

(No Model.)

J. M. BARNAY.
PERMUTATION PADLOCK.

No. 584,841.

Patented June 22, 1897.

Fig. 1.

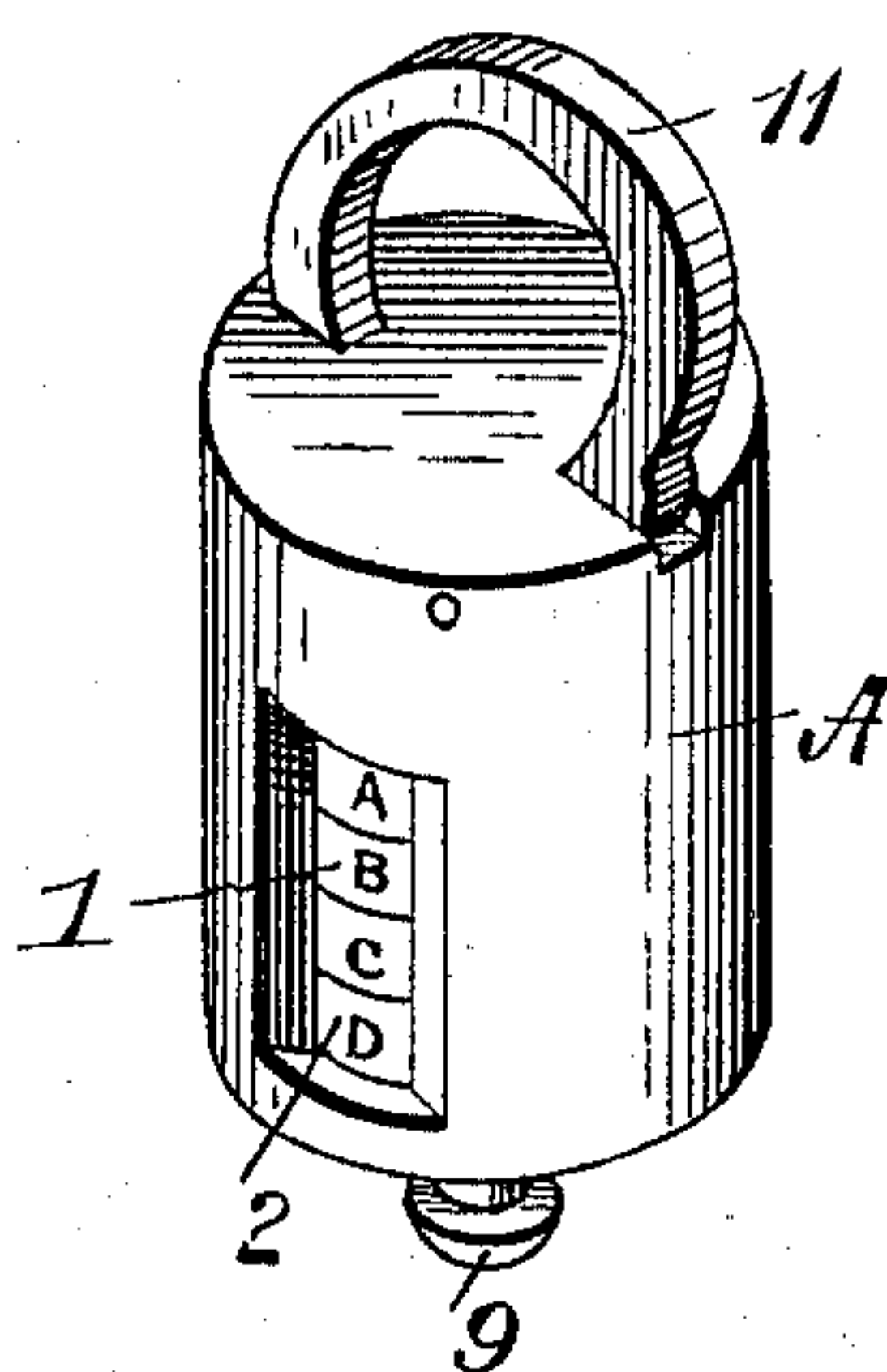


Fig. 2.

