

No. 610,424.

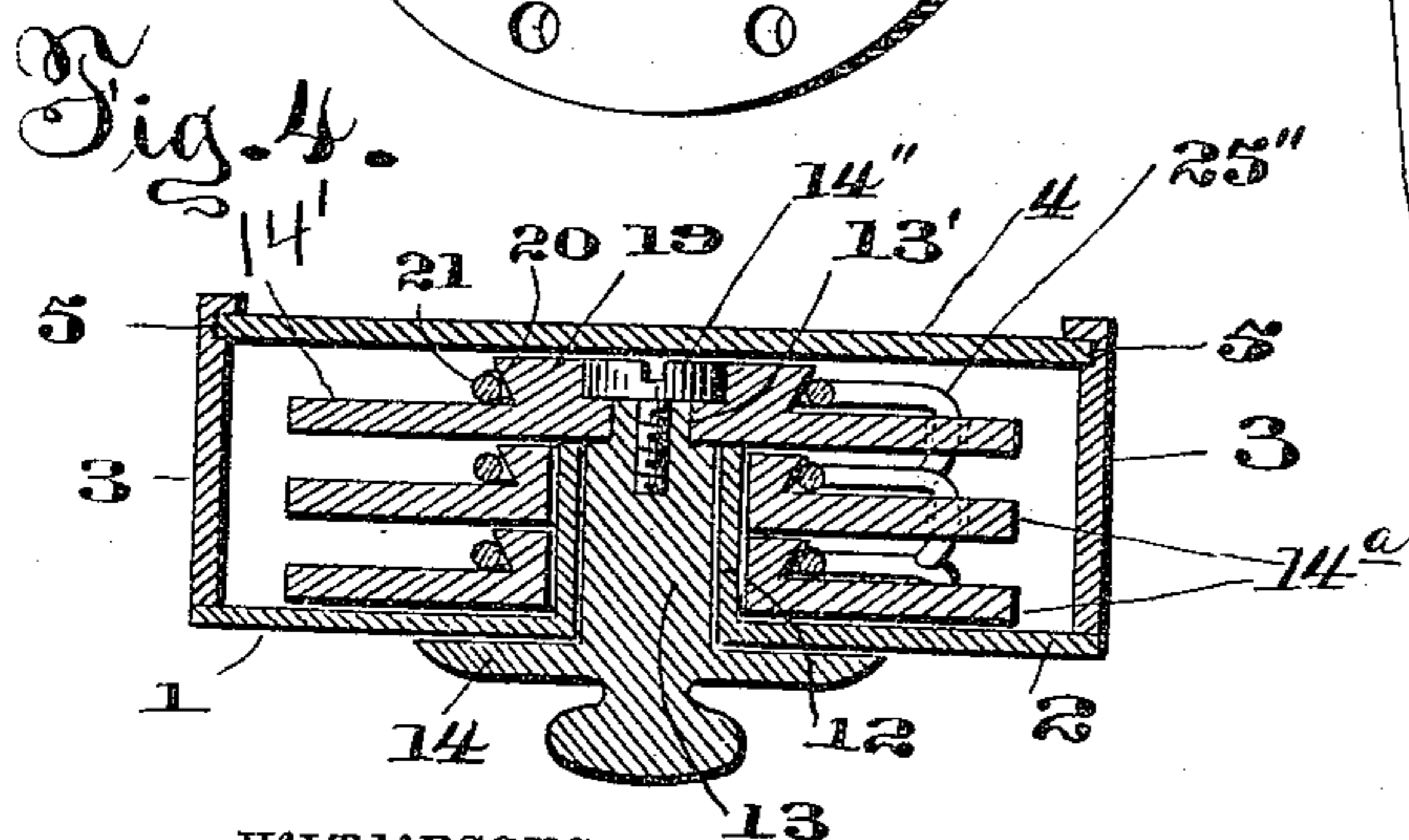
