

April 22, 1924.

1,491,485

E. McKENZIE

PROTECTING DEVICE

Filed Feb. 4, 1922

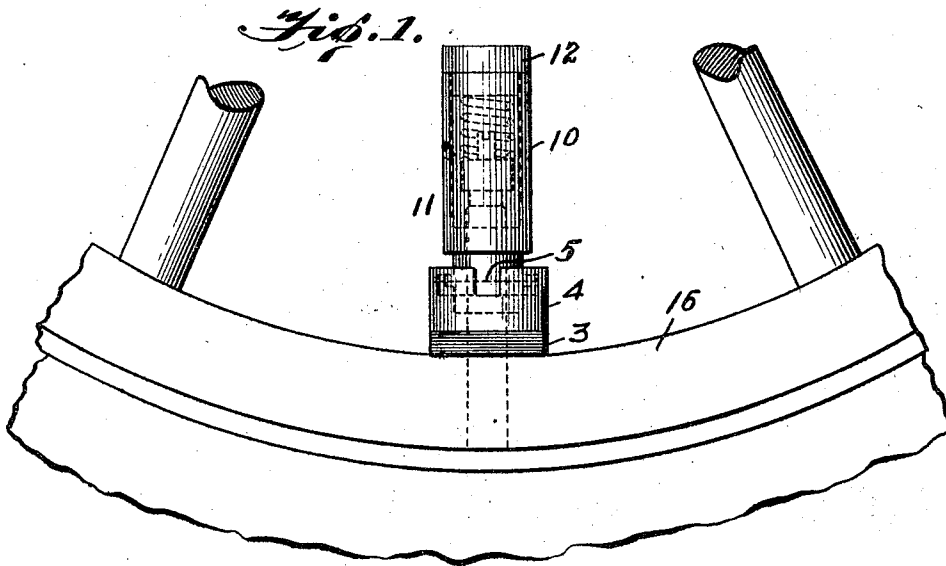


Fig. 2.

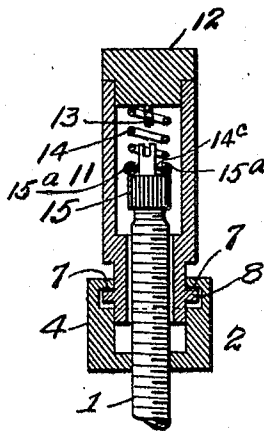


Fig. 4.

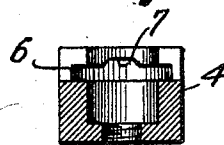


Fig. 5.

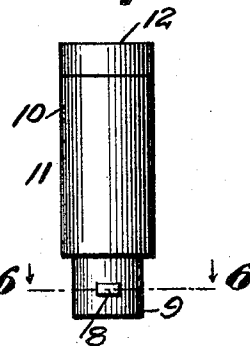


Fig. 7.

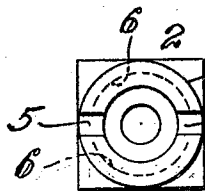
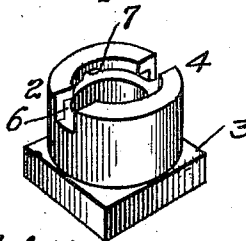


Fig. 7.

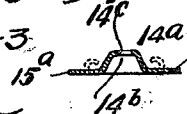


Fig. 5.

Inventor

Elliot McKenzie.

By *E. C. Vrooman & Co.,*
Attorneys

UNITED STATES PATENT OFFICE.

ELLIOT McKENZIE, OF MOUNTAIN IRON, MINNESOTA.

PROTECTING DEVICE.

Application filed February 4, 1922. Serial No. 534,195.

To all whom it may concern:

Be it known that I, ELLIOT McKENZIE, a citizen of the United States, residing at Mountain Iron, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Protecting Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a protecting device for valve stems of an automobile pneumatic tire, and the object of the invention is the provision of simple and efficient means, whereby the outer end of the stem and its cap will be protected, and at the same time such protecting means may be quickly and easily removed by the operator.

With this and other objects in view, my invention comprises certain novel combinations, constructions and arrangements of parts as will be hereinafter described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claim.

In the drawings:

Figure 1 is a view in side elevation of my protecting device shown applied to an automobile wheel.

Figure 2 is a vertical, sectional view of the device.

Figure 3 is a perspective view of the base or inner casing, while

Figure 4 is a top plan view of the base, and

Figure 4^a is a vertical, sectional view of the same.

Figure 5 is a view in elevation of the cap or outer casing.

Figure 6 is a sectional view, taken on line 6—6, Fig. 5, and looking in the direction of the arrows.

Figure 7 is a view of the spring-carried cap.

Referring to the drawings by numerals, 1 designates the valve stem upon which is threaded the base or inner casing 2.

The base or inner casing 2 comprises, preferably, a square base-portion 3 which affords a ready grip for the operator to screw the inner casing 2 upon the stem 1. Integral with the base-portion 3 is a cylindrical-like body 4 which is provided with a pair of notches 5 and open at their ends upon notches 5 are a pair of grooves 6. In the center of each groove 6 is formed a pocket 7,

into which pockets the lugs 8 extend. These lugs 8 are formed upon the reduced cylindrical extension 9 of the cylindrical body 10 of the cap or outer casing 11. Depending from the top 12 of the outer casing 11 is an apertured lug 13, through which one end of the coil spring 14 extends; the extending of an end of the spring 14 through lug 13 suspends the spring from the top 12; the lower end of the spring 14 is provided with a spring-carried cap 14^a; this cap 14^a is provided with an upwardly bulged body 14^b, in which body is an aperture 14^c, through which the upper end of cap 15 extends, Fig. 2. Oppositely extending ears 15^a are formed upon the cap 14^a and these ears are looped around a coil of the spring 14, for fastening cap 14^a upon the lower end of said spring. The cap 14^a fits down upon cap 15 allowing the spring to press upon the cap and valve stem.

The placing of the protecting device upon stem 1 can be quickly accomplished for all the operator has to do is to screw the inner casing 2 upon the stem 1 until it tightly engages the felly 16, then place the outer casing over the outer end of the valve stem 1, causing the lugs 8 to pass down into the notches 5, thence by imparting a rotary movement to the outer casing, the lugs 8 will travel around in the grooves 6 and ride up into pockets 7 through the natural action of the spring 14 pressing outwardly upon the outer casing; the action of spring 14 will prevent the outer casing 11 from being accidentally displaced off the inner casing, but, by reason of the quick adjustment of the outer casing, upon the inner casing, the operator can quickly and easily remove the outer casing when it is desired to have access to the valve stem 1 and cap 15.

While I have described the preferred embodiment of my invention, and have illustrated the same in the accompanying drawings, certain minor changes or alterations may appear to one skilled in the art to which this invention relates, during the extensive manufacture of the same and I, therefore, reserve the right to make such alterations or changes as shall fairly fall within the scope of the appended claim.

What I claim is:

In a device of the class described, a mounting member adapted to be secured about a valve stem, a casing detachably mounted

upon the mounting member, a closure for the outer end of said casing, a coiled spring in said casing, an eye carried by the closure within said casing and receiving the upper 5 convolution of said spring to suspend the spring in the casing, and a cap for engaging the dust cap of a valve stem enclosed by said casing, said cap comprising a body provided with an aperture for receiving a projection extending from the upper end of the dust 10 cap, and ears extending from said body and extending inwardly and radially thereof for engaging the lower convolutions of said spring and suspending the body from the 15 spring.

In testimony whereof I hereunto affix my signature.

ELLIOT MCKENZIE.