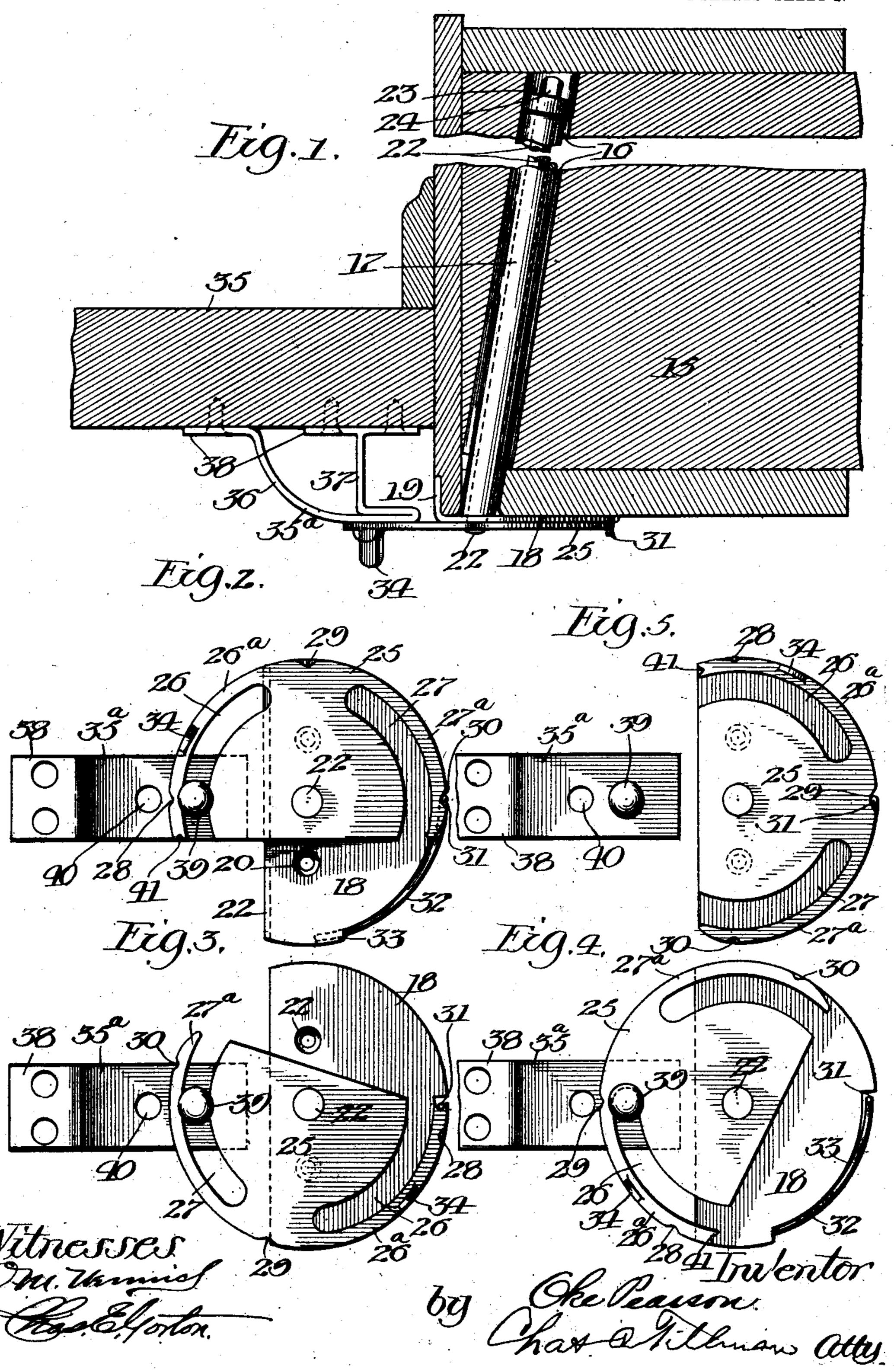
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DOOR CHECK AND LOCK.

APPLICATION FILED WAY 11, 1908.

