No. 632,218. Patented Aug. 29, 1899.

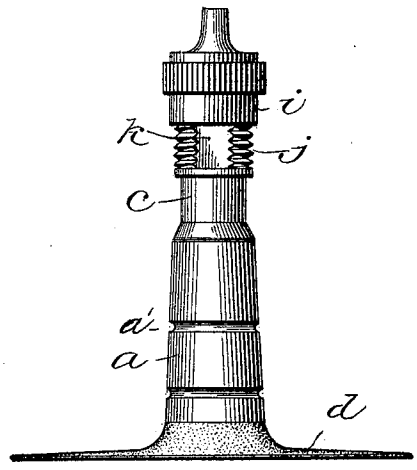
J. H. & E. O. GOSS.

FASTENING FOR TIRE VALVES.

(Application filed Nov. 5, 1898.)

(No Model.)

Fig. 1.



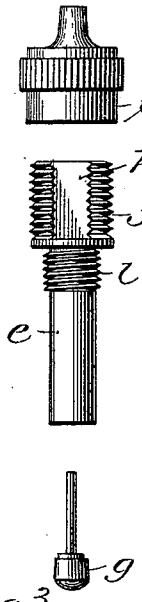


Fig. 3.

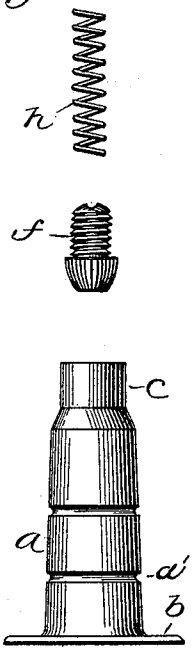


Fig. 4.

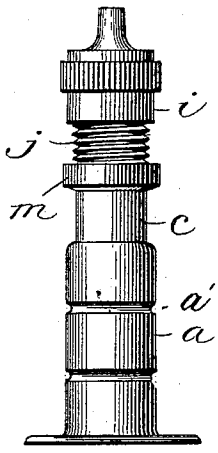


Fig. 2.

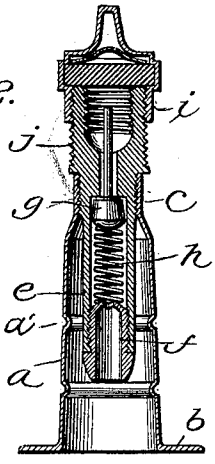
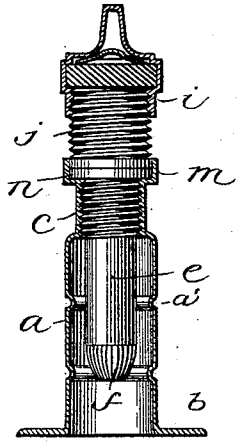


Fig. 5.



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by Wm. F. Finnell. Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN H. GOSS AND EDWARD O. GOSS, OF WATERBURY, CONNECTICUT, ASSIGNORS TO THE SCOVILL MANUFACTURING COMPANY, OF SAME PLACE.

FASTENING FOR TIRE-VALVES.

SPECIFICATION forming part of Letters Patent No. 632,218, dated August 29, 1899.

Application filed November 5, 1898. Serial No. 695,616. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. GOSS and EDWARD O. GOSS, citizens of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a certain new and useful Improvement in Fastenings for Tire-Valves, of which the following is a full, clear, and exact description.

Heretofore in applying inflation-valves to pneumatic tires for bicycles one common practice has been to vulcanize a flanged metal tube in the cot, the mushroom end of which cot is vulcanized to the inner tube of the tire, and thereafter to insert the valve proper—that is to say, the valve-casing and its operating mechanism—in such tube and secure the same therein by crimping the flanged tube about the shell or casing of the valve. The result is that the valve is permanently secured in the cot, and should the valve be defective or become defective, and for this or any other reason it be desired to replace the valve, it is necessary either to destroy wholly or in part the flanged tube and cot or else remove them. Obviously repairing under these circumstances is expensive. To facilitate the repair of valves, forms of valves have been introduced upon the market in which the operating mechanism may be removed from the valve case or shell from the outer end; but a practical disadvantage of this form of valve is that it presents a constant temptation to unskilful persons to tamper with the valves and either get them out of order or else increase the disorder.

