

J. DEMBINSKI.

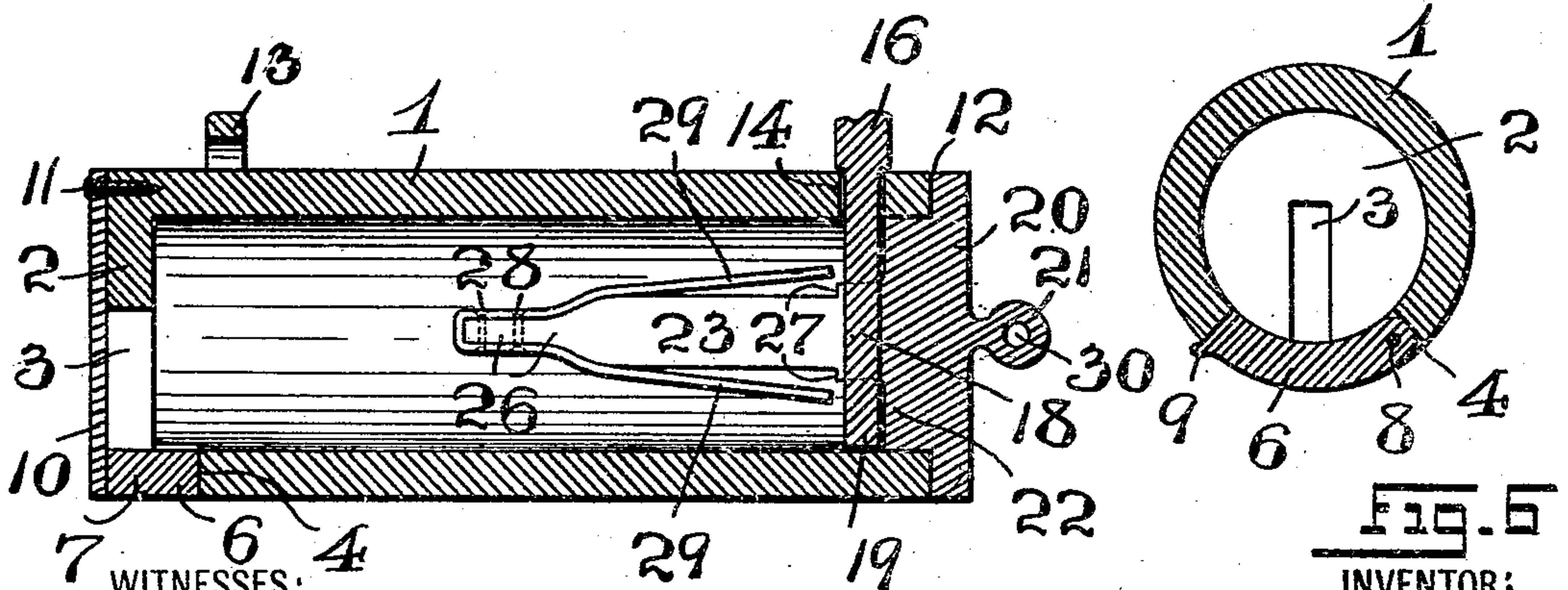
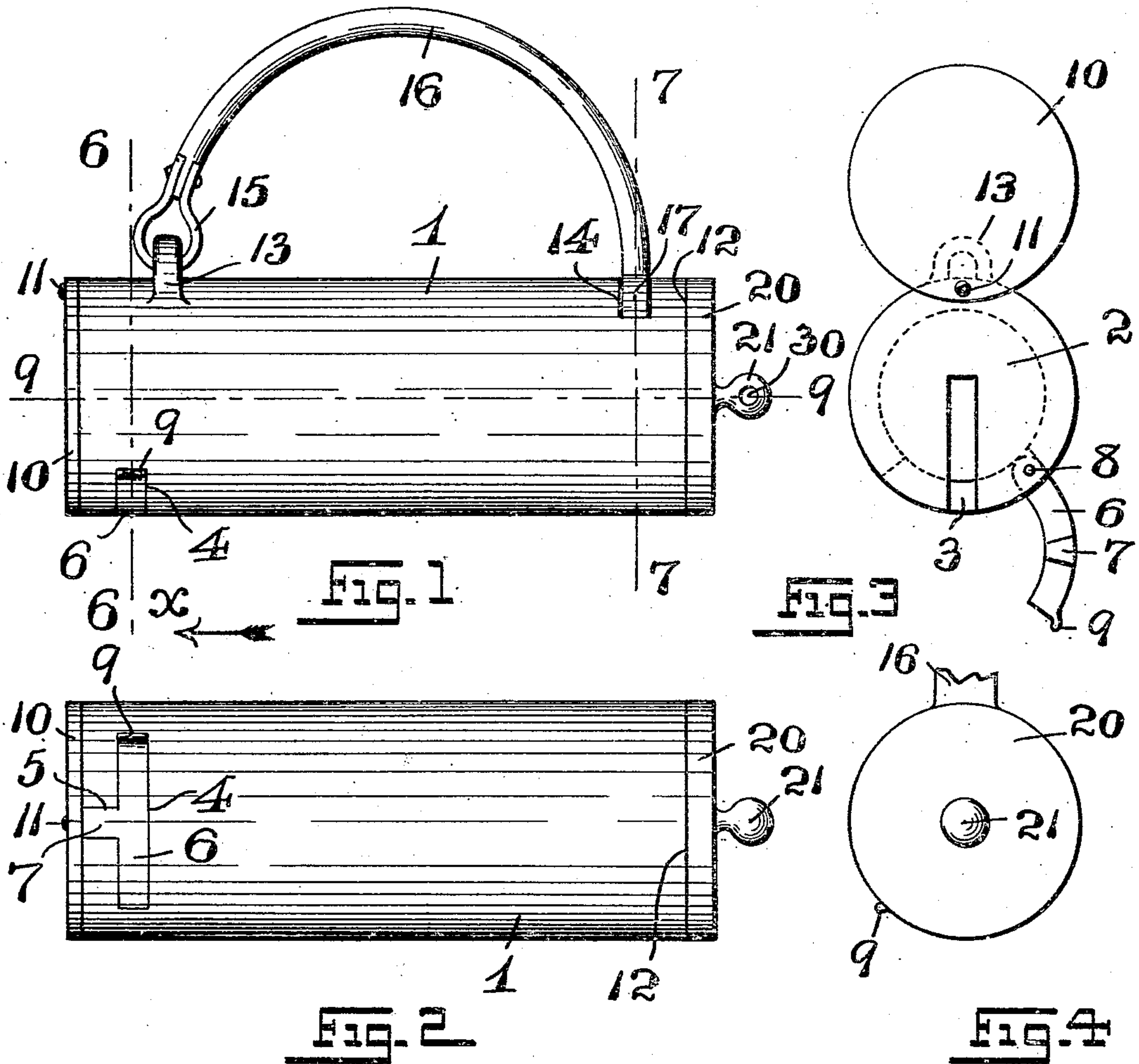
PADLOCK.

APPLICATION FILED FEB. 15, 1910.

954,856.

Patented Apr. 12, 1910.

4 SHEETS—SHEET 1.



WITNESSES:
Frederick H. W. Fraentzel
Anna H. Acton.

