

J. KLEIDMANN.
DOOR CHAIN.

APPLICATION FILED OCT. 12, 1907.

Fig. 1

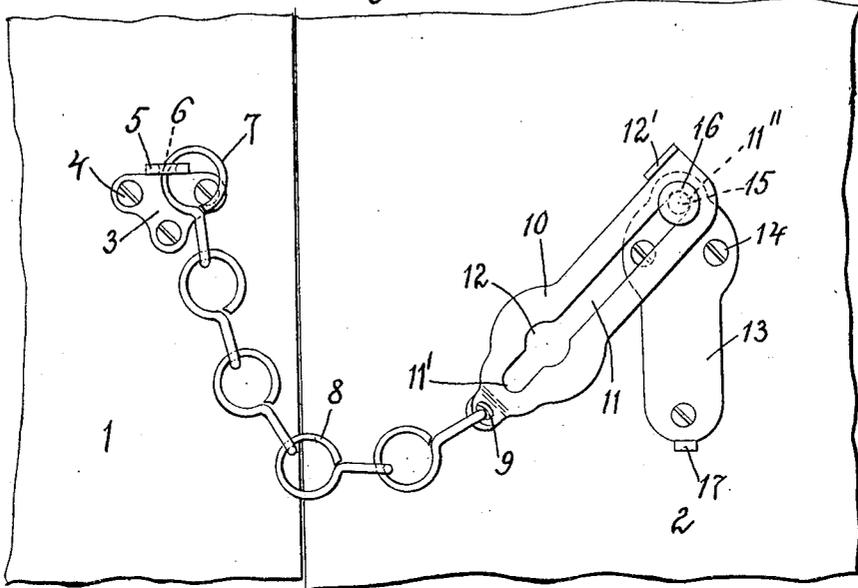


Fig. 5

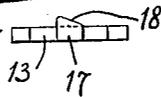


Fig. 2

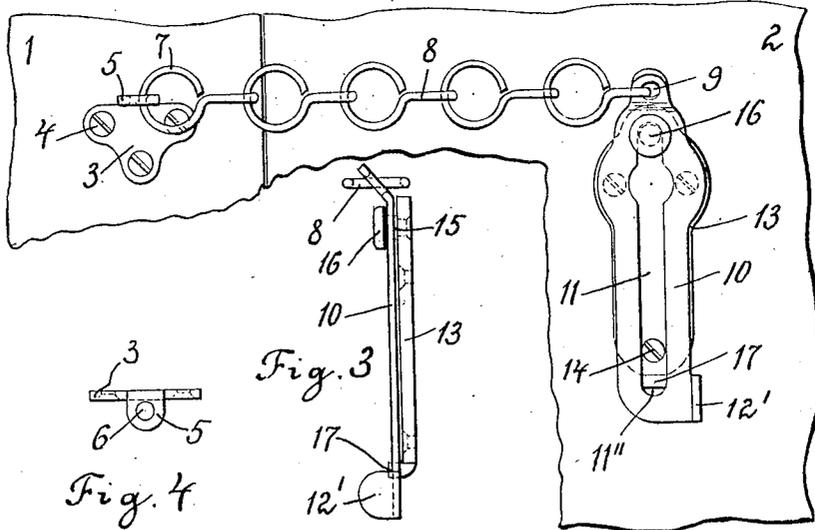


Fig. 3

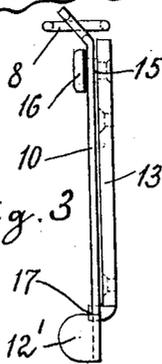
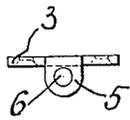


Fig. 4



WITNESSES

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UNITED STATES PATENT OFFICE.

JOSEPH KLEIDMANN, OF NEW YORK, N. Y., ASSIGNOR TO CHAFEE MANUFACTURING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

DOOR-CHAIN.

No. 878,294.

Specification of Letters Patent.

Patented Feb. 4, 1908.

Application filed October 12, 1907. Serial No. 397,128.

To all whom it may concern:

Be it known that I, JOSEPH KLEIDMANN, a subject of the Czar of Russia, and a resident of Brooklyn, of the city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Door-Chains, of which the following is a specification.

The present invention relates to improvements in door chains.

The object of the invention is to provide a door chain which, when in a certain position, allows the door to be opened to a certain extent, and which, when in another position, serves to lock the door to prevent the same from being opened, even to a slight extent.

Generally speaking, the invention consists of a chain or a flexible member, connected to the door frame, and having a slotted bar attached at its free end which may engage a pin, secured to the door. As one end of the slot or the other engages the pin, the door may be opened partially or will be held in a closed position.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a front view of the device, in a position so as to allow the door to be opened partially, and Fig. 2 is a similar view, the chain being drawn taut. Fig. 3 is a side elevation of the device, and Figs. 4 and 5 are details of construction.

Referring more particularly to the drawings, 1 represents a portion of a door frame and 2 a portion of a door. A plate 3 is secured rigidly in position upon the door frame by screws 4, arranged in suitable openings of the plate. An inwardly bent projection 5 is arranged on the plate 3 and has an opening 6 therethrough. The opening 6 is engaged by the end link 7 of a chain 8, the free end of which engages an opening 9 of a slotted bar 10.

