April 17, 1945. F. SCHLIFER 2,373,783

LOCKING MECHANISM

Filed Feb. 16, 1944 2 Sheets-Sheet 1

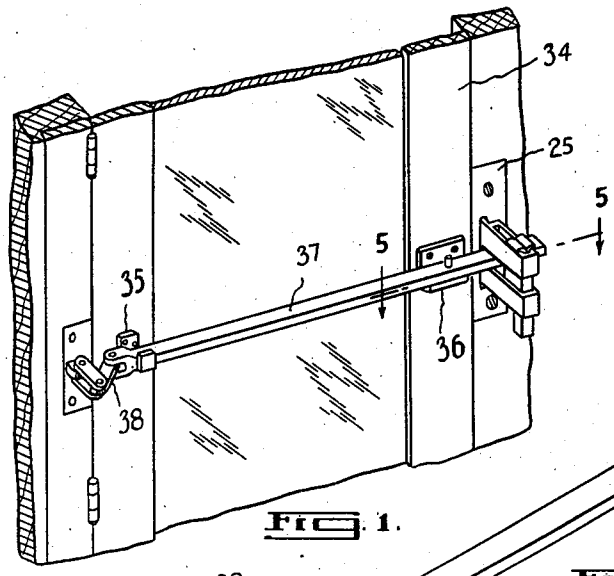


Fig. 1.

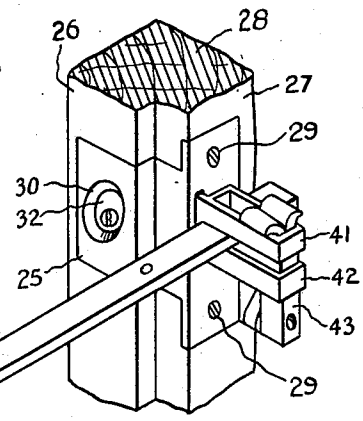
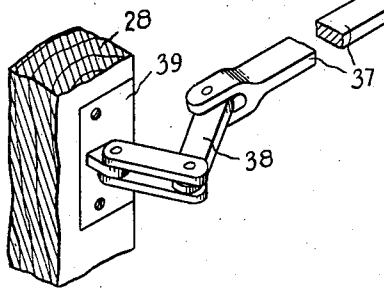


Fig. 2.



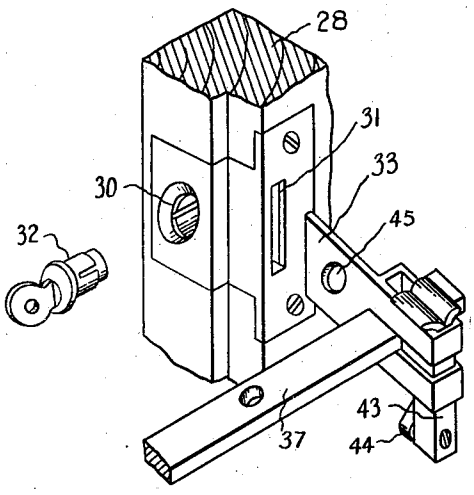


Fig. 3.

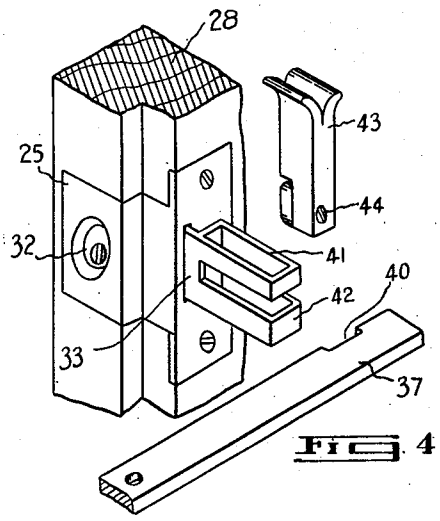


Fig. 4.

