

June 23, 1931.

O. BANKER

1,811,291

LOCK

Filed May 2, 1930

Fig. 1.

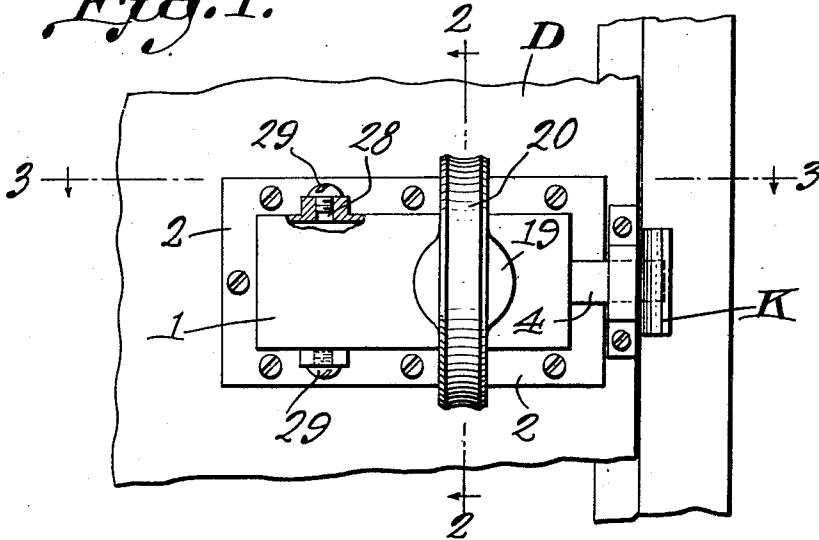


Fig. 2.

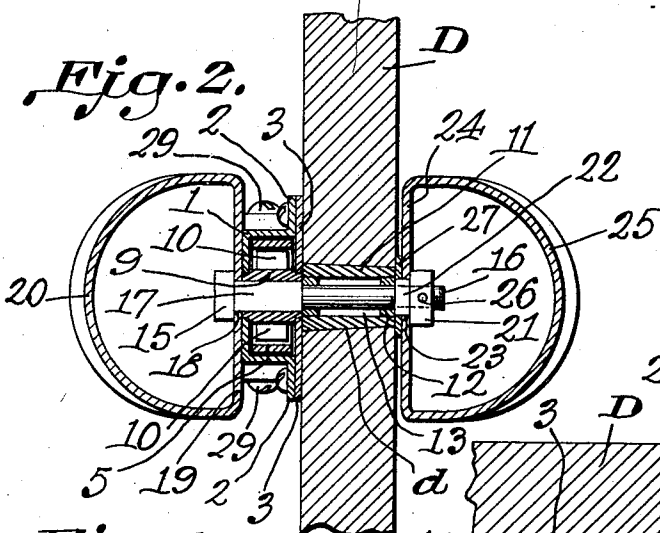


Fig. 5.

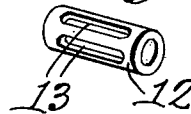


Fig. 3.

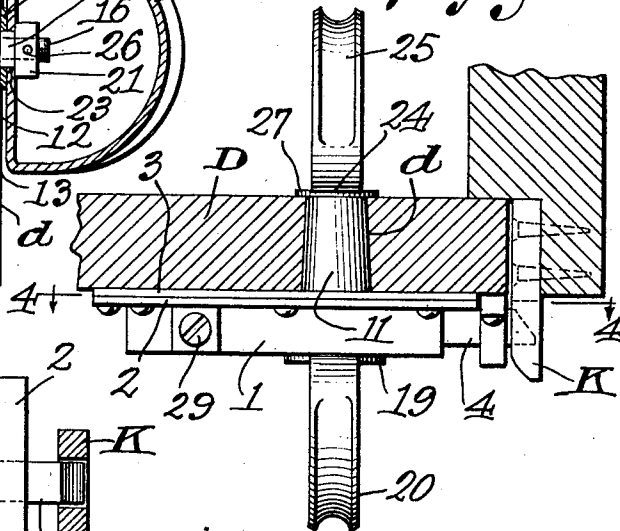
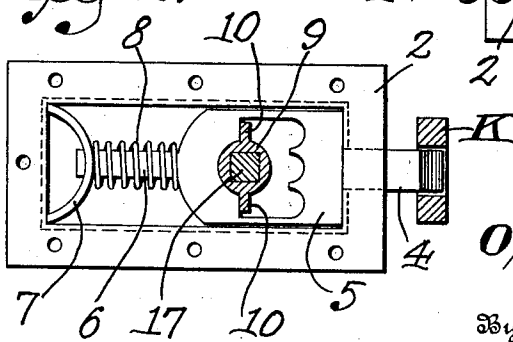


