In the embodiment selected to illustrate my invention I make use of a base 10 cast integrally with a standard 12 terminating in a head 14. A shorter standard 16 is mounted upon the base 10 and is provided with a flange 18 provided with openings for the reception of bolts 20 which have threaded relation at 22 with the base 10.

A head 24 is carried by the upper end of the standard 16, which head is positioned in vertical alignment with the head 14 and includes a die 26 having perforations 28 arranged to receive the perforating tools 30 connected with a bar 32 mounted for reciprocatory action within the head 14.

A bar 32 is provided with gear teeth 34 having meshing relation with a gear 36 which may be rotated through the medium of a hand wheel 38 and the lever 40. The groove 42 at 40 to loosely receive the bar 32, which bar is held within the groove by a plate 44 removably connected with the head 14 by bolts 46.

Referring to Fig. 4, the gear 36 comprises an integral part of a shaft 48 rotatably mounted in a bore 50 in the head 14. Bore 50 terminates in a smaller bore 52 for accommodating the bearing 54 of the reach 56 of the shaft 48. The bearing 56 in the bore 50 is larger in diameter than the reach 54 while the gear 36 is slightly smaller in diameter than the reach 56 but larger than the reach 54. Reach 56 terminates in a flange 58 which has a shunting relation with the boss 60 cast integrally with the head 14. The hand wheel 38 is fixedly connected with the reduced shank 62 of the shaft 48 through the medium of a set-screw 64. Removal of the hand wheel 38 from the shaft 48 permits the latter to be removed from the head 14 by pulling the shaft to the right when viewed from Fig. 4.

One end of the lever 40 is enlarged at 66 and provided with an opening 68 for loosely receiving the reach 70 of the shaft 48. A washer 72 is positioned adjacent the end of the reach 70 and has a central opening for the reception of a bolt 74 having threaded relation with the shaft 48. Washer 72 holds the lever 40 in assembled relation with the reach 70, but the lever is loosely mounted on the reach. Because of the shunting relation between the reach 70 and the boss 60 and between the hand wheel 38 and the opposite side of the head 14, the shaft 48 is restrained from endwise movement but may be rotated.

To perforate the crown of a hat the crown is properly positioned on the head 24 and the tools 30 lowered by turning the hand wheel 38. If the hand wheel 38 is given a quick turn, its mo...
mentum together with the shaft 48 will carry the bar 32 downwardly and position the tools 30 in contact with the crown of the hat. With the tools 30 thus positioned, the bore 76 in the shaft 5 part 56 will be positioned substantially as indicated in the dotted line position 78 of Fig. 5. The lever 40 is then pulled in the direction of the arrow 88, which brings the shaft 82 into alignment with the bore 76, at which time further rotation of the shaft 46 is consummated through the lever 40 for forcing the tools 30 through the material of the hat. Lever 40 is tubular and is offset with respect to the enlarged end 56 so as to bring the tubular part into proper alignment with the shaft part 56.

The shaft 82 is slidably mounted in an opening 84 in one end of the handle, and the opposite end of the shaft is slidably supported within a bore 80 in a plug 85 having threaded relation with the handle. A compression spring 90 is mounted on the shaft 82 with its ends abutting a pin 92 and the ledge 94. A second pin 96 is attached to the shaft 82 and is arranged to abut the plug 85 for normally holding the shaft in the full line position of Fig. 5. In bringing the shaft 82 into alignment with the bore 76, in the dotted line position 78, the shaft is pushed into the bore by applying pressure to its end 96 which projects beyond the plug 85. Thus, a positive connection between the lever 40 and the shaft 46 is maintained so long as the shaft 82 is held within the bore 76 against the tension of the spring 90. A pin 100 is carried by the standard 12 for supporting the lever 40 in the normal full line position of Figs. 1 and 5.

In Fig. 2, the tools 30 are in the nature of pins pressed into bores 102 in a circular plate 104 movably retained within the recess 106 in the collar 118 having a square opening 110 for the reception of one end of the bar 32. A set screw 112 fixedly connects the plate 104 with the collar 108 while the set screw 114 fixedly connects the collar 110 with the bar 32. The cutting ends 116 of the tools 30 are arranged in the form of a convex so that only a portion of the tools are cutting at a given time.

Referring to Fig. 2, the head 24 is illustrated in its vertical alignment with respect to the head 14, to which it is secured for the sake of compactness. Specifically, the head 24 comprises a cylindrical member 116 mounted upon the flange 120 cast integrally with the standard 16. Screws 122 fixedly connect the cylindrical body 118 with the flange 120. I provide the cylindrical body 118 with a flange 124 and a bore 126 within which the die 26 is positioned. The die includes a flange 128 which is loosely positioned within bore 126. A compression spring 133 urges the die 26 to its normal position of Fig. 2. To hold the die within the bore 126 I mount a plate 132 upon the upper end of the cylindrical body 118, which plate includes an opening 134 for loosely receiving the die. This plate projects over the flange 126 sufficiently far to constitute an abutment which holds the flange within the bore 126. The plate 132 may be provided with right circular ears 138 which embrace the cylindrical member 116 and are fixedly connected thereto by screws 138.

Pins 140 are fixedly connected with the flange 126 and are positioned loosely within openings 132 in the flange 124. While the die 26 may be depressed within the bore 126, the pins 140 prevent rotation of the die so as to hold the bores 128 in proper alignment with the tools 30. One end of the spring 133 embraces a lug 144 on the die 26 while the opposite end embraces a pin 146 riveted to a metal strap 148 having its ends housed within recesses 150 in the cylindrical member 118 (see Fig. 7).