Inventor
Frederick Schlifer
By E. N. Fetherstonhaugh Attk.

April 17, 1945. F. SCHLIFER 2,373,783

LOCKING MECHANISM

Filed Feb. 16, 1944 2 Sheets-Sheet 2

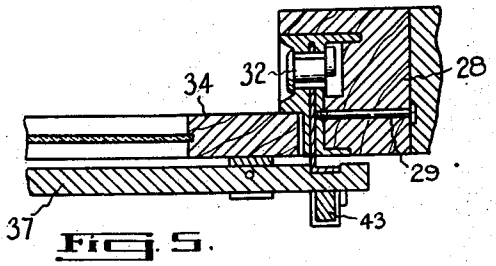


Fig. 5.

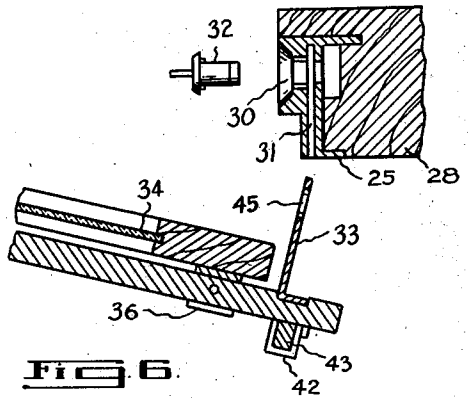


Fig. 6.

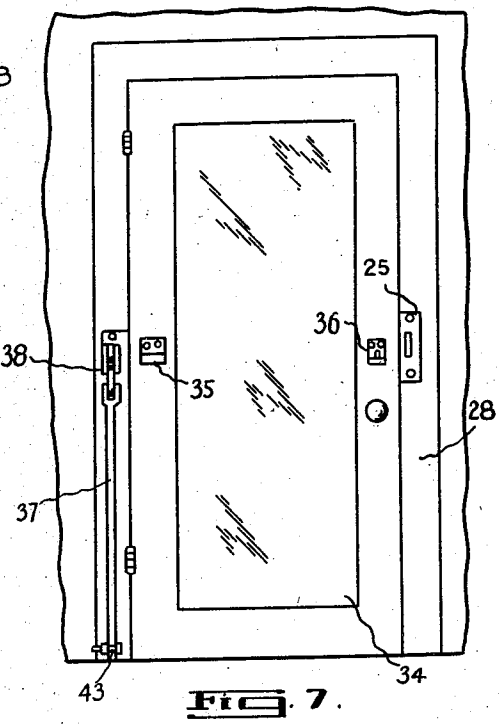


Fig. 7.

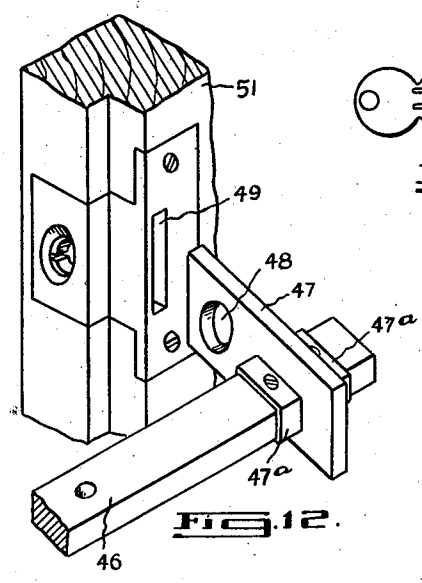


Fig. 12.

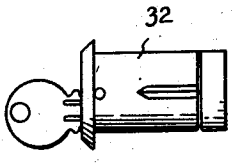


Fig. 8.

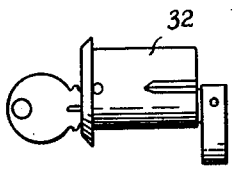


Fig. 10.

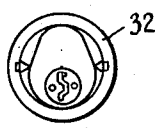


Fig. 9.

