No. 646,517.

Patented Apr. 3, 1900.

J. M. CHRITTON & J. A. GOODNER.

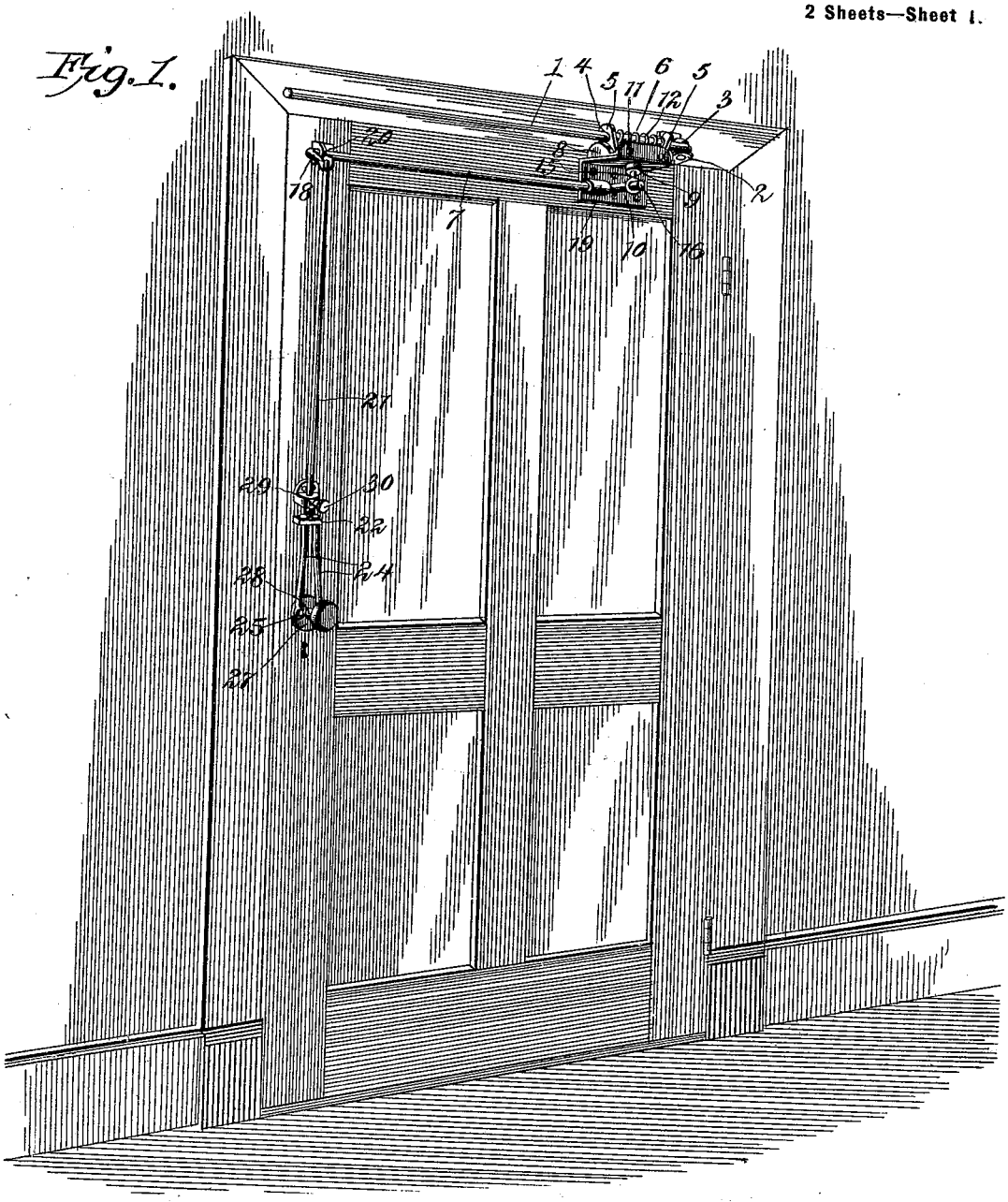
DOOR HOLDER.

(No Model.)

(Application filed Dec. 30, 1899.)

2 Sheets—Sheet 1.

Fig. 1.



Witnesses
Howard P. Orr.
H. J. Riley

James M. Chritton Inventors
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2 Sheets—Sheet 2

Fig. 2.