Fig. 4.



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UNITED STATES PATENT OFFICE

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LOCK

Application filed May 2, 1930. Serial No. 449,282.

This invention relates to a lock designed primarily for use on barn doors and the like where they are exposed at all times to the action of the elements.

It is an object of the invention to provide a lock which can be packed with a lubricant which serves not only to keep the parts in proper working condition but also acts to prevent the ingress of moisture through the lock.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings

Figure 1 is an elevation of the lock, the same being shown in position on a door, a portion of which has been illustrated.

Figure 2 is a section on line 2—2, Figure 1.

Figure 3 is a section on line 3—3, Figure 1.

Figure 4 is a section on line 4—4, Figure 3.

Figure 5 is a perspective view of the inner bushing of the lock spindle.

Referring to the figures by characters of reference, 1 designates a lock housing which can be provided with a flange 2 bearing against a base plate 3, both the base plate and the housing being held to a door D by screws extending through the flanges 2 and the base plate.

A bolt 4 is extended from the housing and it is preferably made integral with a slide 5. A stem 6 may be extended from the slide and works within a guide 7, there being a spring 8 on the stem for holding the bolt 4 normally projected where it will engage a keeper K.

A sleeve 9 is journaled at one end in the housing 1 and at its other end in the plate 3 and carries wings 10 for engagement with the slide 5 whereby when the sleeve is turned in either direction the slide will be shifted

against the action of spring 8 so as to draw bolt 4 from its keeper K.

The door D is provided with a tapered opening *d* in which is tightly wedged a tapered outer bushing 11 which extends from one side to the other of the door D.

Rotatably mounted within the bushing 11 is an inner bushing 12 which is shaped to fit snugly in the bushing 11 and has a plurality of longitudinal openings 13. A spindle 14 is rotatably mounted in the bushing 12 and has a head 15 at one end while its other end is screw threaded as shown at 16. That portion of the spindle adjacent to the head is angular in cross section as shown at 17 and is seated in the sleeve 9 so that when the spindle is rotated said sleeve will also rotate.

The angular portion 17 of the spindle extends through a corresponding opening 18 formed in the straight side 19 of a handle 20 which is preferably substantially semi-circular.

The screw-threaded end of the spindle is engaged by a nut 21 having an angular portion 22 fitted in an opening 23 formed in the straight side 24 of a handle 25 which is substantially semi-circular. The nut can be locked to the threaded portion of the spindle by any suitable means, such as a set screw or a pin 26, and a spacing washer 27 can be interposed between the handle 25 and the door D.

Openings for the reception of grease or other suitable lubricant can be provided at any points desired. In the drawings such openings have been indicated at 28 in the walls of the housing 1, and are normally closed by screws 29.

After the lock has been assembled with a door in the obvious way, grease can be forced thereinto under pressure and will fill all spaces within the lock. This grease will serve not only to keep the lock thoroughly lubricated at all times, but will also prevent moisture from getting into the lock. In other words, the grease acts as a packing as well as a lubricant.

What is claimed is:

A lock including a casing constituting a

grease container, said casing having a normally closed opening, a bolt slidable in the casing, a sleeve journaled in the casing and operatively connected to the bolt, a tapered tubular bushing for insertion into a door or the like, and a slotted inner bushing rotatable in the tapered bushing for receiving grease from the sleeve and housing, a spindle secured in the slotted bushing and sleeve and rotatable with the sleeve, and operating handles fixedly secured to the respective end portions of the spindle for holding the housing and bushings in abutment.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.
OTTO BANKER.

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