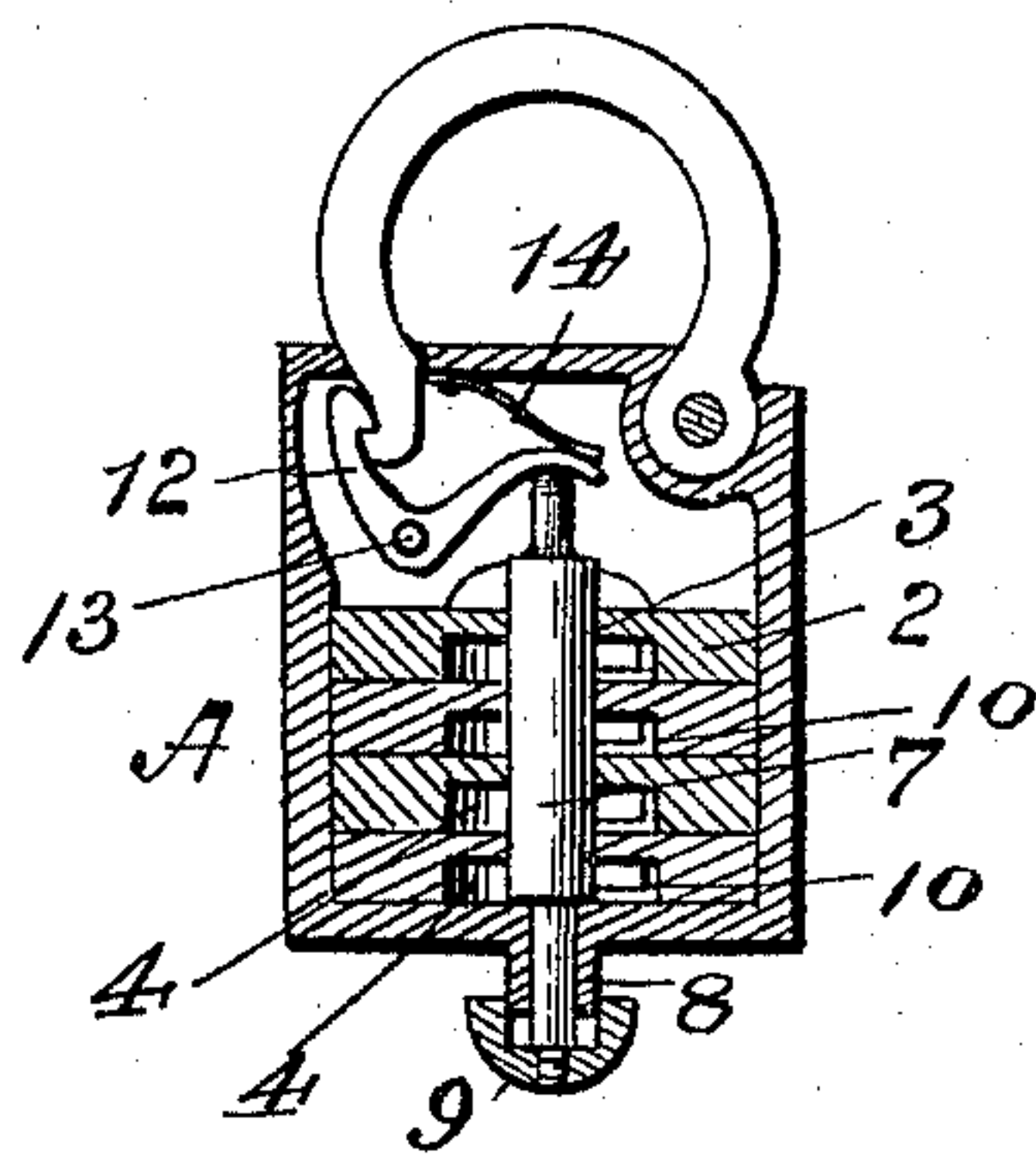


Fig. 3.

