S. S. COOK.

SET SCREW GUARD.

APPLICATION FILED AUG. 21, 1911.

1,028,546.

Patented June 4, 1912.

Fig. 1.

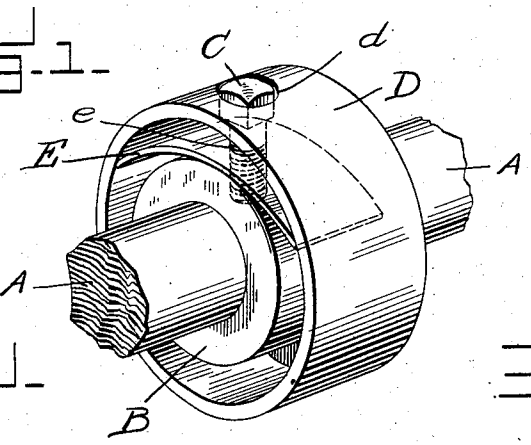


Fig. 2.

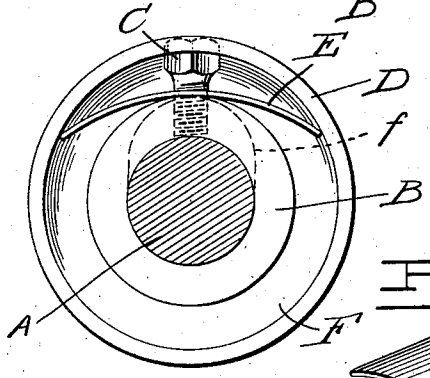


Fig. 3.

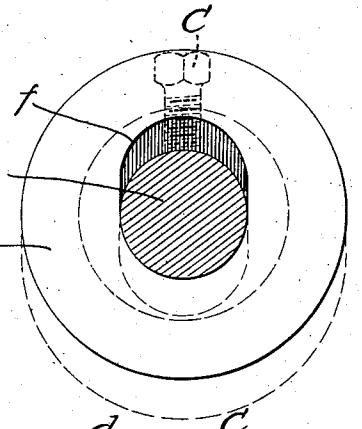


Fig. 7.

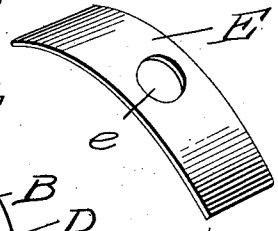


Fig. 6.

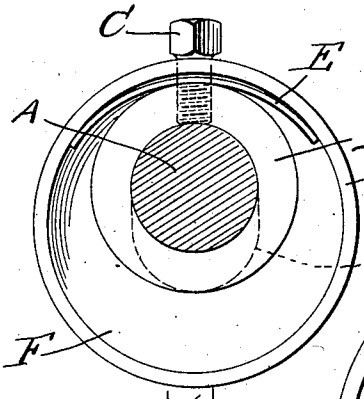


Fig. 4.

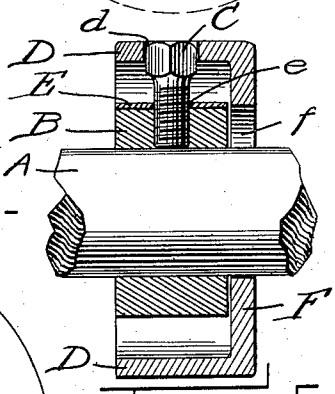
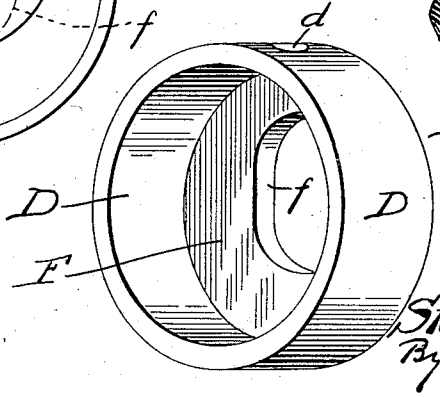


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

STETSON S. COOK, OF FALLS CITY, OREGON.

SET-SCREW GUARD.

1,028,546. Specification of Letters Patent. Patented June 4, 1912.

Application filed August 21 1911. Serial No. 645,150.

To all whom it may concern:

Be it known that I, STETSON S. COOK, a citizen of the United States, residing at Falls City, in the county of Polk and State of Oregon, have invented certain new and useful Improvements in Set-Screw Guards; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, and to the figures and letters of reference marked thereon.

This invention relates to devices for inclosing or protecting set screws employed to secure collars and other parts on rotating shafts, the objects of the invention being to provide a simple device adapted to be securely held in place by the screw itself and with which access to the head of the screw is permitted by a simple transverse movement of the guard.