The object of our invention is to provide for the ready and inexpensive repair of disordered or imperfect inflation-valves, and in attaining this object we provide the cot with a flanged tube, which is constructed with a screw-thread or provided with other convenient means whereby the valve proper may be applied to said tube and be readily removed therefrom intact and without any damage whatever to the flanged tube and cot.

In the accompanying drawings, illustrating our invention, in the several figures of which like parts are similarly designated, Figure 1 is a side elevation. Fig. 2 is a longitudinal section. Fig. 3 shows the various parts detached. Fig. 4 is a side elevation of a modification, and Fig. 5 is a longitudinal section of the flanged tube of said modification with the valve in elevation and its cap in section.

a is a sheet-metal tube having the laterally-extended base-flange *b* and a substantially contracted neck *c*. This tube is vulcanized in the mushroom cot *d*, by means of which it is applied to the inner tube of a pneumatic tire. As shown in Figs. 2 and 5, the neck of the tube is provided with an internal screw-thread.

The form of valve shown in the drawings is of well-known construction and modified, substantially, only in two particulars for carrying out our invention—that is to say, it has a valve shell or casing *e*, a ported screw-plug *f*, a valve *g*, a valve-spring *h*, and a sheet-metal or stamped-up screw-cap *i*. The head of the casing *e* is provided with a screw-thread *j*, the sides of which may be slabbed off, as at *k*, Figs. 1 to 3, in order to receive a wrench or other turning-tool without marring the threads, or said screw-thread may be continuous, as in Figs. 4 and 5, and adapted to receive a pair of pliers fitted to engage therewith for the removal of the valve. Below this screw-threaded portion the shell is provided with a screw-thread *l*, which cooperates with the screw-thread in the neck of the flanged tube, whereby the valve may be readily inserted in and at all times readily removed from the flanged tube, and this is a main feature of our invention.

In order to further provide for an air-tight joint between the valve proper and its containing-tube, the neck of the tube may be made with a laterally-extended cup or socket *m*, Figs. 4 and 5, between which and the bottom of the screw-threaded portion *j* is interposed a washer *n* of flexible or compressible material.

Where, as is sometimes or usually the case, the ordinary cot extends upwardly inside of the flanged tube and is vulcanized therein, such cot may be utilized as a packing, and the beads *a'* may be employed to compress the cot and further secure it and the tube together.

We do not limit our invention to the two forms of connection between the valve and its tube and have herein described these two forms as illustrative of those which have so far been demonstrated as practical and satisfactory.

It will be seen that while the flanged tube remains as a fixture in the tire the valve is not a fixture in said tube, but is readily removable bodily therefrom at all times, and thus is freely accessible for inspection and repairs.

What we claim is—

1. A fastening for pneumatic-tire valves, comprising a metal tube adapted to be applied to the tire and to receive the valve as a whole, and provided with means for detachably engaging the casing of such valve, whereby the valve as a whole may be inserted in said tube and removed from it at pleasure, without disturbing the said metal tube or its fastening to the tire, substantially as described.

2. A fastening for pneumatic-tire valves, comprising a metal tube adapted to be applied to the tire and to receive the valve as a whole, and having a screw-threaded neck to engage a complemental screw-thread on the casing of said valve, whereby the valve may be readily inserted in said tube and removed from it as an integer, substantially as described.

3. A fastening for pneumatic-tire valves, comprising a flanged sheet-metal tube adapted to be applied to a tire, and having a screw-threaded neck, and a valve proper having a complemental screw-thread on its casing to engage the thread in the tube, whereby the valve as a whole may be readily inserted in said tube and removed from it without disturbing the said fastening-tube, substantially as described.

4. A fastening for pneumatic-tire valves, comprising a metal tube adapted to be applied in any usual way to a tire, and having a screw-threaded neck and a laterally-extended socket, and a valve proper having a complemental screw-thread on its shell or casing, and a packing material interposed in the socket between the tube and the valve shell or casing, substantially as described.

In testimony whereof we have hereunto set our hands this 3d day of November, A. D. 1898.

JOHN H. GOSS.
EDWARD O. GOSS.

Witnesses:
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C. M. DE MOTT.