

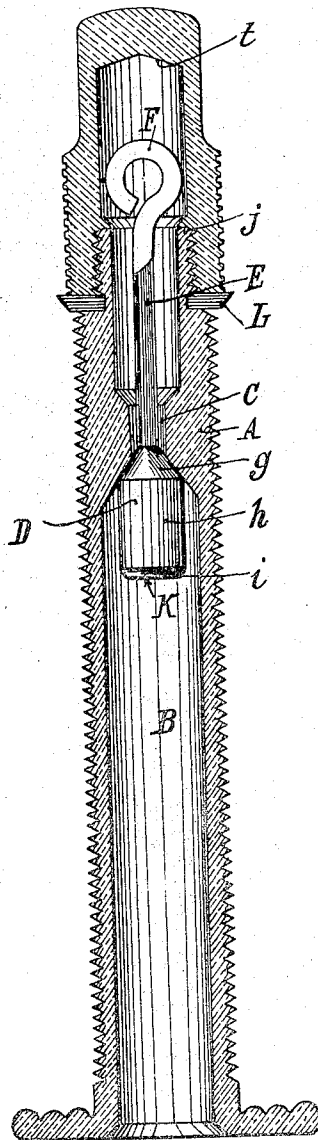
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J. A. SAHUC

VALVE

Filed May 10, 1921



Inventor:  
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# UNITED STATES PATENT OFFICE.

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## VALVE.

Application filed May 10, 1921. Serial No. 468,441.

To all whom it may concern:

Be it known that I, JACQUES A. SAHUC, a citizen of the Republic of France, residing at Castelane-Montratier, Lot, France, have invented a new and useful Valve, of which the following is a specification.

This invention relates to an un-dismountable valve, in which the clack may be easily changed without dismounting the valve, when the same is defective or worn.

The figure of drawing is a vertical sectional view of a valve constructed and arranged according to the present invention.

The body of the valve has a bore which has a reduced portion or neck C, whose cylindrical part at each end terminates in a funnel to facilitate the entrance and the outward movement of the compressible caoutchouc-mass of the clack D. The clack D has a stem E, which at its upper part is bent to form a ring F. This ring offers a two-fold advantage. It affords a better grip for introducing and for withdrawing the clack, and controls the latter's travel without obstructing the air flowing out through the orifice of the valve.

The clack is formed of a caoutchouc-mass, very simple, having a conical upper part *g*, a cylindrical central part *h*, and a truncated lower part *i*. The compressible mass may be freely introduced through the valve orifice *j*, and due to its compressibility may be forced through the cylindrical part of the neck *c*, by pressure. All that will be necessary in order to attain this result will be to push the clack rod or stem by gripping the ring between one's thumb and first finger and imparting to the ring a rotary movement so as to facilitate the forcing of the mass through the cylindrical part of the neck.

In order to remove the clack, the same method will serve but, of course, the rod or stem is then to be pulled out.

Both operations are very easily accomplished without injuring the clack. The latter's travel is controlled by ring F which comes to butt against the valve orifice *j*. The ring's diameter being larger than the diameter of the orifice, the ring cannot get into the latter. When, the tyre being inflated; deflation is desired, one need but to press with one's finger on the end of the clack.

No possibility of inflation to the utmost ejecting the clack is incurred since, on the

contrary, when, by acting on the rod an elongation of the compressible mass is caused so as to allow the plug to pass through the narrow passage, the initial resistance to introduction into the said passage will suffice, the air pressure acting in the clack base K, to cause the latter to tend to become flattened, a flattening which will increase the diameter of the plug and thus increase its resistance to introduction into the passage in direct ratio to the degree of inflation. It will therefore be best to deflate the tyre when it is desired to pull out the clack.

In order to obviate to every and even the most improbable mishaps, however, for instance to the circumstance of a defective plug having too small a diameter, the length of the passage, the length of the clack rod or stem and the depth of the cap are calculated in such a way, that the end of the rod would butt against the bottom of the valve cap *t* in the event of the clack mass happening to get into the passage *c*. The plug is perfectly tight when the tyre is inflated, but it could be made so by making the rod ring rotate one quarter of a turn which would force the conical part of the plug on its seat.

In order to ensure tightness of the cap, the leather or felt washers used with other valves are replaced by an india rubber disk two millimeters thick and six millimeters in diameter having in its center a hole three millimeters in diameter, therefore smaller than the diameter of the bottom of groove L which is 4.5 millimeters. Once introduced this disk will press against the bottom of the groove and ensure tightness when the cap is positioned by screwing on.

To sum up while undismountable the valve shown in the drawing permits instantaneous interchangeability of the clack, the said valve is of very simple construction, convenient for inflation which is rendered easy owing to the suppression of all accessories that may obstruct the air outlets, and easy to repair and to clean.

Claims:

1. A non-demountable valve for pneumatic tires, comprising a body having a bore provided with a reduced neck, a valve of elastic compressible material, of greater normal diameter than said neck and adapted to be pushed therethrough and to then expand, and a stem attached to the valve and normally extending through said neck.

2. A non-demountable valve for pneumatic tires, comprising a body having a bore provided with a reduced neck, a cap detachably secured to the outer end of the body, a valve of elastic compressible material, of greater normal diameter than said neck and adapted to be pushed therethrough and to then expand, and a stem attached to the valve and normally extending through said neck and into said cap.

3. A non-demountable valve for pneumatic tires, comprising a body having a bore

provided with a reduced neck, a valve of elastic compressible material, of greater normal diameter than said neck and adapted to be pushed therethrough and to then expand, and a stem attached to the valve and normally extending through said neck, the said neck terminating at each end in a conical extension to facilitate the entry and removal of the valve.

In testimony whereof I affix my signature.

JACQUES AUGUSTE SAHUC.