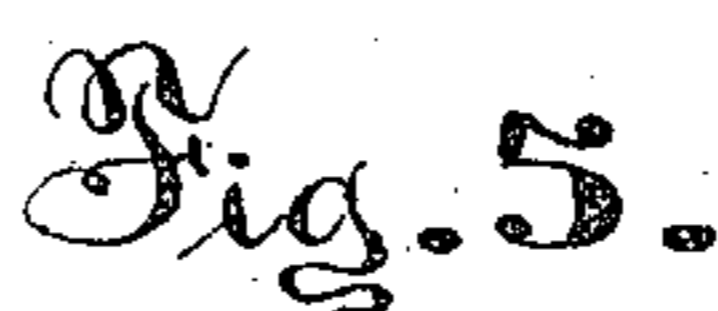
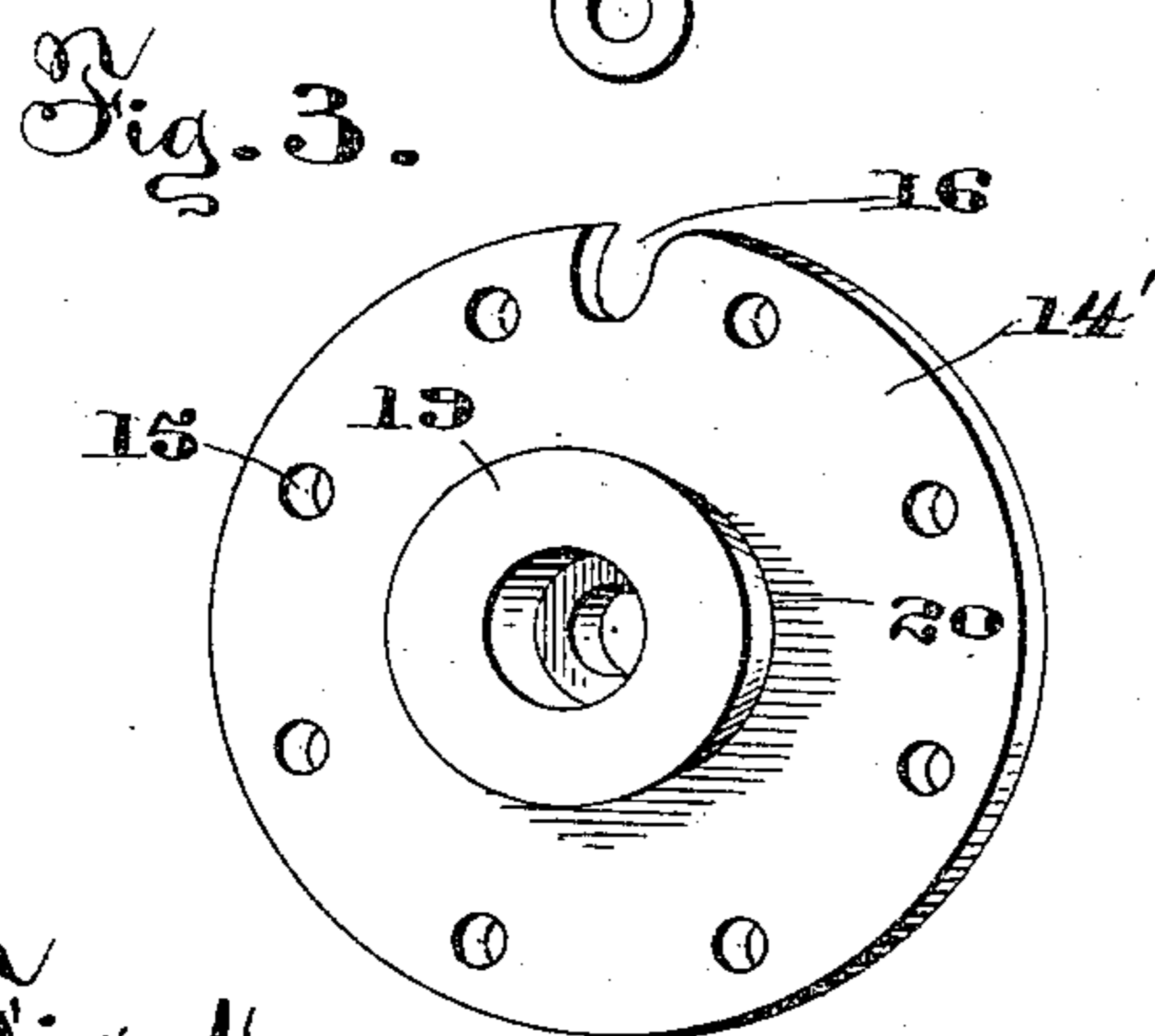