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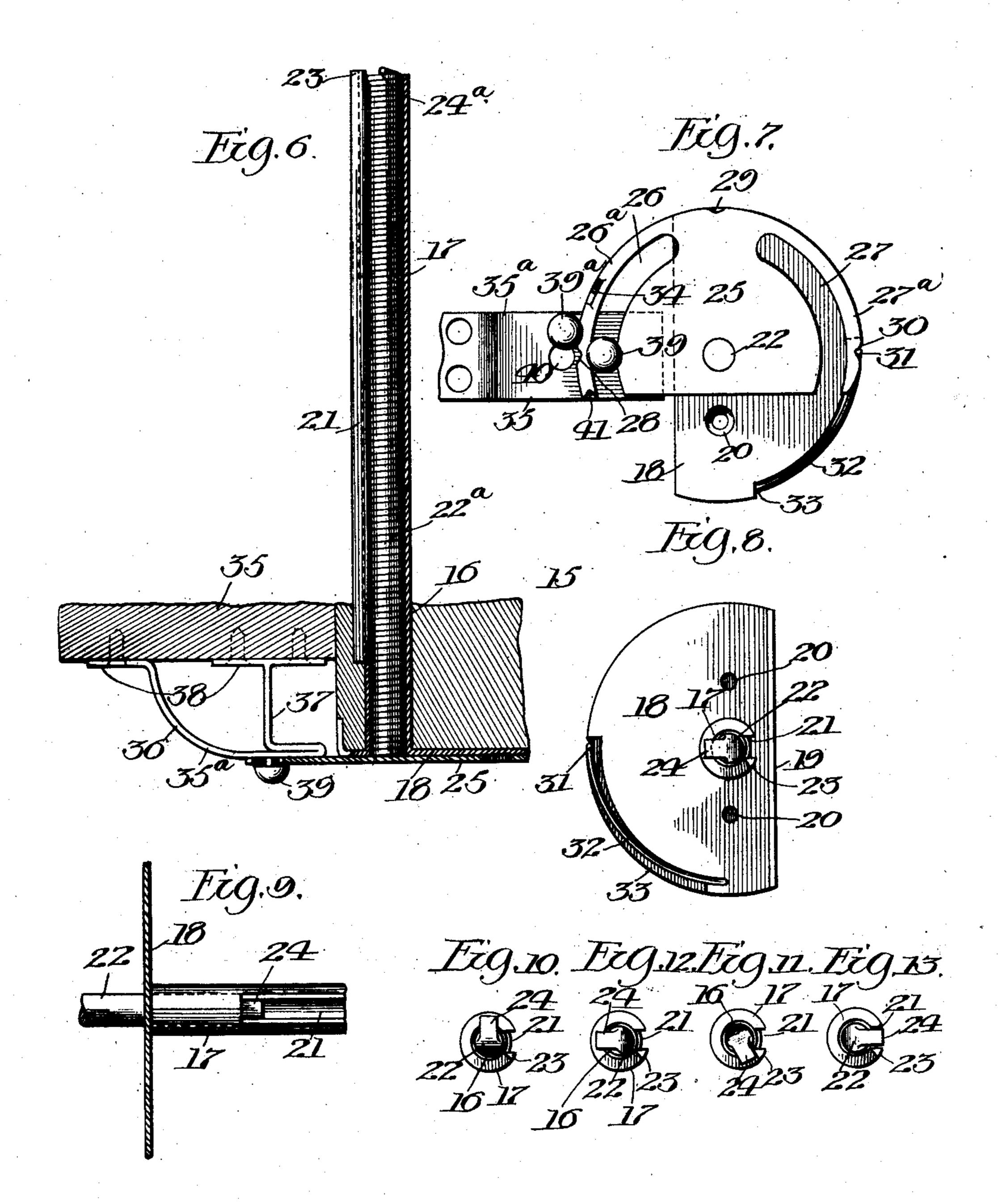
Patented Dec. 15, 1908.
2 SHEETS—SHEET 1.



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## UNITED STATES PATENT OFFICE.

OKE PEARSON, OF CHICAGO, ILLINOIS.

## DOOR CHECK AND LOCK.

No. 906,920.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed May 11, 1908. Serial No. 432,045.

To all whom it may concern:

Be it known that I, OKE PEARSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Door Checks and Locks, of which the following is a specification.