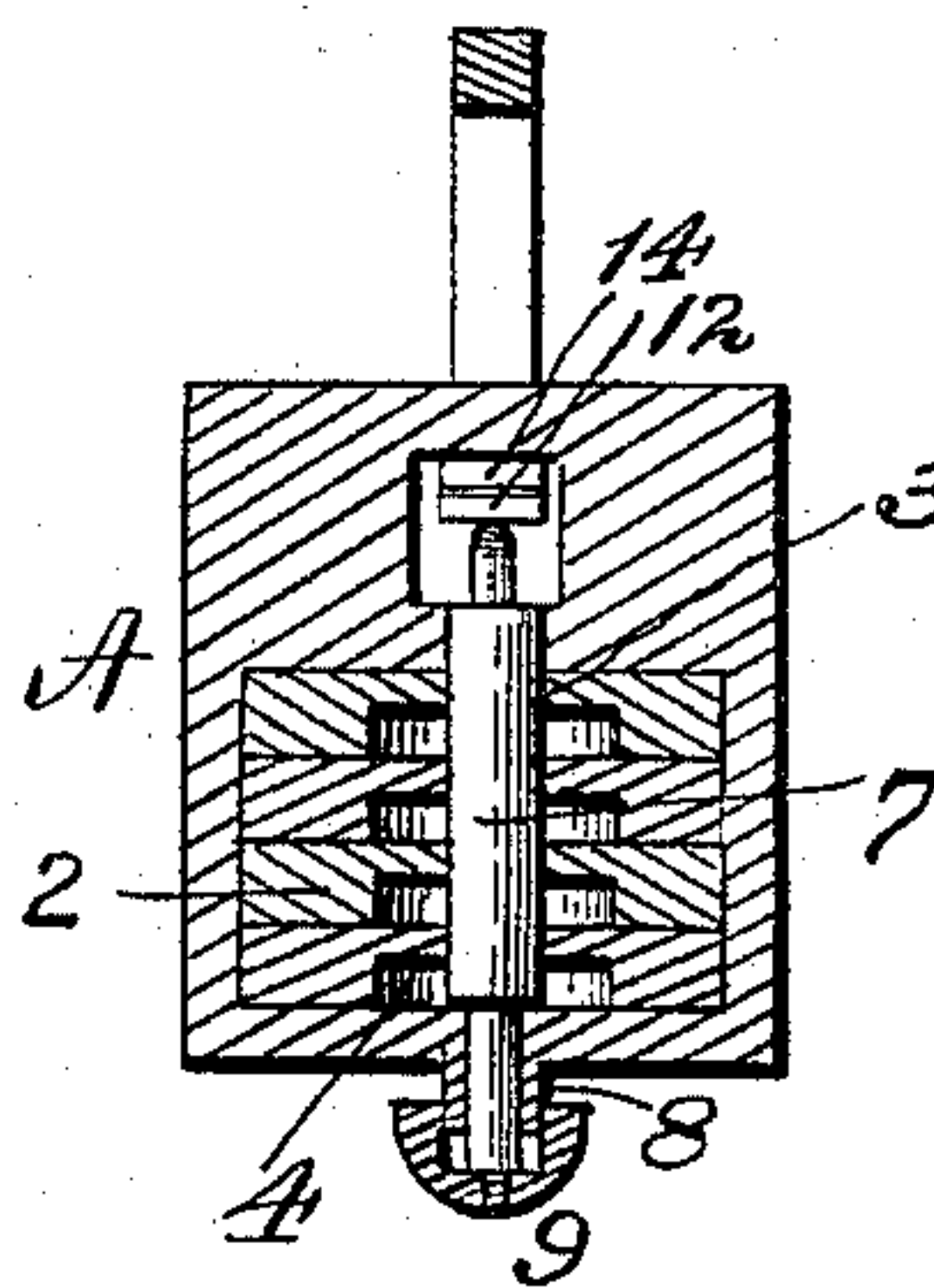
