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J. H. FOREMAN

TOOL FOR APPLYING PATCHES TO FLEXIBLE HOSE

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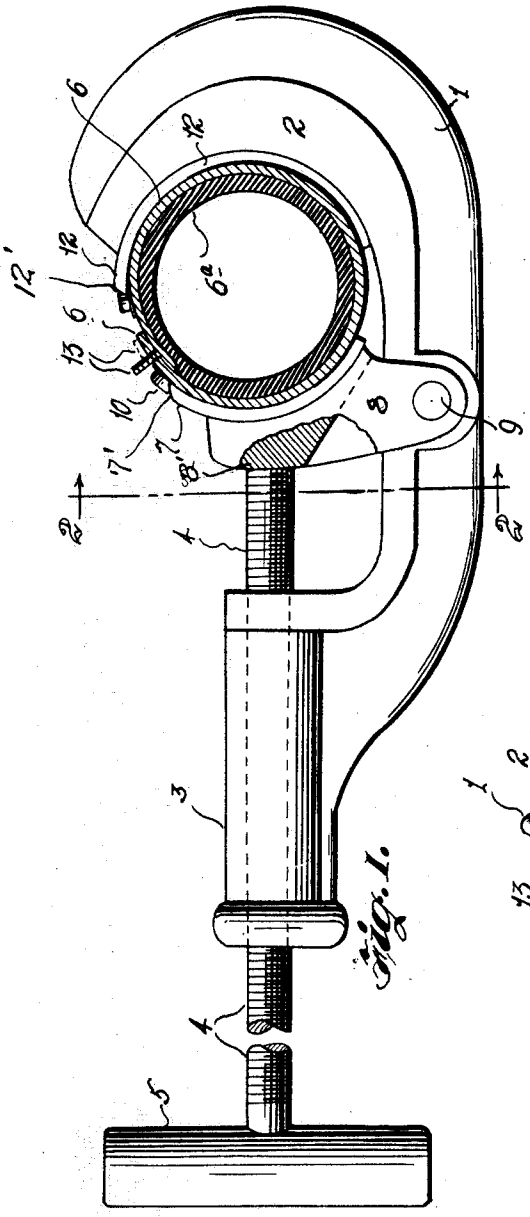

Fig. 1.

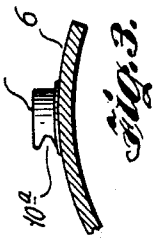

Fig. 3.

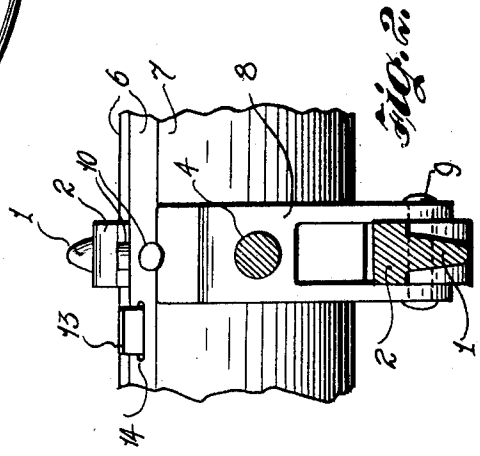

Fig. 2.

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UNITED STATES PATENT OFFICE.

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TOOL FOR APPLYING PATCHES TO FLEXIBLE HOSE.

Application filed November 26, 1926. Serial No. 150,733.

This invention relates to improvements in means for patching or repairing "blow-outs" or breaks in air hose, particularly such hose as is used in railway air brake equipment for connecting cars in the train pipe air brake line, and for repairing other hose such as hose of a flexible resilient nature used for distributing water, gas and the like.

The present invention relates further to an application for Letters Patent of the United States executed of even date herewith Serial Number 150,734, for a patch or repairing element applied by the tool herein described.

The object of this invention is to provide a tool for applying patches and repairs to broken air hose in a quick and safe manner without the necessity of first removing the air hose from the train line pipe or air brake equipment.

Other minor, yet important objects of the present invention will be clearly understood from a perusal of the following detailed description, taken in connection with the accompanying drawings forming part hereof and in which:

Figure 1 is a side elevational view of the tool and illustrating in section an air hose and a patch being applied thereto.

Figure 2 is a cross-sectional view along the line 2—2 of Figure 1; and

Figure 3 is a fragmentary detail view of the patch showing one of the lugs, which is engaged by the tool.

Having a more detailed reference to the drawing wherein numerals are employed to designate the various parts the tool has a centrally disposed rib 1, formed integrally with the body 2 and a shank 3 with a screw-threaded operating rod 4 and a handle 5. The shank is interiorly threaded for advancement and withdrawal of the rod 4 in the manipulation of the semi-circular jaws, in bending the metallic patch 6 in place over the hose 6^a. The bending and attachment of the sleeve or patch is accomplished by means of the jaws and rod 4, one of these jaws 7 is formed integrally with a member 8 provided with an abutment 8′ pivoted by a pin 9 to the rib portion 1 of the tool. Rotation of the handle 5 will thus advance the rod 4 against the member 8 and swing this jaw against the lugs 10 and into the notch 10^a. The other side of the sleeve being held against the stationary 12 formed integrally with the main body 2, the movable jaw 7 will bring the two edges of the sleeve together. Beveled ends 7′ and 12′ formed on the jaws 7 and 12, respectively, engage in the notches 10^a of lugs 10. When so joined or nearly so, the lugs 13 are slipped through the slots 14 and the lugs bent with a suitable tool over upon the edge of the patch. The lug 13 is shown in Figure 1 in upstanding position, having been slipped through the slot 14, the dotted-line position showing the position of this lug after it has been bent into locking position on the sleeve. Obviously when the lugs 13 are bent into locking position along the edge of the sleeve, the handle may be reversed in operation to disengage the jaw 7.

As before explained, a particular object of the invention is to permit a hose to be repaired without its removal from the train pipe, that is the air pipe to which the hose is connected. From the foregoing this may be easily accomplished by the tool herein described in connection with the sleeve constituting the repairing element.

The tool may be constructed of suitable sizes to enable patches to be applied to other hose or tubing such as water hose, and the like. It should be understood also that the tool is not limited to the specific construction herein illustrated and described, but may be modified to come within the scope and meaning of the appended claim.

What is claimed is:

In a clamping tool for applying a strip to a hose the strip having lugs provided with notches, the combination with a body member, of a stationary jaw integral with said body member and curved to embrace a portion of said strip around said hose, a movable jaw pivoted to said body member and provided with an abutment, a shank integral with said body member and formed with a threaded opening therethrough, a rod in threaded engagement with said threaded opening and having its inner end abutting said abutment of said movable jaw and having its outer end provided with an operating handle, a reinforcing rib integral and coextensive with said body member and shank, said stationary jaw having an end portion extending beyond said body member and re-

inforcing rib, said end portion having its extreme end bevelled to engage in a notch in one of said lugs, said movable jaw having an end portion extending beyond said abutment and having its extreme end bevelled to engage in a notch in another of said lugs, whereby the ends of said strip are drawn together to clamp the same around the hose when the said handle is rotated to advance the said rod with its inner end in pressure-exerting contact with said movable jaw.

In testimony whereof I affix my signature.

JOHN H. FOREMAN.