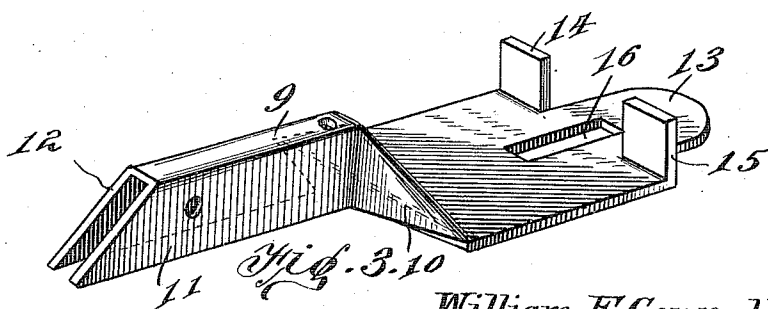
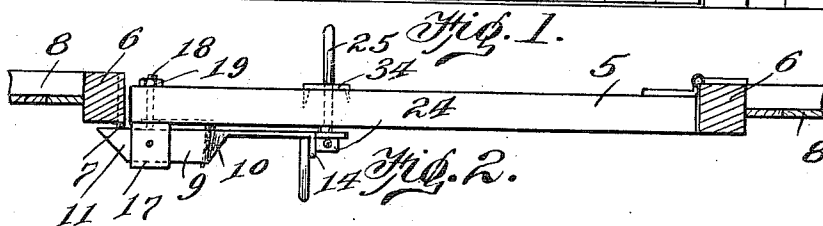
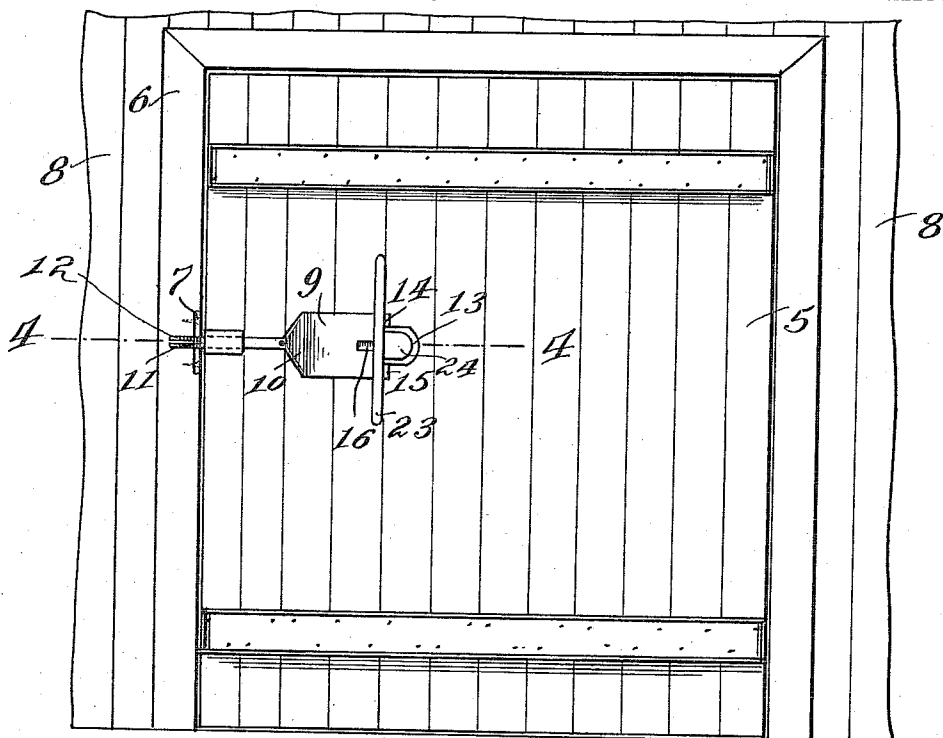


W. F. CONNOLLY.
BARN DOOR LATCH.
APPLICATION FILED JUNE 1, 1910.

985,727.

Patented Feb. 28, 1911.

