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SPOT SETTING DEVICE

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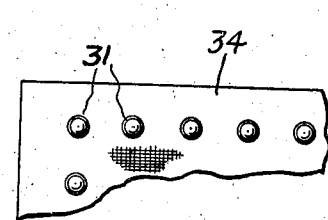
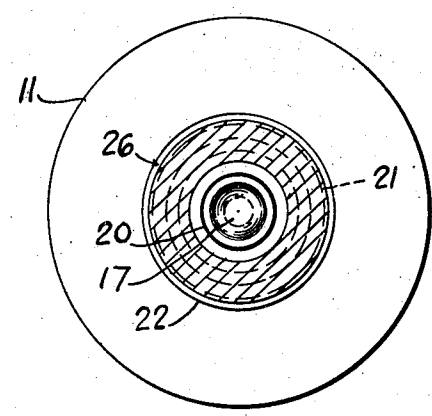
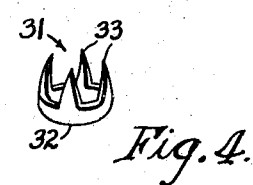
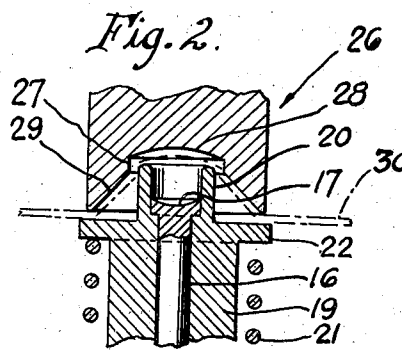
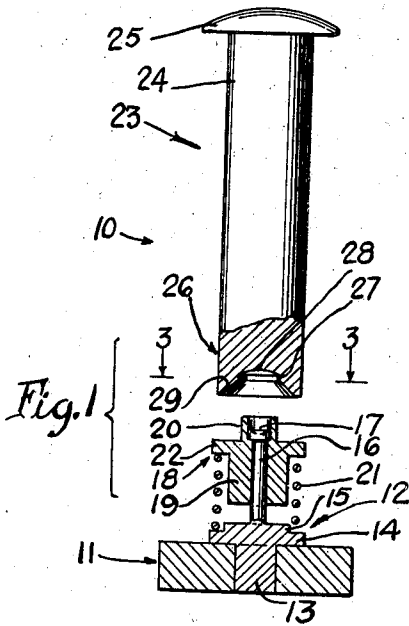


Fig. 3

Fig. 5

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SPOT SETTING DEVICE

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1 Claim. (Cl. 1—4)

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This invention relates to devices adapted to drive nails or rivets into a flexible sheet member or fabric that is to be ornamented thereby and for other useful purposes.

One object of the invention is to provide a device of the character described which is so inexpensive, simple, convenient and safe in operation that it is adapted for household use for the purpose of decorating fabrics of leather, textile and composition materials by the use of ornamental nailheads or rivets.

Another object of the invention is to furnish a device of the nature set forth having improved means for so manipulating or holding the fabric that is being worked upon, that distortion is avoided and smooth and uniform effects attained.

Another object of the invention is to produce a device of the type mentioned having improved means comprising rivet guide and die portions associated together in a particularly simple and novel manner to form an operative unit for safely and reliably holding the rivet and for facilitating the operation of connecting the rivet to the fabric.

Another object of the invention is to provide a device of the class alluded to having improved die means for manipulating and holding the fabric in a reliable and safe position for connection of the rivet thereto.

Other objects and advantages of the invention will become apparent as the specification proceeds.

With the aforesaid objects in view, the invention comprises the novel features, combinations and arrangements of parts hereinafter described in their preferred embodiments, pointed out in the subjoined claim, and illustrated in the annexed drawing, wherein like parts are designated by the same reference characters throughout the several views.

In the drawing:

Figure 1 is a view partly in side elevation and with other parts in central vertical section showing in open position a device embodying the invention.

Fig. 2 is an enlarged fragmentary central vertical sectional view of the device closed upon a sheet of fabric, but with the rivet omitted and the fabric indicated in dot-dash lines.

Fig. 3 is an enlarged sectional view taken on line 3—3 of Figure 1.

Fig. 4 is a perspective view showing a type of rivet that may be employed in the use of the invention.

Fig. 5 is a plan view of a piece of fabric deco-

rated by a series of the rivets in accordance with the invention.

The advantages of the invention as here outlined are best realized when all of its features and instrumentalities are combined, but useful embodiments may be produced involving less than the whole.

It will be obvious to those skilled in the art to which the invention appertains, that the same may be incorporated in several different constructions. The accompanying drawing, therefore, is submitted merely as showing a preferred exemplification of the invention.

