

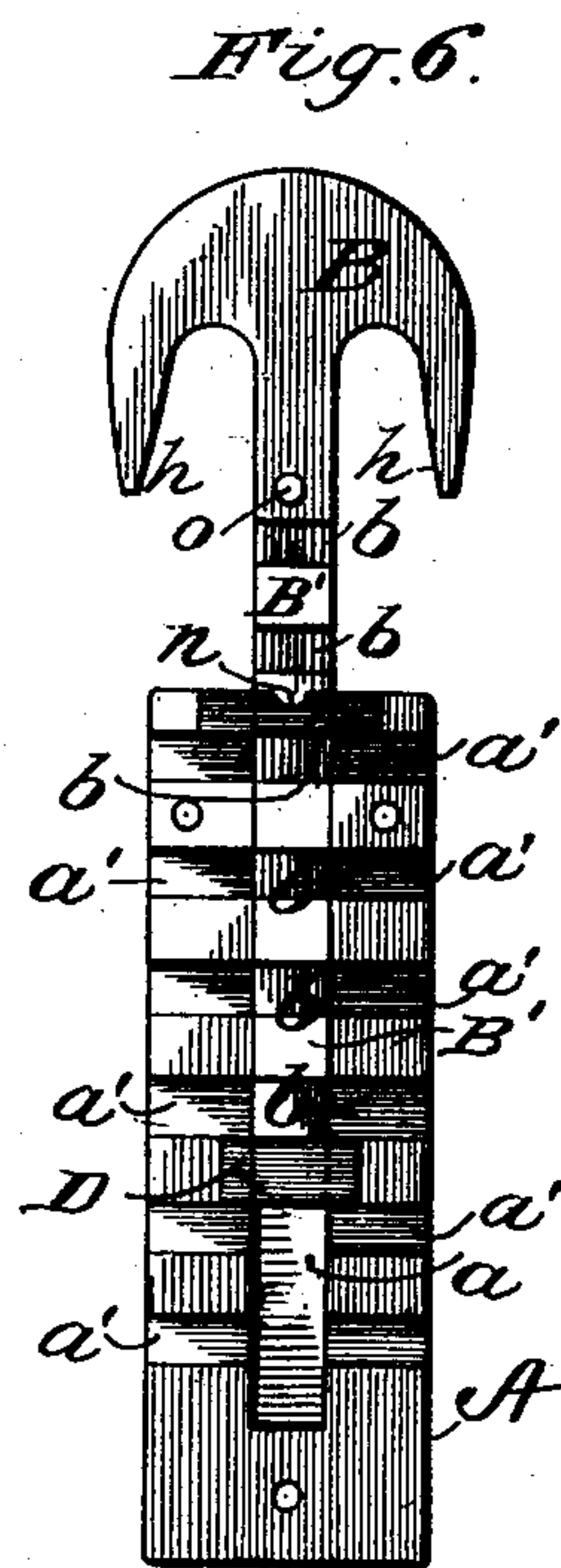
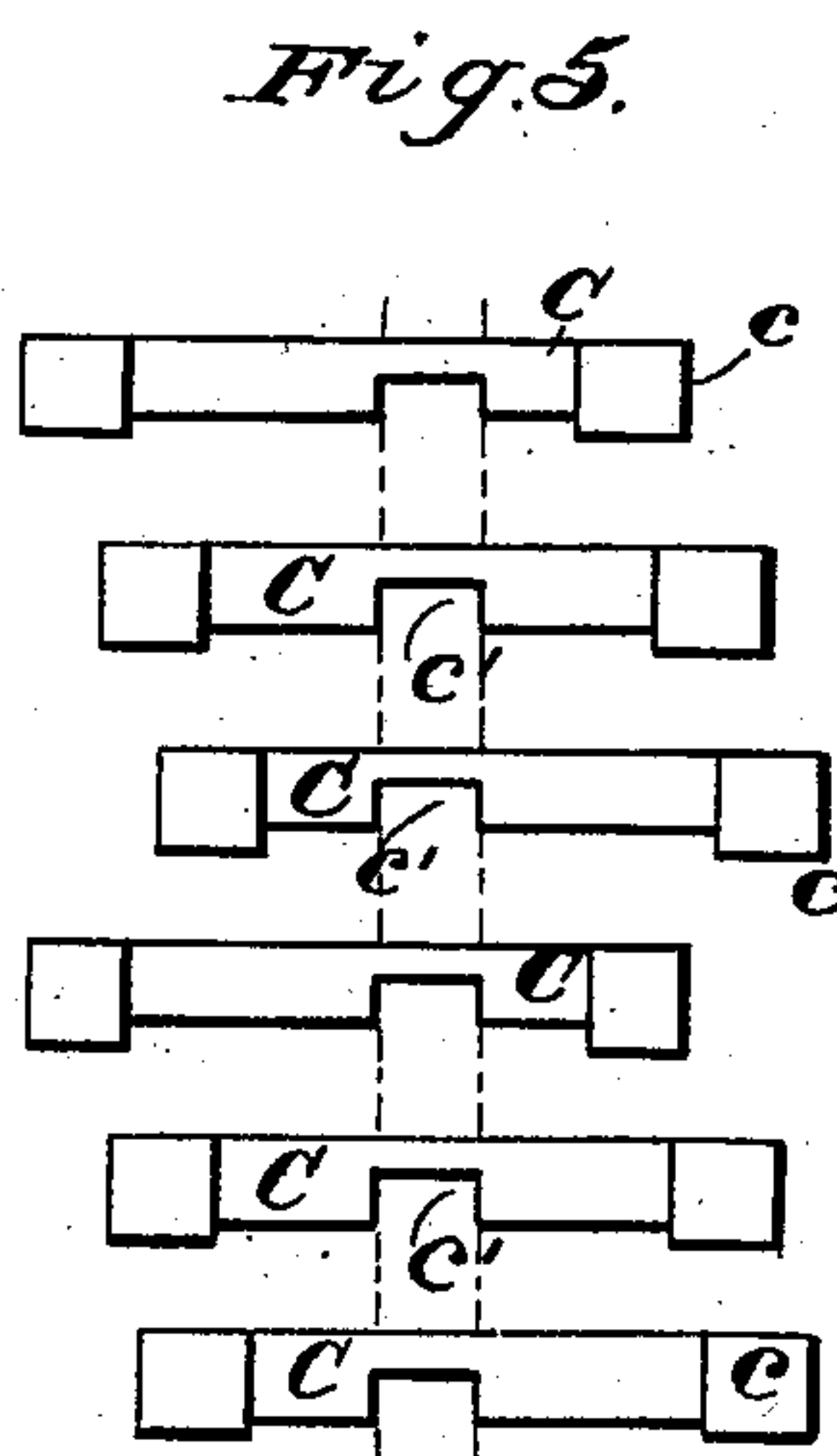
