

(No Model.)

W. SMITH.  
PADLOCK.

No. 528,743.

Patented Nov. 6, 1894.

Fig. 1.

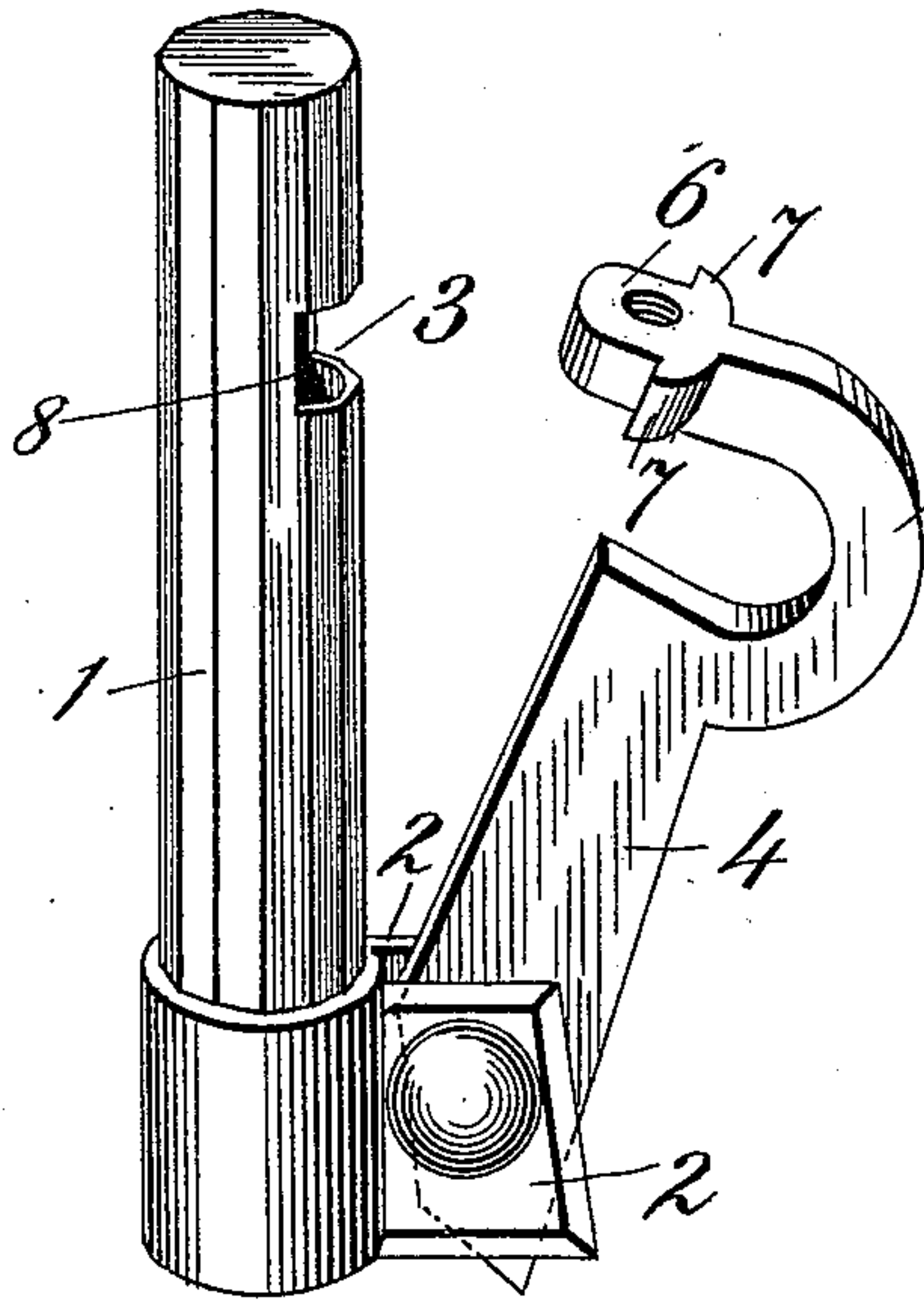


Fig. 2.

