

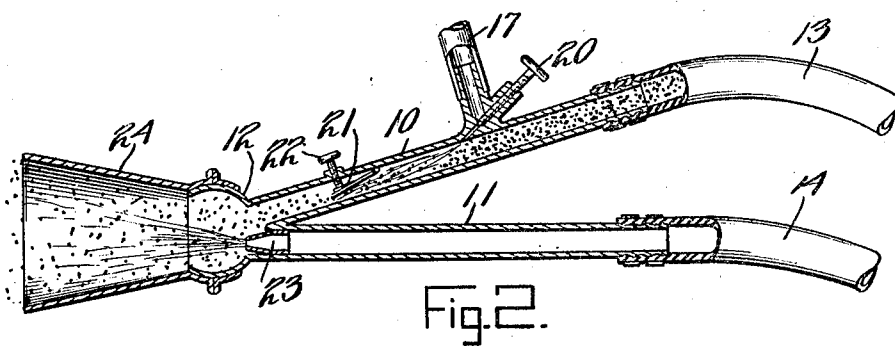
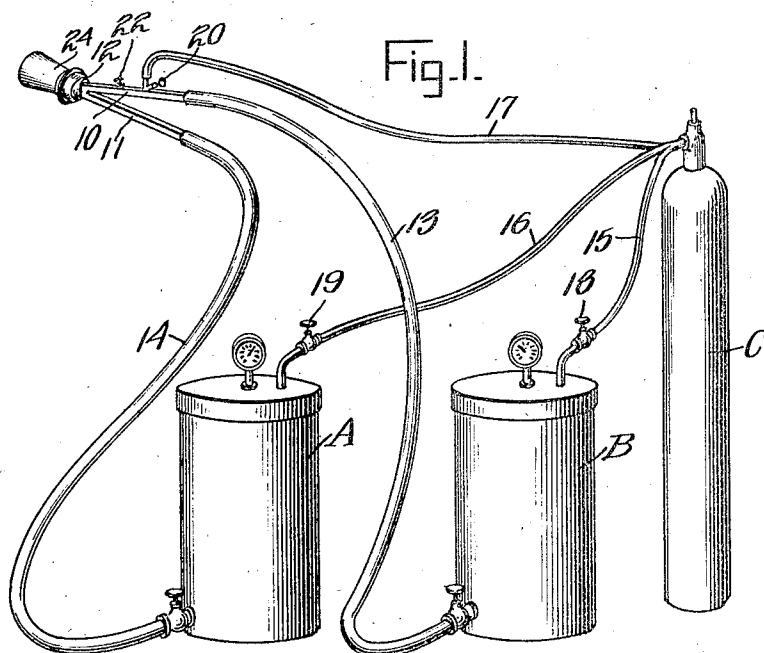
March 15, 1932.

R. H. MOBLEY ET AL

1,849,945

METHOD AND MEANS FOR MIXING AND APPLYING INSULATING MATERIAL

Filed May 11, 1929



By

Inventors
 Roy H. Mobley,
 Alfred M. Fort
 & Vaden J. Haddaway.
Clayton

Attorney

UNITED STATES PATENT OFFICE

ROY H. MOBLEY, OF BALTIMORE, AND ALFRED M. FORT, OF CATONSVILLE, MARYLAND,
AND VADEN J. HADDAWAY, OF WYOMING, DELAWARE

METHOD AND MEANS FOR MIXING AND APPLYING INSULATING MATERIAL

Application filed May 11, 1929. Serial No. 362,316.

The object of our said invention is to provide a means and method for rapidly and effectively mixing and applying insulating material to the walls of buildings, whereby insulated walls may be quickly and inexpensively formed; all as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 is a diagrammatic view, showing an apparatus such as we employ, and illustrating its use in a general way, and

Figure 2, a sectional view through the gun for directing the material onto the surface to be covered.

In the drawings, reference letter A indicates a container for containing liquid adhesive under pressure; B a container for containing ground cork under pressure; and C a compressed air chamber or cylinder.

