Aug. 10, 1926. 1,595,175

P. VOSEN

SET SCREW LOCK

Filed Jan. 2, 1926

Fig. 1

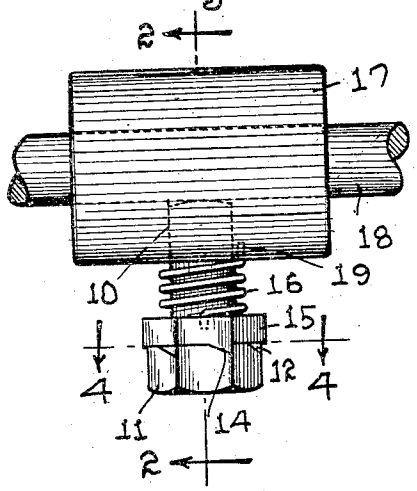



Fig. 3.

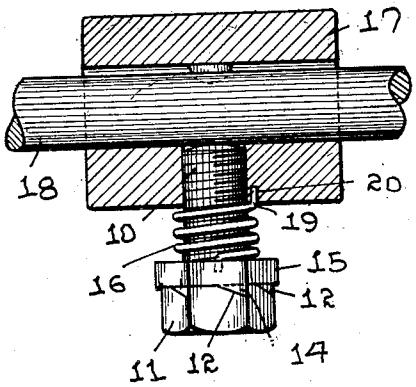



Fig. 2.

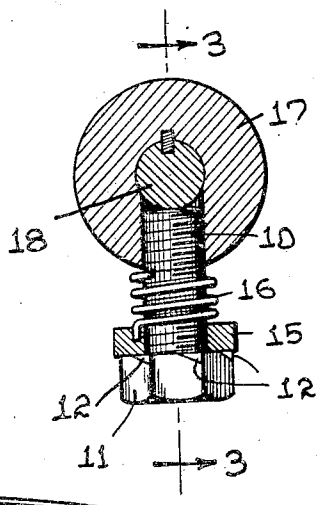
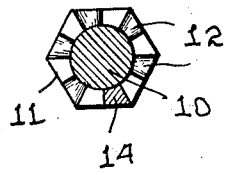



Fig. 4.



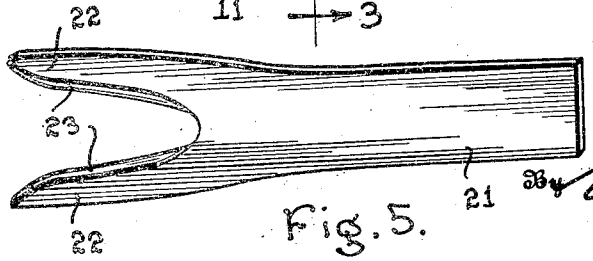




Fig. 5.

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# UNITED STATES PATENT OFFICE.

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## SET-SCREW LOCK.

Application filed January 2, 1926. Serial No. 78,896.

The object of the invention is to provide a device for use in connection with set-screws and the like, so that when the screw has been set, the device may be actuated to impose a turning strain on it in a direction opposite to that in which it would turn in releasing.

With this object in view, the invention consists in a construction and combination of parts of which a preferred embodiment is illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevational view showing the invention applied in operative position.

Figure 2 is a central vertical sectional view on the plane indicated by the line 2—2 of Figure 1.

Figure 3 is a transverse sectional view on the plane indicated by the line 3—3 of Figure 2.

Figure 4 is a similar view on the plane indicated by the line 4—4 of Figure 1.

Figure 5 is a perspective view of the releasing key.

In carrying out the invention, the conventional form of set-screw 10 is employed but modified to the extent that the head 11 is cut on the under face to provide a series of notches 12 in any one of which there may engage the tooth 14 of the lock member 15, the latter loosely surrounding the set-screw 10 and being yieldingly impelled toward the latter by a spring 16 surrounding the set-screw and secured at one end to the latter and at the other end secured to the hub 17 through which the set-screw passes to lock the hub against rotary movement on the shaft 18 on which it is mounted. Connection with the hub 17 consists of a deflected terminal 19 on the spring engaging a socket 20 drilled in the hub.

In the attachment of the device, the set-screw is inserted through the lock member and spring and, being threadingly engaged with the hub, is rotated until it is brought into bearing engagement with the shaft 18. In this operation, the spring will be compressed but the set-screw may turn, the head slipping over the teeth of the lock member. After it has been finally seated, retrograde movement may be imparted to the lock member to engage it in the first or second notch behind that in which it engages when the screw is finally seated and then a torsional strain is imposed upon the set-screw tending to preclude reverse turning movement. The spring not only serves to impel the lock member toward the head of the set-screw but serves also to supply the torsional strain tending to preclude retrograde movement of the set-screw.

In Figure 5 is shown a releasing key 21, bifurcated at one extremity to provide the spaced arms 22 defining a tapering crotch. The inner edges of the arms are bevelled from both faces as indicated at 23. In the releasing operation, the arms are disposed in straddling relation to the set-screw head 11 at the line of contact with the lock member. Being forced radially inward either by impact or pressure, the tapering edges of the arm enter between the head and lock member, the latter yielding by virtue of the spring 16 until finally the tooth 14 is disengaged from the notch in the set-screw. Thereafter the set-screw may be turned reversely and released.

The invention having been described, what is claimed as new and useful is:

1. A set-screw lock comprising in combination with a headed set-screw, a lock member loosely surrounding the same and having a set-screw head-engaging means to preclude relative turning movement in one direction, and a combined compression and torsional member impelling the lock member toward the set-screw head and angularly in a direction in which relative movement is precluded.

2. A set-screw lock comprising in combination with a headed set-screw having notches cut on the under face of the head, a lock member loosely surrounding the head and provided with a tooth engageable in said notches, and a spring surrounding the screw and terminally secured to the lock member, said spring being provided with terminal means for engagement with the object in which the set-screw is mounted.

3. A set-screw lock comprising in combination with a headed set-screw having notches cut on the under face of the head, a lock member loosely surrounding the screw and provided with a tooth engageable in the notches of the set-screw head, and a spiral spring surrounding the set-screw having one terminal provided with means for engaging the object in which the set-screw is mounted, and one terminal of the spring being engaged with the lock member.

In testimony whereof he affixes his signature.

PETER VOSEN.