

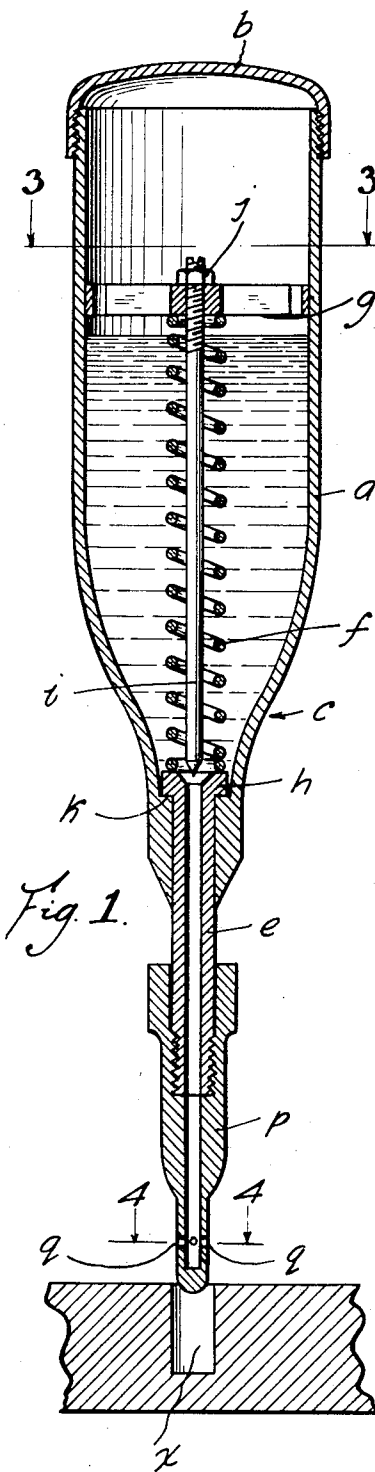
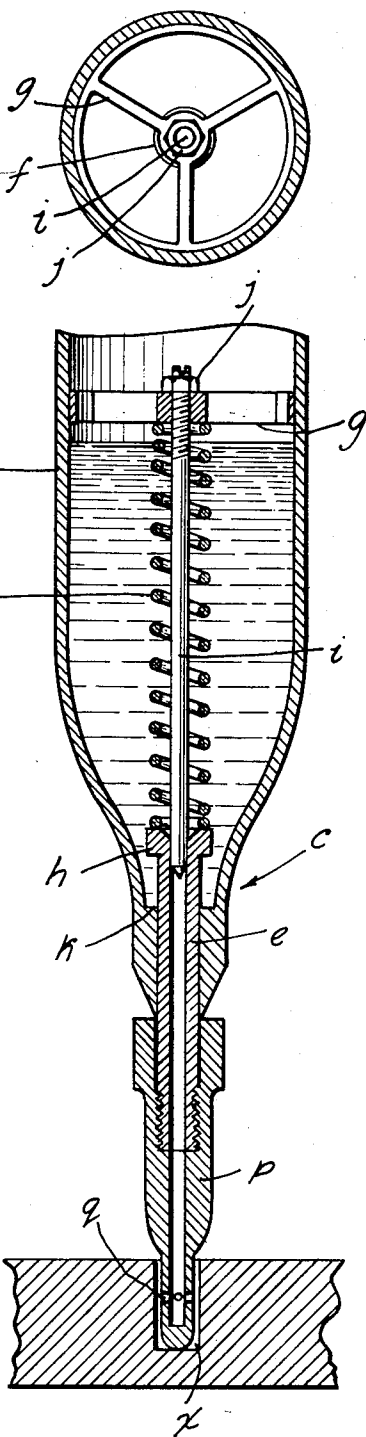
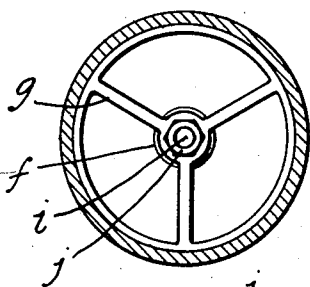
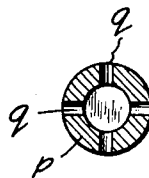
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GLUE GUN

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GLUE GUN

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2 Claims. (Cl. 221—78)

My invention relates to glue guns and the like.

In the manufacture of wooden furniture, the parts are commonly secured together by dowel pins which are glued in place. The present prac-

5 tice is for the workman to place the glue in the dowel hole with a small stick which he dips in the glue and then in the dowel hole. Such practice is unsatisfactory for the reason that it is not only slow, but also does not permit a uniform
10 quantity of glue to be placed in the dowel holes.

Furthermore, the workman, in an effort to avoid smearing glue on the rim of the dowel hole, which would form an unsightly joint, employs the easiest way and only brings the stick which
15 he has dipped in the glue, into contact with the bottom of the dowel hole and thus only deposits glue on the bottom; as a result, a glue bond tends to be made only with the end of the dowel pin, forming a weak and undependable joint.