This invention relates to improvements in a device to be used in connection with doors and the frames thereof for the purpose of locking the door in its closed position, as well as for the purpose of restricting or checking its movement; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention is to provide a door check and lock, which shall be simple and inexpensive in construction, strong, durable and efficient in operation, and so made that it may be easily secured in place and its parts so arranged that the door may be readily and securely locked in its closed position yet freely released so that it may be freely and fully opened.

Another object of the invention is to provide a device of the above-named character, which shall be of such construction that the movement of the door may be checked or restricted when partially opened so as to prevent the entrance of intruders, yet so as to permit of conversation or observation through the space afforded by the partially opened door.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which my invention pertains, to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a plan sectional view of a portion of a door-frame and a part of a door, showing my door check and lock in position thereon with the parts thereof in the positions they will assume when the door is locked in its closed position; Fig. 2 is a face view of the device removed from the door and its frame, showing the parts in the positions illustrated in Fig. 1 of the drawings; Fig. 3 is a similar view of like parts, showing another position they will assume when the door is locked thereby in its closed posi-

tion; Fig. 4 is a face view of the parts of the device removed from the door and casing, showing the positions the parts will occupy to permit of a restricted movement 60 of the door; Fig. 5 is a similar view of like parts, showing the positions they will assume when the door is disengaged thereby so as to permit of its free movement; Fig. 6 is a plan sectional view of a portion of the 65 door and frame, showing a modification in the construction of the check or lock and illustrating the parts in the positions they will assume when the door is locked; Fig. 7 is a face view of the device, showing still 70 another modification in its construction and illustrating its parts in the positions they will occupy when the door is locked in its closed position; Fig. 8 is an end view in elevation of the locking-bolt and its securing 75 plate viewed from the inner surface thereof, and showing the bolt in the position it will occupy when it is desired that the door may be freely opened; Fig. 9 is a view partly in section and partly in elevation of a portion 80 of the locking-bolt, securing-plate and tube for said bolt, showing the means for restricting the movement of the latter;—and— Figs. 10 to 13, inclusive are inner end views of the locking-bolt and tube therefor, 85 showing the various positions the former will occupy in the operation of the device.

Like numerals of reference, refer to corresponding parts throughout the different views of the drawings.

The reference numeral 15 designates a portion of the frame of a door, which in Fig. 1 of the drawings is shown as being shortened for the convenience of illustration, and which may be of the ordinary or 95 any preferred construction. Near its face the frame 15 is provided with a horizontally and diagonally extended opening or bore 16 in which is located a tube 17 which has on its outer end a plate 18 which is substan- 100 tially semi-circular and has on its straight edge an inturned flange 19 to overlap a portion of the facing of the door-frame. This plate is provided with a number of openings 20 for the reception of screws used to 105 secure it to the door-frame. The tube 17 is provided with a slot 21 which extends from its inner end to near its other or outer end to which the plate 18 is secured which plate, it will be understood, has an opening there- 110 through to communicate with the opening in the tube and through which the locking

or controlling bolt 22 is extended at its outer end. The inner or free end of the tube 17 is provided on one side of the open end of the slot 21 therein with a projection 23 to engage a projection 24 on the inner end of the locking-bolt 22 so as to restrict the rotary

movement of said bolt.

Rigidly secured to the outer end of the locking-bolt 22, by means of solder or other-10 wise is a plate 25 which is substantially semi-circular in shape and is adapted to lie flatly but loosely against the outer surface of the plate 18 or securing-plate for the tube. The plate 25 is provided near its pe-15 riphery with two segmental slots 26 and 27, each of which has one of its ends open as is clearly shown in the different views of the drawings. At suitable points on the periphery of the plate 25 are provided recesses 20 28, 29 and 30 which are adapted for engagement with the outturned end 31 of a spring 32 which is secured to the plate 18 at its periphery and is preferably extended in a recess 33 therein, as is clearly shown in 25 Figs. 2, 4 and 8 of the drawings. The plate 25 is provided on its outer surface at a suitable point with a projection or thumb-piece 34 to be used for turning said plate, as well as the locking-bolt to which it is rigidly se-30 cured, as before stated.