Standard 16 is hollow and communicates with an opening 152 in the base 15 which is also hollow. Within the base 15 and underneath the opening 152 I mount a drawer which is slidably mounted on guides 156 fastened to the base by screws 158. Material punched from the hat is pushed through the openings 29 and falls into the drawer 154, which may be pulled out of the base 15 through the medium of a knob 160.

In operation, the crown of the hat rests on the die 26. As the tools 30 are pressed through the material of the hat, the die 26 is depressed in the bore 126 until it rests upon the flange 124, at which time the top surface of the die is flush with the upper face of the plate 132. The tools 30 are accommodated within the openings 29 so that the crown of the hat may be pressed between the plate 106 and the upper face of the die. The outer face of the plate 106 terminates flush with the lower face of the collar 110 so that the faces will also be brought into pressure relation with the crown of the hat extending over the plate 132. Since the die 26 is yieldingly mounted, effective pressure is attained for firmly securing the label to the hat with no danger of deforming the hat because of the die 25 which normally projects beyond the surface 132.

In Fig. 9, I illustrate a label 162 as having a central opening 164 of such diameter as to receive the projecting part of the die 26. The label 162 may be provided with a suitable adhesive on one face for connection with the crown 165 of the hat. Because of the opening 164, the die performs a centering or locating function for properly placing the label. Since the die is yieldingly mounted, the label will be pressed firmly against the crown 165 between the outer faces of the plate 196 and the collar 160 and the plate 132.

In cases where the adhesive is moistened, means is provided for facilitating attachment. In the upper end of the cylindrical body 118 I provide an annular groove 166 within which I insert an electrical heating element 168. The heating element 168 is enclosed within asbestos strips 170 which line the walls of the groove 166 and cover the plate 132. The ends of the heating element 168 are connected with screws 172 which are anchored in the lower horizontal strip 176. The cylindrical body 118 is bored at 174 to permit conducting wires 176 to be connected with the screws 172. Wires 176 pass downwardly through the standard 16 and to the interior of the pins 15 for connection with a suitable plug 178. Because of the heating element 168, the plate 132 may be heated to such a degree as to cause quick drying of the label.

In cases where it is necessary to label only, the perforating tools 30 may be rendered inoperative through the medium of a ring 180 (see Fig. 8) which includes a bore 182 in the lower face of the collar 108 and the plate 104, as illustrated in dotted lines in Fig. 2. The flange 180 is of sufficient thickness to hold the tools 30 out of perforation. While the die 15 may be so positioned as to depress the die 25 for bringing the lower face of the flange into pressure relation with the portion of the hat extending 75.
across the plate 132. A set screw 185 has thread
ed relation with the ring 199 for securely fasten-
ing the ring to the collar 108.

Quick action is attained through the medium
of the hand wheel 38, and the lever 40 is of suf-
ficient length to give the operator such leverage
on the bar 32 as to permit the perforating tools
30 to pass through the material of the hat with
little effort on the part of the operator. The die
26 provides a centering or locating element for
the label to be attached, and the relation of the
parts is such as to apply an effective pressure on
the label. Because of the locating function of
the die 26, the label will be positioned in con-
centric relation with the perforated area so as
to provide a balanced appearance. Because of
the heating element, the label may be effectively
dried by merely holding the label under sufficient
pressure for a short period of time. More at-
tachment of the ring 189 to the collar 108 ren-
ders the perforating tools 30 inoperative. The
inner end of the set screw 112 lies within the re-
cess in the plate 110 so that the plate will al-
ways be positioned in the same relative position,
thus assuring proper alignment of the perforat-
ing tools 30 within the openings 28. Set screw
14 also lies within the recess in the bar 32 so as
to assure proper connection of the collar 108
with the bar. Pins 140 prevent rotation of the
die 26 but permit vertical adjustment of the die.

Without further elaboration, the foregoing will
so fully explain my invention that others may, by
applying current knowledge, readily adapt the
same for use under various conditions of service.

I claim:

1. A combination hat perforating and labeling
device comprising: a stationary head having a
label supporting bed; a die resiliently mounted
on said head and having a portion projecting
beyond said label supporting bed; a support;
pressure means movably related to said support
and including perforating elements; and means
for moving the pressure means toward the die
for bringing the perforating elements into per-
forating relation therewith, said portion of the
die constituting locating means for a label hav-
ing an opening to receive the same, said pressure
means depressing the die to bring the former into
pressure relation with the label on the supporting
bed, said portion of the die holding the label in
symmetrical relation with the perforating ele-
ments.

2. A combination hat perforating and labeling
device comprising: a stationary head having a
label supporting bed; a die resiliently mounted
on said head and having a portion projecting
beyond said label supporting bed; a support;
pres

3. A combination hat perforating and labeling
device comprising: a stationary head having a
label supporting bed; a die resiliently mounted
on said head and having a portion projecting be-

4. A combination hat perforating and labeling
device comprising: a stationary head having a
label supporting bed; a die resiliently mounted
on said head and having a portion projecting be-

5. A combination hat perforating and labeling
device comprising: a stationary head having a
label supporting bed; a die resiliently mounted
on said head and having a portion projecting be-

LEON FREEMAN.