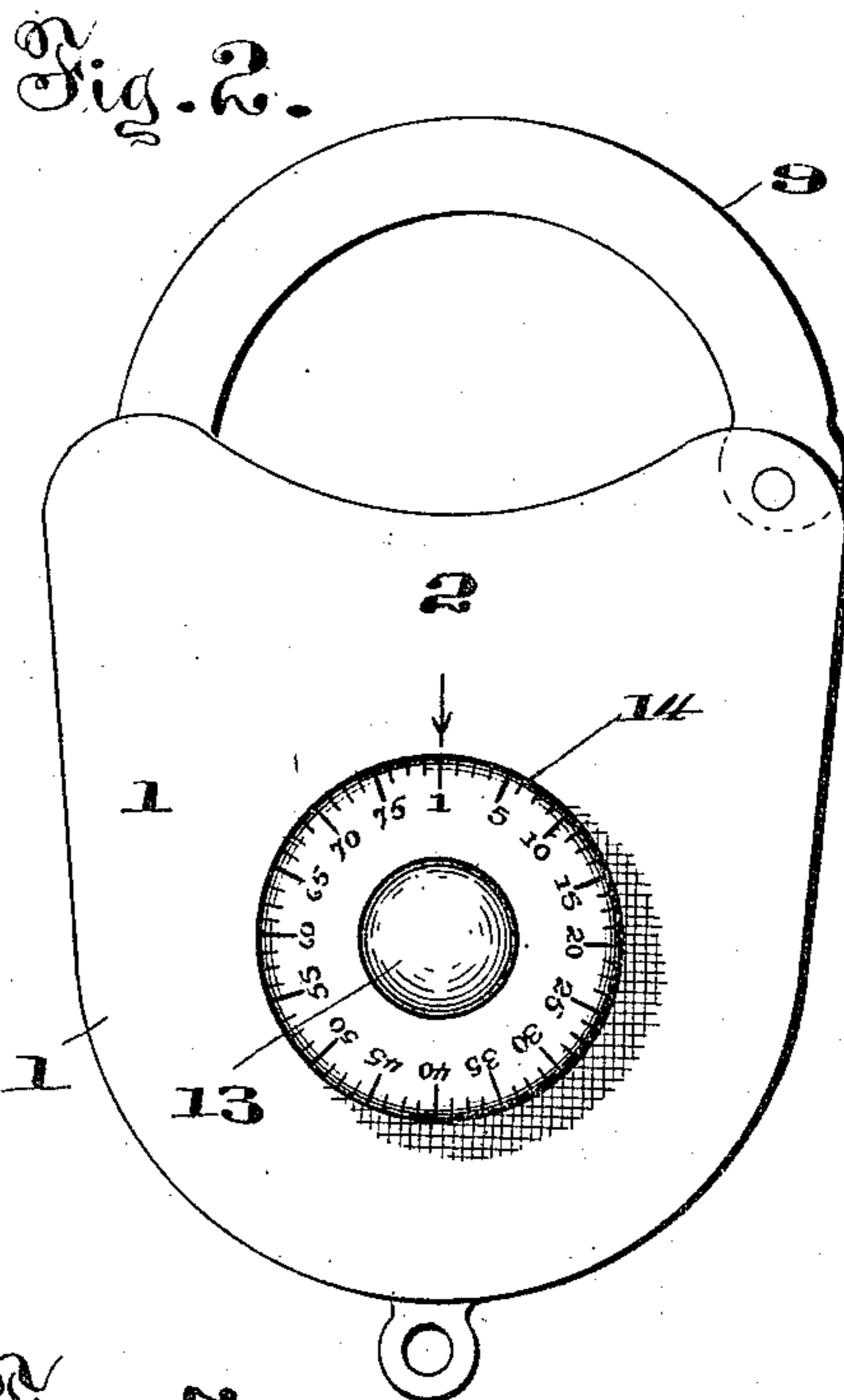
