

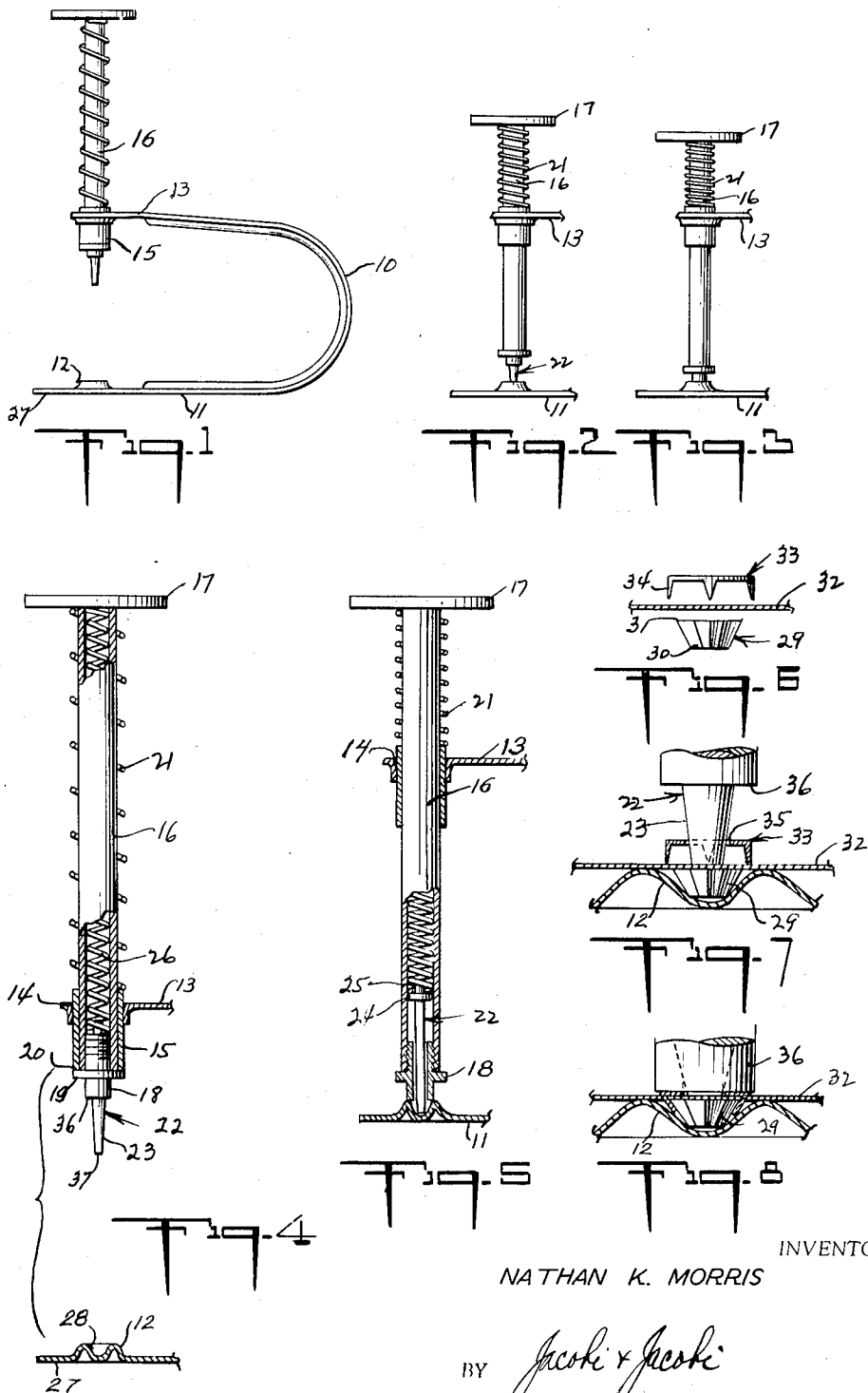
Nov. 1, 1955

N. K. MORRIS

2,721,999

IMPLEMENT FOR ATTACHING ORNAMENTAL JEWELS TO FABRIC

Filed Oct. 21, 1954



INVENTOR

NATHAN K. MORRIS

BY

Jacobi & Jacobi

ATTORNEYS

1

2,721,999

IMPLEMENT FOR ATTACHING ORNAMENTAL JEWELS TO FABRIC

Nathan K. Morris, Avon, N. J.

Application October 21, 1954, Serial No. 463,793

1 Claim. (Cl. 1—4)

This invention relates to ornamentation and more particularly to hand operated implement for facilitating the application and attaching of ornamental jewels to clothing or to fabric intended to be used for clothing.