FIG. 5

INVENTOR:
John Dembinski,
BY
Fraentzel and Richards,
ATTORNEYS

J. DEMBINSKI.

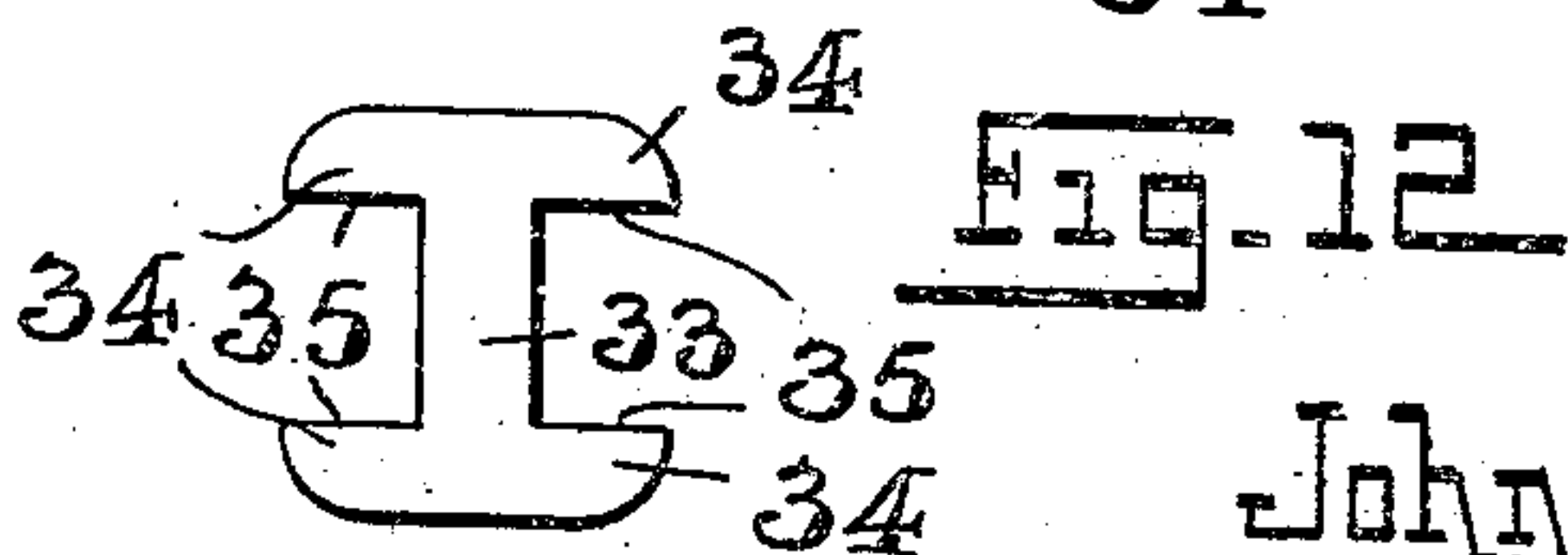
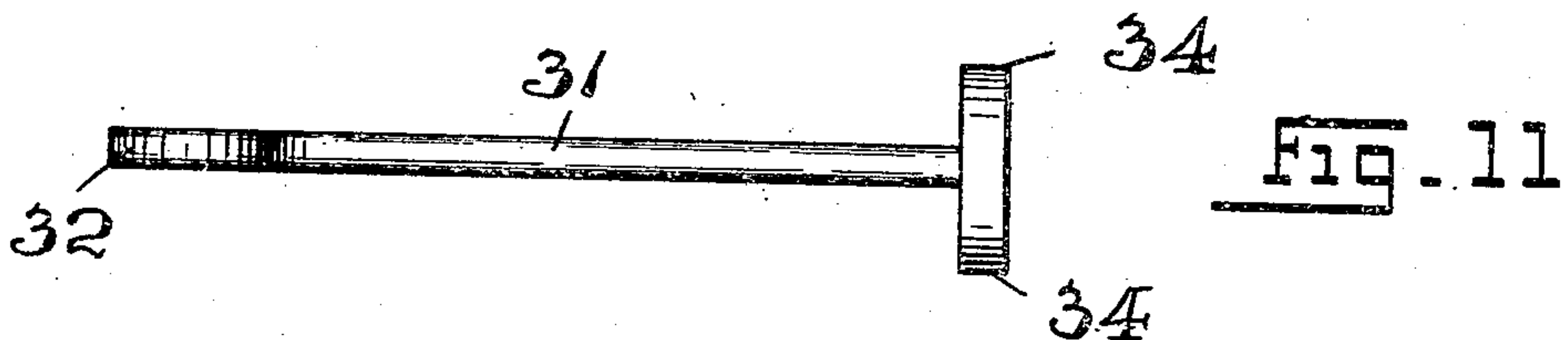
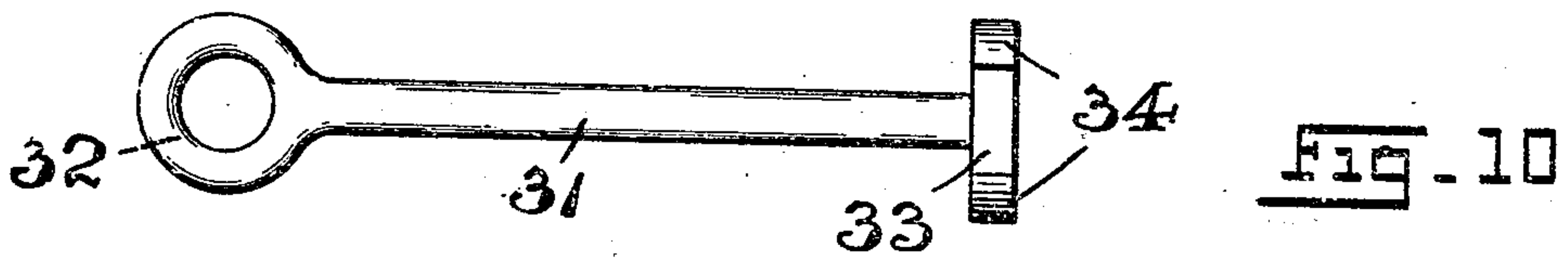
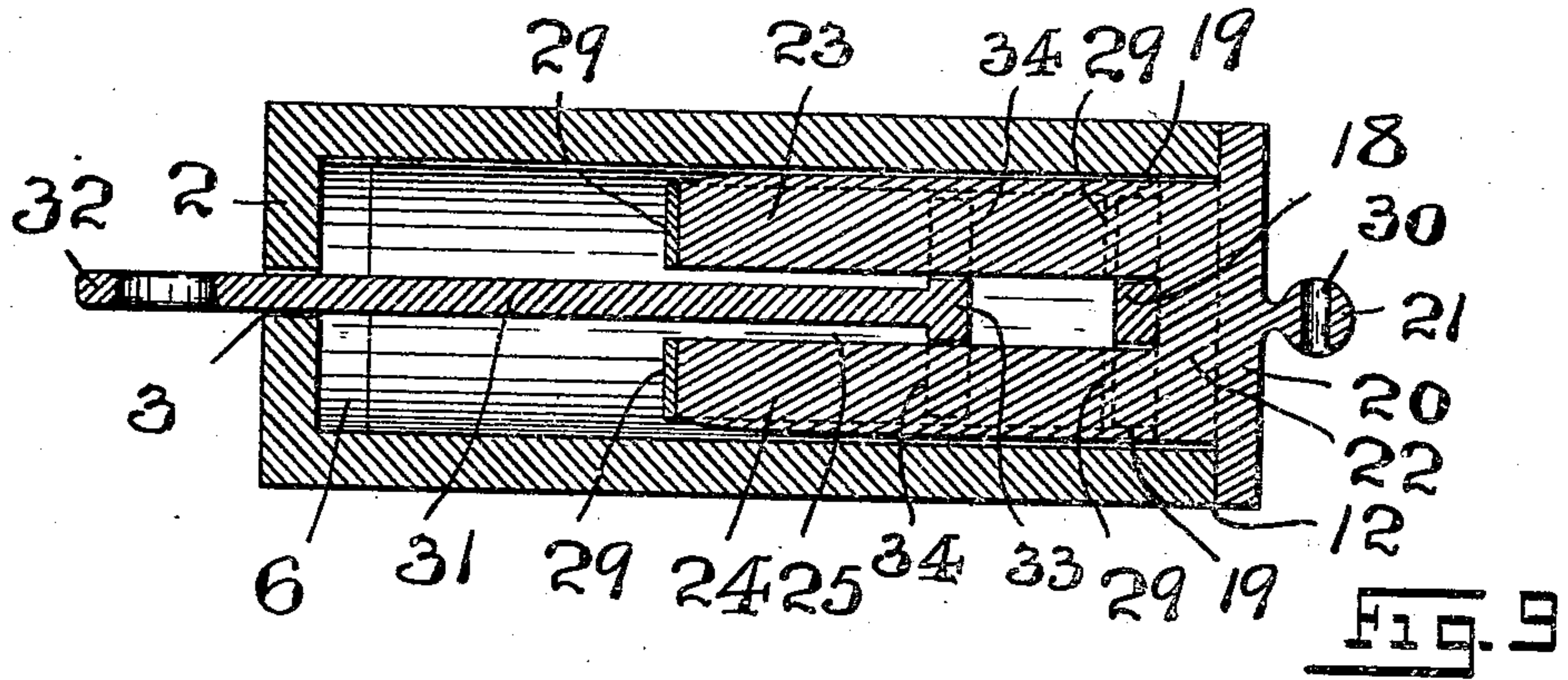
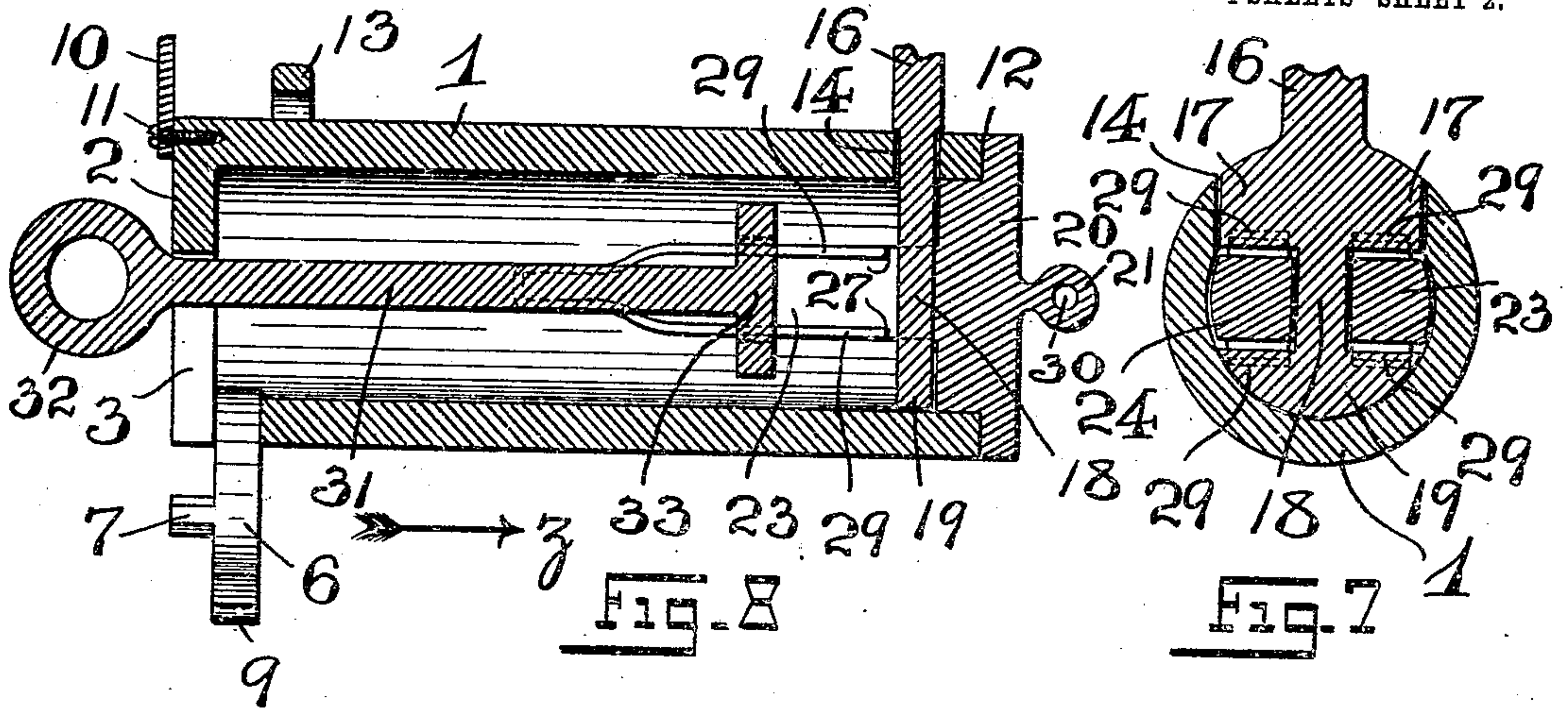
PADLOCK.