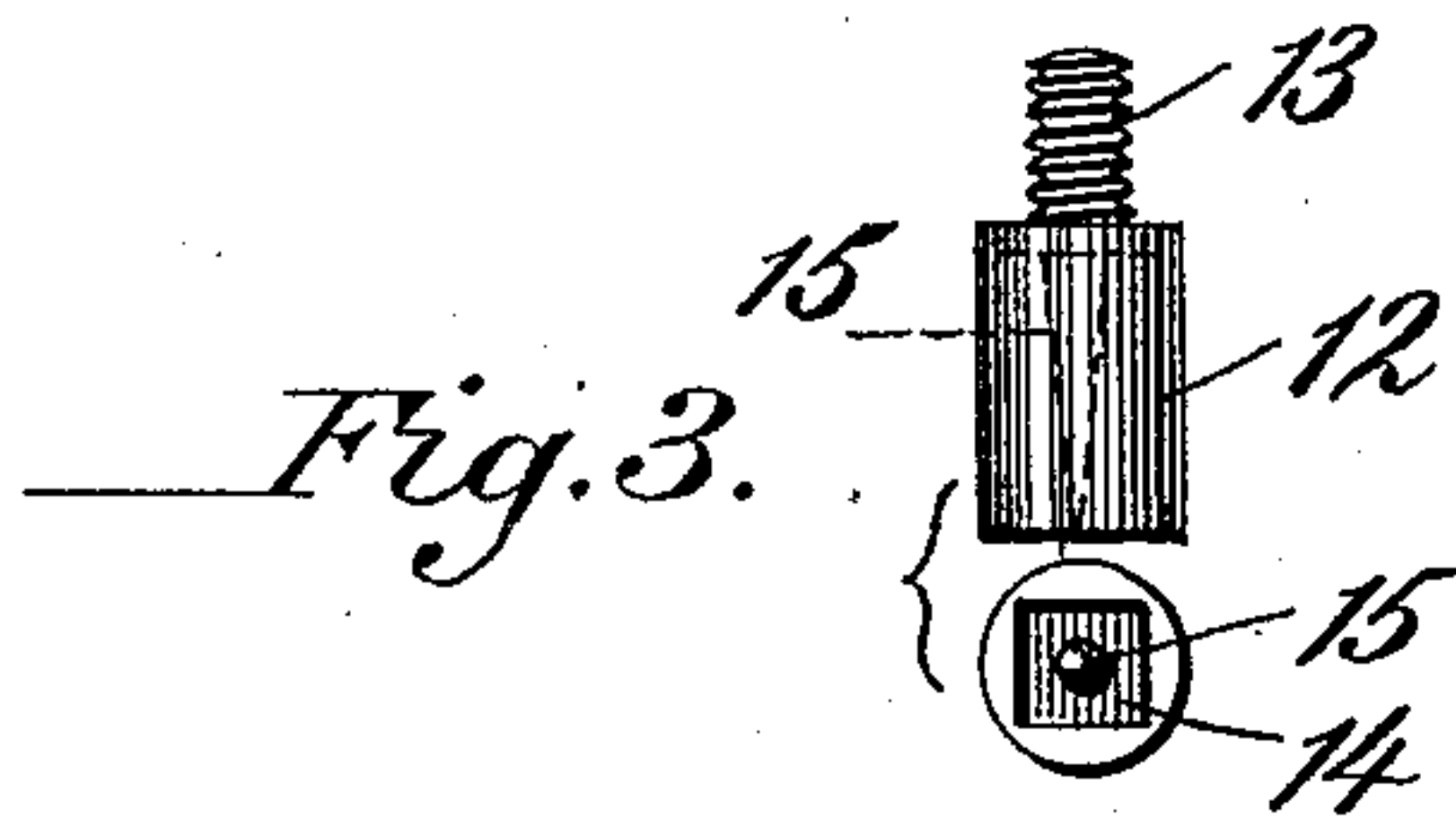
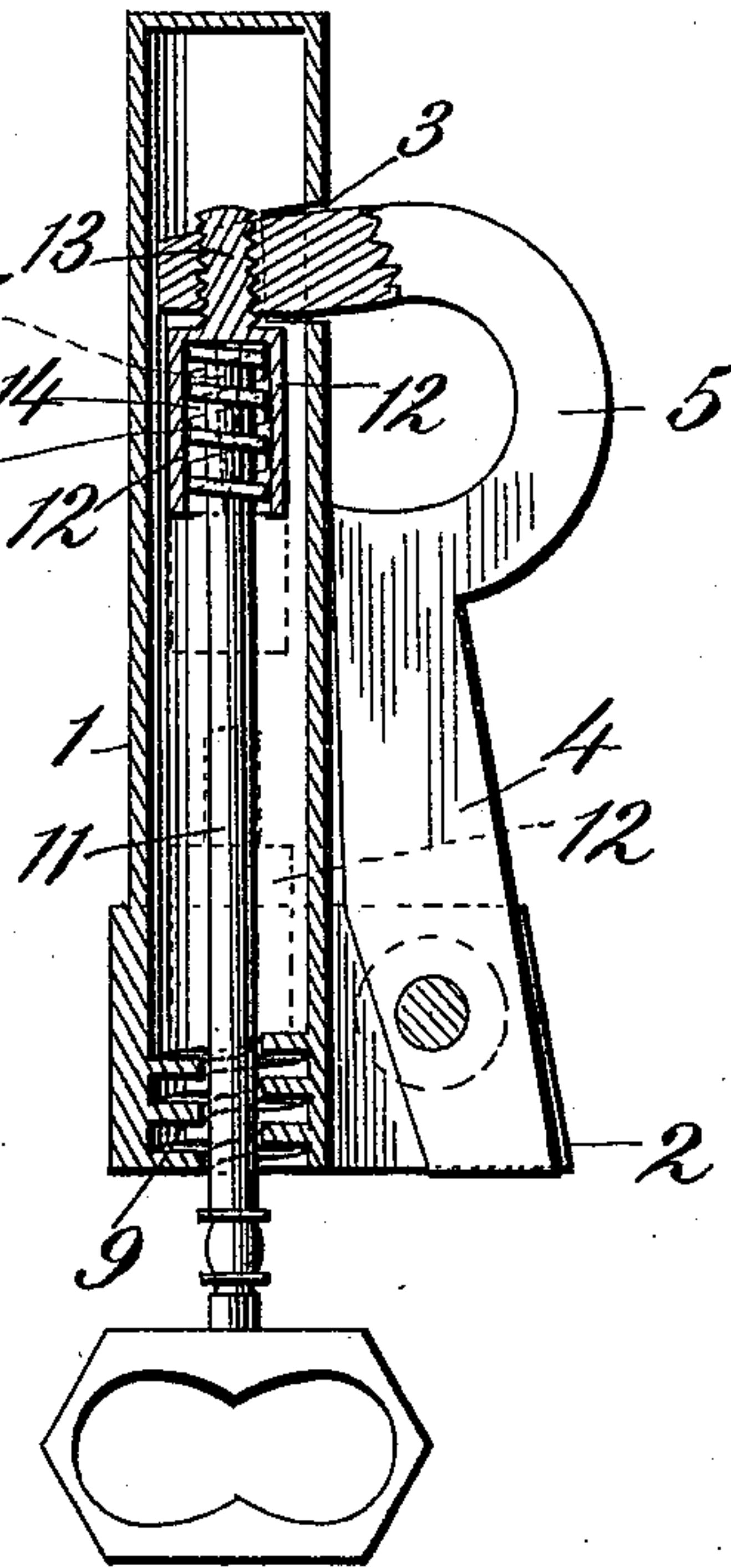
