

UNITED STATES PATENT OFFICE.

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PADLOCK.

Application filed December 12, 1923. Serial No. 680,222.

To all whom it may concern:

Be it known that I, WILLIAM G. PARMELE, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented a new and useful Padlock, of which the following is a specification.

This invention relates to padlocks and is designed more especially as an improvement upon the structure disclosed in my copending application Serial No. 633,811, filed on April 21, 1923.

One of the objects of the invention is to provide simple and efficient means whereby the housing of the padlock can be clamped tightly against the hasp to be secured, means being employed for locking the housing against retrograde movement after it has been tightened.

A further object is to provide key controlled means for unlocking the housing to permit rotation thereof when it is desired to release the padlock.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings

Figure 1 is a central longitudinal section through the padlock, the same being shown applied to a hasp and keeper.

Fig. 2 is a similar view showing the padlock in released position.

Fig. 3 is an elevation of the base end of the padlock.

Fig. 4 is a section on line 4—4, Fig. 1.

Referring to the figures by characters of reference 1 designates a housing preferably in the form of a truncated cone, this housing being formed with a longitudinal bore 2 extending from end to end thereof and having coarse screw threads.

Mounted within the bore 2 is a core 3, one end of which is provided with a tongue 4 extending substantially parallel with the end of the core and so proportioned as to fit snugly within the keeper K projecting

through a hasp H and wedge against the hasp as shown particularly in Figs. 1 and 2.

The core 3 has a segmental portion 5 removable therefrom, there being a tapered recess 6 within the core and its segmental portion for the reception of an expanding plug 7. This plug has a screw threaded stem 8 at its small end engaging in a screw threaded recess 9 formed in that end portion of the core nearest the tongue 4. Obviously when the plug is rotated in one direction within the recess 6, the stem 8 will be screwed into the recess 9 and the plug will thus be fed longitudinally and act to expand the core by shifting the segment 5 radially with respect to the remaining portion of the core. As the core and its segment are screw threaded so as to engage the threads in the bore 2, it will be apparent that this extending of the core will cause it to frictionally engage the housing 1 and hold said housing against rotation relative to the core. For the purpose of limiting the movement of the plug 7 in one direction a pin 10 is extended from the stem 9 and is swiveled in the core 3, this pin being provided with a head, as shown.

The plug 7 has a socket or slot 11 for the reception of a key 12 and tumblers 13 are carried by the plug and cooperate with tumblers 14 in the core 3.

As shown in Fig. 1 when the plug is forced inwardly so as to expand the core and hold the housing against rotation, the tumblers 13 and 14 register, tumblers 13 projecting into the slot or socket 11 while the tumblers 14 project into the plug and hold it against rotation. Obviously, therefore, the plug cannot be rotated to collapse the core unless a key of the proper shape is inserted into the slot or socket 11 so as to shift the tumblers to positions where they will release the plug. After such a key has been inserted and the tumblers shifted, the plug can be rotated and the tumblers shifted, the plug can be rotated to unscrew the stem 8 and release the segment 5. Thus the clamping action of the segment against the housing 1 will be relieved and said housing can be rotated on the core so as to withdraw it from around the tongue 4, and leave the tongue projecting as shown in Fig. 2. With the parts thus arranged the tongue can be removed from or placed in engagement with the keeper K. While the tongue is in engagement with the keeper the housing can be screwed along the core and against the hasp so as to bind

tightly on the hasp and cause the tongue to thrust tightly in an outward direction against the keeper K. After the parts have been properly tightened they can be locked
 5 by turning the plug 7 so as to shift the segment 5 against the housing and cause the tumblers to lock the plug against retrograde movement.

What is claimed is:—

10 1. A padlock including a core having a relatively movable segmental portion, there being a tapered recess extending into the core and segmental portion, a keeper engaging tongue at one end of the core, a housing
 15 in threaded engagement with the core, and means adjustable within the recess to shift the segment relative to the core to bind the housing against rotation relative to the core.

20 2. A padlock including a core having a segmental portion movable radially relative thereto, there being a tapered recess extending into the core and segmental portion, a keeper engaging tongue at one end of the core, an expanding plug within the recess,
 25 a housing in threaded engagement with the core, and cooperating means upon the plug and core for shifting the segmental portion radially during the rotation of the plug in one direction relative to the core, thereby to
 30 clamp the core and segmental portion against the housing.

3. In a padlock, the combination with a core having a radially movable segmental portion, there being a tapered recess extend-

ing into said portion and the core, of a 35 tongue at one end of the core for engagement with the keeper, of a housing threaded on the core, a tapered plug rotatable within the recess, means upon the plug for fitting
 40 it longitudinally within the recess during the rotation of the plug, thereby to shift the segmental portion and core into frictional engagement with the housing to hold the housing against rotation, and cooperating
 45 means carried by the plug and core for locking the plug against rotation.

4. In a padlock, the combination with a core having a recess in one end and a keeper engaging portion at its other end, said core
 50 having a radially movable segmental portion extending partly around the recess, of a spreading plug within the recess, a screw threaded stem projecting therefrom and engaging the core, means upon the stem and
 55 cooperating with the core for limiting the movement of the plug in one direction relative to the core, a housing threaded upon the core, and key controlled means within the plug and core for locking the plug against
 60 retrograde movement when brought to core expanding position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM G. PARMELE.

Witnesses:

IRA JACKSON,
 Mrs. A. M. Post.