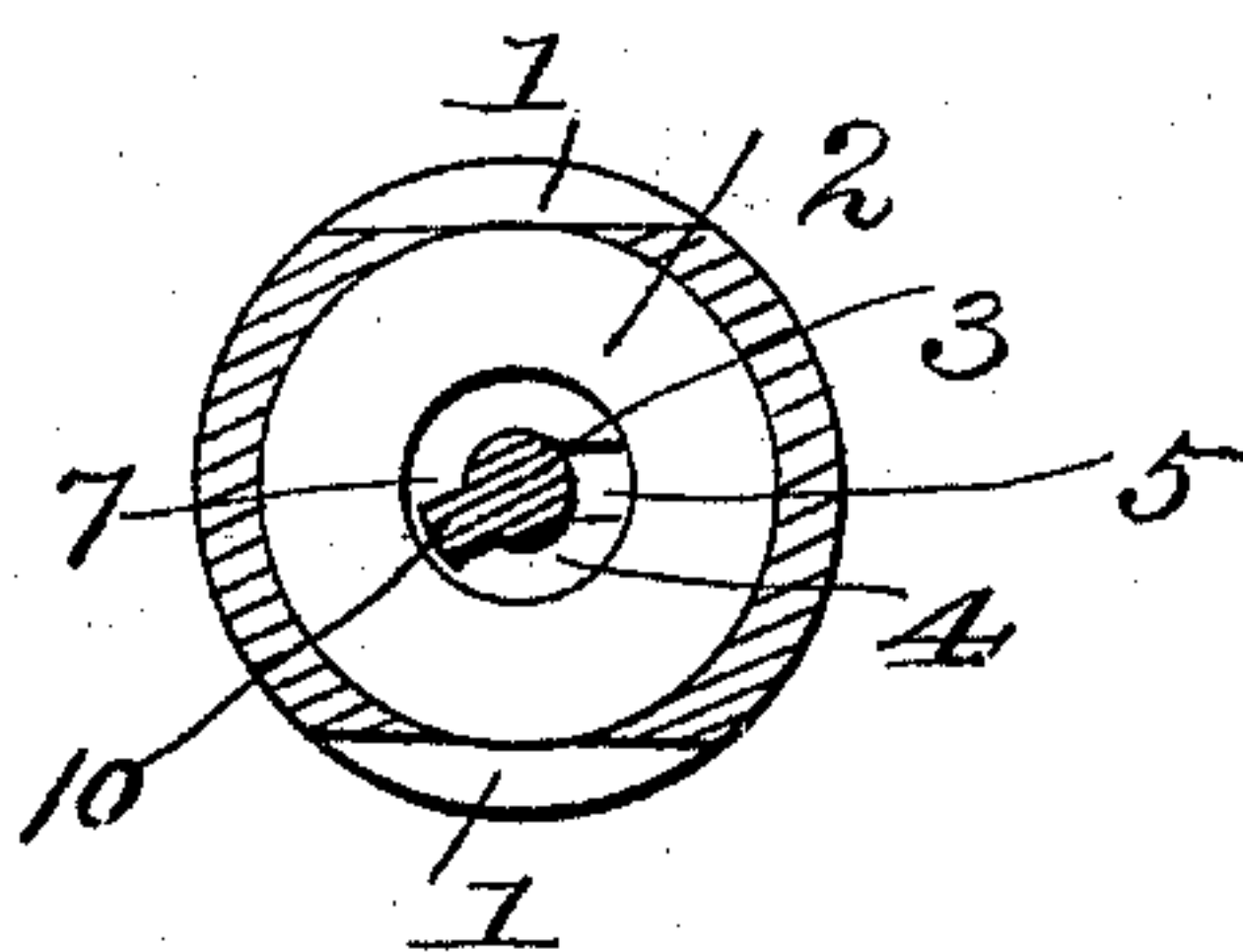