The invention consists primarily in a set screw housing mounted on the shaft and held substantially concentric therewith by a spring, but adapted to be moved to an eccentric position by transverse pressure, and when so moved to expose the head of the screw for the application of a wrench or other implement for adjusting the same.

The invention further consists in certain novel details of construction and combinations and arrangements of parts, all as will be now described and pointed out particularly in the appended claims.

In the accompanying drawings,—Figure 1 is a perspective view of a short section of a shaft having thereon a collar held by a set screw and a guard for the same embodying the present invention; Fig. 2 is an end elevation with the shaft in section; Fig. 3 is a view looking at the opposite side of the parts from Fig. 2; Fig. 4 is a view corresponding to Fig. 2, but with the guard pressed transversely to give access to the head of the screw; Fig. 5 is a longitudinal section with the shaft and screw in elevation; Fig. 6 is a perspective view of the housing alone; Fig. 7 is a similar view of the spring for holding the housing in position to prevent access to the screw.

Like letters of reference in the several figures indicate the same parts.

The shaft A and collar B held thereon by the set-screw C are all of conventional form, and it will be understood are merely illustrative of devices of similar character commonly employed in connection with machinery of various kinds. In all this class of devices, the irregularly projecting portions and especially the outer ends and heads of the set screws are liable to strike and do injury to movable parts adjacent thereto, or to catch the clothing or persons of bystanders or workmen. To overcome this difficulty and provide a guard which will normally occupy a position substantially concentric with the shaft, I provide an annular housing D held in concentric position on the shaft and around the collar and set screw by a flat spring E located within the housing and bearing centrally on the collar and at its ends against the inner face of the housing. The normal position of the housing is shown in Figs. 1, 2 and 3 and should access to the set screw be desired, the housing is displaced transversely against the tension of the spring, for example, as indicated in Fig. 4.

In the preferred construction, and as illustrated in the drawings, the annular housing is provided with an aperture *d* for the accommodation of the head of the set screw and through which the head of the screw may project when the housing is pressed transversely, as shown in Fig. 4. The spring is also provided with an aperture *e* for the passage of the set screw, whereby the parts are held in proper position with relation to the shaft and collar. In this preferred construction the housing is provided with a radial wall F having a shaft aperture *f* therein, elongated in the direction from which the housing is displaced transversely to give access to the set screw. The portion of the aperture *f* normally in contact with the shaft is concentric to the axis and serves as the means for limiting the movement of the guard under the influence of the spring E, but it is obvious that the housing may contact with the collar or with the shaft on either side of the collar to secure the same result.

The aperture for the head of the set screw not only serves to give access to the screw when the guard is displaced transversely, but also holds the guard in proper position with relation to the collar and shaft.

The parts should be so proportioned that the outer face or end of the set screw is substantially flush with the periphery of the guard when in normal position, as indicated in Figs. 1, 2 and 3, or in any event it should not project beyond the guard except when

the guard is purposely displaced for adjusting the screw.

What I claim as new, is:

1. A set screw guard embodying an annular housing adapted to encircle the shaft, collar and screw and to be displaced transversely to give access to the screw, and a spring mounted within and engaging at its ends the inner side of the housing and adapted to bear centrally on the collar in the same transverse plane, for yieldingly holding the housing against transverse displacement.

2. A set screw guard embodying an annular housing having an aperture therein for the head of the screw and a spring within the housing for yieldingly supporting the housing whereby the housing may be displaced transversely to expose the screw through the aperture.

3. A set screw guard embodying a housing having a shaft opening elongated transversely to permit of lateral displacement of the housing on the shaft and a spring for yieldingly holding the housing in substantially concentric position.

4. A set screw guard embodying an annular housing having a radial wall with a shaft opening therein elongated transversely to permit of lateral displacement of the housing on the shaft, and a spring mounted within the housing and having an aperture for the screw, whereby the parts are held in position on the shaft and may be displaced transversely to give access to the screw.

5. A set screw guard embodying a housing having a radial wall with an opening therein elongated transversely to permit of transverse displacement of the housing on the shaft and an aperture for the reception of the head of the screw, and a spring mounted within the housing and at its ends engaging the inner side of the housing and at its center adapted to engage the part secured on the shaft by the screw.

6. A set screw guard embodying an annular housing having an aperture therein for the set screw and a radial wall having an opening therein elongated transversely to permit of transverse displacement of the housing on the shaft, and a flat spring having a central aperture for the passage of the screw, said spring being located within the housing and engaging at its ends the inner side of the housing and adapted to engage at its center the part held by the screw, whereby the housing will be held in concentric position and may be displaced transversely to give access to the head of the screw.

In testimony whereof, I have hereunto subscribed my name.

STETSON S. COOK.

Witnesses:

JAY A. PADDOCK,

OSCAR HAYTER.