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W. H. TAYLOR

1,860,910

DOOR LATCH

Filed Nov. 5, 1930

2 Sheets-Sheet 1

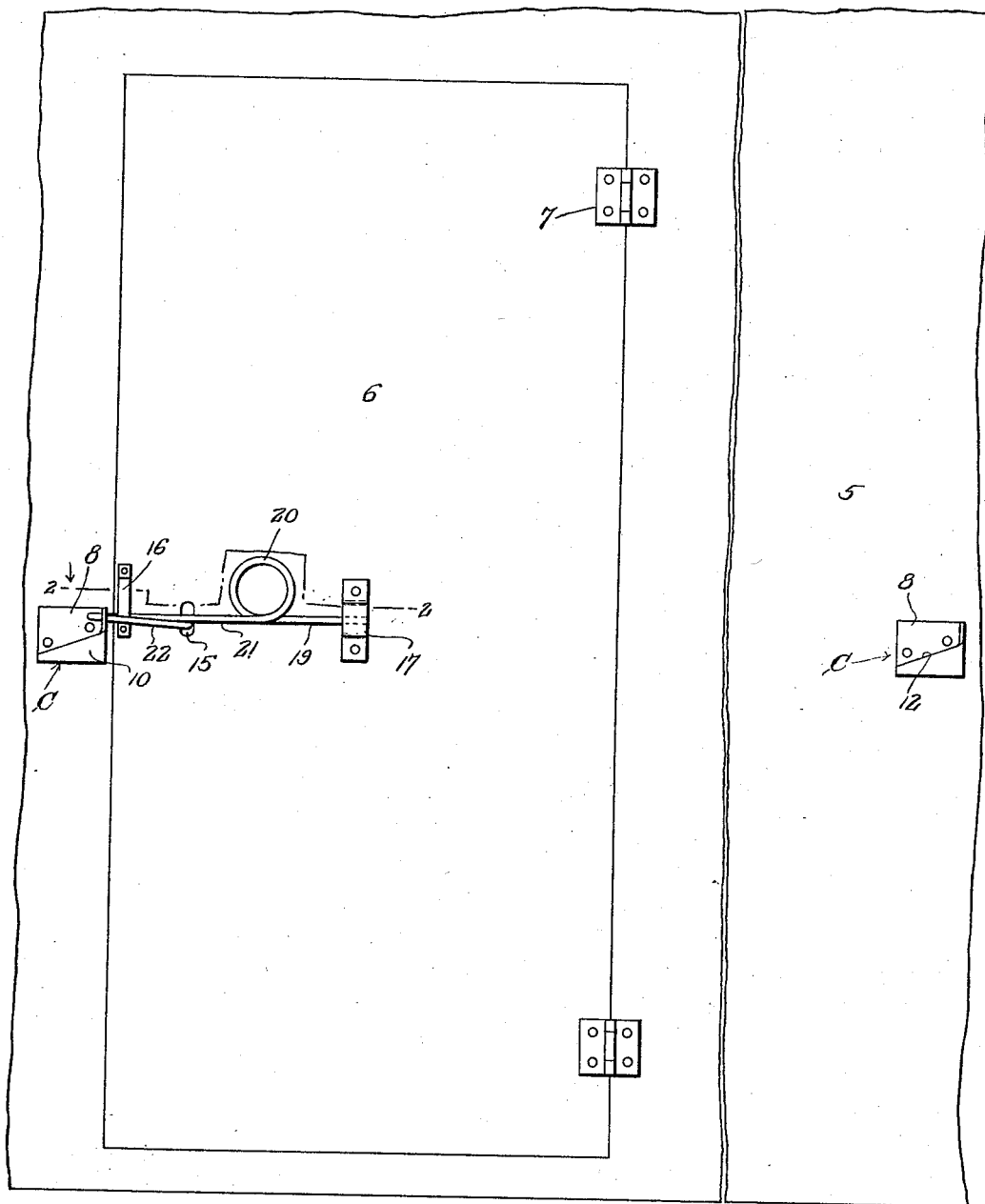


Fig. 1.