APPLICATION FILED FEB. 15, 1910.

954,856.

Patented Apr. 12, 1910.

4 SHEETS—SHEET 2.



WITNESSES:
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 PADLOCK.
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4 SHEETS—SHEET 3.

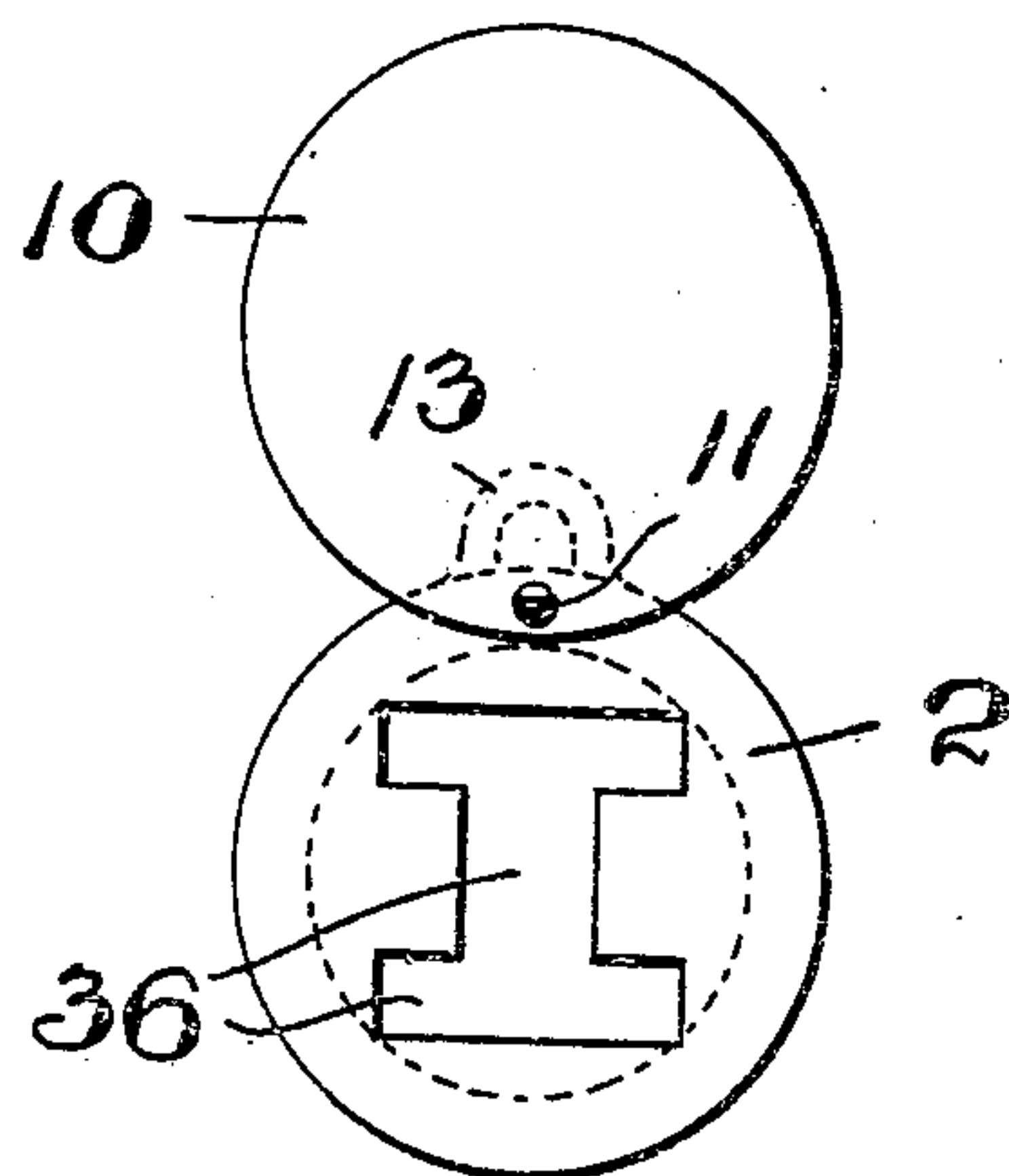
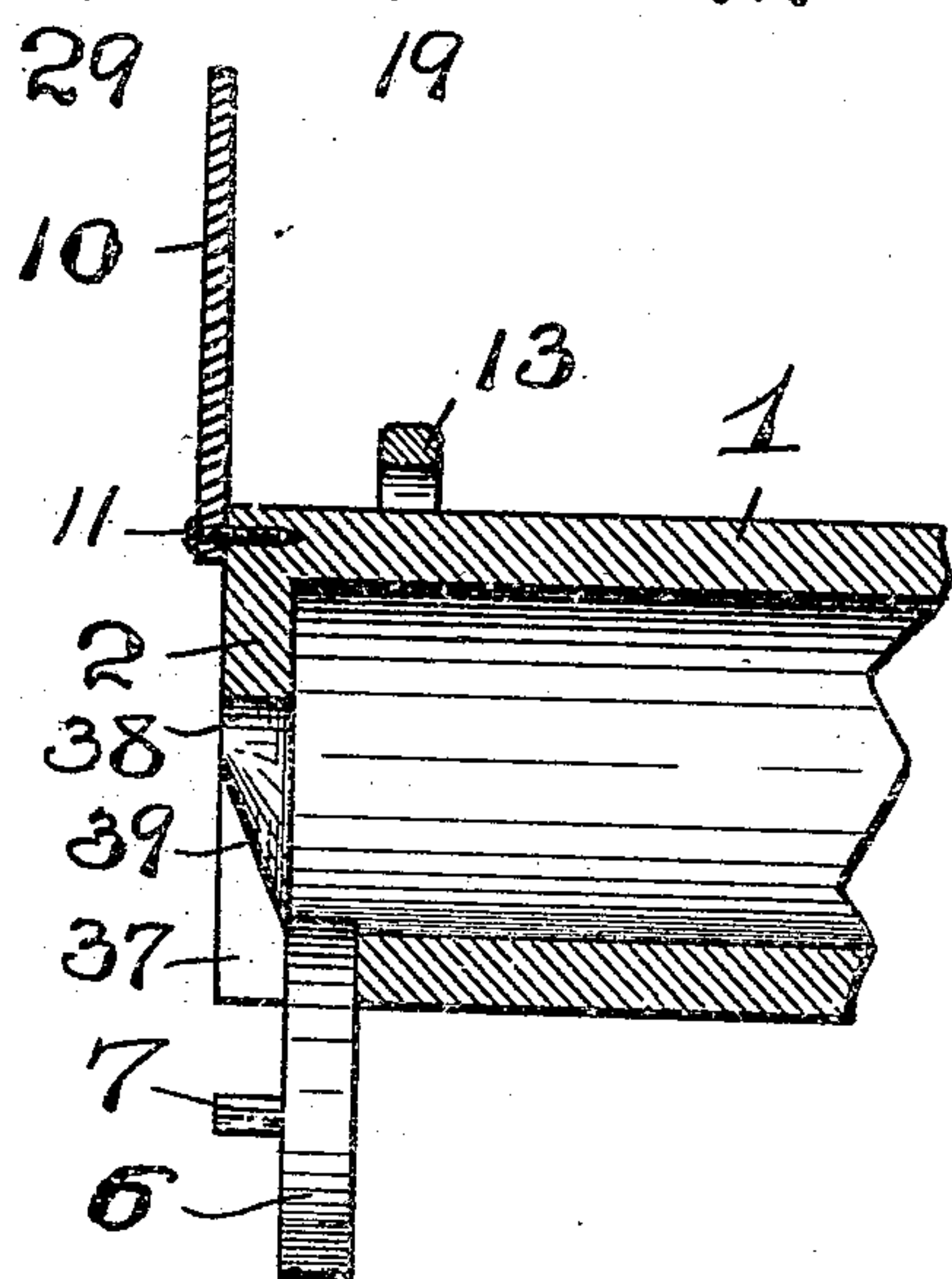
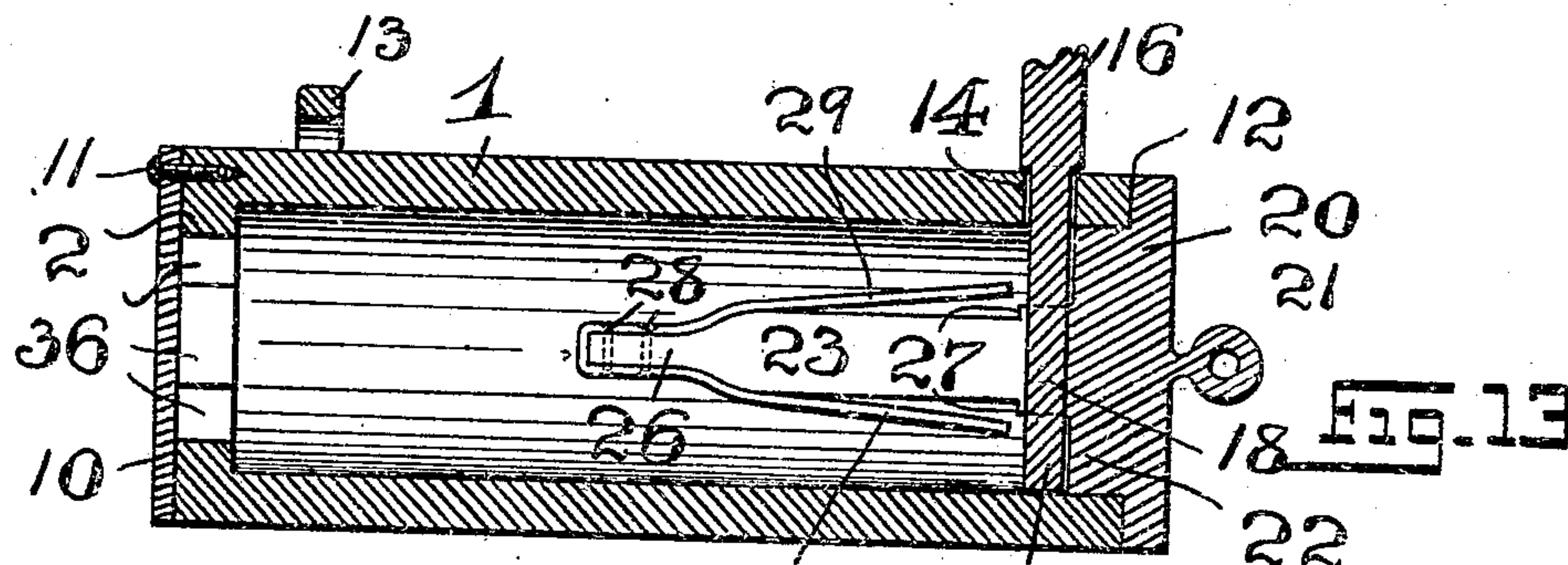