Referring in detail to the drawing, 10 denotes a device embodying the invention. The same may include any suitable support or base 11 that may consist of a ring-shaped plate. Mounted thereon in any feasible manner is a member 12 which may comprise a cylindrical portion 13 press-fitted or otherwise secured in the opening of the member 11. Overlying the latter is an annular flange 14 formed on its upper surface with a central boss 15. Attached or integrally connected in any required manner to the member 12 is a central vertical shank 16 carrying at its upper end a coaxial die member 17. The latter may have its upper surface dished to form a suitable seat for the decorative head of a rivet or nail.

A guide member 18 may include a sturdy integral collar 19 movable along the shank 16 on which it is snugly slidably fitted. The member 18 is concentric with the die member 17 and is formed with an annular upward extending flange 20 forming a cup-like or cylindrical portion in which the die member 17 is slidable and which is adapted to serve as a guide or holder for a nail or rivet. Any suitable means such as an expansion coil spring 21 engages around the collar 19 and sits at its lower end on the shoulder 14 and at its upper end against the annular flange 22 on the collar 19. The spring is reliably centrally retained by the collar and by the boss 15 around which it engages. The relationship of the parts is such that the spring urges the member 18 to a normal upper position shown in Figure 1 in which the die member 17 lies on the base of the cup 20, with the collar 19 spaced above the boss 15. The guide member 18 is adapted to be depressed against the tension of the spring 21 until it comes into contact with the boss 15 for a stop coaction, at which depressed position the upper face of the die member 17 may be substantially flush with the rounded rim of the cup-like rivet holder 20.

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A complementary die member 23 may include a shank 24 having at the upper end thereof a knob 25 adapted for convenient hand operation. At its lower end the shank 24 may be suitably recessed to form an integral die portion 26. The latter may include a generally cylindrical opening 27 having the usual dome 28 to facilitate the heading over of the rivet. Their related feature includes the part 29 forming a conical entrance of substantial depth and diameter.

The relationship of the parts above described involves a direct coaction between the die member 17 and the die section 26 in the usual manner. The associated generally conoidal portion 29 serves to facilitate alignment of the die members, it being noted that the die member 23 is wholly separate from and unattached to the other parts of the apparatus and is used in the nature of a hammer freely operated by hand to perform the riveting operation. However, the essential purpose of the conoidal part 29 is to serve as a position and holding means for a fabric 30 shown in dot-dash lines. It accomplishes this by downwardly cupping the flexible fabric over the rivet guide 20 in a uniform manner so as to assure that the rivet will be secured at the exact point chosen. Accidental lateral shifting of the fabric is precluded and a possible angular instead of the required precise and straight entering of the rivet are avoided. The conoidal part 29 may be so designed in relation to the die section 26 that when the rivet is fully headed over and secured, the lower edge of the part 29 holds the fabric relatively snugly against the flange 22 of the rivet guide 18. Further, the several parts are so designed that the fabric shall not be cut by the die nor by the upper edge of the rivet holder 20, nor by the lower edge of the part 29. Since the device is intended to be used with fabrics of different thicknesses, suitable clearances are provided for this purpose.

It is noted that the apparatus provides only two units, including the upper unit or die member 23, and the lower unit comprising the base 11, the die member 17 and the rivet holder 20 upwardly propelled by its spring 21 which is held in place in a novel and compact manner by the guide shank 16 acting as a standard or connector member between the die 17 and the base 11, the rivet holder being depressed by the die member 23 against the force of the spring, the pressure being communicated through the fabric and being distributed around the die portion 26 and the conoidal fabric holding portion 9.

A typical fastener or decorative head element exemplifying a rivet or nail is shown at 31 in Fig. 4. The same comprises the usual dome-shaped

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head 32 and a plurality of upward extending prongs 33. A rivet of this type is usually made as a simple one-piece stamping of brass or other suitable material.

Figure 5 shows a piece of fabric 34 of any suitable material adapted to be used in the construction of a ladies' garment, hat or handbag, or upholstery seat covers, and for many other purposes. This fabric may have a series of fasteners 31 whose heads decorate the outer surface of the fabric, these heads being arranged in lines of different shapes and according to various designs. The device herein described and the decoration provided may also be employed to interconnect two pieces of fabric to form a seam or the like.

In use, the operator merely marks out on the fabric the desired locations of the rivets and then punches the rivets through the fabric at those points by placing the fabric over the rivet holder 20 and then bringing down the die member 23 with a hammer-like blow. Each rivet is separately inserted and used, being placed in the holder 20 with the prongs 33 projecting upwardly. The size of the rivets may be such that they may be completely received in the holder 20 and relatively snugly fit the same. Thus the fabric cannot be torn or marred by the prongs as the fabric is moved to riveting position.

I claim:

A household device including superposed die members cooperating with each other to flatten a rivet or the like on a flexible member after driving the rivet therethrough, a guide member for the rivet mounted on the lower die member, a spring urging the guide member to an upper position in which the guide member forms a rivet holder for the lower die member, the upper die member having a relatively large tapered entrance for the lower die member, and the guide member having an annular shoulder adapted to abut the upper guide member at said entrance whereby the guide member is depressed by the upper die member as it descends to riveting position.

GEORGE WOLFF.

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