20 The object of my invention is to provide a glue gun adapted to inject a uniform controllable quantity of glue into each dowel hole, which is operable by a simple and rapid manipulation and which will place just the right amount of glue
25 on the sides of the dowel hole, so that when the pin is inserted in the hole it will carry a portion of the glue to the bottom of the hole with it and thus form a strong bond with the sides and ends of the dowel pin.

30 A further object of my invention is to provide a glue gun which is simple and economical to manufacture and is composed of but few parts so that it will not readily become out of order.

35 A particular object of my invention is to provide a glue gun adapted to be adjusted to inject a predetermined and uniform quantity of glue into the dowel holes.

40 The construction and mode of operation of my glue gun are hereinafter described in detail with reference to the accompanying drawing.

In the drawing:

Fig. 1 shows my glue gun in a central longitudinal section illustrating the details of construction;

45 Fig. 2 shows my glue gun in a similar section Fig. 1 with the nozzle inserted in a dowel hole and the handle pressed down on the tube to illustrate how a predetermined quantity of glue is injected into the dowel hole and against the sides thereof;

Fig. 3 shows a section taken on the line 3—3 of Fig. 1 and illustrates the means supporting the plunger element; and

55 Fig. 4 shows a section taken on the line 4—4

of Fig. 1 and illustrates the radial ports provided in the sides of the nozzle.

Referring now to the figures, my glue gun comprises a cylindrical hollow handle *a* adapted to contain a quantity of glue and provided at its upper end with a threaded cap *b* adapted to be readily removable for filling the said handle.

The lower end of the handle *a* is tapered forming a neck, as at *c*, in which is provided a slidable tube *e*. A coil spring *f* is provided within
60 the handle *a* bearing against the end of the tube *e* and against a spider *g* secured in the upper part of the body *a*. The spring *f* normally holds the tube *e* projected in its outermost position. A flange *h* is provided on the inner end of the tube *e*
65 adapted to bear against an interior shoulder *k* provided on the inner end of the neck *c* and thus prevents the tube *e* from being forced out of the neck by the force of the spring *f*.

A plunger *i* is adjustably threaded at one end
70 in the spider *g* and held in position by a locking nut *j*. The plunger *i* is arranged in alignment with the tube and is of such length as to enter the said tube when the latter is in its innermost position.

A nozzle *p* is threaded to the outer end of the stem, which is provided with lateral radial ports *q* spaced a short distance from its end.

Operation

85 The workman, holding my glue gun by the handle *a*, inserts the nozzle *p* in the dowel hole *x*, shown in Figs. 1 and 2, and presses downwardly causing the handle to slide down on the tube *e* and the plunger *i* to enter the bore of the tube and eject a predetermined quantity of glue, equal to the amount displaced from the tube by the plunger, and ejected through the radial ports *q* and into the dowel hole *x*.

90 The radial ports *q* direct the glue against the sides of the dowel hole *x* so that the dowel pin when inserted in the hole will carry a portion of the glue with it into the bottom and thus form a bond with both the sides and end of the dowel pin and form a strong and depend-
95 able joint. Further, by these means the glue will not be smeared on the rim of the dowel hole.

The quantity of glue to be ejected by the plunger *i* is controlled by adjusting the latter in the spider *g* so as to enter a greater or less
100 distance into the tube *e*.

Thus, a workman whose duty is only to place glue in the dowel holes and who has passing before him on a traveling worktable or the like, a number of wood pieces having dowel holes
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therein, may rapidly and efficiently inject the proper amount of glue into each dowel hole and thus insure that a strong joint will be made with the dowel pin.

5 I claim:

1. A glue gun comprising, in combination, a hollow body provided with a filling inlet and a neck; a feed tube axially slidable in said neck and provided with a discharge orifice at its outer end; a transverse spider fixed within said body; a plunger secured at one end to said spider and arranged to be inserted and withdrawn from the inlet end of said feed tube by the relative axial movement of the latter; a spring normally holding said feed tube projected, in which position said plunger is withdrawn from the inlet end of said feed tube; whereby the relative movement of said body down onto said feed tube will

cause the ejection more or less of the limited amount of glue held by the feed tube.

2. A glue gun comprising, in combination, a hollow body provided with a filling inlet and a neck; a feed tube axially slidable in said neck and provided with lateral discharge orifices at its outer end; a transverse spider fixed within said body; a plunger secured at one end to said spider and arranged to be inserted and withdrawn from the inlet end of said feed tube by the relative axial movement of the latter; a spring normally holding said feed tube projected, in which position said plunger is withdrawn from the inlet end of said feed tube; whereby the relative movement of said body down onto said feed tube will cause the ejection more or less of the limited amount of glue held by the feed tube.

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