Fig. 14

Fig. 15

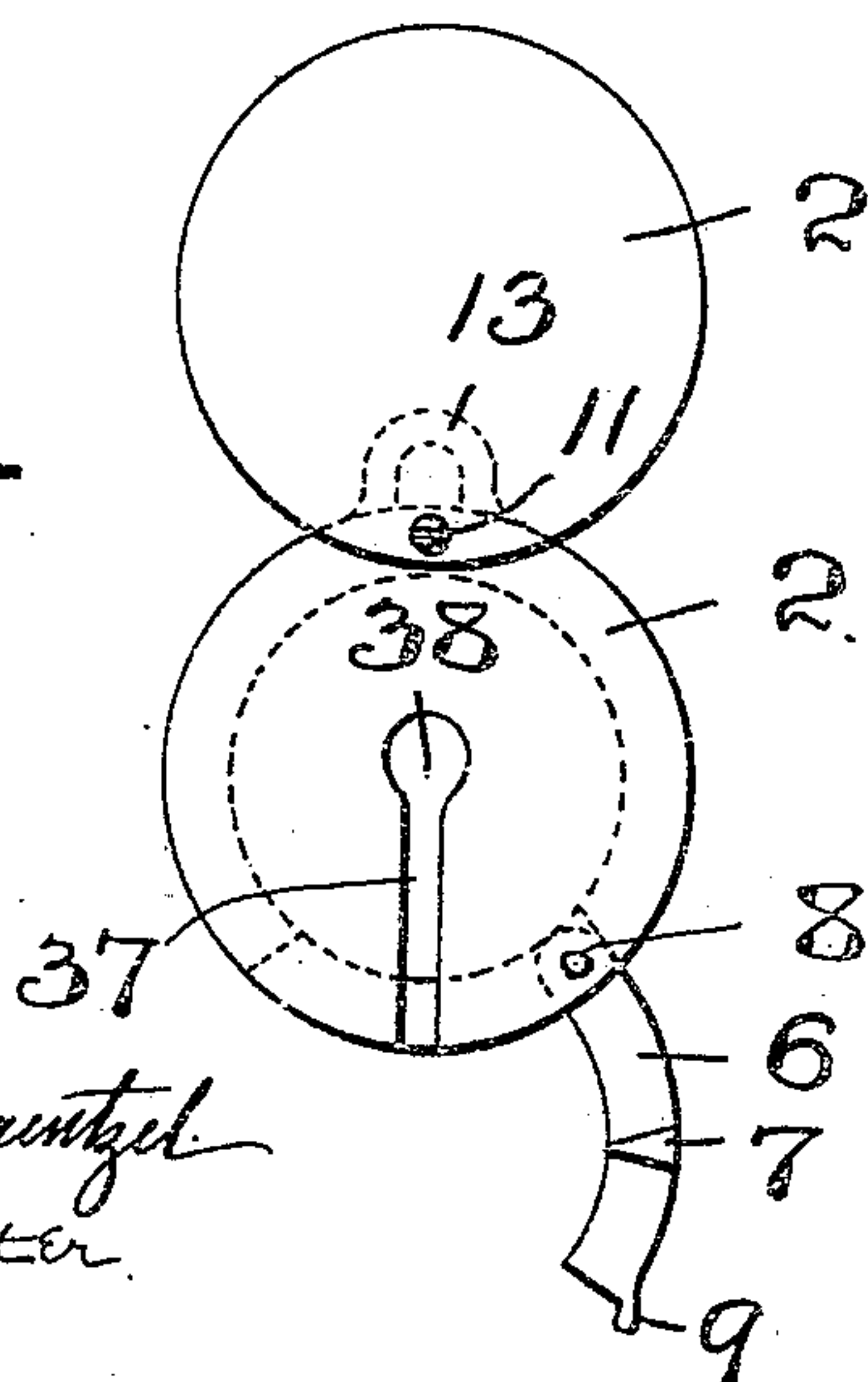


Fig. 16

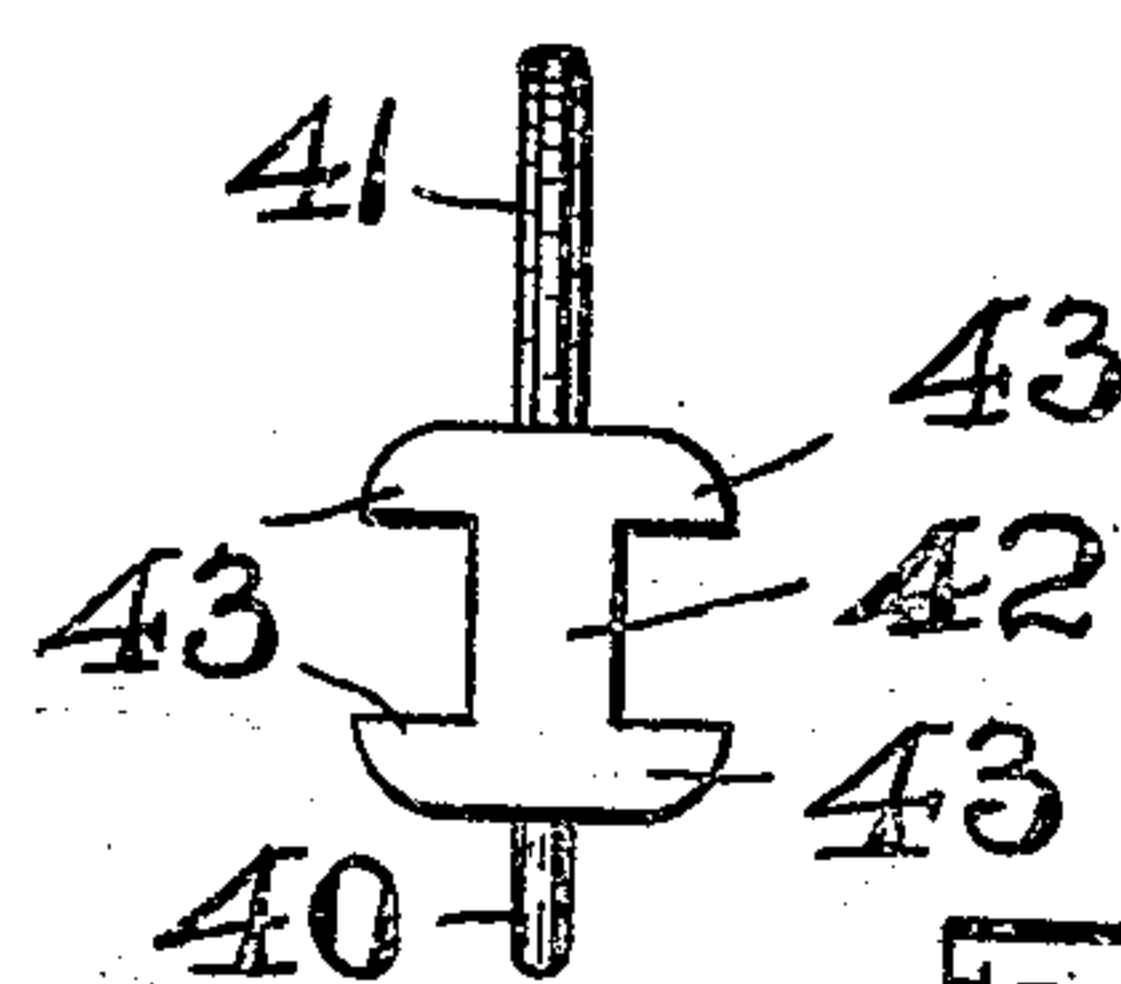


Fig. 17

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PADLOCK.

APPLICATION FILED FEB. 15, 1910.

954,856.

Patented Apr. 12, 1910.