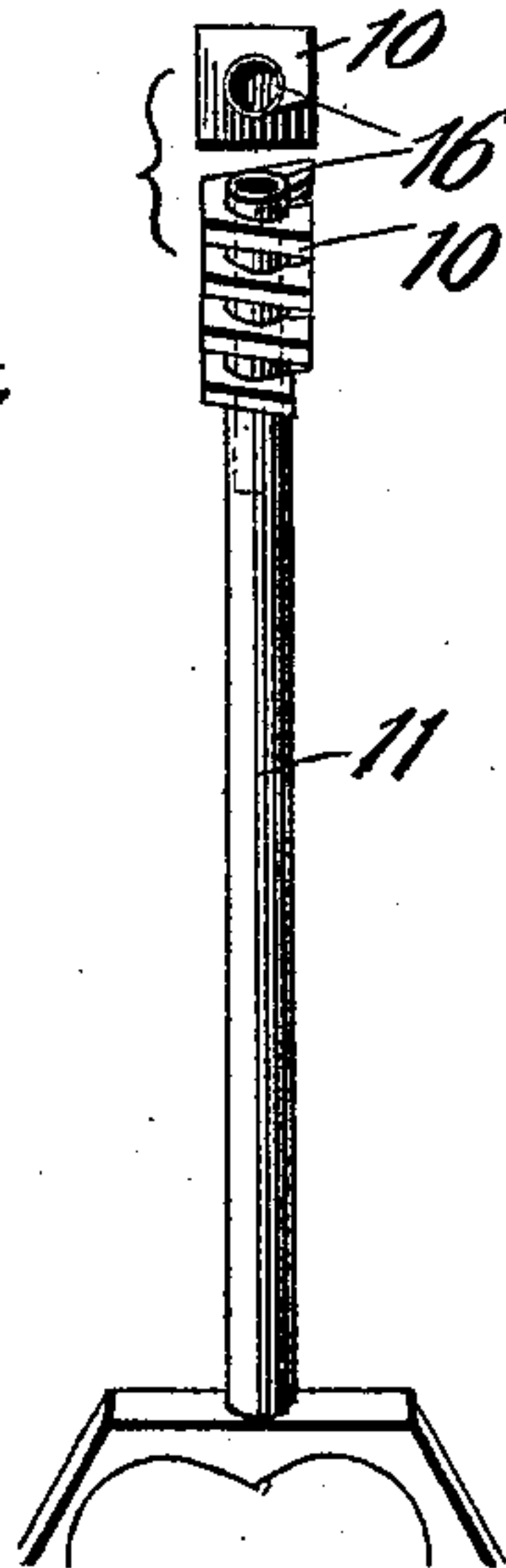