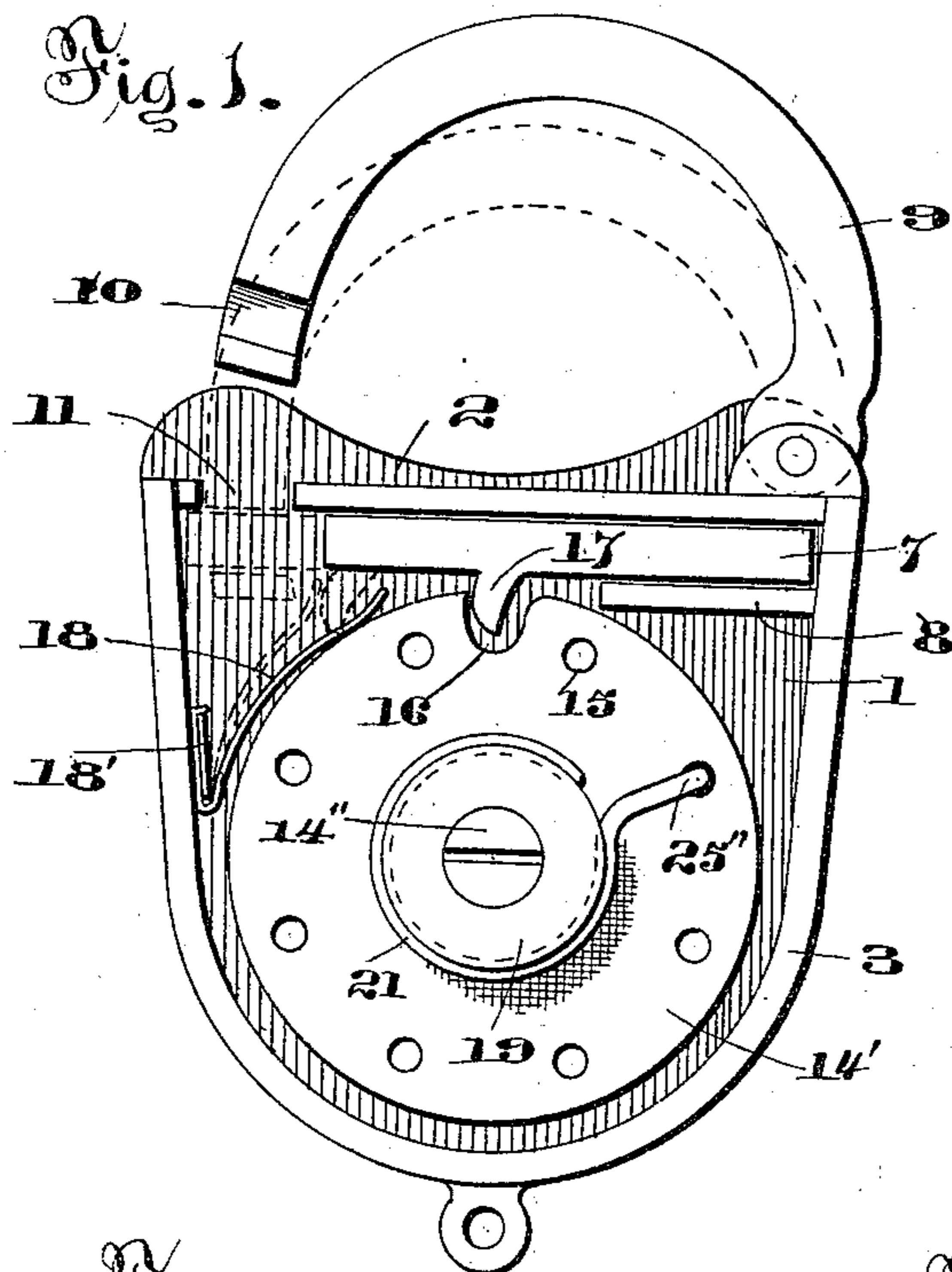
**Patented Sept. 6, 1898.**