4 SHEETS—SHEET 4.

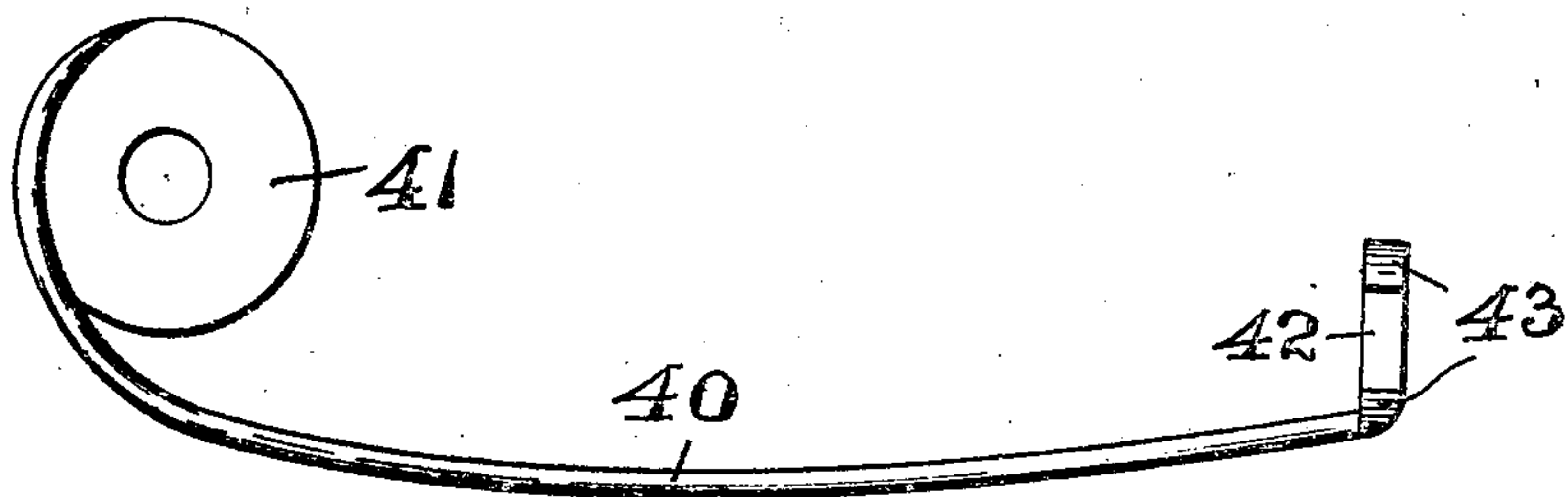


Fig. 18

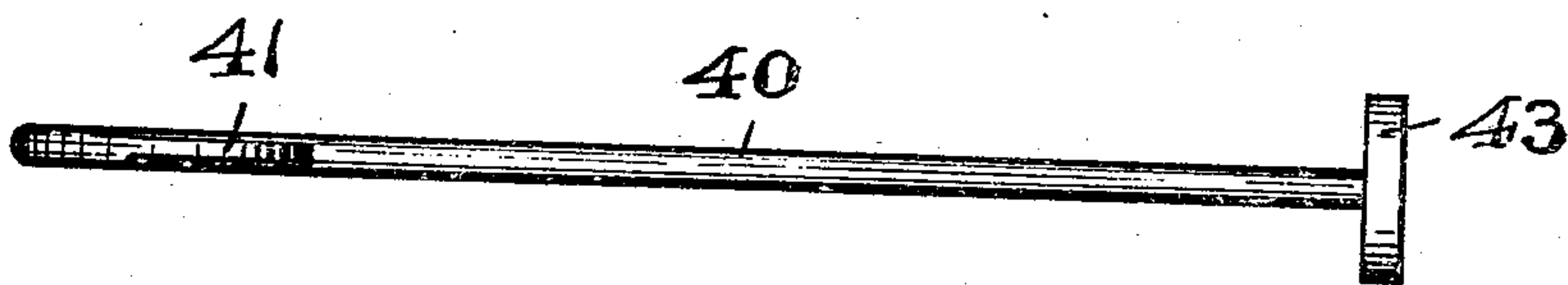


Fig. 19

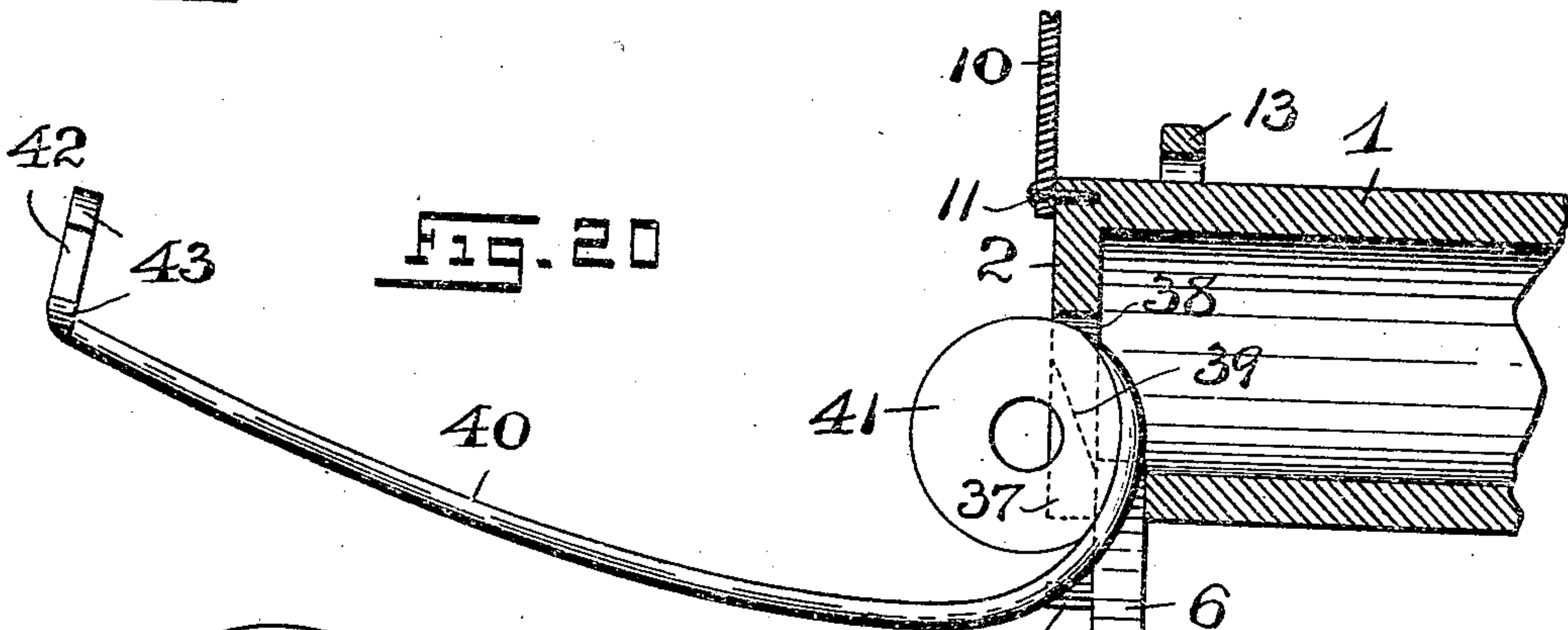


Fig. 20

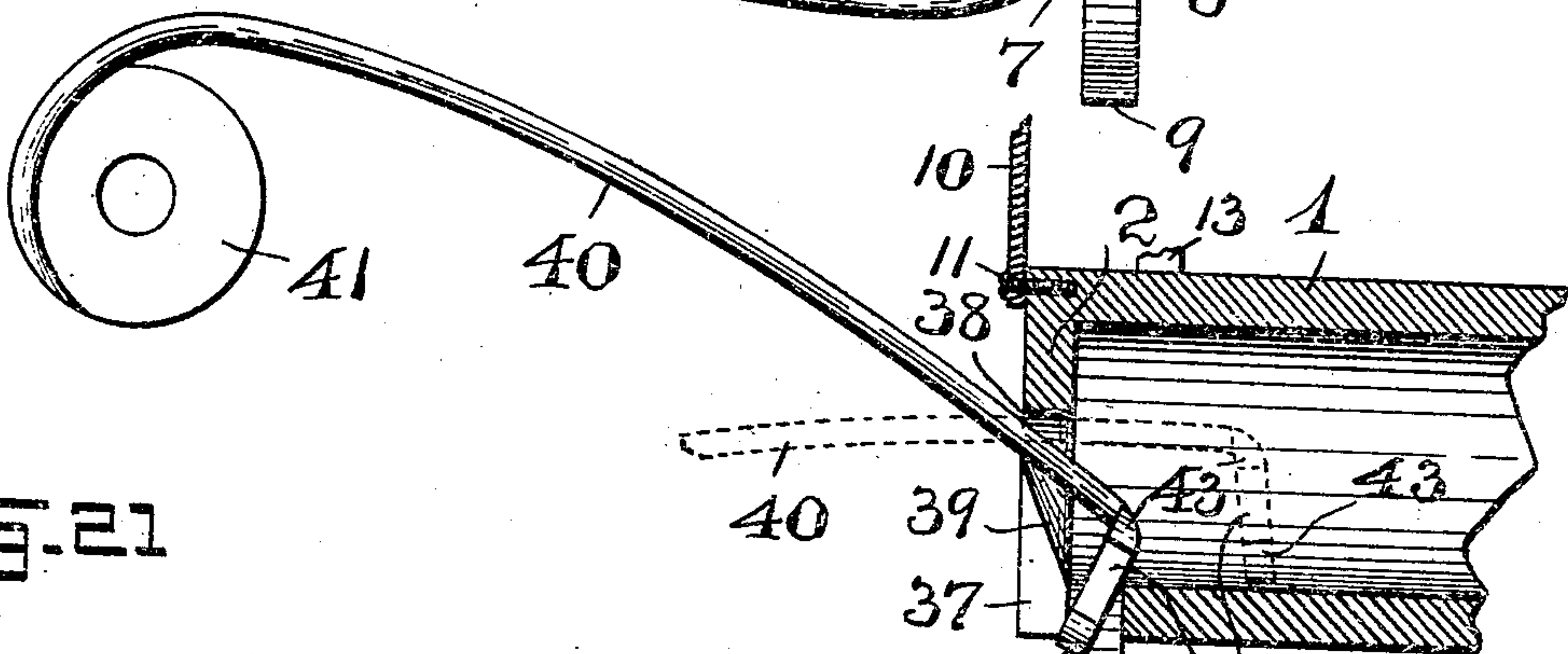


Fig. 21

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UNITED STATES PATENT OFFICE.

JOHN DEMBINSKI, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO MICHAEL BARON, OF NEWARK, NEW JERSEY.

PADLOCK.

954,856.

Specification of Letters Patent.

Patented Apr. 12, 1910.

Application filed February 15, 1910. Serial No. 543,948.

To all whom it may concern:

Be it known that I, JOHN DEMBINSKI, a subject of the Emperor of Austria-Hungary, residing at Newark, in the county of Essex and State of New Jersey, 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, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates, generally, to improvements in locks; and, the present invention has reference, more particularly, to a novel form of pad-lock, which is adapted to be separably connected with those forms of fastening devices known as staples.

My present invention has for its principal objects to provide a novel and peculiarly constructed lock of the general character hereinafter more fully set forth, and a peculiarly constructed key therefor, for releasing the self-locking mechanism, when it is desired to separate the pad-lock from its locked or holding engagement with two or more staples.

Other objects of this invention not at this time more particularly enumerated will be clearly understood from the following detailed description of my present invention.

The present invention consists, primarily, in the novel pad-lock hereinafter more fully specified; and, the invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction of the same, all of which will be more fully described in the following specification, and then finally embodied in the clauses of the claim which are appended to and which form an essential part of this specification.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of a pad-lock showing one embodiment of the principles of the present invention; and Fig. 2 is a bottom view of the same. Fig. 3 is a front end view of the lock with certain parts which

