

Aug. 26, 1924.

1,506,005

H. P. KRAFT

DUST CAP OR THE LIKE

Filed Oct. 7, 1919

Fig. 1.

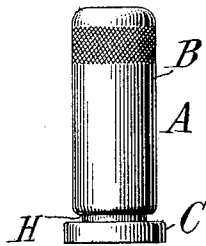


Fig. 2.



Fig. 3.

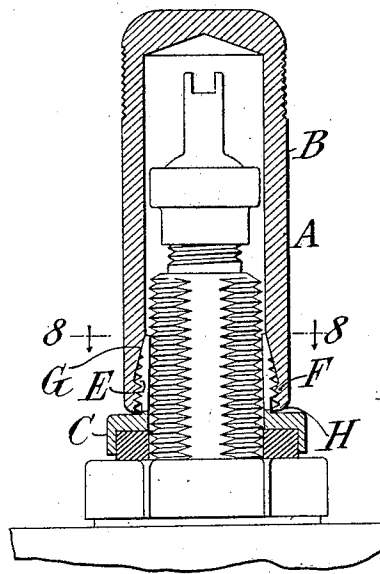


Fig. 4.

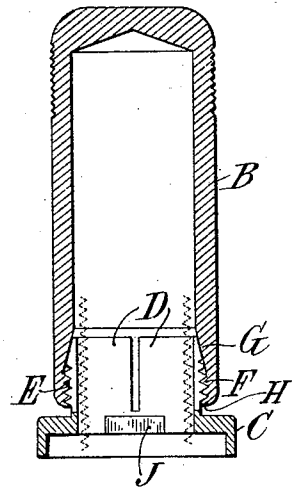


Fig. 7.

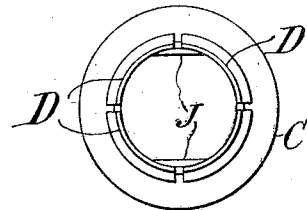


Fig. 8.

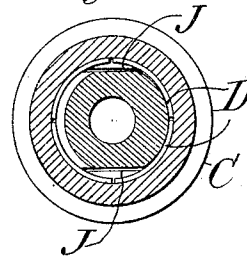
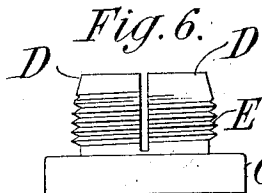
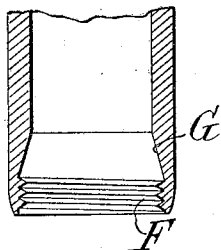


Fig. 5.



WITNESS:

Rene Gruene

INVENTOR

Henry P. Kraft

By Attorneys,

Fraser & Neave

Patented Aug. 26, 1924.

1,506,005

UNITED STATES PATENT OFFICE.

HENRY P. KRAFT, OF RIDGEWOOD, NEW JERSEY.

DUST CAP OR THE LIKE.

Application filed October 7, 1919. Serial No. 329,089.

To all whom it may concern:

Be it known that I, HENRY P. KRAFT, a citizen of the United States of America, residing in Ridgewood, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Dust Caps or the like, of which the following is a specification.

This invention relates to dust caps for tire valves or the like, and aims to provide certain improvements therein.

The invention is particularly directed to a quick detachable dust cap for tire valves, although it may be applied to other devices, if desired. According to the present invention I provide a cap which comprises a cap portion and a foot portion, the foot portion being provided with spring arms which are adapted to be pressed by the cap portion. Preferably the cap and foot portions are connected together by means of a thread which permits relative rotation thereof, and the spring arms are contracted by a tapered surface formed on the cap portion. The invention comprises other features of improvement which will be hereinafter more fully described.

Referring to the drawings, which illustrate one form of the invention,—

Figure 1 is an elevation of the cap as a whole.

Fig. 2 is an under side view of Fig. 1.

Fig. 3 is a diametrical section of Fig. 1, showing the cap clamped in place on a tire valve.

Fig. 4 is a similar view with the tire valve omitted, showing the cap in released position.

Fig. 5 is a section of the cap portion detached.

Fig. 6 is an elevation of the foot portion detached.

Fig. 7 is a plan of Fig. 6.

Fig. 8 is a section on the line 8—8 in Fig. 3.

Referring to the drawings, let A indicate the cap as a whole which comprises a cap portion B and foot portion C. According to the present invention the foot portion is provided with a clamping means, which clamping means are operated by a relative movement of the foot portion and cap portion B. Preferably such relative movement is secured by threading the cap portion to the foot portion, so that they may rotate

relatively. As the cap advances on the foot portion, the clamping means are operated.

Preferably also the clamping means comprise spring arms D D, which are best shown in Figs. 6 and 7. Such spring arms are preferably integral with the foot portion, and are best formed by drawing the foot portion with a circular projection and slitting the projection to form the required number of arms. The arms themselves may be threaded, as shown at E, to engage similar threads F formed on the interior of the cap portion. Preferably the cap portion is formed with an internal tapered wedging surface G, which is designed to engage the ends of the arms and to press the same inwardly into clamping contact with the tire valve or other device to which the cap is to be applied. The inner faces of the spring arms may be smooth, as shown, or any other surface configuration may be adopted for the purpose of engaging with the threads of the valve casing. When the parts are assembled, the lower edge H of the cap portion may be turned under the last thread of the foot portion, so as to prevent separation of the parts.

By the construction just described when the cap portion is turned to the left, the arms are released, and move outwardly under their spring tension, so that the cap may be slid upon the tire valve. When the cap is in place, a short turning movement of the cap portion causes the latter to travel downwardly, and thereby forces the spring arms inwardly into effective engagement with the valve casing. In order to prevent the foot portion from turning, it is best formed with flats J (Fig. 2.)

While I have described the device as applied to a dust cap, it will be understood that it may be used in other connections if desired.

While I have shown and described one form of the invention, it will be understood that I do not wish to be limited thereto, since various changes may be made therein without departing from the spirit of the invention.

What I claim is:—

1. In a dust cap or the like, the combination of a foot portion and a cap portion, the foot portion having a tubular exteriorly screw-threaded extension which is split to provide spring arms and the cap portion

threaded to engage the same, and adapted to compress said arms by a relative rotary movement.

2. A dust cap or the like comprising a
5 foot portion and a cap portion, the foot portion having a plurality of spring arms and the cap portion engaging said arms and adapted to compress the same by a relative rotary movement between the cap portion
10 and foot portion, said dust cap portions being non-separably connected together and adapted for only limited relative movement.

3. A dust cap or the like comprising a foot portion and a cap portion non-separably connected therewith and adapted for 15 only limited relative movement thereto, the foot portion having flats adapted to engage the flats of a tire valve and spring arms adapted to be forced into contact with said tire valve by a wedging surface on the cap 20 portion when the latter is rotated.

In witness whereof, I have hereunto signed my name.

HENRY P. KRAFT.