C. & G. MATHISEN.

BOLT.

APPLICATION FILED MAR. 20, 1911.

1,005,446.

Patented Oct. 10, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

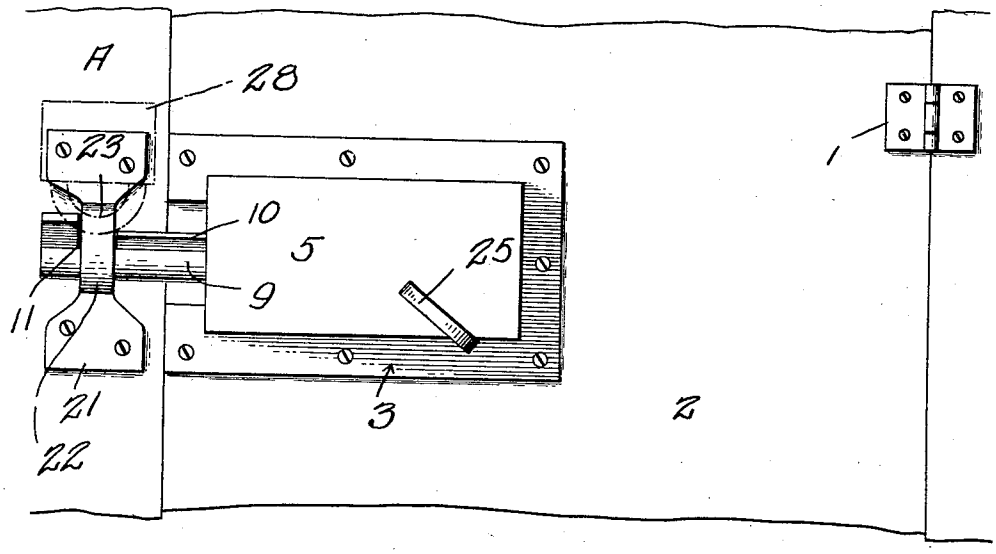
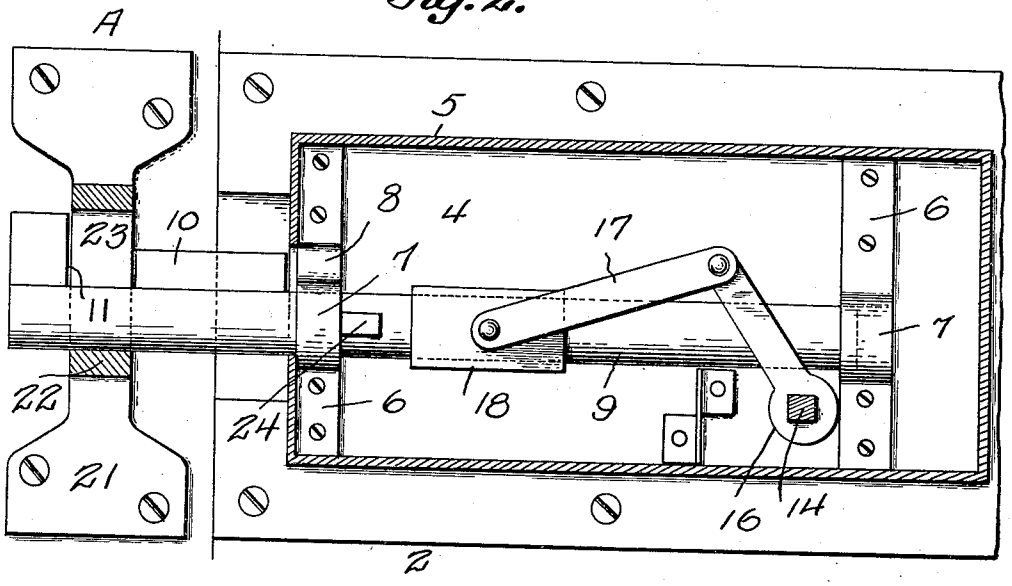


Fig. 2.



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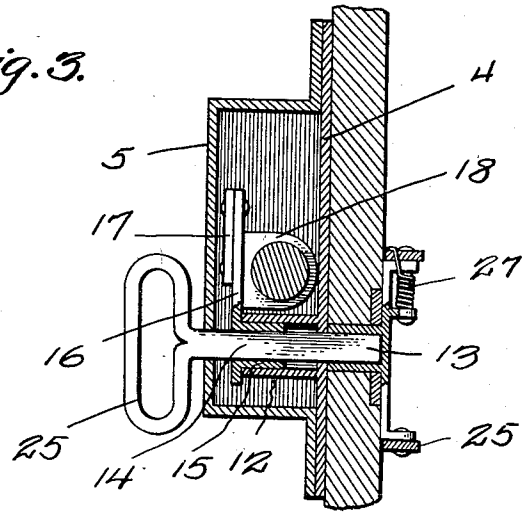
2 SHEETS—SHEET 2.

Fig. 3.