As is well known in the ornamentation and clothing arts relatively inexpensive jewels have been customarily utilized to ornament clothing and fabrics, and such jewels may be applied thereto, either in a haphazard manner or to form predetermined ornamental patterns. While such jewels are relatively inexpensive, heretofore, the application of such jewels to the fabric or clothing has been accomplished by hand operations and thus has materially increased the cost of such ornamented clothing or fabric. Furthermore, such hand applied jewels have frequently been insecurely fastened resulting in loss of the same and consequent reduction in the ornamental value of such jewels. Furthermore, apparatus heretofore available for attaching jewels of the type under consideration has been relatively cumbersome and expensive and therefore has precluded the application of such jewels by persons desiring to make their own clothes.

It is accordingly an object of this invention to provide a lightweight, inexpensive hand operated implement for attaching ornamental jewels to clothing or fabric.

A further object of the invention is the provision of a hand operated implement for positioning and securely fastening ornamental jewels to clothing or fabric.

A still further object of the invention is the provision of a hand operated implement for conveniently and securely attaching jewels to clothing or fabric, which implement is well suited to home use.

Another object of the invention is the provision of a hand operated implement for attaching jewels to clothing or fabric, which implement provides means for locating and holding the jewel as well as the fastening means and for securely applying the fastening means in one operation.

A further object of the invention is the provision of a hand operated implement for attaching ornamental jewels to fabric or clothing, which implement provides means for preventing displacement of the jewel during the attaching operation.

Further objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawing wherein:

Fig. 1 is a side elevational view of the jewel attaching implement of this invention;

Fig. 2, a fragmentary side elevational view showing the jewel attaching implement of this invention in an intermediate position during the operation thereof;

Fig. 3, a side elevational view similar to Fig. 2 and showing the implement in final jewel attaching position;

Fig. 4, a sectional exploded view of an enlarged scale and showing the internal structure of the jewel applying implement of this invention;

Fig. 5, a fragmentary sectional view showing the rela-

2

tive position of the parts of the implement of this invention when in jewel applying position;

Fig. 6, an exploded view showing the relative position of the jewel, the fabric and the securing or clamping means prior to the application of the jewel to the fabric;

Fig. 7, a fragmentary view showing the initial step in applying the jewel to the fabric; and

Fig. 8, a fragmentary view showing the final step in applying the jewel to the fabric.

With continued reference to the drawing there is shown a jewel applying or setting tool constructed in accordance with this invention and comprising a generally U-shaped frame 10, one leg 11 of such frame being provided with a cup-shaped anvil 12. The opposite leg 13 of the frame 10 is provided with an aperture 14 in alignment with the anvil 12 and within this aperture 14 is fixed a sleeve 15. Sleeve 15 may be secured in place by a tight press fit or may be secured by welding or any other suitable means.

Slidably mounted in the sleeve 15 is a tubular plunger 16 and plunger 16 is closed at the upper end thereof with a finger engaging knob 17. A bushing 18 is threadably received within the lower end of plunger 16 and bushing 18 is provided with an annular flange 19, which extends outwardly of the plunger 16 and engages the lower end 20 of the sleeve 15 when the plunger 16 is in elevated position above the anvil. Plunger 16 is urged towards its elevated position by compression spring 21 received around the plunger 16 and engaging the upper end of sleeve 15 at one end thereof, and the lower surface of the finger engaging knob 17 at the other end thereof.

Slidably received in a bore in bushing 18 is a punch member 22, which member is provided at its lower end with an elongated tapered portion 23 and the upper end of such punch member 22 projects through the bushing 18 and is provided adjacent its upper end with a collar 24 which is spaced slightly from the upper end 25 of the punch member 22. A compression spring 26 is received within the plunger 16, the lower end of the spring 26 engaging the collar 24 on the punch member 22 and the opposite end of the spring 26 engaging the lower surface of finger engaging member 17. Spring 26 urges punch member 22 outwardly until the collar 24 engages the inner end of bushing 18. The normal inoperative position of the plunger 16 and punch member 22 is shown in Figs. 1 and 4.

The anvil 12 on the leg 11 of the frame 10 extends upwardly from a flat portion 27 of the leg 11 and the anvil 12 provides a cup-shaped recess 28, the wall of which converges toward the bottom of the recess, as best shown in Figs. 4, 5, 7 and 8 for a purpose to be presently described.

Fig. 6 shows the parts to be assembled by the jewel applying or setting tool of this invention and these parts may well comprise a jewel 29 of generally frusto-conical configuration and with facets on the surface thereof to impart light reflecting qualities to the jewel, such jewel 29 being provided with one end 30 of a relatively small diameter and the opposite end 31 of a larger diameter. The jewel 29 is to be applied to a piece of fabric 32 which may be in the form of clothing or fabric intended to be fashioned into clothing and a fastener 33 may be utilized to secure the jewel 29 in place on the fabric 32. The fastener 33 may well be formed of relatively light gauge sheet metal and is preferably circular with downwardly projecting prongs 34, the purpose and operation of which will be presently described. Any desired number of prongs 34 may be provided, but for purposes of illustration, it may be assumed that four such prongs are provided. The fastener 33 is also provided with a centrally disposed aperture 35 which is utilized during

the setting and fastening of the jewel 29 in place on the fabric 32.