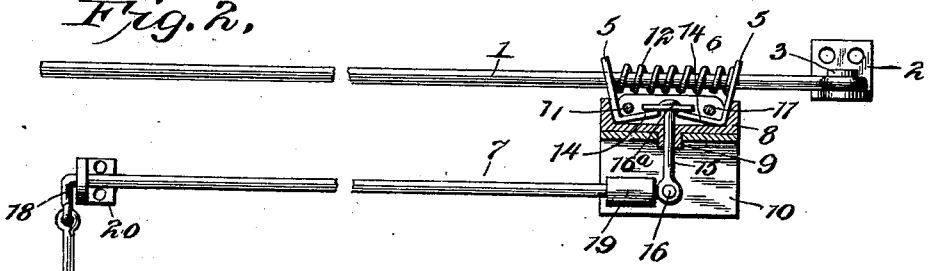


Fig. 3.

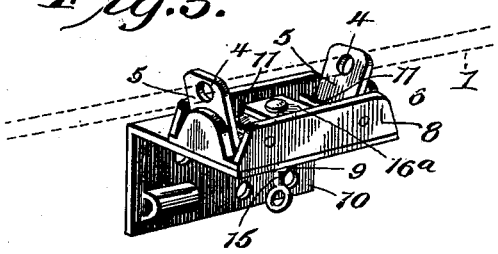
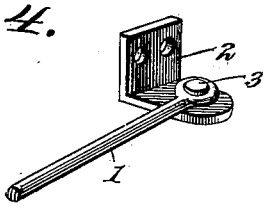


Fig. 4.



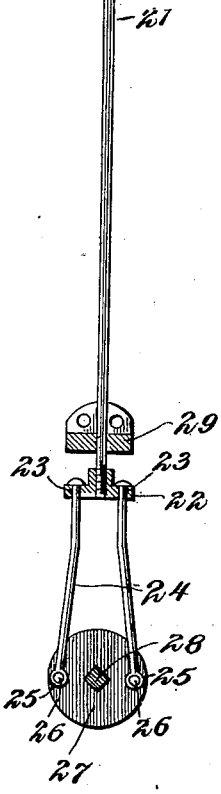
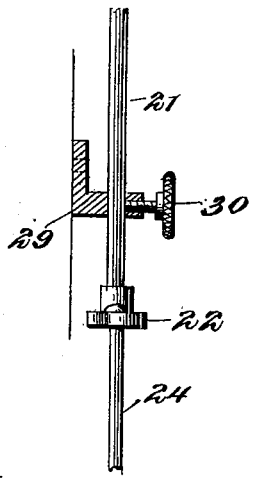


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES M. CHRITTON AND JAMES ANDREW GOODNER, OF PUEBLO, COLORADO.

DOOR-HOLDER.

SPECIFICATION forming part of Letters Patent No. 646,517, dated April 3, 1900.

Application filed December 30, 1899. Serial No. 742,090. (No model.)

To all whom it may concern:

Be it known that we, JAMES M. CHRITTON and JAMES ANDREW GOODNER, citizens of the United States, residing at Pueblo, in the county of Pueblo and State of Colorado, have invented a new and useful Door-Holder, of which the following is a specification.

The invention relates to improvements in door-holders.

The object of the present invention is to improve the construction of door-holders and to provide a simple, inexpensive, and efficient device designed to be applied to various kinds of doors, windows, and analogous swinging members and capable of holding such door or member in an open or closed position or at any intermediate point.

