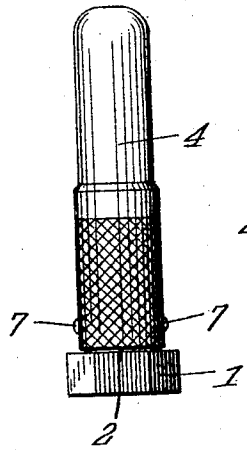
April 8, 1924. 1,489,468

B. STRUBLE ET AL

VALVE STEM CAP

Filed Oct. 8, 1920

Fig. 1.



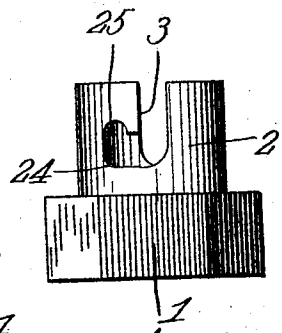
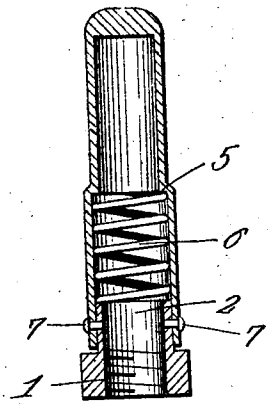


Fig. 2.

Fig. 3.



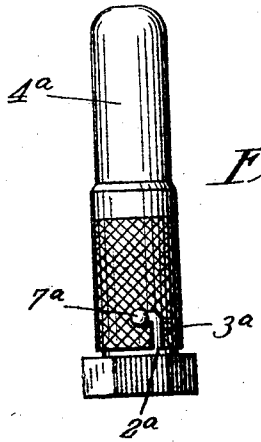
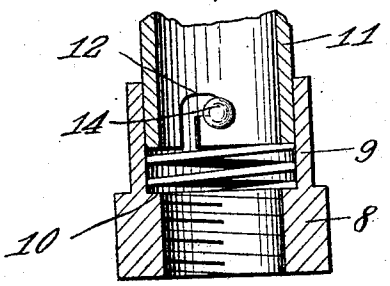


Fig. 4.

Fig. 5.



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Attorneys

Patented Apr. 8, 1924. 1,489,468

UNITED STATES PATENT OFFICE.

BURR STRUBLE AND HAROLD G. RICE, OF PORTLAND, OREGON.

VALVE-STEM CAP.

Application filed October 8, 1920. Serial No. 415,632.

To all whom it may concern:

Be it known that we, BURR STRUBLE and HAROLD G. RICE, citizens of the United States, residing at Portland, in the county of Multnomah, State of Oregon, have invented a new and useful Valve-Stem Cap, of which the following is a specification.

It is the object of this invention to provide a simple means whereby a valve cap may be held on a nut of the kind used to hold a valve stem on the rim of a vehicle wheel, the object in view being so to connect the cap with the nut that the cap may be detached more readily than is possible when, as is the custom, the cap is threaded on the neck of the nut.

Within the scope of what is claimed, changes may be made in the forms hereinafter described without departing from the spirit of the invention.

In the drawings:—Figure 1 shows in side elevation, a device constructed in accordance with the invention; Figure 2 is an elevation of the nut; Figure 3 is a longitudinal section; Figure 4 is a side elevation showing a modification; Figure 5 is a fragmental longitudinal section showing another modification.

In Figures 1, 2 and 3 the numeral 1 denotes a nut of the sort which is threaded on the valve stem of a pneumatic tire and bears against the inner curve of the wheel rim. The nut has a neck 2 provided with bayonet slots 3. The neck 2 is received within a cap 4 having a shoulder 5, the cap being provided with studs 7 received in the bayonet slots 3. The lateral branches 24 of the bayonet slots 3 have seats 25 extended parallel to the main portions of the bayonet slots, and in the seats 25, the studs 7 are received, and held under the action of a compression spring 6 located within the cap 4 and exerting a thrust against the shoulder 5 and the end of the neck 2. Clearly, the structure described affords a secure connection between the cap and the nut, it being possible, nevertheless to detach the cap without difficulty.

In Figure 4, parts hereinbefore described are designated by numerals previously used with the suffix "a." The modification consists in forming the bayonet slots 3^a in the end of the cap 4^a, the studs 7^a being mounted in the neck 2^a of the nut 1^a.

In Figure 5, the nut appears at 8 and has a neck 9, there being an internal shoulder 10 at the inner end of the neck. The cap 11 is received within the neck 9 and has bayonet slots 12 receiving studs 14 on the neck 9 of the nut 8.

What is claimed is:—

In a device of the class described, a tubular nut having an internal shoulder, and a bore of common diameter from end to end located outwardly of the shoulder, a compression spring within the nut and supported on the shoulder, a cap having a cylindrical end of common diameter, said end of the cap extending into the bore of the nut and fitting closely in the bore, the cap compressing the spring, and the cap being provided in its inner end with a bayonet slot; and a stud projecting from the nut into the interior thereof, the studs being located intermediate the ends of the bore and being received in the bayonet slot, the stud overhanging the spring to retain the spring in the nut when the cap is detached from the stud, the bayonet slot being housed completely in the nut when the stud is engaged with the bayonet slot.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures.

BURR STRUBLE.
HAROLD G. RICE.