are pivoted to the front end of the lock-casing shown in their pivotally separated relations to said end-portion of the lock-casing; and Fig. 4 is a rear end view of the parts represented in said Fig. 1. Fig. 5 is a longitudinal vertical section of the pad-lock showing the various parts thereof in their locked engagement; and Fig. 6 is a cross-section, taken on line 6—6 in Fig. 1, looking in the direction of the arrow α . Fig. 7 is a similar section, taken on line 7—7 in said Fig. 1, looking also in the direction of the arrow α in said Fig. 1. Fig. 8 is a longitudinal vertical section of the lock-casing and the locked end-portion of the shackle or hasp, with a longitudinal vertical representation of a releasing key in its engagement with a shackle or hasp-engaging or locking element or means, for the disengagement or release of resilient retaining members of the said element from locked engagement with the shackle or hasp. Fig. 9 is a horizontal section of the parts, said section being taken on line 9—9 in said Fig. 1. Figs. 10, 11 and 12 are three views of a key or implement for releasing the shackle or hasp-engaging or locking element. Fig. 13 is a longitudinal vertical section of a pad-lock of a slightly modified form; and Fig. 14 is a front end view of the same. Fig. 15 is a longitudinal vertical section of the front end-portion of a pad-lock of another modified form of construction, but still embodying the leading features of the present invention; and Fig. 16 is a front end view of the same. Figs. 17, 18 and 19 are three views of a key or implement for releasing the shackle or hasp-engaging element; and Figs. 20 and 21 are vertical sectional representations of the end-portion of the lock-casing illustrated in said Fig. 15, said views illustrating the manner of inserting into said lock-casing the form of key represented in said Figs. 17, 18 and 19.

Similar characters of reference are employed in all of the above described views, to indicate corresponding parts.