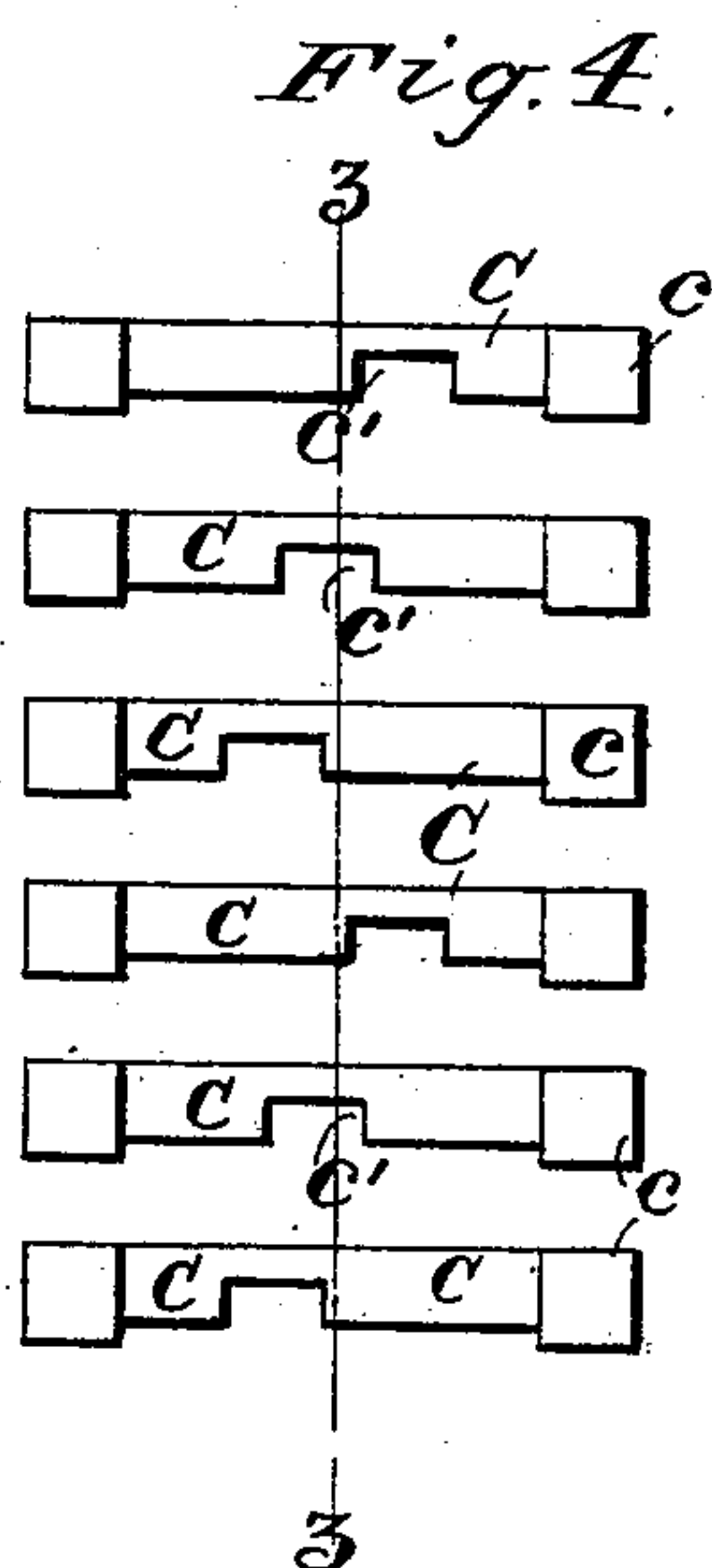
