

R. SCHNEIDER.
CLOSURE FOR TUBES AND THE LIKE.
APPLICATION FILED APR. 12, 1910.

1,048,897.

Patented Dec. 31, 1912.

Fig. 1.

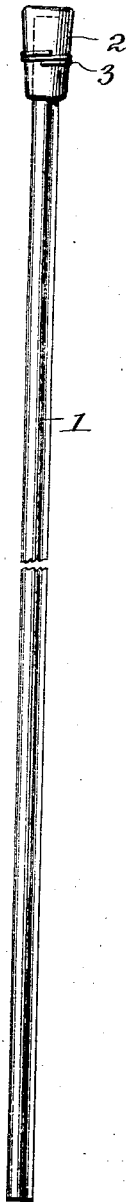


Fig. 2.

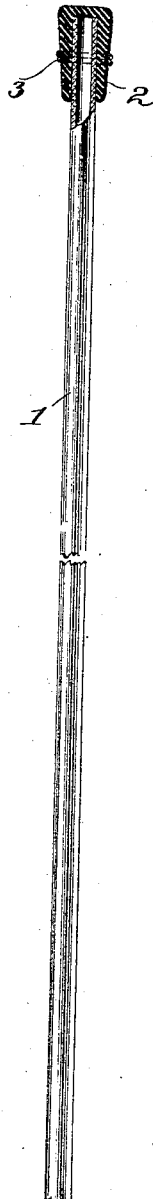


Fig. 3.

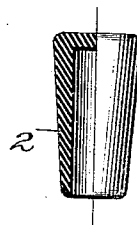


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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CLOSURE FOR TUBES AND THE LIKE.

1,048,897.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed April 12, 1910. Serial No. 555,026.

To all whom it may concern:

Be it known that I, RUDOLF SCHNEIDER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Closures for Tubes and the Like, of which the following is a specification.

My present invention pertains to improvements in closures for tubes and the like, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings, wherein:

Figure 1 is a side elevation of a tube with the cap or closure applied thereto; Fig. 2 a similar view, the upper portion of the tube and the cap being shown in section; Fig. 3 a sectional elevation of the cap on a somewhat enlarged scale; and Fig. 4 a perspective view of the cap-compressing spiral spring.

The object of the present invention is to provide a simple and effective closure for the ends of tubes or the like, which is readily applied and as easily removed, the structure being effective in use, both maintaining its position against accidental displacement and also effecting a tight fit and consequently a good joint with the tube or body with which it is used.

While more especially designed for use in connection with navigational sounding tubes, the construction is capable of being employed with other structures, such as bottles and the like.

In the drawings, 1 denotes a tube; 2 an enlarged rubber cap, the wall of which preferably tapers toward its lower end, and 3 the binding spiral formed of spring wire, in practice made of several convolutions of spring brass wire or the like.

The inner diameter of the embracing coil or spiral is of substantially the same diameter as the outer diameter of the lower end of the cap, so that it may be slipped thereon and when pushed or forced upwardly into the position illustrated in Fig. 2, it will tend to condense the body of the cap, causing it to adhere closely to the wall of the tube and to thereby effect a tight joint or union between the parts.

By the employment of the several overlying convolutions the cap will be compressed around its entire circumference, there being no void or space which is not subjected to the compressive action of the spring.

By having the wall of the cap made tapering, the closure may be employed with tubes of varying external diameters, for all that is necessary is to force the coil upwardly to a slight extent, when it will be brought to bear upon all the thicker sections of the cap and thereby caused to exert its hugging or compressive action.

Having thus described my invention, what I claim is:

1. A closure, comprising a rubber cap and a coiled spring encircling the same, the coils lying in planes substantially at right angles to the longitudinal axis of the cap.

2. A closure, comprising a rubber cap, the outer wall of which is tapered, and a coiled spring encircling and embracing said wall, one or more of the coils of the spring completely encircling the cap.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RUDOLF SCHNEIDER.

Witnesses:

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