Referring now to the said drawings, the reference-character 1 indicates a suitable lock-casing which is preferably made in the form of a hollow or tubular cylinder, substantially as shown. The front end-portion of said casing 1 is closed, as at 2, the end-member thus provided preferably forming

an integral part of the said casing, and being provided with a vertically disposed slot or opening 3, as shown. In its lower surface, the said cylinder or casing 1 is made
 5 with a laterally extending slot or opening 5, said slot or opening 5 communicating with both said slots or openings 3 and 4. The said openings or slots 4 and 5 may be closed, if desired, by means of a suitably
 10 formed gate or closing device which consists of the two parts 6 and 7, and is pivotally secured in place by means of a pivot, as 8, said parts 6 and 7 being adapted to be fitted in the respective openings or slots 4 and 5,
 15 and the gate or closing device being retained in its closed relation with the said cylinder or casing 1, in any suitable manner, and usually by the frictional contact between the parts. In order that the said gate or closing device may be readily opened and closed,
 20 the gate is preferably provided with a projection, as 9, which serves as a suitable finger piece for the manipulation of the gate. In order that the vertical slot or opening 3
 25 may also be closed, if desired, a disk or plate, as 10, may be used, the said disk or plate 10 being secured upon said end-member 2 by means of a pin or screw 11, and being adapted to hang normally upon the outer face of
 30 said member 2 so as to register with the same, but being capable of being swung to one side, as will be clearly understood from an inspection of the several figures of the drawings. The opposite end-portion of the
 35 said cylinder or casing 1 is left open, as at 12, as clearly illustrated in Figs. 5, 8, 9 and 13 of the drawings, and for the purposes hereinafter more fully specified. The said cylinder or casing 1 is also provided with a
 40 loop or eye, as 13, which preferably forms an integral part of the said cylinder or casing and extends from the outer surface of the same; and, in its opposite end-portion, near the open end 12 thereof, the said cyl-
 45 inder or casing 1 is made with a laterally extending slot or opening 14. Pivotaly connected with the said loop, by means of a suitably formed connecting device, such as a loop 15, or other suitable means of piv-
 50 otal connection, is a suitably formed shackle or hasp 16, which is of the general configuration, substantially as shown, and is preferably made of metal. At its opposite end-portion, the said shackle or
 55 hasp is made with a retaining or holding portion, which consists, essentially, of a pair of oppositely extending members or elements 17, a centrally disposed connecting member or bar 18, and an anchor or shoe
 60 19, said parts all being preferably integrally connected and forming an integral part of the shackle or hasp, substantially as illustrated in Fig. 7 of the drawings. To bring the parts of the pad-lock into their rela-
 65 tively locked positions, this retaining or hold-

ing-portion of the shackle or hasp is inserted through the slot or opening 14 in the cylinder or casing 1, so that the several parts 17, 18 and 19 will assume the positions within the chambered part of the said cylinder
 70 or casing 1, shown in the several figures of the drawings, ready to receive and to be brought in locked or retained engagement with a self-locking mechanism or device of
 75 the general construction to be presently described. This self-locking mechanism or device consists, essentially, of a body 20 which is provided with a suitably formed fingerpiece of knob 21 upon its one surface, and upon the other surface, the said body
 80 20 is made with an annular projection 22 which is adapted to be fitted into and register with the interior of the cylinder or casing 1, at the open end-portion 12 of said cylinder. Extending from the flat face of
 85 said annular projection 22 are two finger-like members or extensions 23 and 24, which are arranged so as to be provided with a space 25 between them. Each arm or extension 23 and 24 is made with a suitably
 90 reduced or tapered portion, as 26, and with suitably disposed off-sets, as 27, substantially as shown in Figs. 5, 8 and 13 of the drawings.

Suitably secured upon the opposite faces
 95 of the reduced or tapered portion of each arm or member 23 and 24, by means of suitable pins or rivets 28, or by means of any other suitable fastening means, are suitably
 100 formed flat and spring-like retaining plates or elements having their free ends normally extending above the said off-sets 27, but which can be easily pressed down so as to lie flat upon and against the opposite flat
 105 faces of the reduced or tapered portion 26, in the manner to be presently more fully described.

Having entered the retaining or holding
 110 portion of the shackle or hasp in the slot or opening 14, and caused said portion of the shackle or hasp to stand across the interior of the cylinder or case 1, the tapered portions of the arms or extensions 23 and 24 are inserted in the open end 12 of the cylinder or casing 1, causing said arms or ex-
 115 tensions to straddle the connecting member or bar 18 of the shackle or hasp, and the edge-portions of the members or elements 17 and the anchor or shoe 19 at the same time depressing the spring-like retaining plates
 120 or elements 29, until the annular projection 22 has entered the end-portion 12 of the cylinder or casing 1, so as to register therewith and form a closure for said end 12, at which time the free ends of the said spring-like
 125 retaining plates or element have moved beyond the members or elements 17 and the anchor or shoe 19, whereby the said spring-like plates have again moved into their spread-apart positions, with the free ends of
 130

said spring-like retaining plates in holding or retaining engagement with the flat faces of said members or elements 17 and the anchor or shoe 19, in the manner clearly shown in Figs. 5 and 13 of the drawings. Thus it will be seen that the various devices and parts are secured in their locked relation, and the retaining or holding end-portion of the shackle or hasp cannot be withdrawn from within the cylinder or casing 1. If desired, the fingerpiece or knob 21 may be provided with a hole or perforation 30 for the attachment of a chain or other flexible connection to said knob.

To bring the several parts again into their disengaged or unlocked relations, a form of key, substantially of the construction shown in Figs. 8, 9, 10, 11 and 12 of the drawings may be employed. The said key consists, essentially, of a rod or bar 31 formed at one end with a fingerpiece 32, and at its other end with a vertical bar 33 formed with the oppositely extending fingers or projections 34. To insert the end-portion of the key formed by this bar 33 and fingers 34 into the interior of the cylinder or casing 1, the gate or closing device formed by the parts 6 and 7 is brought into its opened position, so that the bar 33 and fingers 34 of the key can be passed into and through the opening 4, and the shank of the key can be passed into and through the openings 5 and 3, as will be clearly understood. The key is now pushed in a forward direction within the cylinder or casing 1, in the direction of the arrow z in Fig. 8 of the drawings, causing the marginal edge-portions 35 to be brought into slidable engagement with the said flat spring-like arms or retaining plates 29, so as to depress the same and bring them into the positions shown in said Fig. 8 of the drawings. When the parts have thus been arranged, the self-locking device, hereinabove described, by means of its fingerpiece or knob 21, can be withdrawn from within the end of the cylinder or casing 1, and thereby disengaged from the retaining or locking end-portion of the shackle or hasp, so that said retaining or locking end-portion can also be withdrawn, as will be clearly evident. Instead of providing the forward end-portion of the cylinder or casing 1 with the openings 3, 4 and 5 for the insertion of and the arrangement of the key within the said cylinder or casing 1, the end-member 2 of the cylinder or casing may be formed with an opening 36 of the general configuration, shown in Figs. 13 and 14 of the drawings, the outline of said opening 36 conforming to the general configuration of the parts or members 33 and 34 of the key represented in said Figs. 10, 11 and 12 of the drawings, so that the said end-portion of the key can be readily inserted and pushed into and through the chambered part of the cylinder

or casing 1, and into its operative and unlocking engagement with the self-acting locking device herein-before described.

In Figs. 15, 16, 20 and 21 of the drawings, I have shown the end-member 2 of the cylinder or casing 1, formed with a vertical opening 37, the upper portion of which is somewhat enlarged, as at 38, and the inner surface-portions of the end-member 2, which form said opening 37, being chamfered, as at 39, see Figs. 20 and 21. The cylinder or casing 1, in this case is made with the opening 4, as in the construction represented in Figs. 1 to 9 inclusive, and in which may be pivotally arranged a gate or closing device. The key used with this form of end-portion of the cylinder or casing 1 is illustrated in Figs. 17, 18, 19, 20 and 21, and consists, essentially, of a curved shank or rod 40, which is formed at its one end with a flat disk-like element or portion 41, and at its other end-portion it is made with a downwardly extending bar 42 from which extends in opposite directions suitable fingers or projections 43. The said members or parts 42 and 43, as will be seen from an inspection of Fig. 17 of the drawings, are approximately of the same general configuration as the parts 33 and 34 of the key shown in Figs. 10, 11 and 12 of the drawings, so that the said parts 42 and 43 can be used in the same manner as the parts 33 and 34 for their operative and unlocking engagement with the self-acting locking device described in connection with the construction of pad-lock illustrated in Figs. 1 to 9 inclusive. The manner of properly inserting and arranging the actuating end-portion of the key, shown in said Figs. 17, 18 and 19 of the drawings, in the chambered portion of the cylinder or casing 1, is clearly illustrated in said Figs. 20 and 21, and need not, therefore, be further described.