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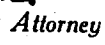
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UNITED STATES PATENT OFFICE

WILLIAM H. TAYLOR, OF HOWARD, SOUTH DAKOTA

DOOR LATCH

Application filed November 5, 1930. Serial No. 493,652.

The present invention relates to a latch particularly designed for barn doors and has for its prime object to provide a latch structure formed from a single strand of resilient metal.

Another very important object of the invention resides in the provision of a combination of catches with a latch whereby the barn door may be securely held in either closed or open position.

A still further very important object of the invention resides in the provision of a latch of this nature which is exceedingly simple in construction, inexpensive to manufacture, strong and durable, thoroughly efficient and reliable in use and operation, and otherwise well adapted to the purpose for which it is designed.

With the above and numerous other objects in view as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawings:

Figure 1 is an elevation of a door showing my latch thereon,

Figure 2 is a horizontal section thereof taken substantially on the line 2—2 of Figure 1,

Figures 3 and 4 are detail vertical sections taken substantially on the lines 3—3 and 4—4 respectively of Figure 2,

Figure 5 is a detail view of one of the catches.

Referring to the drawings in detail it will be seen that the numeral 5 denotes the wall of a barn or the like having a door 6 hingedly mounted therein as at 7. A pair of catches C are mounted on the wall 5 to each side of the doorway one adjacent thereto and the other remote therefrom. These catches are of identical construction each comprising a base plate 8 secured to the wall, a plate 9 at right angles to the wall or extending outwardly therefrom and braced with respect to the plate 8 by means of a plate 10 acutely disposed to the plates 8 and 9. The upper edge of the plate 9 adjacent the plate 8 is formed

with a notch 11 from which outwardly and downwardly inclines an edge 12.

An elongated plate 14 is secured on the free end of the door 6 adjacent an opening 15 and has a guide 16 attached thereto. A plate 17 is secured to an intermediate portion of the door 6 and has its central portion spaced from the door as is clearly illustrated in Figure 4.

An elongated latch rod formed of a single strand of resilient metal has one end fixed as at 18 to the central portion of the plate 17 and extends along the door toward the free end thereof as at 19 merging into a convolute 20 which in turn merges into a portion 21 slanted toward the door and terminating in a rectangular loop 22 in a horizontal plane which loop merges into an inwardly disposed extension 23 extending through the opening 15. The inner side of the rectangular loop 22 is disposed between the guide 16 and the plate 14. This inner portion of the loop 22 is adapted to engage in the notch 11 of the catch C adjacent the doorway while the opposite side is adapted to engage with the notch 11 of the other catch. The loop 22 also functions as a handle for releasing the latch from the outside of the door while the extension 23 functions as a handle to release the latch from the inside of the door and also to release it from the catch when the door is in an open position. A rod of circular cross section has been demonstrated as a preferable type of rod, but of course, any equivalent structure of any cross section found satisfactory may be used. A rod of substantially circular cross section has been illustrated in the drawings.

It is thought that the construction, operation, utility and advantages of this invention will now be quite apparent to those skilled in this art without a more detailed description thereof.

The present embodiment of the invention has been disclosed in considerable detail merely for the purposes of exemplification since in actual practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description.

It will be apparent that changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:

In combination with a barrier having an opening therein, a supporting plate fastened to the barrier, a rod having one end connected to the supporting plate and an intermediate portion of the rod being bent to form a convolution to impart resiliency to the rod, the opposite end of the rod being bent into a rectangular loop with the free end of the loop forming part extending inwardly through an opening to form an interior handle, a guide member on the barrier through which a part of the rectangular loop passes, the outer part of the rectangular loop forming a keeper engaging member.

In testimony whereof I affix my signature.

WILLIAM H. TAYLOR.

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