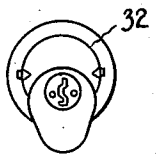


Fig. 11.

Inventor
Frederick Schlifer
By E. N. McClatchey
Atty.

Patented Apr. 17, 1945 2,373,783

UNITED STATES PATENT OFFICE

2,373,783

LOCKING MECHANISM

Frederick Schlifer, Toronto, Ontario, Canada

Application February 16, 1944, Serial No. 522,645

2 Claims. (Cl. 70—101)

The invention relates to a locking mechanism, as described in the present specification and illustrated in the accompanying drawings that form a part of the same.

The invention consists essentially of the novel features of construction pointed out broadly and specifically in the claims for novelty following a description in detail of an acceptable form of the invention.

The objects of the invention are to furnish a means for locking doors and French windows in such a way that they will form an auxiliary locking means to the ordinary locking means in use, whereby any unlawful breaking-in will be materially impeded and, at the same time, allow the rightful tenants to enter or leave the premises at will; to devise a locking mechanism preferably having a bar which may be situated on the inside of the door and that can be locked from either within or without, and opened correspondingly; to form an effective barrier to marauders and to make a locking mechanism as inaccessible as possible and greatly to increase the advantages over the ordinary locking bar at present in use, which is introduced on the exterior or interior side of the door and which is liable to be tampered with or pulled out, and at the same time being useless if any persons are within the dwelling since they cannot leave while the ordinary bar is locked in position on the outside; and generally to provide a locking mechanism that may be combined with or without a locking bar and which will be comparatively simple in construction and highly efficient for its various purposes.

In the drawings:

Figure 1 is a fragmentary perspective view of the inside of a door and door frame having the locking mechanism applied thereto and including a bar.

Figure 2 is an enlarged fragmentary perspective view showing the door frame and the locking mechanism of the double action type as applied thereto.

Figure 3 is an enlarged fragmentary perspective detail of a portion of the door frame showing the locking mechanism of the double action type and having the locking cylinder detached therefrom.

Figure 4 is an enlarged fragmentary perspective detail of a portion of the door frame showing the locking mechanism of the double action type and having the bar detached therefrom.

Figure 5 is a cross-sectional view as taken on the lines 5—5 in Figure 1.

Figure 6 is a cross-sectional view of the double action type of locking device having the locking cylinder and bar detached therefrom.

Figure 7 is a fragmentary interior elevational view of the door frame and door having the locking bar in its inoperative position.

Figure 8 is an enlarged side elevational view of the lock.

Figure 9 is an enlarged rear elevational view of the lock.

Figure 10 is an enlarged side elevational view of the lock in its operative position.

Figure 11 is an enlarged rear elevational view of the lock in its operative position.

Figure 12 is an enlarged fragmentary perspective detail of a portion of a door frame showing the locking mechanism of the single action type and having the bar detached therefrom.

Like numerals of reference indicate corresponding parts in the various figures.

Referring to the drawings, the locking mechanism consists of a tongue locking member as indicated by the numeral 25 which is suitably fastened to the outside surface 26 and the inside surface 27 of the door frame 28 by means of screws or other fastening members 29, and is provided with the orifice 30 through its outside portion and the slot 31 through its inside portion which are for the purpose of receiving the cylindrical lock 32 and the locking tongue 33. The orifice for the cylindrical lock is so arranged as to be at right angles to, as well as intersecting, the slot 31 for the locking tongue 33.

The door 34 is provided with the brackets 35 and 36 and which are adapted to support and engage with the locking bar 37. This locking bar 37 is pivotally secured to the door frame 28 adjacent to the hinged side of the door by means of the link member 38 which is secured to the bracket 39 fastened to the door frame, while the other end of the locking bar is provided with a recess 40 and is adapted to engage between the flanges 41 and 42 of the locking tongue 33 and be retained within the locking tongue 33 by means of the locking wedge 43 which is provided with a lock 44.

