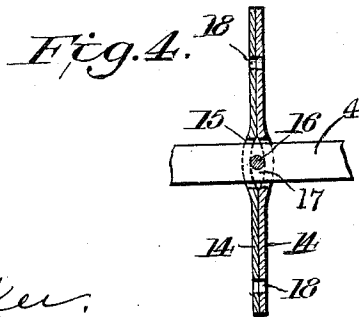
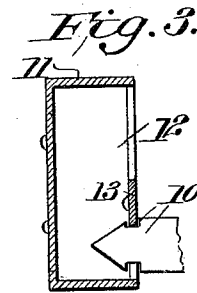
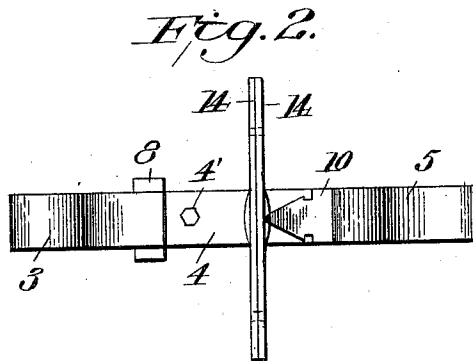
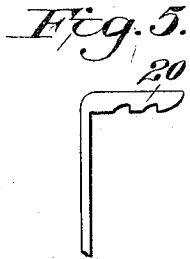
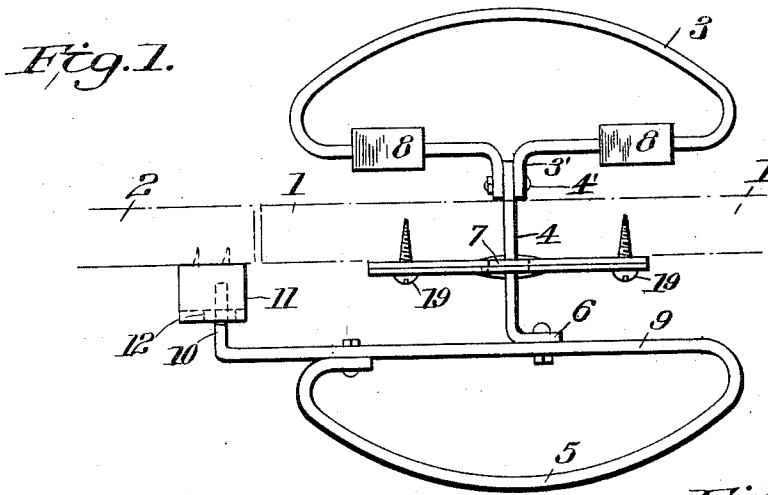


G. H. PECK.
AUTOMATIC BARN DOOR LATCH.
APPLICATION FILED OCT. 30, 1911.

1,049,390.

Patented Jan. 7, 1913.



WITNESSES

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GEORGE H. PECK, OF FORT DODGE, IOWA.

AUTOMATIC BARN-DOOR LATCH.

1,049,390.

Specification of Letters Patent.

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Application filed October 30, 1911. Serial No. 657,471.

To all whom it may concern:

Be it known that I, GEORGE H. PECK, a citizen of the United States, residing at Fort Dodge, in the county of Webster and State of Iowa, have invented certain new and useful Improvements in Automatic Barn-Door Latches, of which the following is a specification.

My invention relates to new and useful improvements in automatic barn door latches, and the objects of the invention are to provide an economical, durable and efficient latch, which is easy of adjustment and will retain the door open or closed as required, holding it in the position without fear that the wind will wrench it off its hinges. And a further object is to provide a latch novel in construction and which can be used with any style of barn door and adjusted to accommodate the sag or warp without disturbing the entire latch, as this can be accomplished by simply raising or lowering a small cross bar in the keeper. I accomplish these objects, and others which will appear from the specification, by means of the device illustrated in the accompanying drawings, in which—

Figure 1, is a view looking down upon the device, showing the manner of connecting it with a barn door. Fig. 2 is an end view. Fig. 3 is a vertical sectional detail of the keeper showing its manner of engagement with the latch. Fig. 4 is a vertical sectional view of the plates and end view of the pin in position on which the handle bar operates. Fig. 5 is a detail of the handle clutch which holds the door open.

Similar figures refer to similar parts throughout the several views.

Referring specifically to the drawings, 1 is an ordinary barn door, and 2 the door frame or wall adjacent to the door opening, in which the door is hung. The handle 3 is a bent metallic strip, substantially semi-circular in form with a diameter having central projecting arms, 3', formed on the ends of the said metallic strip and in which the handle bar, 4, is secured by suitable bolts, as at 4', in the assembling of the device. A second handle, 5, is made of similar material and substantially the same in form as handle 3, and is suitably secured by bolt, as at 6, to the handle bar 4. The handle bar 4 is of suitable dimensions and is provided with an opening, 7, through which a pin may pass and upon which it moves,

as hereinafter described. Lugs, as at 8, are brazed to the handle 3 as counterbalancing weights to overcome the weight of handle 5 in the operation of the latch as will hereafter appear. These lugs however, are not necessary to the successful operation of the device, as the handle 3 may be composed of heavier material than handle 5, thus affording a sufficient weight to operate the mechanism of the latch.

