April 3, 1928. 1,664,621

J. L. GOFF

DEFLATION TOOL FOR TUBES OF PNEUMATIC TIRES

Filed Aug. 29 1927

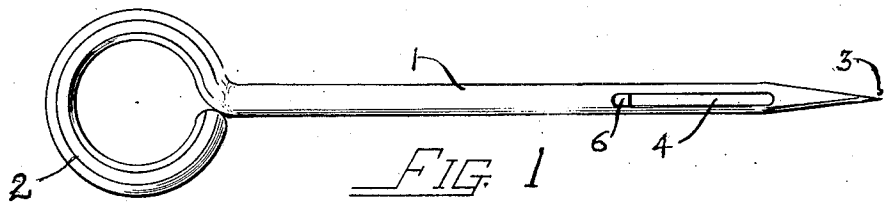


FIG. 1

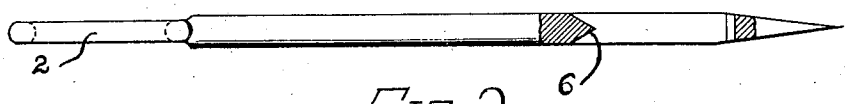


FIG. 2

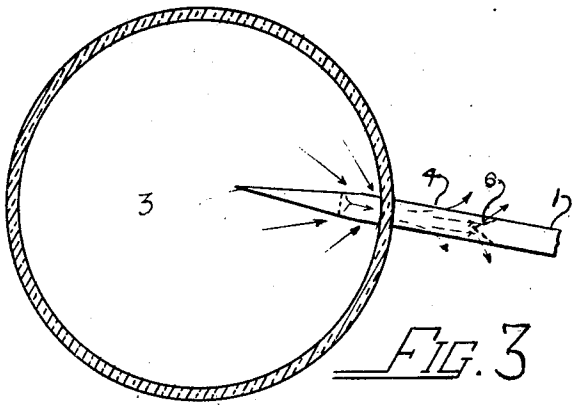


FIG. 3

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UNITED STATES PATENT OFFICE.

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DEFLATION TOOL FOR TUBES OF PNEUMATIC TIRES.

Application filed August 29, 1927. Serial No. 216,217.

My invention relates to a deflation tool for tubes of pneumatic tires.

The object of my invention is to provide a tool having a point to be inserted in the puncture of a tube as deflation means.

A further object of my invention is to provide a tool that is inexpensive to manufacture, not cumbersome to carry, and effective in operation.

A still further object of my invention is to provide a tool functioning as deflation and identifying means for the puncture prior to applying a patch.

Referring to the drawings, which form a part of this specification:

Fig. 1 is a side view of the tool.

Fig. 2 is a transverse view, parts removed for convenience of illustration.

Fig. 3 is an illustration showing the application of the tool in a tube of a pneumatic tire, the tube being shown in cross section and the outer end of the tool removed.

Like characters will apply to like parts in the different views of the mechanism, as hereinafter set forth.

My invention, herein disclosed, consists of a shaft 1 having a ring 2 integrally connected at one end, said ring being the hanging means for the tool and bearing means for the hand, the opposite end pointed as at 3, the said point functioning as means to enter a small puncture in the tube. Intermediately to the point and the ring and transversely extending through the shaft is a slot 4, said slot being elongated and longitudinally positioned in the shaft, functioning as an exhaust port when brought to registry with the puncture as shown in Fig. 3, the exhaust being indicated by the arrows.

In the opposite end of the slot adjacent the point is a V-shaped extension 6, functioning as a splitting means for the air passing outward to avoid congestion of a free flow of air, and also to prevent ejection of the tool. The sides of the ring are compressed to a flat surface, as shown in Figs. 1 and 2, the said surfaces being for the convenience of inscription to be placed thereon.

When tubes have what is known as slow leaks, the aperture is very small and difficult to locate, therefore it becomes necessary to inflate the tube to considerable pressure and place it in a tank of water; when the puncture has been located it is marked, rather than mutilate the tube by increasing the size of the puncture; the core of the valve is removed for quick deflation and as a result the packing on the said core is often damaged or lost; to overcome such difficulties the application of my tool as herein set forth will be found very profitable to both laymen and mechanics.

It will be understood that the drawings herewith shown are made on a large scale for convenience of illustration; the diameter of the shaft should be about one-third less than shown, but the size shown may be employed. However, the point, being very fine, is capable of entering the smallest puncture, and the elasticity of the tubing is capable of stretching sufficiently to receive the shaft until it engages with the slot, at which instance the compression is relieved by exhausting freely through the slot, the outer end of which may extend well outside of the tube, while the opposite end extends well into the tube.

The tool may remain in the aperture until removing is required for placing the patch.

It is now readily seen how quickly deflation of the tube is accomplished and the location of the puncture ascertained.

The tool may be made from any desired metal that is adaptable to the structure, or hard rubber or celluloid may be used and such other modifications may be employed as lie within the scope of the appended claim.

What I claim as new and desire to secure by Letters Patent is:

In a deflation tool for tubes of pneumatic tires, a tool of the kind described comprising a shaft having a handle on one end and a point on the opposite end, a slot diametrically passing through the shaft intermediate the handle and point, a V-shaped extension in the end of the slot adjacent the handle, all as and for the purpose described.

In testimony whereof I affix my signature.

JUDSON L. GOFF.