It is obvious that it is not necessary to employ a chain proper, but that any strong flexible member serves the purpose, for instance, a piece of wire-rope or of any other suitable material.

The bar 10, hereinbefore referred to, is provided with a longitudinal slot 11, having near to one of its ends a circular enlargement 12, the purpose of which will be hereinafter more fully described. The slotted bar 10 is furthermore provided with a handle

12', by means of which this bar may be actuated.

A holding bracket plate 13 is attached fixedly upon the door by means of screws 14. Near to one end of the bracket plate 13 is arranged a pin 15, provided with a head 16, being of slightly less diameter than the circular opening 12 of the slot 11. This pin serves to engage the slot 11 of the bar 10. The other end of the bracket plate 13 is bent upwardly at 17 and forms a wedge-shaped projection 18, being of the same width as the slot 11 of the bar 10.

The distance in which the plate 3 and the bracket-plate 13 are arranged on the door frame and door, respectively, corresponds to the length of the chain 8.

It is obvious that the plate 3 may be secured to the door and the bracket-plate 13 to the door frame.

The operation of the device is as follows: The circular enlargement 12 of the slot 11 being of slightly larger diameter than the head 16 of the pin 15, it is obvious that the head 16 will pass into the circular enlargement 12, whereby the slot 11 will engage the pin 15. The head 16 extends over the edges of the slot and when therefore, the bar is pushed downwardly, it will keep the slot in engagement with the holding pin 15. The head 16 having passed into the circular enlargement 12, the weight of the chain and the slotted bar 10 pushes the slotted bar downwardly, whereby the end 11' of the slot 11 rests against the pin 15, (Fig. 1). The door can be opened in this case to a certain extent, as is usually the case with door chains of the ordinary type. A sudden pressure on the door from the outside will cause the end 11' of the slot 11 to press against the pin 15, and, since the head 16 of this pin extends over the edges of the slot, a locking engagement will be thus effected. The device cannot be operated by a person on the outside of the door, since the slotted bar cannot be pushed upwardly, unless the door is closed.

When it is desired to lock the door, the bar 10 is pushed upwardly until the end 11' of the slot 11 is brought in contact with the pin 15, then the bar is swung around the pin until the lower end of the bar abuts the wedge-shaped projection 18. Exerting now a slight pressure against the wedge-shaped projection, the edge of the bar will be grad-

ually lifted and slide over the projection until the latter is engaged by the lower end of the slot 11. The swinging of the bar in the direction of the projection draws the chain
 5 quite taut, and when the slot engages the wedge-shaped projection the opening of the door is prevented even to a slight extent.

It will be observed that in order to permit a person within a room to investigate an occurrence at the other side of the room, it is
 10 not necessary to open the door wide enough to permit entrance therethrough. It is simply necessary, when the door is in a closed position as shown in Fig. 2, to lift the
 15 lower end of the bar so as to disengage the slot with the wedge-shaped projection 18, swing around the bar, and push the same downwardly so that the edge 11" of the slot engages the pin 15. Should it now become
 20 necessary to open the door entirely, the bar is pushed upwardly until the circular opening 12 may pass over the head 16 of the pin 15, whereby the door can be opened.

What I claim is:

25 1. In a fastening device for doors; the combination with a flexible member adapted to be attached to the door, of a bar secured to said flexible member, a holding bracket secured to said door, a pin on said holding
 30 bracket and adapted to secure said bar to said door at a plurality of points of said bar, said bar being suited to draw said flexible member taut when the bar is swung around said pin so as to occupy a position
 35 substantially at right angles to the longitudinal axis of said flexible member.

40 2. In a fastening device for doors, the combination with a flexible member adapted to be attached to the door frame, of a bar secured to said flexible member, a holding

bracket on the door, a pin on said holding bracket engaging said bar and adapted to fasten the same to said door at a plurality of points of said bar, said bar being suited to draw said flexible member taut when the
 45 same is swung around said pin, and means on said bracket engaging said bar and locking the same when said bar is in a position parallel to the line passing through said pin and said engaging means. 50

3. In a fastening device for doors, the combination with a flexible member adapted to be attached to the door frame, of a bar secured to said flexible member and having a longitudinal slot, a holding bracket at-
 55 tached to the door and carrying a pin adapted to engage said slot, and locking means on said holding bracket and engaging said slot when said bar is in a position parallel to the line passing through said pin and said lock-
 60 ing means.

4. In a fastening device for doors, the combination with a flexible member adapted to be attached to the door frame, of a bar secured to said flexible member and having a
 65 longitudinal slot, a holding bracket attached to the door and carrying a pin adapted to engage said slot, and a wedge-shaped projection on said holding bracket and engaging said slot when said bar is in a position parallel to the line passing through said pin and
 70 wedge-shaped projection.

Signed at New York, in the county of New York and State of New York, this 9th day of October, A. D. 1907.

JOSEPH KLEIDMANN.

Witnesses:

FRITZ POHL,
 MAX WARCHAIZER.