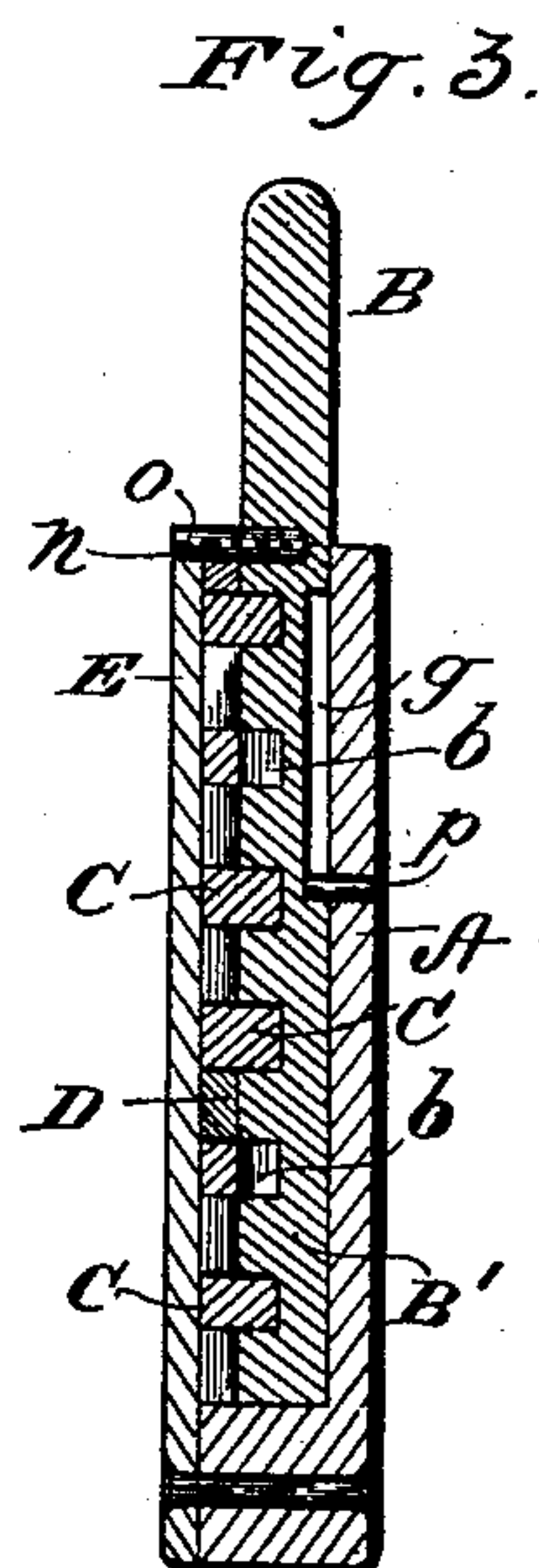
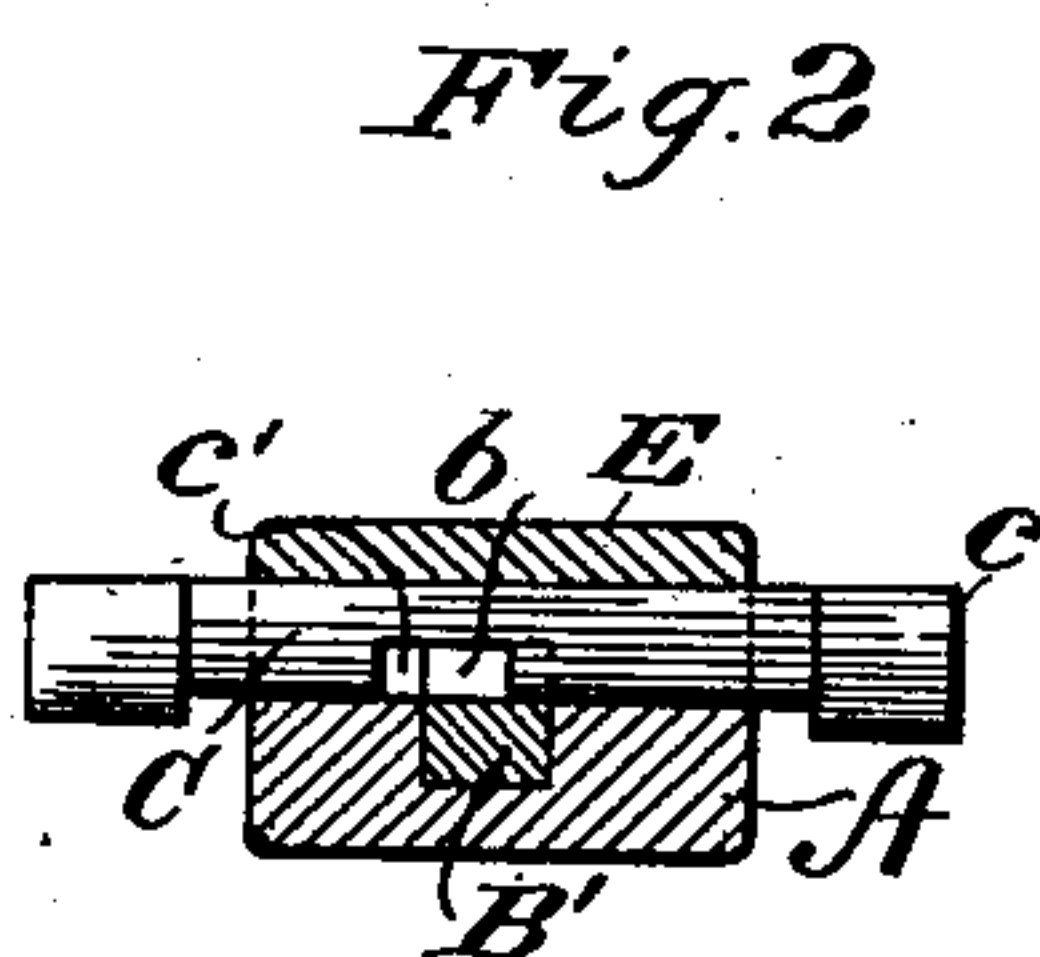
