Jan. 26, 1954 C. P. SKOGLUND 2,667,058

LOCK FOR SWINGING DOORS

Filed May 11, 1950

Fig. 1.

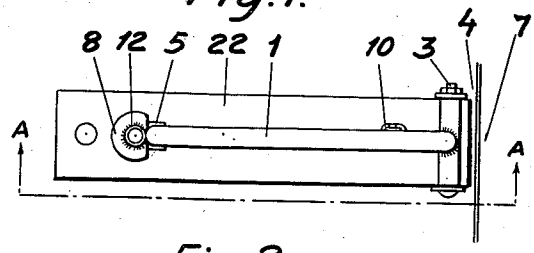


Fig. 2.

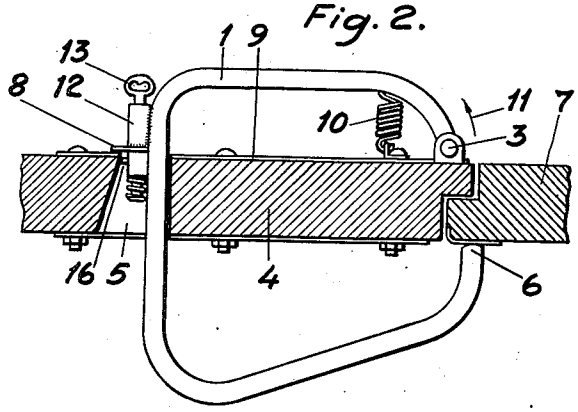


Fig. 4.

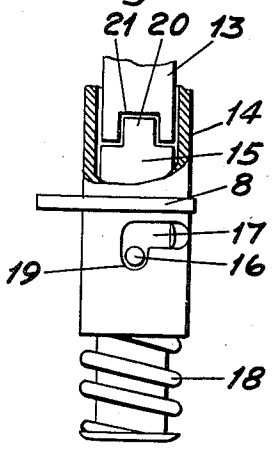
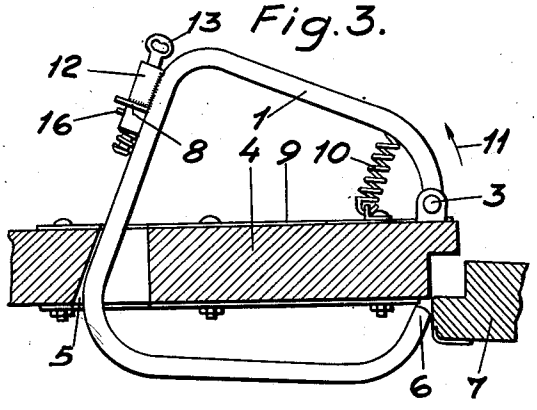


Fig. 3.



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LOCK FOR SWINGING DOORS

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1 Claim. (Cl. 70—150)

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This invention relates to a lock for doors and the like, particularly for barn doors. An object of the present invention is to provide a simplified lock for barn doors and the like which can be conveniently opened from either side of the associated door

Another object is to provide a lock of the described character having means thereon, operable from only one side of the door, to prevent opening of the lock.

In accordance with the present invention, the above and other objects, features and advantages are achieved by providing a lock which includes a substantially U-shaped, arcuate handle or member having two spaced legs disposed at opposite sides of the door and a portion connecting the legs at one end of the latter and extending loosely through an opening in the door. The leg portions of the arcuate member extend from the connecting portion in the direction toward the free edge of the door, and the free ends of the leg portions are bent toward each other. The free end of the leg portion at the side of the door facing toward the opening direction is pivotally mounted on the door adjacent the free edge of the latter, and resilient means acts on the arcuate member to urge the latter to a position in which the free end of the other leg portion rests against the door jamb when the door is in its closed position to resist opening of the door. Finally, a movable latch is mounted on the arcuate member and is engageable with the door for retaining the arcuate member in its resiliently urged or closed position.

The invention is to be described more in detail hereinafter with reference to the accompanying drawing, in which:

Fig. 1 shows the lock viewed from one side,

Fig. 2 is a section A—A of the lock with the door in closed position,

Fig. 3 is the same section with the door in open position, and

Fig. 4 is a locking device for the lock, viewed from the left in Figs. 2 and 3, but on a larger scale and partly in section.

The lock shown in the drawing consists of a handle 1 which is swingably mounted in a bearing 3 provided adjacent the free edge and on that side of the door 4 which faces in the opening direction of the door. As will be seen from Figs. 2 and 3, the handle extends from the bearing 3 in a curve, away from the free edge of the door to a through opening 5 in the door and then passes loosely through said opening and

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continues on the other side of the door in a curve in the direction towards the doorpost or jamb 7. The free end 6 of the handle is normally located in a position outside the edge of the door, so that the door can be retained in the closed position by said handle end 6 resting against the jamb 7 or the like. On that part of the handle 1 which is located on the same side of the door as the bearing 3, a flange 8 is provided at the opening 5 intended to restrict the swingability of the handle in the direction towards the other side of the door. A tension spring 10 provided between the fitting 9, on which the bearing 3 is arranged, and the handle tends to swing the handle towards its closed position, shown in Fig. 2, in which the flange 8 rests against the edge of the opening 5.

When the door is to be opened, the handle in Fig. 2 is swung towards its position shown in Fig. 3 against the action of the spring 10, the end 6 being disengaged from its contact with the jamb 7 so that the door can be opened in the direction of the arrow 11. When the door is being closed, that curved part of the handle which is located next to the end 6, will slide against the jamb so that the handle is swung in relation to the door to a position in which the end 6 can pass by the jamb. As soon as the end 6 has passed by the post, the spring 10 swings the handle back to its position shown in Fig. 2.

In order to lock the door in its shut position, a locking device 12 is provided at the flange 8 for operation by a removable key 13. This locking device is shown on a larger scale in Fig. 4. It consists of a cylinder 14 which is welded to the handle and in which a rod 15 is rotatably arranged. A pin 16 projects radially from the rod 15 through an opening 17 extending circumferentially in the cylinder 14. The pin 16 is arranged in such a manner that when the door is shut, the pin can in one position project under the edge of a fitting 22 covering the opening 5 whereby the pin prevents the swinging of the handle 1. In another position of the pin in which the pin is located in the plane of the handle, the pin can pass by the edge of the opening of the fitting 22 so that the handle can be swingably displaced to its open position (Fig. 3).

It is clear from Fig. 4 that, on that part of the rod 15 which projects from the cylinder 14, there is arranged a compression spring 18 which tends to push the rod out from the cylinder. The opening 17 is provided with two axially widened portions, one of which is visible in Fig.

4 and identified by the numeral 19. These widened portions are located in such a manner that the pin 16 can slide into the same in the locked and opened position respectively, and be retained there resiliently by the spring 18. That end of the rod which is remote from the spring 18, is provided with a ridge 20 which may be engaged by the end of the key 13 having a corresponding or mating groove 21.

While a specific embodiment of the present invention has been described in detail and illustrated in the accompanying drawing, merely by way of example, it is to be understood that the invention is not limited to that precise embodiment, and that various changes and modifications may be effected therein without departing from the spirit or scope of the invention as defined in the appended claim.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

A lock for a swinging door including an arcuate operating member pivotally mounted on the door near the free edge thereof and a spring urging the member toward closed position, said operating member having one end pivoted to the door, an intermediate portion passing freely through the door, and a free end adapted to rest against the door jamb in the closed position and facing toward said pivoted end, and a locking device secured on said arcuate member comprising a movable latch having means extending therefrom to engage the door and retain said arcuate member in closed position.

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