Secured horizontally to the face of the preventing said plate turning further by door 35 and usually on a horizontal line with the bolt 22 is a bracket, which in the present instance, is shown as consisting of 35 two prongs or members 36 and 37, each of which has at its free end an apertured plate or portion 38 to be fastened to the door by means of screws or otherwise. The outer portions of the members 36 and 37 of the 40 bracket are united so as to form a flat surface which will lie in alinement with the outer surface of the plate 18 when the door is in its closed position, as shown in Figs. 1 and 6 of the drawings. This flat or outer 45 portion of the bracket is provided with a knob-like projection 39 with which the slots 26 and 27 of the plate 25 are adapted to engage. Near the knob 39 the bracket, which is indicated as a whole by the refer-50 ence numeral 35a, is provided with an opening 40 through which a screw-driver may be inserted to reach one of the screws used for securing the plate 38 on the member 37 to the door.

In Fig. 6 of the drawings I have shown a modification in the construction of the device, which consists in employing a flexible locking-bolt or rod 22a which may be made of coiled wire as shown, or in any well-60 known way, and has on its inner or free end a projection 24<sup>a</sup> to normally rest on the outer end of the tube 17 in which the flexible rod or bolt is located, and which tube is of the same construction as that shown in Figs. 65 1 and 9 of the drawings and above de-

scribed. In fact, in this modified construction the different parts of the device are of the same construction and arrangement as above-described, except that, the flexible rod or bolt 22ª is employed instead of a stiff or 70 rigid bolt as used in the other construction. By employing the flexible rod or bolt, it is apparent that the tube 17 may be located within the door-frame in parallelism with its face, instead of diagonally, as shown in 75 Fig. 1, for it is evident that the flexibility of the bolt will accommodate it in its movements to the arc described by the door when being opened.

In Fig. 7 is shown another modification in 80 the construction of the device, which consists in providing the bracket 35° with an additional knob-like projection 39a, instead of with one projection 39 only, as shown in the other construction. In this modified con- 85 struction, the projection 39a is located at a suitable distance from the projection 39 so that the segments 26° and 27° formed by the slots 26 and 27, respectively, may pass between said projections and be engaged by 90 the heads of both. The free end of the segment 26a is formed with a recess 41 to receive the outturned portion 31 of the spring 32 when the plate 25 is turned to the position shown in Fig. 3 of the drawings, thus 95

reason of its own gravity.

From the foregoing and by reference to the drawings it will be readily understood and clearly seen that the bracket 35° is se- 100 cured to the inner surface of the door near its swinging edge or that edge thereof opposite the one to which the hinges are secured, when, by closing the door and turning the plate 25 to the position shown in Figs. 105 1 and 2, the head of the projection 39 will engage said plate at the sides of the slot 26 therein, and that the outturned projection 31 on the spring 32 will engage the recess 30 in said plate, thus securely holding the 110 plate in said position. When the parts are thus disposed, it is apparent that the projection 24 on the inner or free end of the locking-bolt 22 will rest on the inner or free end of the tube 17 (see Fig. 10) so as to pre- 115 vent the withdrawal of the latter and thereby locking the door in its closed position, which can also be done by turning the plate 25 to the position shown in Fig. 3 of the drawings, where it may be held by reason of 120 the engagement of the projection 31 of the spring 32 with the recess 41 in the end of the segment 26° and by means of the lug or projection 23 on the free end of the tube 17, as will be readily understood by reference to 125 Figs. 3 and 11 of the drawings. When it is desired to restrict the movement of the door so as to permit it to be partially opened only, the plate 25 may be turned to about the position indicated in Fig. 4, when, by refer- 130

ence to Fig. 13, it will be seen that the projection 24 on the locking-bolt will be brought into alinement with the slot 21 in the tube, thus permitting the bolt and the plate 25 5 which it carries on its outer end and which is in engagement with the projection 39 to be extended until the projection 24 strikes the tube at the outer portion thereof where the slot therein terminates, thus preventing 10 further movement of the door, but allowing it to be closed. When it is desired to disengage the plate 25 so as to permit of the free movement of the door, said plate may be turned to the position shown in Fig. 5 where 15 it may be held by means of the spring 32 and its projection 31 engaging the recess 29 in said plate. When the parts are thus disposed it will be understood that the projection 24 on the inner or free end of the lock-20 ing-bolt will occupy about the position with respect to the slot 21 in the tube 17 as shown in Fig. 12 of the drawings.