Fig. 4.



Witnesses
F. L. Ourand
K. A. Haw.

Inventor
John M. Barnay.
By John Redderburn
his Attorney

UNITED STATES PATENT OFFICE.

JOHN M. BARNAY, OF AGRICULTURAL COLLEGE, MICHIGAN.

PERMUTATION-PADLOCK.

SPECIFICATION forming part of Letters Patent No. 584,841, dated June 22, 1897.

Application filed May 16, 1896. Serial No. 591,821. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. BARNAY, a citizen of the United States, residing at Agricultural College, in the county of Ingham and State of Michigan, have invented certain new and useful Improvements in Keyless 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 keyless or combination padlocks.

The objects sought to be accomplished are the provision of a padlock of extremely simple, durable, and cheap construction, and one in which the combination may be easily changed, as desired.

The invention consists of the combination of a series of peculiarly-constructed lettered disks, a depressible spindle, and catch mechanism, all arranged and adapted to cooperate in such a manner that when said parts are brought into proper relation the lock opens easily.

In the accompanying drawings, Figure 1 represents a perspective view of my complete invention; Figs. 2 and 3, sectional side elevations thereof, taken a quadrant's distance apart; and Fig. 4, a view in cross-section.

A represents the substantially cylindrical casing or housing of the padlock. The sides of this casing are cut away longitudinally to provide sight openings or slits 1, the remainder of the casing being practically solid.

I employ a series of superimposed disks 2, which snugly yet easily conform to the interior of the casing. These disks fill the casing for about two-thirds of its length and are provided with central registering openings 3, and the under side of each disk is concentrically recessed in relation to the openings 3, as shown at 4. A slot or keyway 5 is also made through each disk and extends radially thereof for a distance equal to or slightly less than the radius of the recess 4. The peripheries of the disks are provided with a series of letters or numbers, as shown.

A spindle or pin 7 passes through the apertures in the disks and has a reduced lower portion 8, which projects through the base of the housing A and terminates in a thumb-

button 9. The upper end of this spindle is preferably pointed. The spindle is provided with a series of lugs or keys 10, each of which projects radially into one of the recesses 4 and is of such size as to be adapted to pass freely through the keyway 3 in the disk when necessary.

The usual padlock-hasp is shown at 11. Its free end is provided with a catch adapted for engagement with an angularly-shaped catch 12, pivoted at 13 and carrying a spring 14, whose free extremity bears on the under side of the top of the casing.

The operation of my improved padlock is as follows: Let it be assumed that the hasp is locked in place and it is desired to unlock the padlock. This is accomplished by turning the disks with the thumb or finger until the slots or keyways are in register with the keys or lugs, whereupon the thumb-button may be pressed and the keys will slide into their keyways, thereby allowing the spindle to rock the catch and release the hasp. When the hasp is open, the catch-head of the catch closes the opening from which the hasp has been withdrawn and the spindle drops back into normal position.

It is obvious that the combination is effected by the bringing into register in the sight-opening those letters on the edges of the disks which are in line with the keyways. The combination may be easily changed by changing the relative positions of the disks.

The lock cannot be easily left open, for after the hasp has been engaged by the catch the slightest turn of any one of the disks will prevent the spindle from being pushed inwardly.

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

In a keyless padlock, the combination with an outer casing or housing provided with a sight slit or opening of a hasp pivoted to said housing, a series of disks whose peripheries carry symbols which are exposed to view through the sight-opening, the aforesaid disks being apertured centrally and also having their lower faces provided with enlarged recesses and keyways extending from said recess transversely through the disks, a movable spindle passing through the central ap-

ertures in the disks, said spindle being provided with individual keys which normally lie in the recesses of the faces of the disks so that the latter can be turned, the outer end
5 of said spindle being reduced and passing freely through the housing, an enlarged thumb-button connected to said reduced portion at the outer end thereof, and a pivoted spring-pressed catch adapted to engage with

the hasp and which is operated by a move- 10
ment of the spindle.

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

JOHN M. BARNAY.

Witnesses:

JOS. M. KEMPFE,

WILLIS M. KIMMEL.