Nov. 14, 1967 D. W. SMITH 3,352,336

METHOD OF GLUING OR REGLUING A JOINT

Filed Aug. 11, 1965

Fig. 1

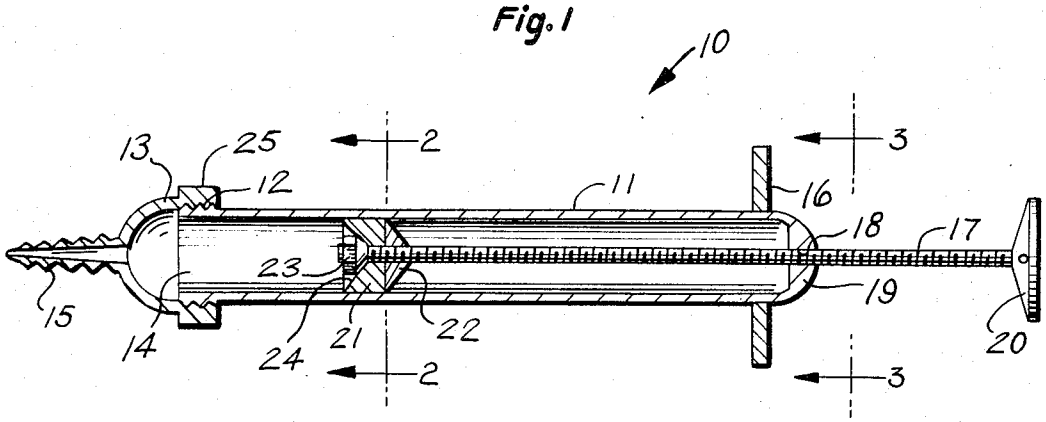


Fig. 2

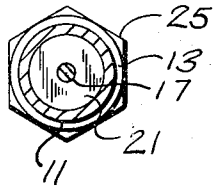
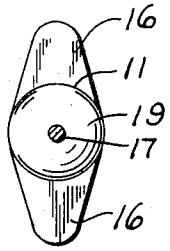


Fig. 3



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METHOD OF GLUING OR REGLUING A JOINT

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ABSTRACT OF THE DISCLOSURE

The pressurized glue injector of this invention includes a cylindrical barrel closed at one end by a pressure operated piston and closed at its other end by a refilling removable exteriorly threaded tubular nozzle wherein the threads on the nozzle are self-cutting tapered threads to cut a mating thread in a hole that passes to the joint to be sealed permitting the practice of the method of forcibly inserting glue throughout the joint while the parts are together.

This invention relates to devices for applying glue, and more particularly an improved device for applying glue to areas to be glued with the glue under pressure.

It is therefore the main purpose of this invention to provide a pressurized glue injector which will reduce the amount of time spent on a gluing operation to a maximum and will also produce a much better or efficient glue joint.

Another object of this invention is to provide a pressurized glue injector which will have a threaded hollow nozzle which may be threaded into a drilled opening which will allow the glue to flow in a direction desired by the repairman or builder.

Another object of this invention is to provide a pressurized glue injector which will have a threaded shaft and piston to apply pressure to the glue to force it from the nozzle into the opening which is drilled for it.

Still another object of this invention is to provide a pressurized glue injector which will be applicable for home use, thus saving time in repairing various items.

Summary of invention

The self-cutting threaded nozzle of this pressurized glue injector cuts a mating sealing thread in the hole to the joint to permit the steps of pressurizing the glue forced into the joint between the members forming the joint. If the joint is fairly tight the glue may appear in small droplets which informs the user to retract the pressurized piston because the joint is filled. If the step of pressurizing the piston causes the glue to freely flow out of the joint it teaches the user that the joint should be clamped together because the members are too loose. The self-cutting thread to the hole permits the application of glue to the hole of the joint under pressure and leaves the hole to the joint filled with glue as well as those parts of the joint that are exposed to air. This in fact is the superior method for gluing newly made joints as well as old joints.

Other objects and advantages of the invention will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawing wherein a satisfactory embodiment of the invention is shown. However, it is to be understood that the invention is not limited to the details disclosed but includes all such variations and modifications as fall within the spirit of the invention and the scope of the appended claims.

In the drawing:

FIGURE 1 is a horizontal view of this invention shown in section and elevation.

FIGURE 2 is a transverse view taken along the lines 2—2 of FIGURE 1 and viewed in a direction indicated by the arrows.

FIGURE 3 is a transverse view taken along the lines 3—3 of FIGURE 1 and viewed in a direction indicated by the arrows.

According to this invention, a pressurized glue injector **10** is provided with an elongated hollow barrel **11** having a plurality of external threads **12** which threadingly receive a nozzle **13** which covers the opening **14** of barrel **11**. Nozzle **13** is provided with an externally threaded and tapered tip **15** which will be threadingly received in a drilled opening where the glue under pressure is to be applied. A pair of oppositely opposed handle members **16** secured to the opposite end of barrel **11** provides a means of rotating the externally threaded tip **15** to secure it within the drilled opening heretofore described. An externally threaded and elongated shaft **17** is threadingly received within threaded opening **18** of end wall **19** of barrel **11** and a handle **20** secured to shaft **17** provides a means of rotating shaft **17** in order to exert pressure upon the glue in front of piston **21**. Piston **21** is slidably received on the interior of barrel **11** and abuts with a sealing ring **22** which is also threadingly received upon shaft **17**. A nut **23** is threadingly received on the end of shaft **17** within a conical opening **24** of piston **21** thus securing piston **21** to the shaft **17**. Nozzle **13** is provided with a hexagonal surface **25** upon its exterior which allows for grasping with a wrench or other tool to remove nozzle **13** from over the opening **14** of barrel **11** in order to insert glue into barrel **11**.

In order to use injector **10**, a hole is drilled in the area the repairman wants the glue to go and the externally threaded and tapered tip **15** of nozzle **13** is placed in the opening and the barrel **11** rotated by means of gripping the barrel or the handle member **16** for two revolutions, after which handle **20** is rotated so that piston **21** is urged forward, which applies pressure to the glue within barrel **11** ahead of piston **21** and the glue is urged into the tapered tip **15** and is ingressed into the opening drill for glue to enter.

What I now claim is:

The method of gluing together at least two members forming an unexposed joint using a pressure glue injector having means for providing the pressurized passage of glue through an exteriorly self-cutting threaded tubular nozzle consisting of the steps of drilling a passage through one joint member into the interior of the unexposed joint to be glued, threadably engaging the injector nozzle with the prepared drilled passage to cut a complementary thread in the passage by rotating the thread cutting nozzle into the passage to tightly hold the nozzle therein and seal the passage, injecting glue under pressure through the nozzle and the passage into the unexposed joint, and thereafter removing the threaded nozzle of the glue injecting instrument from the drilled and threaded passage.

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