When the modified constructions illustrated in Figs. 6 and 7 are employed, the op-25 eration is substantially the same as that above described, except that, the two projections 39 and 39a will engage the sides of the slots in the plate 25, as well as the segments

thereon.

From the above description of my improvements it will be obvious that the improved door check and lock constructed and arranged according to my invention is of an extremely simple and practicable nature, 35 and that the improved device is susceptible of considerable modification without material departure from the principles and spirit of the invention, and for this reason I do not desire to be understood as limiting my-40 self to the precise form and arrangement of the several parts thereof herein set forth in carrying out my invention in practice.

Having thus fully described my invention, what I claim as new, and desire to secure by

45 Letters-Patent, is—

1. A door check and lock, consisting of a tube adapted to be located in an opening in the door-frame and having a slot extending from its inner end to near its outer end, a 50 locking-bolt movably located in the tube and having at its inner end a lateral projection adapted to engage the inner end of the tube and to traverse the slot therein, a plate secured to the outer end of the locking-bolt 55 and having a segmental slot near its edge, and a knobbed projection supported on the door and adapted to engage said slot.

2. A door check and lock, consisting of a tube adapted to be located in an opening in 60 the door-frame and having a slot extending from its inner end to near its outer end, a locking-bolt movably located in the tube and having at its inner end a lateral projection adapted to engage the inner end of the tube 65 and to traverse the slot therein, a plate se-

cured to the outer end of the locking-bolt and having a plurality of segmental slots near its edge, and a knobbed projection supported on the door and adapted to engage said slot.

3. A door check and lock, consisting of a tube adapted to be located in an opening in the door-frame and having a slot extending from and through its inner end to near its outer end, a locking-bolt movably located 75 in the tube and having at its inner end a lateral projection adapted to engage the inner end of the tube and to traverse the slot therein, a plate on the outer end of the tube and secured to the door-frame, a plate se- 80 cured to the outer end of the locking-bolt and having a segmental slot near its edge, means on the first-named plate to engage and hold the last-named plate in different positions, and a knob-like projection supported 85 on the door and adapted to engage said slot.

4. The combination with a door-frame having a bore therein, of a locking-bolt located in said bore and having at its inner end a lateral projection, means near the in- 90 ner and outer ends of the bore adapted to engage the projection on the bolt, a plate secured to the outer end of the bolt and having a segmental slot near its edge, and a projection supported on the door near the bore 95

and adapted to engage said slot.

5. The combination with a door-frame having a bore therein, of a locking-bolt movably located in the bore and having at its inner end a lateral projection, means in the 100 bore near its inner end adapted to engage the projection on the bolt, a plate secured to the outer end of the locking-bolt and having a segmental slot near its edge, and a projection supported on the door and adapted to 105

engage said slot.

6. The combination with a door-frame having a bore therein, of a locking-bolt movably located in the bore and having at its inner end a lateral projection, means near 110 the ends of the bore adapted to engage said projection on the bolt, an apertured plate secured to the door-casing at the outer end of the bore therein, a plate secured to the outer end of the locking-bolt and having a seg- 115 mental slot near its edge, a projection supported on the door and adapted to engage said slot, and means for securing the lastnamed plate in different positions on the first-named plate.

7. A door check and lock, consisting of a tube adapted to be located in an opening in the door-frame and having a slot extending from and through its inner end but terminating near its outer end, a plate secured to 125 the outer end of the tube and to the doorframe, a spring secured at one of its ends to said plate and having an outturned projection on its other end, a locking-bolt extended through said plate and tube and having 130

on its inner end a lateral projection adapted to engage the inner end of the tube and to traverse the slot therein, a locking-plate rigidly secured to the outer end of the locking-bolt and provided on its periphery with a series of recesses and near its periphery with one or more segmental slots, and a bracket secured to the door near the outer end of

said tube and having on its outer portion one or more projections to engage the slots 10 in the locking-plate and said plate.

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