2 SHEETS—SHEET 1.



Witnesses

A. V. Lybrand
John W. Morgan.

Inventor
William F. Connolly

By Victor J. Evans
Attorney

W. F. CONNOLLY.

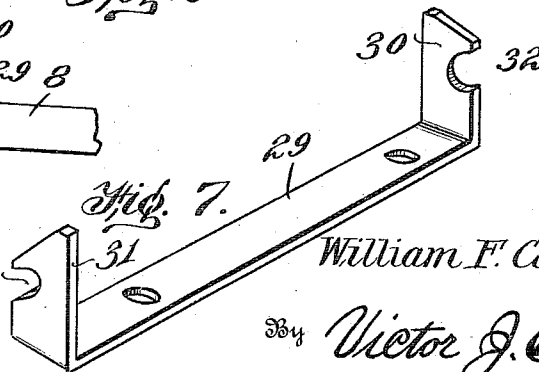
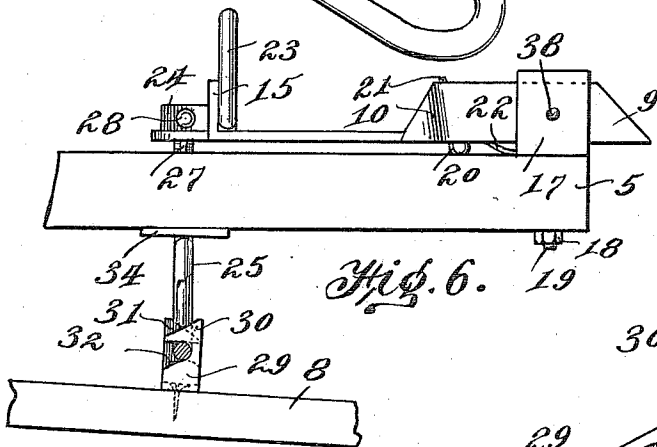
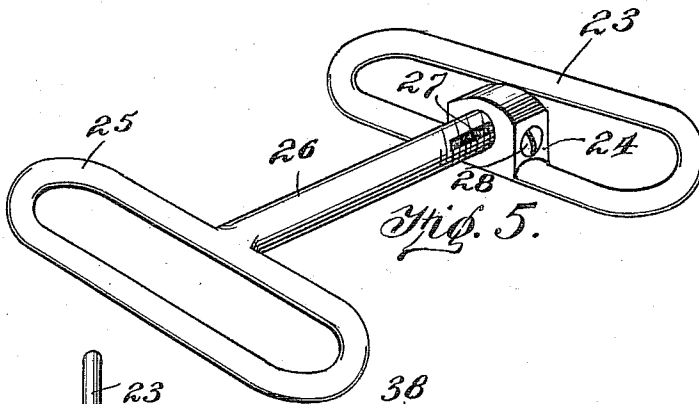
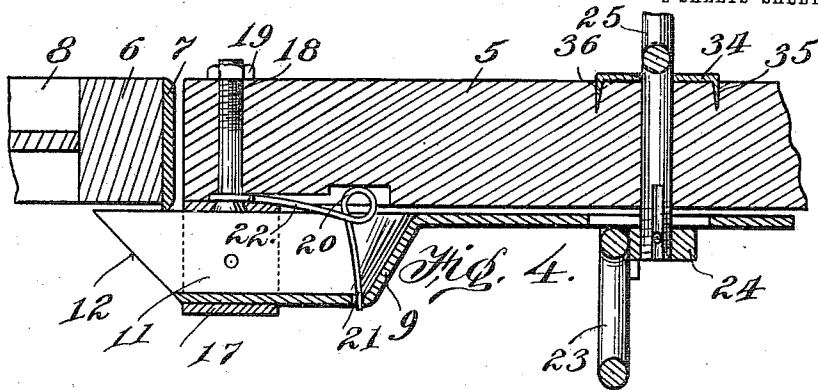
BARN DOOR LATCH.

APPLICATION FILED JUNE 1, 1910.

985,727.

Patented Feb. 28, 1911.

2 SHEETS—SHEET 2.



Witnesses
H. H. Lybrand
John A. Dineen

Inventor
William F. Connolly

By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM F. CONNOLLY, OF EPWORTH, IOWA.

BARN-DOOR LATCH.

985,727.

Specification of Letters Patent. Patented Feb. 28, 1911.

Application filed June 1, 1910. Serial No. 564,429.

To all whom it may concern:

Be it known that I, WILLIAM F. CONNOLLY, a citizen of the United States, residing at Epworth, in the county of Dubuque and State of Iowa, have invented new and useful Improvements in Barn-Door Latches, of which the following is a specification.

This invention relates to improvements in latches and more particularly to the type known as sliding bolt latches.

The invention has for one of its objects the provision of a latch particularly applicable to the doors of barns or other outbuildings and so constructed that when the door is open and the animal passing therethrough there will be no large outstanding projections from the latch which would have a tendency to engage with the harness or body of the animal.

Another object is the provision of a sliding bolt latch provided with a rotatable handle, adapted when turned to release the latch from the keeper.

With these and other objects in view, which will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims; it being understood that various changes in the form, proportion, size, and minor details of the device may be made, within the scope of the appended claims, without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming a part of the specification;—Figure 1 is a front elevation of the latch showing it in position on a door and in engagement with the keeper on the door frame. Fig. 2 is a plan view of the same. Fig. 3 is a detail perspective of the latch bolt. Fig. 4 is a sectional plan view on the line 4—4 of Fig. 1. Fig. 5 is a detail perspective of the handles in connected position. Fig. 6 is a sectional plan view with the door to which the latch is applied in open position also showing the wall in sectional plan view and disclosing the member to engage the handle and hold the door in open position. Fig. 7 is a detail perspective of the member for engaging the handle to hold the door in open position.

Similar numerals of reference are employed to designate corresponding parts throughout.

The door is designated by the numeral 5, the portion of the door frame to which the keeper is secured by the numeral 6, the keeper by the numeral 7 and the side of the building by the numeral 8.