I am aware that changes may be made in the arrangements and combinations of the various devices and parts, as well as in the details of the construction of the same, without departing from the scope of the present invention as set forth in the foregoing specification, and as defined in the clauses of the claims which are appended to the said specification. Hence, I do not limit my present invention to the exact arrangements and combinations of the devices and parts as described in the said specification, nor do I confine myself to the exact details of the construction of the said parts, as illustrated in the accompanying drawings.

I claim:—

1. A pad-lock comprising a chambered cylinder formed with an open end and with a key-receiving opening in its other end-portion, and said cylinder being provided near its open end with a laterally extending opening, a shackle pivotally connected with the

said cylinder upon the outer surface thereof, said shackle being provided with a retaining end-portion adapted to enter said laterally extending opening, a self-locking device
 5 adapted to be arranged in the open end of said cylinder, said device comprising a body, a pair of arms extending therefrom, and spring-like plates mounted upon said arms adapted to be sprung into holding engage-
 10 ment with the said retaining end-portion of the shackle, substantially as and for the purposes set forth.

2. A pad-lock comprising a chambered cylinder formed with an open end and with
 15 a key-receiving opening in its other end-portion, and said cylinder being provided near its open end with a laterally extending opening, a shackle pivotally connected with the said cylinder upon the outer surface thereof, said shackle being provided with a retain-
 20 ing end-portion adapted to enter said laterally extending opening, a self-locking device adapted to be arranged in the open end of said cylinder, said device comprising a body, a pair of arms extending therefrom, each
 25 arm being formed with a tapered portion and off-sets, and spring-like plates mounted upon said arms adapted to be sprung into holding engagement with the said retaining
 30 end-portion of the shackle, substantially as and for the purposes set forth.

3. A pad-lock comprising a chambered cylinder formed with an open end and with
 35 a key-receiving opening in its other end-portion, and said cylinder being provided near its open end with a laterally extending opening, a shackle pivotally connected with the said cylinder upon the outer surface thereof, said shackle being provided with a
 40 retaining end-portion adapted to enter said laterally extending opening, a self-locking device adapted to be arranged in the open end of said cylinder, and means connected with said device adapted to be sprung into hold-
 45 ing engagement with said retaining end-portion of the shackle, all combined with a key comprising a shank, a vertically disposed bar at one end of said key, and fingers extend-
 50 ing laterally from said bar, adapted to be brought in releasing engagement with said self-locking device, substantially as and for the purposes set forth.

4. A pad-lock comprising a chambered cylinder formed with an open end and with
 55 a key-receiving opening in its other end-portion, and said cylinder being provided near its open end with a laterally extending opening, a shackle pivotally connected with the said cylinder upon the outer surface thereof, said shackle being provided with a retaining
 60 end-portion adapted to enter said laterally extending opening, a self-locking device adapted to be arranged in the open end of said cylinder, said device comprising a body, a pair of arms extending therefrom, and

spring-like plates mounted upon said arms adapted to be sprung into holding engage-
 ment with the said retaining end-portion of the shackle, all combined with a key com-
 70 prising a shank, a vertically disposed bar at one end of said key, and fingers extending laterally from said bar, adapted to be brought in releasing engagement with said
 spring-like plates of said self-locking device, substantially as and for the purposes set
 75 forth.

5. A pad-lock comprising a chambered cylinder formed with an open end and with
 a key-receiving opening in its other end-portion, and said cylinder being provided
 80 near its open end with a laterally extending opening, a shackle pivotally connected with the said cylinder upon the outer surface thereof, said shackle being provided with a retaining end-portion adapted to enter said
 85 laterally extending opening, a self-locking device adapted to be arranged in the open end of said cylinder, said device comprising a body, a pair of arms extending therefrom, each arm being formed with a tapered por-
 90 tion and off-sets, and spring-like plates mounted upon said arms adapted to be sprung into holding engagement with the said retaining end-portion of the shackle, all combined with a key comprising a shank, a
 95 vertically disposed bar at one end of said key, and fingers extending laterally from said bar adapted to be brought in releasing engagement with said spring-like plates of said self-locking device, substantially as and
 100 for the purposes set forth.

6. A pad-lock comprising a chambered cylinder formed with an open end and with
 a key-receiving opening in its other end-portion, and said cylinder being provided
 105 near its open end with a laterally extending opening, a shackle pivotally connected with said cylinder upon the outer surface thereof, said shackle being provided with a retain-
 110 ing end-portion adapted to enter said laterally extending opening, said retaining end-portion consisting of a pair of oppositely extending members, an anchor, and a connect-
 ing bar between said members and said anchor, a self-locking device adapted to be
 115 arranged in the open end of said cylinder, and means connected with said device adapted to be sprung into retaining engagement with said oppositely extending members and the anchor of said shackle, substantially as
 120 and for the purposes set forth.

7. A pad lock comprising a chambered cylinder formed with an open end and with
 a key-receiving opening in its other end-portion, and said cylinder being provided
 125 near its open end with a laterally extending opening, a shackle pivotally connected with said cylinder upon the outer surface thereof, said shackle being provided with a retaining
 end-portion adapted to enter said laterally
 130

extending opening, said retaining end-portion consisting of a pair of oppositely extending members, an anchor, and a connecting bar between said members and said anchor, a self-locking device adapted to be arranged in the open end of said cylinder, said device comprising a body, a pair of arms extending therefrom, and spring-like plates mounted upon said arms adapted to be sprung into retaining engagement with said oppositely extending members and the anchor of said shackle, substantially as and for the purposes set forth.

8. A pad lock comprising a chambered cylinder formed with an open end and with a key-receiving opening in its other end-portion, and said cylinder being provided near its open end with a laterally extending opening, a shackle pivotally connected with said cylinder upon the outer surface thereof, said shackle being provided with a retaining end-portion adapted to enter said laterally extending opening, said retaining end-portion consisting of a pair of oppositely extending members, an anchor, and a connecting bar between said members and said anchor, a self-locking device adapted to be arranged in the open end of said cylinder, said device comprising a body, a pair of arms extending therefrom, each arm being formed with a tapered portion and off-sets, and spring-like plates mounted upon said arms adapted to be sprung into holding engagement with the said oppositely extending members and the anchor of said shackle, substantially as and for the purposes set forth.

9. A pad-lock comprising a chambered cylinder formed with an open end and with a key-receiving opening in its other end-portion, and said cylinder being provided near its open end with a laterally extending opening, a shackle pivotally connected with said cylinder upon the outer surface thereof, said shackle being provided with a retaining end-portion adapted to enter said laterally extending opening, said retaining end-portion consisting of a pair of oppositely extending members, an anchor, and a connecting bar between said members and said anchor, a self-locking device adapted to be arranged in the open end of said cylinder, and means connected with said device adapted to be sprung into retaining engagement with said oppositely extending members and the anchor of said shackle, all combined with a key comprising a shank, a vertically disposed bar at one end of said key, and fingers extending laterally from said bar, adapted to be brought in releasing engagement with said self-locking device, substantially as and for the purposes set forth.

10. A pad lock comprising a chambered

cylinder formed with an open end and with a key-receiving opening in its other end-portion, and said cylinder being provided near its open end with a laterally extending opening, a shackle pivotally connected with said cylinder upon the outer surface thereof, said shackle being provided with a retaining end-portion adapted to enter said laterally extending opening, said retaining end-portion consisting of a pair of oppositely extending members, an anchor, and a connecting bar between said members and said anchor, a self-locking device adapted to be arranged in the open end of said cylinder, said device comprising a body, a pair of arms extending therefrom, and spring-like plates mounted upon said arms adapted to be sprung into retaining engagement with said oppositely extending members and the anchor of said shackle, all combined with a key comprising a shank, a vertically disposed bar at one end of said key, and fingers extending laterally from said bar, adapted to be brought in releasing engagement with said spring-like plates of said self-locking device, substantially as and for the purposes set forth.

11. A pad lock comprising a chambered cylinder formed with an open end and with a key-receiving opening in its other end-portion, and said cylinder being provided near its open end with a laterally extending opening, a shackle pivotally connected with said cylinder upon the outer surface thereof, said shackle being provided with a retaining end-portion adapted to enter said laterally extending opening, said retaining end-portion consisting of a pair of oppositely extending members, an anchor, and a connecting bar between said members and said anchor, a self-locking device adapted to be arranged in the open end of said cylinder, said device comprising a body, a pair of arms extending therefrom, each arm being formed with a tapered portion and off-sets, and spring-like plates mounted upon said arms adapted to be sprung into holding engagement with the said oppositely extending members and the anchor of said shackle, all combined with a key comprising a shank, a vertically disposed bar at one end of said key, and fingers extending laterally from said bar adapted to be brought in releasing engagement with said spring-like plates of said self-locking device, substantially as and for the purposes set forth.

In testimony, that I claim the invention set forth above I have hereunto set my hand this fourteenth day of February, 1910.

JOHN DEMBINSKI.

Witnesses:

FREDK. C. FRAENTZEL,

FREDK. H. W. FRAENTZEL.