The operation of the jewel setting or applying device of this invention is best shown in Figs. 6, 7 and 8, and as shown in Fig. 7, the jewel 29 is placed in the cup-shaped recess 28 of the anvil 12 with the smaller end 30 of the jewel disposed downwardly and the larger end 31 located substantially in the plane of the upper edge of anvil 12. The fabric 32 to which the jewel 29 is to be applied is placed over the jewel 29 and the anvil 12 and a fastener 33 is placed on the tapered portion 23 of the punch member 22 with the tapered portion 23 tightly engaging in the aperture 35 of the fastener 33. The plunger 16 is then actuated against the action of compression spring 21 by engaging the hand or finger of the operator with the finger engaging piece 17 and the lower end 37 of the punch member 22 engages the fabric 32 and urges the same into firm engagement with the upper surface of the jewel 29 and at the same time firmly retains the jewel 29 in place in the cup-shaped recess 28 of the anvil 12. At this time, the punch member 22 will retract through the bushing 18 against the action of compression spring 26 until the lower end 36 of the bushing 18 engages the upper surface of the fastener 33 and forces the prongs 34 of the fastener 33 through the fabric 32 and into engagement with the tapered wall of the cup-shaped recess 28 in the anvil 12. Further downward movement of the plunger 16 and the bushing 18 will result in the lower end 36 of bushing 18 forcing the fastening member downwardly with sufficient pressure to cause the tapered surface of the cup-shaped recess 28 to bend the prongs 34 inwardly into tight engagement with the tapered surface of the jewel 29. Since the prongs 34 extend through the fabric 32 and since the body of the fastener 33 engages the upper surface of the fabric 32, the engagement of the prongs 34 with the tapered surface of the jewel 29 will serve to securely fasten the jewel in place on the fabric 32. Also, as seen in Fig. 8, this means of fastening the jewel in place on the fabric 32 will not result in a puckering or wrinkling of the fabric. As soon as complete fastening of the jewel is completed, the plunger 16 may be released to return to its inoperative position under the action of compression spring 21 and, of course, at this time, the tapered portion 23 of the punch member 22 will be withdrawn from the aperture 35 in the fastener 33 and the punch member 22 will move outwardly of the bushing 18 until the collar 24 engages the upper surface of such bushing 18. The tool is then in readiness for the next jewel applying operation.

Obviously, the tapered portion 23 of the punch member 22 in cooperation with the cup-shaped recess 28 in the anvil 12, serves to hold the parts in proper relationship prior to completing the assembly thereof and likewise, the lower end 37 of the punch member 22 engages the fabric 32 with sufficient pressure to prevent shifting of the same relative to the jewel 29 thereby permitting accurate placement of the jewel in order to provide any desired pattern which may be formed on the fabric 32 by the placement of such jewels 29.

It will be seen that by the above described invention there has been provided a relatively simple and lightweight hand manipulated implement for conveniently and rapidly applying or attaching jewels to fabric or clothing and furthermore, such implement permits such jewel applying operations by a relatively unskilled person and is well adapted for use in the home.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is shown in the drawing and described in the specification, but only as indicated in the appended claim.

What is claimed is:

15 An implement for applying and securing jewels to fabric, said implement comprising a U-shaped frame, a cup-shaped integral anvil on one leg of said frame adjacent the free end thereof, an aperture in the free end of the opposite leg of said frame in alignment with said anvil, a sleeve fixed in said aperture, a tubular plunger slidably mounted in said sleeve, a finger engaging piece fixed on the upper end of said plunger and closing the same, a compression spring disposed around said plunger and engaging said sleeve and said piece to urge said plunger upwardly away from said anvil, a bushing fixed in the lower end of said plunger, an annular flange on said bushing intermediate the length thereof movable into engagement with the lower end of said sleeve to limit upward movement of said plunger, a punch member adjacent the lower end thereof, said punch member extending within said plunger and having a collar fixed adjacent the upper end thereof, a compression spring disposed in said plunger and engaging said collar and said piece to urge said punch member downwardly in said bushing, said collar being movable into engagement with the upper end of said bushing to limit downward movement of said punch member whereby a jewel may be disposed in said anvil and a pronged fastener frictionally mounted on said tapered portion and fabric disposed over the jewel in said anvil and upon downward movement of said plunger the lower end of said punch member will engage and hold said fabric in firm engagement with the jewel in said anvil and upon further downward movement of said plunger said punch member will move inwardly of said plunger and said annular surface will engage said fastener and force the prongs through said fabric and into engagement with said anvil to bend the prongs into tight engagement with said jewel to secure the same to said fabric.

References Cited in the file of this patent

UNITED STATES PATENTS

1,611,876	Berger	Dec. 28, 1926
1,908,824	Devendorf	May 16, 1933
2,114,983	Levin	Apr. 19, 1938

FOREIGN PATENTS

285,204	Great Britain	Feb. 16, 1928
---------	---------------	---------------