The latch bolt forming a part of the subject matter of the present invention is shown to be formed of an oblong piece of sheet metal of rectangular cross section and designated by the numeral 9. The medial portion of the sheet is offset outwardly, as shown at 10, and that portion of the sheet beyond the offset is, at its central portion doubled upon itself in the direction of its length, as shown at 11, the said doubled portion terminating in a beveled nose 12. The opposite end portion of the sheet is narrowed, as shown at 13 and extending outwardly from the face of the sheet and at the inner end of the narrowed portion and on either side thereof are a pair of lugs 14 and 15. Formed in the longitudinal central line of the sheet and extending from the medial portion thereof well into the narrowed portion 13 is an oblong slot 16, the function of which will appear later. A guide is shown to be in the form of a rectangular-shaped sleeve 17, of a size to receive the doubled portion 11 of the bolt, one end of said guide or sleeve being provided with a threaded pin 18, insertible through the door at a point adjacent the edge thereof, the terminal of said pin having a nut serving to prevent displacement of the sleeve or guide. The nose 12 is normally projected in advance of the edge of the door in position to engage the keeper 7 by means of a spring. The spring is formed of wire, the medial portion of which is coiled, as shown at 20, the opposite ends of the coil terminating in arms 21 and 22. The arm 22 extends between the inner end of the sleeve or guide and adjacent surface of the door, while the coil 20 is arranged in an opening in the door directly behind the offset portion 10, while the opposite arm 21 extends between the sides of the doubled portion and is fixedly secured at the juncture of said sides, as clearly shown in the drawings.

It is to be understood that the latch thus far described is to be secured to the inner face of a door and in order that the nose

may be moved from engagement with the keeper when it is desired to open the door the following construction is employed: What will subsequently be termed the inner
 5 handle member is shown to be in the form of an oblong loop designated by the numeral 23 and formed on one side of this loop is a lateral lug 24. The lug 24 is of less width than the space between the lugs 14
 10 and 15 on the bolt, and is normally arranged between said lugs. An outer handle member is designated by the numeral 25 and corresponds to the shape of the inner handle member and on one of its sides is provided
 15 with a laterally extending shank 26, the said shank 26 being screw-threaded and entering the opening formed in the door 5, the said opening alining with the elongated slot 16 formed in the bolt. The free end portion of
 20 the shank 26 is screw-threaded and threads through a central opening formed in the lug 24, the said screw-threaded portion being provided with a longitudinal groove 27, which receives the inner end of a screw 28
 25 threaded through a radial opening formed in the lug 24. In the normal position of the parts one side of the inner handle 23 bears on the faces of the lugs 14 and 15 adjacent to the nose end of the bolt, while the lug 24
 30 of the said inner handle extends through the space between the lugs 14 and 15 and beyond the said lugs, its central opening lying adjacent to the end of the oblong slot 16 remote from the nose end of the bolt.
 35 With this construction it will be manifest when either of the handle members is turned, for instance the outer handle member, by virtue of the inner handle member bearing on the lugs 14 and 15, the bolt will be moved
 40 from engagement with the keeper 7, thus permitting the door to be opened.

When the door is in open position and it is desired to have it so remain, a keeper is provided to engage with the outer side of
 45 the outer handle. This keeper is shown to include a body portion 29, the opposite ends of which terminate in angularly bent arms 30 and 31. The arms 30 and 31 are beveled on opposite sides, and are likewise provided
 50 on opposite sides with sockets 32 and 33. The arms 30 and 31 are in the path of movement of the outer handle, and it will be evident when the keeper is secured to the side of the building and the door swung

open that the outer handle upon engaging 55 with the beveled portions of the arms 30 and 31 will turn slightly until the sockets 32 and 33 receive the handle, whereby movement of the door will be prevented.

An escutcheon plate is designated by the 60 numeral 34 and is shown to be diamond-shaped in contour having inwardly extending prongs 35 and 36 and a central opening to receive the shank 26. The escutcheon is arranged at the outer end of the shank and 65 adjacent to the outer handle, the prongs 35 and 36 being driven into the door, the wall of the opening in the escutcheon plate forming a bearing for the shank. When it is desired to lock the latch bolt against 70 movement from without a pin 38 is employed. This member passes through alining openings formed in the sides of the sleeve or guide 17 and in the sides of the doubled portion 11. 75

From the foregoing, it is evident that I have provided a device which is comparatively simple in structure and inexpensive in manufacture embodying few parts and these so arranged that the danger of de- 80 rangement will be reduced to a minimum.

I claim:—

1. A latch comprising a sliding bolt provided at one end with a beveled nose and having adjacent to its opposite end an oblong 85 slot, outwardly extending lugs formed on said bolt, a handle including a shank portion rotatably mounted in said slot, and a handle loop on one end of the shank to engage the said lugs, and operating to move the latch 90 when the said shank is turned.

2. A latch comprising a sliding bolt provided at one end with a beveled nose and having adjacent to its opposite end an ob- 95 long slot, an outwardly extending lug, a handle including a shank portion rotatably mounted in said slot, and a handle loop offset from said shank portion and secured thereto and bearing on said lug and operating to move the latch when the shank por- 100 tion is turned.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM F. CONNOLLY.

Witnesses:

JOHN C. WARD,
JOHN M. HEALY.