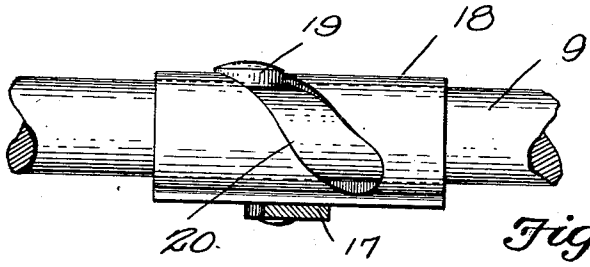
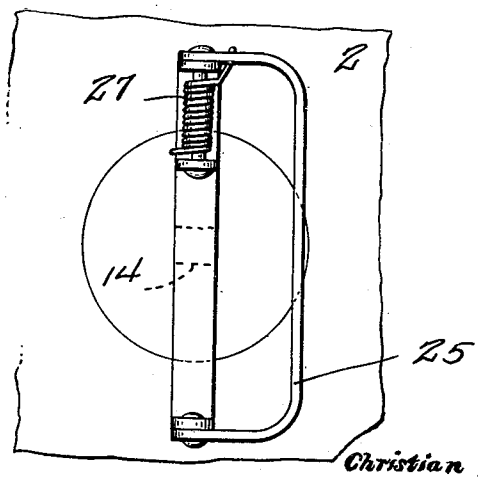


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

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BOLT.

1,005,446. Specification of Letters Patent. Patented Oct. 10, 1911.

Application filed March 20, 1911. Serial No. 615,586.

To all whom it may concern:

Be it known that we, CHRISTIAN MATHISEN and GEORGE MATHISEN, citizens, respectively, of the United States and of the King of Norway, residing at Hadley, in the county of Murray and State of Minnesota, have invented certain new and useful Improvements in Bolts; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in locks, and more particularly to that class adapted for use on doors, gates and the like.

The object of this invention is to improve and simplify devices of this character, rendering them comparatively simple and inexpensive to manufacture, reliable and efficient in use, and readily operated.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of our improved lock applied; Fig. 2 is an enlarged view similar to Fig. 1, with the top of the housing removed; Fig. 3 is a transverse sectional view taken through our improved lock; Fig. 4 is a detail sectional view of the locking bolt and sleeve, and Fig. 5 is a rear elevation of our invention.

Referring to the drawings by characters of reference, the letter A designates generally a door frame, to which is hinged, as indicated by the numeral 1, a door 2. Our improved lock 3 is secured in any suitable manner to the door 2, and consists of a rear or base plate 4 and a housing 5, which is bolted or otherwise secured thereto. The base plate 4 has secured to its opposite ends a pair of plates 6, upon which are located cylindrical sleeves 7, the upper sides of one of the said sleeves are offset as indicated by the numeral 8. A bolt 9 is slidable in the sleeves 7, and has formed upon one end thereof a laterally extending rib 10, the forward portion of which is cut out, as at 11, to provide a locking groove, the purpose of which will be later disclosed.

The plate 4 is provided adjacent the rear end thereof with an outwardly extending sleeve 12, in which is located a transversely extending operating bar or rod 13. The outer end of this rod 13 is squared, as indicated by the numeral 14, for engagement with a square sleeve 15 carried by a laterally extending arm 16, to the forward end of which is pivoted a link 17, the opposite end of which is secured to the flattened face of a sleeve 18 which is slidable upon the bolt 9. A pin 19 extends from the side of the bolt 9 adjacent its intermediate portion and passes through a spirally arranged slot 20 located in the sleeve 18.

A keeper 21 is secured to the door frame in alinement with the housing 5, and is provided with a sleeve 22, offset at one side, as at 23, for engagement with the outer extremity of the rib 10. A stop 24 is formed upon the bolt 9, and is adapted to engage one of the sleeves 7 and limit the outward movement of the locking bolt into engagement with the keeper. The opposite ends of the bar 13 have secured thereto handles or knobs 25, upon the rotation of which the bolt will be slid longitudinally of the housing through the medium of the before-mentioned sleeve 18.

Obviously from the construction it will be readily seen that a certain movement of the rod 13 will slide the locking bolt into engagement with the keeper, while a further movement of the same will rotate the said locking bolt through the medium of the spiral groove 20 and the pin 19 carried by the bolt 9.

A suitable stop 26 is secured within the housing 5, and serves to engage the arm 16, which limits the forward movement of the sleeve 18.

One or both of the handles may have a pivoted hand grip secured thereto, which will be normally forced at right angles to the rod 13 by means of a spring 27.

A pad-lock 28 may be inserted through the sleeve 22, which will securely lock the bolt 9 against rotation and longitudinal movement.

From the foregoing disclosure it will be readily apparent that a lock of the nature described is provided for which will fulfil all of the necessary requirements of such a device.

Having thus fully described this invention, what we claim as new and desire to secure by Letters Patent is:

1. A bolt such as described consisting of a plate, a housing secured thereto, a bolt

rotatable and slidable within the housing, a keeper adapted to engage the bolt, a grooved rib formed upon the bolt for engaging the keeper, a slotted sleeve slidable upon the bolt, a pin carried by the bolt and engaging the sleeve within said slot, a rod extending through the said housing, an arm carried by the rod, a link connecting the sleeve with the arm, and handles carried by the rod for the purpose of rotating the same and operating the bolt.

2. A bolt of the nature described consisting of a plate, a housing secured to the said plate, a keeper, a bolt longitudinally and rotatably movable within the housing and engaging the keeper, a stop carried by the bolt for limiting the longitudinal movement thereof, a sleeve slidably mounted upon the bolt, said sleeve having a spirally arranged slot formed therein, a pin extending from the bolt through the said slot, an operating rod extending through the housing, an arm carried by the operating rod, a link connecting said arm with the sleeve, handles carried by the operating rod for rotating the same, and a stop located within the housing for the purpose of limiting the movement of the arm, substantially as and for the purposes set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

CHRIST. MATHISEN.
GEORGE MATHISEN.

Witnesses:
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