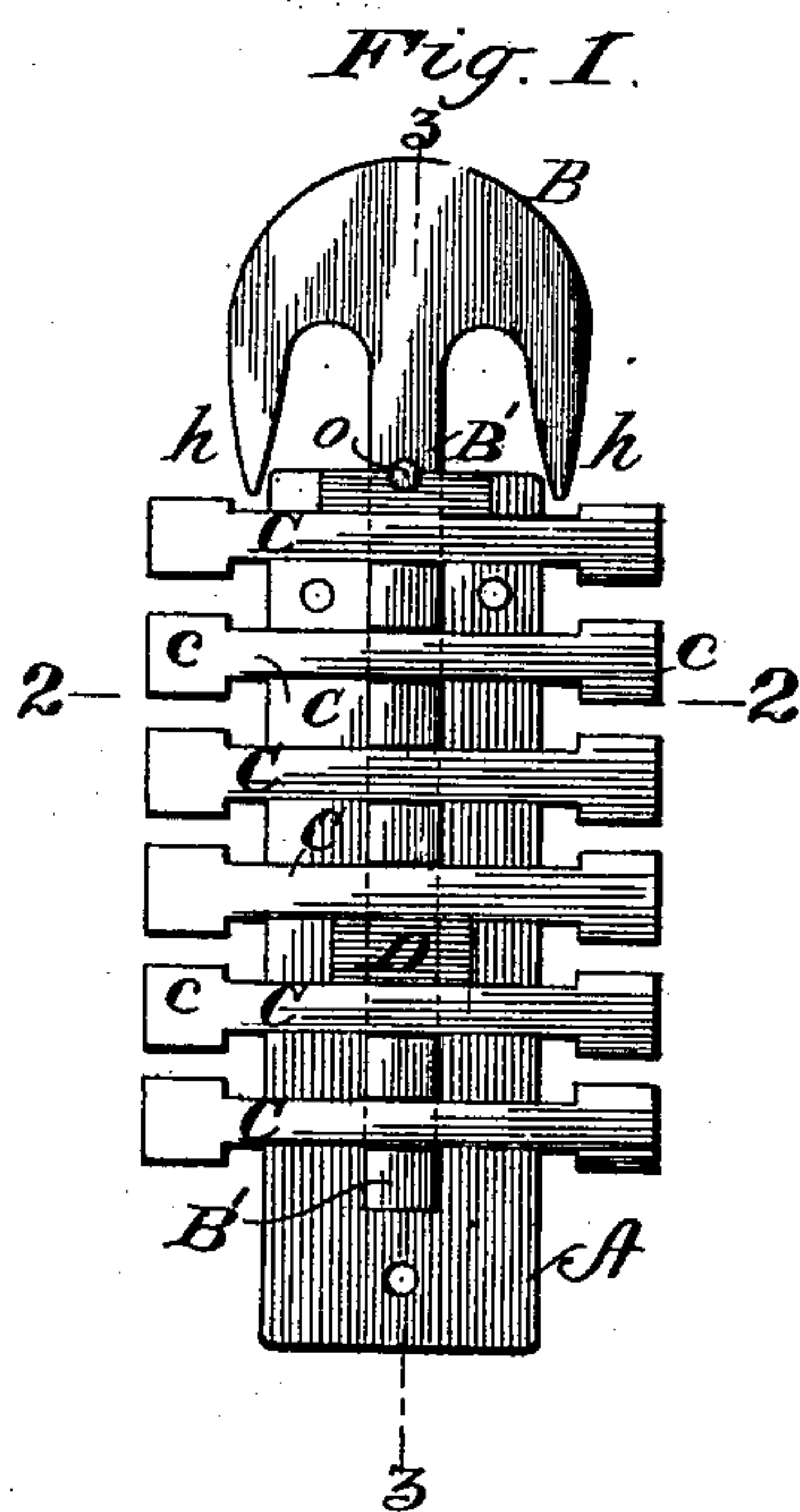
No. 685,135.