Fig. 4.



Attest:

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att'y

# UNITED STATES PATENT OFFICE.

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## PADLOCK.

SPECIFICATION forming part of Letters Patent No. 528,743, dated November 6, 1894.

Application filed April 11, 1894. Serial No. 507,149. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM SMITH, of New Castle, in the county of Lawrence and State of Pennsylvania, have invented certain new and useful Improvements in Padlocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to padlocks, the object being to provide a device of the character in which the locking parts are concealed within a barrel or cylinder and the end of the hasp is directly engaged by a screw pin, controlled by a key.

The invention consists in the several features of construction, and combinations of devices hereinafter fully described, and specifically defined in the appended claim.

In the accompanying drawings,—Figure 1 is a view in perspective of a padlock constructed in accordance with my invention. Fig. 2 is a central longitudinal section of the same. Fig. 3 illustrates the locking pin or slide detached; and Fig. 4 is a view in perspective of the key for locking and unlocking the screw slide.

The numeral 1 indicates the barrel of the lock, consisting of a hollow cylinder, provided at one end with projecting lugs 2, and formed near its opposite ends with a transverse slot 3.

4 indicates the hasp of the lock, pivotally secured at one end between the lugs 2 of the barrel, and having a hook 5, and an internally threaded eye 6 at its free end, said eye 6 being adapted to enter the slot 3 of the barrel, and having a laterally projecting shoulder 7 on either side to engage the end walls of the slot 3.

The end of the barrel 1 adjacent to the lugs 2 is provided internally with spiral threads 9 to engage the spirally threaded end 10 of a key 11. Within the barrel 1 is arranged a locking slide, consisting of a cylindrical body 12 and a forwardly projecting screw threaded pin 13, adapted to enter and engage the eye 6 of the hasp. The cylindrical portion of the locking slide is formed with a recess 14, square

in cross section to correspond to the form of the threads upon the end of the key 11. The thread 10, instead of following a curved line concentric with the longitudinal axis of the shank of the key, has its edge flattened or made up of a number of straight portions at a right angle to each other, so that when the key is viewed in end elevation or cross section it will present the appearance of a rectangle, instead of a circular form, as usual. The object of thus flattening the edge of the thread is that when engaged with the rectangular recess in the slide, hereinafter described, the latter can be rotated by turning the key. Within the cylinder 12 of the slide, I preferably provide a centering pin 15, adapted to enter an opening 16 in the end of the key.

The operation of the device is as follows: To lock the hasp (after it has engaged the staple or other device to which it may be applied) it is pressed into the slot of the barrel, as shown in Fig. 2. The key is then inserted into the barrel by turning it until its threads pass the internal threads 9 of the barrel. The end of the key then enters the square opening of the slide and, by the continued turning of the key, the threaded pin 13 of the slide is screwed into the eye of the hasp, as shown in Fig. 2, thus firmly holding the hasp. The key is then withdrawn from engagement with the slide by an outward pull, and is withdrawn from the barrel by a series of turns to allow it to pass the threads 9. To unlock the hasp, the key is again inserted and after engaging the slide is turned in a direction opposite to that which locked the hasp, and the slide is disengaged from the eye of the hasp.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with the hollow barrel, interiorly threaded at one end, and provided with a transverse slot near its other end, of a hasp pivotally secured to said barrel and provided with a threaded eye adapted to project into the barrel, a locking slide located within the barrel and consisting of the body



portion having a rectangular recess and a threaded pin, and a key formed with a spiral thread, the edge of which is made up of a number of flattened or straight portions at  
5 right angles to each other, so as to conform to the contour of the recess in the barrel, substantially as described.

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

WM. SMITH.

Witnesses:

DAVID T. JONAS,  
E. E. PHILLIPS.