Feb. 5, 1935. R. E. KELLEY 1,989,696

PRESSURE GUN FOR THE APPLICATION OF HEAVY ASPHALT FIBERED MASTIC

Filed July 18, 1931

Fig. 1.

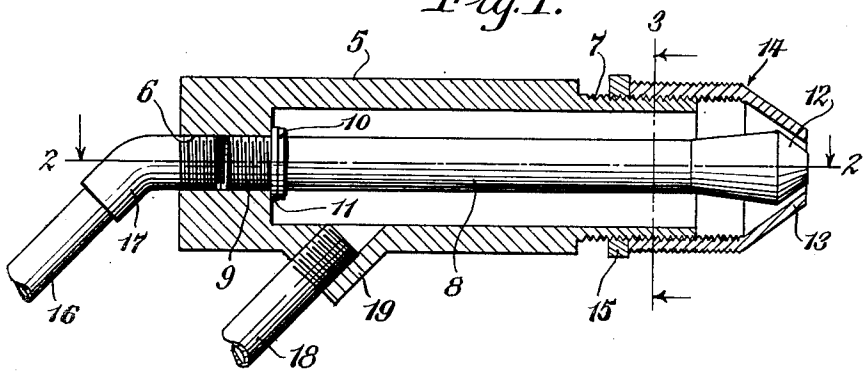


Fig. 2.

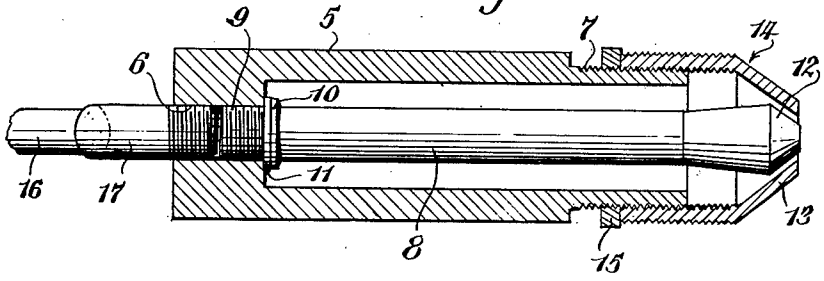
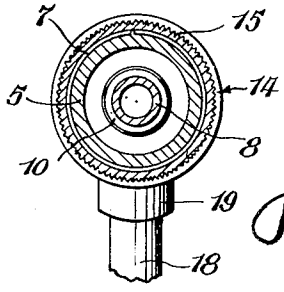


Fig. 3.



Raymond E. Kelley
INVENTOR

BY Popp & Powers
ATTORNEYS

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PRESSURE GUN FOR THE APPLICATION OF HEAVY ASPHALT FIBERED MASTIC

Raymond E. Kelley, Snyder, N. Y., assignor to Helene T. Kelley, Snyder, N. Y.

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1 Claim. (Cl. 299—140)

This invention relates to a pressure gun for the application of heavy asphalt fibered mastic.

Heretofore many types of pressure guns for the application of liquid compounds such as asphalts, paint and even cement concrete and lime mortar and the like have been developed and used for coating surfaces with such materials, such materials serving to water-proof and damp-proof the surfaces to which they are applied and in some instances also to provide a surface to which plaster could be applied.

There is a class of asphalt fibered mastic materials, however, which have never been attempted to be applied by means of a pressure gun and no pressure gun has ever been devised which will apply such materials. This material is a heavy asphalt mastic which is extremely viscous and very difficult to stir and must be shoveled from the steel drum into the pressure tank and which additionally contains a large amount of asbestos fibers, slate flour and fine sand. Such fiber mastic is applied to concrete or masonry structures or the like in a layer of substantial thickness in one operation or one coat and heretofore has been troweled on. Such troweling is, of course, not uniform in thickness and is a laborious and expensive method of applying this material as compared with a gun application such as proposed by the present invention.

The present invention relates exclusively to a pressure gun for the application of heavy asphalt fibered mastics and has no relation to pressure guns for the application of liquid compounds or liquid asphalts or other materials concerning which there has been no difficulty.

In the accompanying drawing:

Fig. 1 is a longitudinal section through a pressure gun for the application of heavy asphalt fibered mastic.

Fig. 2 is a longitudinal section through such a gun taken on line 2—2, Fig. 1.

Fig. 3 is a transverse section taken on line 3—3, Fig. 1.

The gun shown in the accompanying drawing comprises a cylindrical body 5 which is closed at one end and at its closed end is provided with an axial threaded hole 6. The opposite end of the body 5 is open and is formed to provide a reduced externally threaded neck 7. Within the body 5 and projecting outwardly from the open end thereof is a hollow stem 8. This stem is threaded at one end as indicated at 9 and is provided with an enlarged shoulder 10 and a washer 11. This stem is screwed into the threaded opening 6 in the body and the washer 11 is tightened between the shoulder 10 and the end of the body 5 so that a tight joint is obtained between the interior of the hollow body 5 and the opening 6. The opposite end of the hollow stem 9 projects out through the open end of the body 5 and is enlarged and formed to provide a conical tip 12. This tip 12 is adapted to form a regulating seat for the conical end 13 of a nozzle 14. This nozzle screws over the exterior of the neck 7 and is held in its adjusted position by a lock nut 15. The nozzle 14 is provided with the usual opening through which the end of the stem 8 projects and its outer surface is preferably milled or roughened so that the nozzle can be turned to adjust its position relative to the conical tip 12 of the stem 8. This adjustment effects the spread of the spray of mastic.

The mastic is introduced under air pressure from a mastic supply line 16 which is connected to a fitting 17 this fitting screwing into the threaded opening 6. The air under pressure to spray the mastic is introduced from an air supply line 18 which screws into a boss 19 in the side of the gun. In using the gun the mastic is forced under air pressure from the supply line through the 45° elbow fitting 17, threaded opening 6 into the stem 8 and issues from the conical tip 12 of the stem. As it issues it is caught by the circular stream of air from the air supply line 18, interior of the hollow body 5 and flowing through the nozzle 14, and the stream of mastic from the tip of the stem 8 is broken up into fine particles or a spread stream and will cover a large area of the surface to which it is to be applied. The spread of the stream is adjusted by means of the nozzle 14, the unscrewing of this nozzle 14 reducing the area or spread of the stream and screwing it down increasing the area or spread of the stream.

A mastic gun such as above described has been found to be entirely satisfactory in the application of heavy asphalt fibered mastics and entirely eliminates the hand troweling which has been heretofore necessary in the application of this form of surfacing.

I claim as my invention:

A pressure gun for the application of plastic materials, comprising a hollow body having a mouth at one end and a uniformly threaded opening through its opposite end substantially coaxial with said mouth, a relatively large open ended tubular stem having an enlarged head at one end and being externally threaded at its opposite end, an external collar at the threaded end of said stem, said stem being adapted to be inserted through the mouth of said hollow body and

screwed into said threaded opening, said collar forming a tight seal for the threaded joint so formed between said stem and body, a supply pipe for the plastic materials also screwed into said threaded opening from the outside of said body, a nozzle having a screw connection with said body and closing said mouth, said nozzle having a discharge opening smaller than the head of said stem and cooperating therewith, and means for forcing air under pressure into said body exteriorly of said stem, the said air issuing from the discharge opening in said nozzle spreading the material issuing from said head to provide a spray of said materials.

RAYMOND E. KELLEY.