W. F. WIBLE.

PERMUTATION PADLOCK.

(Application filed Feb. 1, 1897. Renewed June 16, 1898.)

(No Model.)



*WITNESSES*

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# UNITED STATES PATENT OFFICE.

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## PERMUTATION-PADLOCK.

SPECIFICATION forming part of Letters Patent No. 610,424, dated September 6, 1898.

Application filed February 1, 1897. Renewed June 16, 1898. Serial No. 683,625. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM F. WIBLE, a citizen of the United States, residing at Gettysburg, in the county of Adams and State of Pennsylvania, have invented certain new and useful Improvements in Combination-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 combination-padlocks.

My object is to provide a combination-padlock of simple and cheap construction which will comprise in its make-up improved features adapted to cooperate in a novel manner, whereby an extremely efficient lock is provided and one in which the combination can be readily changed whenever desirable.

Having the foregoing object in view, the invention consists in a combination-padlock embodying certain improved features and novel combinations of parts, appearing more fully hereinafter.

In the accompanying drawings, Figure 1 is a side elevation with the cover removed; Fig. 2, a similar view showing the combination knob and dial; Fig. 3, a perspective view of one of the tumbler-disks; Fig. 4, a central section through the tumbler-disks, casing, and tumbler-spindles; Fig. 5, a view of the cover-plate, showing its securing-lug.

The numeral 1 designates the casing of a padlock, consisting of a base 2, a frame-strip 3, projecting around the edge of the base-strip, and a cover-plate 4, designed to slide in a groove 5 in the frame-strip and which is secured by means of a lug 6, projecting from the cover-plate and normally locked under a locking-bolt 7 when the latter is in cast position. The locking-bolt 7 is movable longitudinally between the side portions of the frame-strip 3 across the upper edge of the lock and a guide 8, upon which it normally rests. The lug 6 not only acts as a catch to lock the cover-plate 4 and bolt 7, but, in connection with lug 6', as an additional guide to said bolt.

The numeral 9 designates a pivoted hasp provided with a recessed extremity 10, designed to pass through a hasp-aperture 11 in

the frame-strip and to be engaged by the bolt 7 when the latter is cast. A sleeve 12 is connected to or formed integral with the casing.

The numeral 13 represents a tumbler-spindle adapted to turn in the sleeve and provided on one extremity with a graduated combination-dial 14, having a suitable knob. Said spindle has a squared reduced end 13'.

The numeral 14<sup>a</sup> indicates a plurality of tumbler-disks, two of which are loosely mounted to turn on the sleeve; but the outermost one, 14', snugly receives the reduced end 13' and is secured to the spindle by a screw 14". Each disk is provided with a series of apertures 15 and with peripheral recesses 16, designed when the several disks are alined in the order of the combination to register with each other and receive a locking-lug 17, projecting from the under side of the locking-bolt.

The numeral 18 designates a spring secured to a lug 18' on the casing of the lock and designed to exert its force against the locking-lug 17 when the bolt is in its cast or locked position. Each tumbler has a hub 19, provided with a peripheral groove 20, within which is coiled a combination-spring 21, having its extremity bent at 25", so as to be adapted to engage with the spring of the adjacent disk for the purpose of causing a proper alinement of the disks, through the rotation of the knob, to bring the various recesses 16 into alinement to receive the locking-lug 17 of the locking-bolt. It will be observed that when the bolt is cast the locking-lug 17 will bear against the peripheries of the disks and be held against retraction by the spring 18 by the contact with the disks. As soon, however, as the tumblers have been properly manipulated the peripheral recesses 16 are brought into alinement and are presented to the locking-lug. The latter, under the impulse of the spring 18, will sink into the said recesses and the bolt will be retracted by that spring, thereby releasing the hasp. The combination can be changed by springing the coiled portion of the spring 21 out of the groove in the hub and removing the bent end 25" from the aperture and placing the said end in another aperture, the coiled portion being replaced around the hub again. The spring on one of the disks

or on all the disks together and at the same time can be changed and the desired combination had.

5 Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a permutation-padlock, in combination with the turning-knob and locking-bolt, a series of notched and perforated tumblers  
10 each provided with a hub, a spring coiled on each of said hubs and adapted to engage with the coil on the adjacent hub for the purpose of causing a proper alinement of the tumblers through the rotation of said knob, substantially as described.  
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2. The combination with the casing, its flange and the locking-bolt and means for actuating said bolt, of the removable cover-plate provided on its inner face with lugs which act as a guide for the locking-bolt, and 20 as means for locking the said cover and bolt together, substantially as described.

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

WILLIAM F. WIBLE.

Witnesses:

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EDWD. M. BENDER.