of the latter disposed externally of said slot in confronting relation to the adjacent surface of one of said spaced parts, said slot being closed at one end thereof and open at its opposite end for providing an entrance into said slot for said first mentioned sides of said safety pins, a bench having an upper surface for supporting a supply of the safety pins, and means securing said holder to said bench with said slot in vertical position and with the open end of the slot near said upper surface and with said holder inclined forwardly and downwardly from said upper surface.

7. Means for use in assembling a group of closed safety pins on a carrier which comprises another safety pin, said means comprising a holder having spaced parts defining a slot to receive between said spaced parts either of the sides of a plurality of closed safety pins with the opposite sides of the latter disposed externally of said slot in confronting relation to the adjacent surface of one of said spaced parts, said slot being closed at one end thereof and open at its opposite end for providing an entrance into said slot for said first mentioned sides of said safety pins, a bench having an upper surface for supporting a supply of the safety pins, and said holder being mounted with the open end of said slot near said surface of said bench and with said slot extending downwardly from said open end thereof, and means at the upper surface of said bench for guiding the pins to said slot.

8. Means for use in assembling a group of closed safety pins on a carrier which comprises another safety pin, said means comprising a holder having spaced parts defining a slot to receive between said spaced parts either of the sides of a plurality of closed safety pins with the opposite sides of the latter disposed externally of said slot in confronting relation to the adjacent surface of one of said spaced parts, said slot being closed at one end thereof and open at its opposite end for providing an entrance into said slot for said first mentioned sides of said safety pins, a bench having an upper surface for supporting a supply of the safety pins, said holder being mounted with the open end of said slot substantially at the level of said upper surface of said bench and with said slot extending downwardly from said open end thereof, and forwardly of the front of said bench.

9. Means for use in assembling a group of closed safety pins on a carrier which comprises another safety pin, said means comprising a holder having spaced parts defining a slot to receive between said spaced parts either of the sides of a plurality of closed safety pins with the opposite sides of the latter disposed externally of said slot in confronting relation to the adjacent surface of one of said spaced parts, said slot being

closed at one end thereof and open at its opposite end for providing an entrance into said slot for said first mentioned sides of said safety pins, a bench having an upper surface for supporting a supply of the safety pins, said holder being mounted with the open end of said slot near said surface of said bench and with said slot

extending downwardly from said open end thereof, and means integral with the other of said spaced parts of the holder and positioned over a part of the upper surface of said bench for guiding the pins to said open end of the slot.

HARRY ALFANDRE.