May 31, 1932. W. F. TEER 1,861,102

VALVE STEM PATCH FOR INNER TUBES

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Fig. 1.

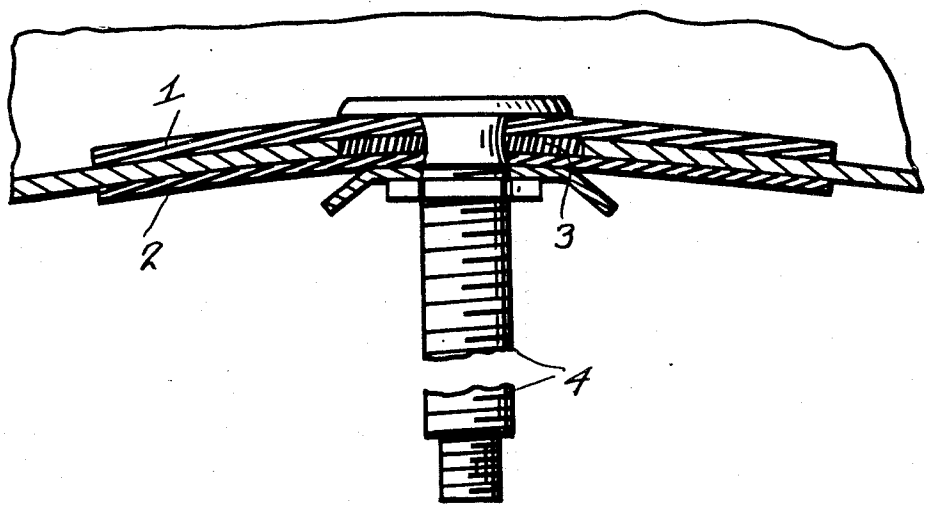


Fig. 2.

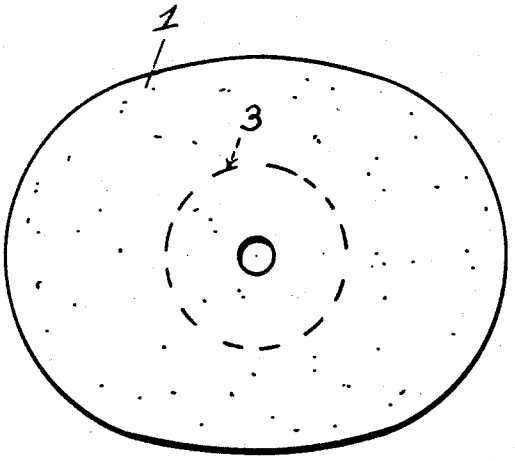
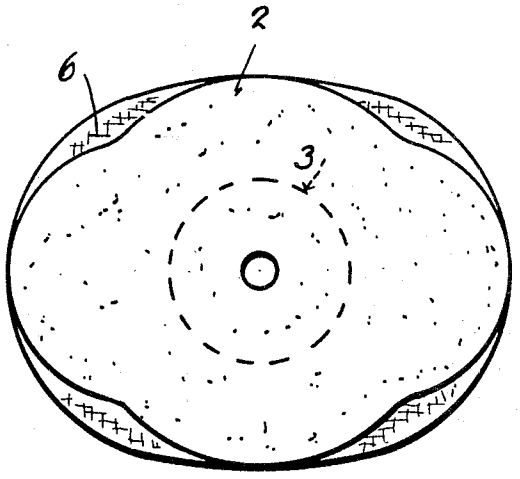


Fig. 3.



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Fig. 5.

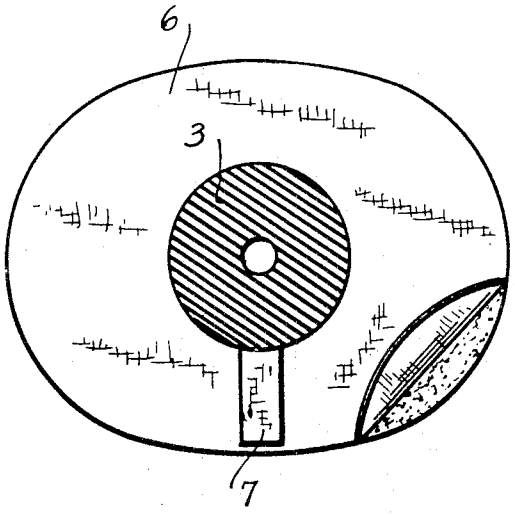


Fig. 6.

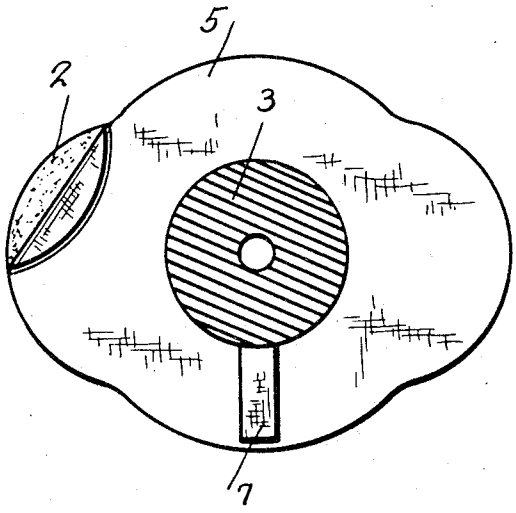


Fig. 4.