The locking tongue 33, having an orifice 45, is adapted to be brought into alignment with the orifice 30 of the tongue locking member 25 when the locking tongue 33 has been placed in the slot 31; and the cylindrical lock 32, engaging with the orifice 30, will extend through the orifice 45 of the locking tongue 33 and lock in that position.

It will, therefore, be seen that the mechanism as above described has a double action, in that a

door equipped with such a mechanism may be unlocked from the inside or the outside or vice versa, because assuming that a person is outside and desires to enter, all he has to do is to remove, by means of a key, the cylindrical lock from the locking member and then push open the door, as the tongue will be disengaged with the locking member and pull away from the slot as the door is being opened.

In the same way a person from the inside may easily leave the premises when the door is locked by simply unlocking the lock **44** and removing the wedge **43** from the locking tongue **33** and then removing the bar **37** therefrom, which enables them to leave the premises.

If he desires to relock the premises, all that he is required to do is simply remove the cylindrical lock **32** from the locking member **25** and thereby the tongue and then, by replacing the bar **37** to the locking tongue **33** and reinserting the wedge **43** and locking the same, he can simply close the door and the locking tongue **33** is brought back in its locking position within the locking member **25** and all that he has to do then is to reinsert his cylindrical lock **32** and the premises are then thoroughly locked.

In this way it will be seen that means are provided for leaving and entering the premises.

In Figure 12, the locking mechanism as shown is of a single action type, that is to say it is locked from one side only and is for the purpose of locking the door from the outside, and it consists of a similar lock as hereinabove described with the exception that the locking bar **46** is provided with a tongue **47** and held together by the clips **47A** and the tongue has the orifice **48** and this tongue **47** is adapted to engage in the slot **49** of the locking mechanism **50** secured to the door frame **51**.

It will be seen that, the essential difference between the two types is in the elimination of the locking wedge **43** and lock **44** from the locking bar **46**.

The operation and use of the modified forms are very similar to the general type. In all cases the actual locking mechanism is accomplished through the door frame for locking the door in its closed position, while an additional locking mechanism may be added by the introduction of a locking bar, according to the particular requirements and uses of the locking mechanism.

It will be obvious that various changes may be made in the details of construction without departing from the spirit of this invention, it is, therefore, to be understood that the invention is not to be limited to the specific details shown and described.

What I claim is:

1. In a locking mechanism used in conjunction with a door and a door frame, a locking tongue having flanges on the inner side of the door, said locking tongue having an orifice therein, a tongue locking member secured to the door frame, said tongue locking member having a plurality of orifices therein adapted to coincide with the said orifice in the said locking tongue when the door is closed, a locking bar pivotally secured to the door frame remote from the tongue locking member, said locking bar having a recess and adapted to engage in the said flanges in the said locking tongue, a locking wedge adapted to secure said locking bar in the said flanges in the said locking tongue, a lock in the said locking wedge and a cylindrical lock of a diameter equal to the orifices in the said locking tongue, and tongue locking member adapted to engage said locking tongue in said tongue locking member.

2. In a locking mechanism used in conjunction with a door and a door frame, a locking tongue having flanges, said locking tongue having an orifice therein remote from said flanges, a tongue locking member secured to the door frame, said tongue locking member having a plurality of orifices therein adapted to coincide with said orifice in said locking tongue, a locking bar pivotally secured to the door frame remote from the tongue locking member and supported on the door by brackets, one of said brackets having a vertical pin, said locking bar having a recess adapted to engage in said flanges in said locking tongue and an orifice therein adapted to engage with said pin on said bracket, a locking wedge adapted to fixedly secure said locking bar in said flanges in said locking tongue, a lock in said locking wedge and a cylindrical lock of a diameter equal to the orifices in said locking tongue, said tongue locking member adapted to secure said locking tongue in said tongue locking member.

FREDERICK SCHLIFER.