The applying gun consists of a pair of tubular arms 10 and 11 joined at their forward end to a hollow spherical mixing chamber 12 and diverging rearwardly, the arm 10 being connected by a tube 13 to a ground cork container and the arm 11 being connected by a tube 14 with a liquid adhesive container. Tubes 15, 16 and 17 for conducting air under pressure from the compressed air cylinder are joined to the top thereof, tube 15 leading into the ground cork cylinder, tube 16 into the top of the liquid adhesive cylinder, and tube 17 into the hollow arm 10 at a point beyond its connection with the tube 13. The air supply from the compressed air cylinder is controlled through said several tubes by valves 18, 19 and 20 respectively.

In arm 10 is mounted a valve 21 controlled by a hand screw 22 by which the supply of ground cork passing through this arm may be regulated. Arm 11 at its discharge end has a spray nozzle 23, as shown. Mounted on the spherical member of mixing chamber 12 is a discharge nozzle 24, the connection being in the nature of a ball and socket joint, so that said nozzle may be turned into any position

necessary to maintain its front end parallel with the work.

In operation the air in the upper end of the ground cork cylinder is maintained at a pressure sufficient to cause the ground cork to pass through the tube 13 into the arm 10, and it is then taken up by the jet of compressed air coming through tube 17, regulated by valve 20, and driven under considerable pressure past regulating valve 21 into the hollow mixing chamber formed by the member 12 and the throat of the nozzle 24. It will be understood that the pressure in the ground cork cylinder coming through tube 13 is maintained high enough to cause the cork to feed into the arm 10 in the volume required, and that the air pressure coming through tube 17 is much higher and calculated to drive the ground cork from this point into the throat of the nozzle with considerable velocity. The liquid adhesive in tank or container A is likewise forced by pressure in the upper end of said tank through the pipe 14 into arm 11 and through the spray nozzle 23 into the throat of the nozzle 24 and the chamber within the member 12. The ground cork and the liquid adhesive come together at this point and the liquid adhesive being in the form of a spray they commingle and mix, forming a sticky, fluffy mass, filled with air cells, but of a plastic as well as a sticky nature, and this mixture thus formed in this chamber is driven by the air blast coming through the arms 10 and 11 onto the surface in front of the nozzle 24, this nozzle being held by hand and moved as may be required to spread the insulating mixture over the surface to the thickness and density desired.

An insulating mixture is thus formed that is very efficient and inexpensive and may be rapidly applied to the sheathing or other surface composing either the inside or the outside of the wall, all as will be readily understood.

Instead of mixing the insulating material consisting of the ground cork and adhesive as herein described, it may be found expedient to prepare the mixture and apply it by a blast direct from the container, and thus reduce

the cost of the apparatus and simplify the method.

It will be obvious to those skilled in the art that various changes may be made in our device without departing from the spirit of the invention, and we, therefore, do not limit ourselves to what is shown in the drawings and described in the specification, but only as set forth in the appended claim.

Having thus fully described our said device, what we claim as new and desire to secure by Letters Patent, is:

In an apparatus for applying plastic material to surfaces, the combination of an adhesive container, a ground-cork container and a compressed air container, of a mixing nozzle comprising an adjustable flared mouth provided with a socket, a hollow ball providing a mounting for said socket, radially mounted square tubes communicating with said hollow ball, one of said tubes for conducting an adhesive under pressure, the other tube for conducting ground cork under pressure, a restricted nozzle in said first mentioned tube for spraying said adhesive, an agitating means for said ground cork comprising an inclined nozzle in said second mentioned tube, means for admitting air under pressure to said inclined nozzle, and an adjustable regulating valve for said ground cork positioned between said inclined nozzle and said flared mouth, substantially as set forth.

In witness whereof we have hereunto set our hands at Baltimore, Maryland, this 8th day of May, A. D. nineteen hundred and twenty-nine.

ROY H. MOBLEY.
ALFRED M. FORT.
VADEN J. HADDAWAY.