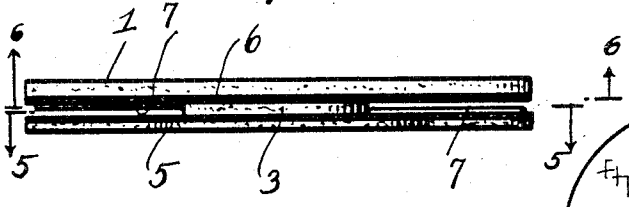
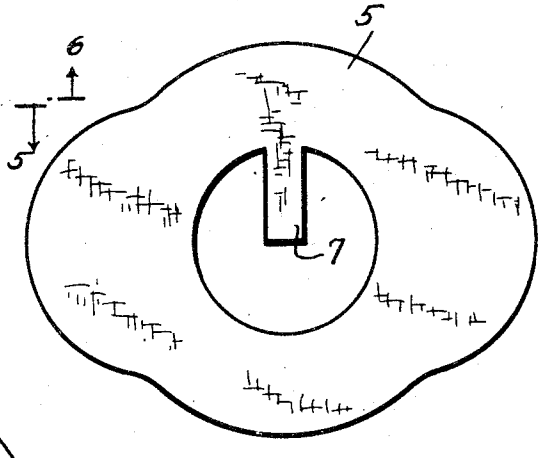


Fig. 7.



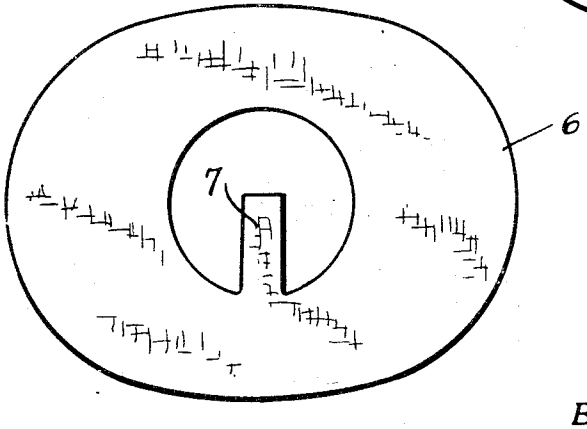


Fig. 8.

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UNITED STATES PATENT OFFICE

WILLIAM FRED TEER, OF BUCKLIN, KANSAS

VALVE STEM PATCH FOR INNER TUBES

Application filed June 13, 1931. Serial No. 544,234.

This invention relates to a valve stem patch for inner tubes, the general object of the invention being to provide a double patch for the valve stem of an inner tube so that the valve stem can be easily and quickly connected to the inner tube when the said stem has been torn therefrom, said patch consisting of an inner and outer part so that the patch part of the valve stem is of considerable strength and there is no danger of tubes leaking at this point.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a sectional view through a part of the tube showing the invention in place.

Figure 2 is a plan view looking toward one face of the patch.

Figure 3 is a view looking toward the other face thereof.

Figure 4 is an edge view of the patch.

Figure 5 is a sectional view through the spacer of the patch and showing one part of the patch with the fabric partly folded back.

Figure 6 is a similar view but looking in the opposite direction.

Figure 7 is a view of one of the fabric covers, and

Figure 8 is a view of the other fabric cover.

As shown in these drawings the patch consists of an inner part 1 and an outer part 2 with a small substantially disk shaped central part 3 placed between the two parts 1 and 2 and the two parts are vulcanized together. The part 1 is preferably thicker than the part 2 and the valve stem 4 passes through the three parts as shown in Figure 1. A fabric covering 5 is placed on the inner face of one of the parts 1 and a fabric covering 6 is placed on the inner face of the other part, each fabric being formed with an inwardly extending tongue 7 which is folded back as shown in Figures 5 and 6 when the fabric is in position so that by grasping these parts the fabric can be easily and quickly removed from the two parts of the patch when the patch is put in place.

When it is necessary to use the patch the valve stem is removed and the tube is cut so as to enlarge the stem hole so as to enable the central part 3 of the pack to fit therein as shown in Figure 1. The valve stem is first passed through the patch and then the part 1 is passed through the hole and the covering fabric is removed. The part 1 is folded and then one end is pushed into the hole and then the rest of the part is pressed through the hole and the part straightened and the fabric removed. The part 1 is then pressed down firmly against the tube. Cement is then applied to the outside of the tube around the patch and the fabric pulled from the part 2 and this part pressed against the outside of the tube. The parts are then vulcanized or the parts can be formed of old cuts of material if desired. It will of course be understood that the patch is placed on the inside of the tube to hold the inner part 1 and the tube must be thoroughly cleaned and roughened before applying the patch.

From the foregoing it will be seen that I have provided a dual form of patch which will greatly strengthen the part of the case through which the valve stem passes.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided that such changes fall within the scope of the appended claim.

Having thus described my invention, what I claim as new is:

A patch of the class described comprising an inner member and an outer member for receiving portions of a tube between them, the inner faces of said members having adhesive thereon whereby the inner member

will adhere to the inner face of part of the tube and the outer member will adhere to the outer face of part of the tube, and a central disk-shaped member placed between the inner and outer members and of much less diameter than the two members for fitting in a hole in the tube, all of said members being formed of rubber, and said members having alined holes therein for receiving part of the valve stem, a fabric covering on the inner face of each of the inner and outer members for covering the adhesive thereon each cover having a circular hole therein for the passage of the central disk shaped member and a tongue formed on each cover and connected with a part of the walls of the hole for facilitating removal of the fabric cover from the member.

In testimony whereof I affix my signature.

WILLIAM FRED TEER.