The diameter 9, of handle 5, is made to extend beyond the circular portion, terminating in a rectangularly formed hook or latch, 10, designed to enter the keeper 11. This keeper is a rectangularly formed box or skeleton, with an open side, 12, into which the latch 10 may pass when the door is closed on which the device is placed. The open side 12 is provided with a transverse strip, 13, which is bolted across the opening and acts as a catch to the latch 10 when forced into the keeper. This cross bar may be raised or lowered to accommodate the latch when the door settles or sags, by means of convenient bolt-holes transversely along the ends. This construction avoids raising or lowering any other portion of the latch, or changing it in any way, to suit the changed condition of the door by warping or sagging.

A pair of plates, 14—14, of suitable size are provided to hold and support the working mechanism of the latch in position on the door, and each of them has a central oppositely extending depression or cavity, 15, in which an ordinary pin, 16, is designed to operate. This is a small cylindrical metallic pin of suitable dimensions to fit into the depressions 15 of the plates, and upon which the handle bar 4 oscillates in the operation of the device, as hereinafter detailed. The plates are each also provided with a central vertical slot, 17, through which the handle bar 4 may pass in the assembling of the parts. They also have suitable screw openings, as at 18, through which screws, as at 19, may be inserted, securing the plates to a door, as 1.

A hook of the ordinary type 20, as shown in Fig. 5, may be conveniently secured to the wall of the barn to engage handle 5, as the door is thrown open, and this handle rides up into the hook, and by the counterbalancing weight on handle 3, the handle 5 remains securely in the hooked position until released.

Having described the various parts of my invention, its assembling and operation are as follows:—A suitable opening is made in the barn door to which it is to be attached, and of sufficient size to permit the insertion of handle bar 4, and its movement up and down, and at a convenient height for use; the bar 4 is then inserted extending sufficiently through to the exterior of the door to bring the opening 7 in the bar beyond the surface, one of the plates 14—14 is then placed in position on the outside of the door so that the handle bar 4 passes through the vertical slot 17; the pin 16 is then inserted in opening 7 in the handle bar 4 and horizontally in the depression or cavity 15, and thus held in position until the outer plate is adjusted in the same manner, and the two are secured by screws, 19—19, to the exterior of the door. The handle 5 with the latch 10 thereon is then to be adjusted to handle bar 4 by means of bolt 6. The keeper 11 is then to be secured by screws to the frame or wall, with the open side 12 outward, and at such position as to engage the latch 10 of the handle 5 as the door is closed. After the parts are thus assembled the operation is obviously as follows:—If the door is closed a downward pressure on the outer handle 5 causes the latch 10 to drop downward out of engagement with the transverse bar 13 in the keeper 11, and the door may be opened. If to be opened from the inside an uplift of the handle 3 causes the handle bar 4 to revolve on the pin 16, thus lowering handle 5 and the latch 10 attached thereto, forcing it out of engagement with the keeper bar, as detailed above. The weights 8 on handle 3 are sufficient to uphold the handle 5, and keep the latch locked in engagement with the keeper, so that it cannot be released without manipulation. The beveled point

of the latch 10 causes it to slide into engagement with the keeper, by merely pushing the door closed. When the door is thrown open the handle 5, swings back and rides into hook 20, thus holding the door open, and the weights on the handle 3 retain these handles in this relation until released.

Having described my invention, what I claim is;—

1. A device of the character described, consisting of a plurality of handles, one thereof carrying a latch, a handle bar connecting said handles, a pair of cooperating plates having transverse slots therein adapted to receive said handle bar, and each provided with a central depression conjointly forming a pin bearing, a handle bar pin adapted to insertion in the said bearing, a skeleton keeper adapted to engagement with the said latch, and weight means for retaining said handles in normal position, substantially as and for the purposes set forth.

2. An automatic barn door latch, consisting of a plurality of handles, one thereof carrying a latch, a handle bar connecting said handles, a pair of cooperating plates having transverse slots therein adapted to receive said handle bar, and each provided with a central depression conjointly forming a pin bearing, a handle bar pin adapted to insertion in the said bearing, a skeleton keeper adapted to engagement with said latch, and weight means for retaining said handles in normal position, and means for securing said plates and keeper to a door, substantially as set forth.

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

GEORGE H. PECK.

Witnesses:

J. H. BREAM,
F. A. HEDGES.