Patented Oct. 22, 1901.

T. W. HART.
COMBINATION PADLOCK.

(Application filed June 12, 1901.)

(No Model.)



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COMBINATION-PADLOCK.

SPECIFICATION forming part of Letters Patent No. 685,135, dated October 22, 1901.

Application filed June 12, 1901. Serial No. 64,241. (No model.)

To all whom it may concern:

Be it known that I, THOMAS WILLIAMS HART, of Ebenezer, in the county of Florence and State of South Carolina, have invented a
5 new and useful Improvement in Combination-Padlocks, of which the following is a specification.

My invention is in the nature of a simple and practical combination-padlock of small
10 cost, which is easily operated, is not liable to get out of order, and cannot be opened by any one not in possession of the combination.

It relates to that form of padlock in which the shank of the keeper is locked in the case
15 by transverse sliding bars, whose opposite ends project outside of the case; and it consists in the peculiar construction and arrangement of the parts of the same, which I will now proceed to describe with reference to the
20 drawings, in which--

Figure 1 is an inside view of the lock with the face-plate removed. Fig. 2 is a transverse section on line 2 2 of Fig. 1. Fig. 3 is a longitudinal section on line 3 3 of Figs. 1 and
25 4. Fig. 4 is a view of the series of locking-bars, showing the different positions of their notches. Fig. 5 is a similar view of said bars, showing the position of the same necessary to bring their notches into coincidence or
30 alinement to permit the removal of the shank of the keeper; and Fig. 6 is a view of the case with the shank of the keeper pulled out and the locking-bars removed.

In the drawings, A represents the case of the lock, which is an elongated block of cast metal having a single central longitudinal groove *a* intersected by a series of transverse grooves *a'*, of which latter there may be any desired number, but are here shown as six.
35 The keeper consists of a head B, formed on or cast with an elongated shank B', which has a series of cross-notches *b*, corresponding in number, size, and position to the transverse grooves of the case. This shank slides in and
45 closely fits the longitudinal groove *a* of the case, and when entirely forced in its notches *b* coincide with the cross-grooves *a'* of the case.

Sliding in the cross-grooves of the case and also in the notches of the shank of the keeper
50 are a series of transverse locking-bars C, each of which has on its ends outside of the case

enlarged heads *c* sufficiently far apart to permit a definite sliding motion of said bars in the transverse grooves of the case. Each bar has on its under side a notch *c'*, of a size
55 adapted to receive the shank of the keeper, and these bars are all alike, with the single exception that the location of the notch in relation to the ends of the bars varies for each bar. When these bars have their heads
60 all in line, as in Fig. 4, their notches *c'* are out of line and the solid portions of the bars lie in the grooves of the shank of the keeper and prevent the latter from being pulled out; but when the notches are arranged in line, as in
65 Fig. 5, the notches all coincide and the shank of the keeper can be withdrawn. The positions of these bars necessary to unlocking is prearranged, and this position forms the key
70 of the combination, which may be changed at will by putting the bars in different transverse grooves of the case.

The head of the keeper is made with a double or symmetrical construction of hooks *h h*, either one of which may be hooked into the
75 hasp, staple, or other attachment of the door or other part to be secured, and these hooks when the keeper is forced all the way in lap down upon each side of the case to inclose said hasp or staple and also to form a brace
80 to resist any twisting strain on the keeper.

D is the bridge-piece for the case, which extends across the shank of the keeper from side to side of the case and is swaged, riveted, or otherwise secured to the case to re-
85 tain the said shank and to prevent the side of the case from being forced in, which might cramp or bind the shank in the case and prevent said shank from sliding freely.

E is a face-plate, which is riveted to the
90 sides of the case, so as to completely inclose the shank and sliding locking-bars.

To prevent the keeper from passing entirely out of the case and becoming detached, a groove *g* is formed longitudinally in the back
95 side of the shank, and a stop-pin *p* in the case protudes into said groove and limits the outward movement of the shank. A pin *o* on the front of the keeper also enters a notch *n* in the case and avoids twisting strain on the
100 shank when the keeper is locked.

My invention is intended for use as stock-

locks, door-locks, or any other form of lock for which it may be applicable.

In setting the tumblers to permit the unlocking of the bolt such tumblers should be
5 adjusted in the case until the notches of the tumblers or locking-bars are in alinement, as shown in Fig. 5. In order to determine when the combination is properly set up to unlock the bolt, the locking-bars or tumblers may
10 have suitable indicating-marks upon them, so the operator can determine when each tumbler is adjusted to bring its notch in alinement with the longitudinal groove in the case.

It will be noticed that the tumbler-rods or
15 locking-bars are each provided at both ends with heads, which limit their movement within the sectional case, this being desirable, as it avoids a necessity of providing any separate means for holding the locking-bars or
20 tumblers in the case when the sections of the latter are secured together upon the said bars.

It will be noticed that my combination-padlock is simple in construction, can be conveniently set to many different combinations,
25 being changeable easily from one combination to another, and the tumblers are so con-

structed at their ends as to limit their movements in the opposite direction by engagement with the case.

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

The improved lock herein described consisting of the case composed of sections fitted and bolted together, the bolt operating within
35 said case and having transverse notches, and the tumblers or locking-bars operating between the sections of the case and arranged to enter the notches in the bolt and provided with notches, which may be adjusted into
40 registry with the bolt to permit the movement thereof into and out of locked position, and said tumblers being provided at both ends with heads for abutment with the case, where-
45 by the tumblers are secured in the case, and held from accidental withdrawal in either direction, as set forth.

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Witnesses:

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