A further object of the invention is to provide a device of this character which will not mar the carpet or the wall of a room and which will be capable of effectually locking a door in its closed position.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a door-holder constructed in accordance with this invention and shown applied to a door. Fig. 2 is a sectional view, partly in elevation. Fig. 3 is an enlarged detail perspective view of the clutch. Fig. 4 is a detail perspective view illustrating the manner of mounting the swinging arm. Fig. 5 is a detail sectional view illustrating the means for locking the door in its closed position.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a horizontally-disposed oscillating arm pivotally mounted at its inner end on a bracket 2 by means of a rivet 3 or other suitable fastening device, and the said bracket, which is substantially L-shaped, as clearly illustrated in Fig. 4 of the accompanying drawings, is located above the door and preferably secured to the door-frame, as clearly shown in Fig. 1. The oscillating arm is adapted to swing horizontally as the door opens and closes, and it slides through openings 4 of substantially L-shaped clutch-levers 5 of a swiveled clutch 6. The clutch 6, which has a swivel connection with a horizontal rock-shaft 7, consists of an oblong casing 8, provided with a depending pivot 9, arranged in a perforation of an L-shaped bracket 10. The L-shaped bracket 10 is secured to the door near the hinged end thereof, and its horizontal arm supports the casing, which is provided with side and end walls and within which are fulcrumed the said levers. The levers, which are L-shaped, are fulcrumed at their angles in the casing at the ends thereof, being retained in position by transverse fastenings devices 11. The engaging arms of the clutch-levers are maintained in contact with the horizontal arm 1 by a coiled spring 12, disposed on the said rod or arm 1 and interposed between the levers, as clearly shown in Fig. 2. The openings 4 of the clutch-levers are of greater diameter than the rods, and the latter when thrown outward by the spring engage the swinging arm or rod 1 at the upper and lower faces of the same. The spring maintains the lower arms 14 of the levers slightly elevated, and these arms 14 are adapted to be engaged by a stem 15, extending through the casing and the supporting-bracket and having its lower end connected with the adjacent end of the rock-shaft. The upper end of the stem is provided with a head and carries a plate or disk 16^a, which is arranged above the inner arms 14 of the clutch-levers, and the lower end of the stem is provided with an eye through which extends an arm 16 of the rock-shaft, whereby when the rock-shaft is rotated to swing its arm 16 downward the engaging arms of the clutch-levers will be swung inward against the action of the spring and will release the rod 1. The clutch-levers are held loosely in the open casing by the said transverse fastening devices 11, and they are automatically engaged with the swinging rod or arm 1 when the operating mechanism is released.

The rock-shaft, which extends horizontally across the top of the door, as shown in Fig. 1, is provided at one end with the said arm 16 and at its other end with an arm 18, and it is journaled in a bearing 19 of the bracket 10 and in a bearing of a bracket 20. The bracket

20 is secured to the door, near the free edge thereof, and the adjacent arm 18 is connected by a rod 21 with a plate 22, provided with a threaded opening for the reception of the lower threaded end of the rod 21 and having side openings 23, through which pass reversely-reciprocating rods 24. The reversely-reciprocating rods 24, which are disposed approximately vertical, are provided at their upper ends with heads for engaging the face of the plate 22, and the lower ends of the rods 24 are provided with eyes 25, through which pass screws 26 or other suitable fastening devices for pivoting the said rods 24 to a double eccentric 27. The double eccentric 27 consists of a disk or plate mounted on the knob-spindle 28 of a lock and provided with a rectangular opening for the reception of the said spindle, and the said eccentric by being arranged in this manner is adapted to be applied to both mortise and face locks. When the knob is turned and the spindle rotated, one of the rods is carried downward and the other upward. The downwardly-movable rod 24 carries the plate and the connecting-rod 21 with it and rotates the rock-shaft, and thereby disengages the clutch from the horizontally-swinging rod or arm. By this construction the clutch may be operated when the knob is turned in either direction, and as the clutch is swiveled to or pivotally mounted on the bracket 10 and is adapted to slide longitudinally of the horizontally-swinging rod or arm it will be readily apparent that the mechanism is adapted to accommodate itself to the position of the door and is capable of holding the same in its open or closed position or at any intermediate point. The rod 21 passes through an opening of a bracket 29, upon which is mounted a clamping-screw 30, extending through a horizontally-threaded perforation of the outer portion of the said bracket 29 and having its inner end arranged to engage the rod, whereby the latter is held against longitudinal movement. When the door is closed, it may be locked in this position by clamping the rod 21 with the screw, and when the rod is thus clamped it will prevent the knob and the knob-spindle from being rotated. The clamping-screw is also adapted to lock the door-holder out of operation, and this is effected by rotating the knob as far as possible to the right or left and holding it in such position until the screw 30 is engaged with the connecting-rod 21. This will disengage the clutch-levers from the arm 1 and will prevent them from reëngaging the said arm when the knob is released. The knob will then be free to turn without affecting the door-holder.

It will be seen that the door-holder is simple and comparatively-inexpensive in construction, that it is adapted to be applied to doors having mortise or face locks, and that it will not mar the carpet or wall of a room. The device is also applicable to screen-doors, shutters, trunk-lids, and analogous swinging members, and it will prevent such parts from slamming or closing violently.

What is claimed is—

1. A device of the class described comprising a horizontal swinging arm, a clutch composed of a swiveled or pivoted casing, a pair of clutch-levers fulcrumed between their ends on the casing and having openings to receive the arm, a coiled spring disposed on the arm and interposed between the engaging ends of the levers, and a stem or rod arranged to engage the other ends of the levers, and operating mechanism connected with the stem or rod, substantially as described.

2. A device of the class described comprising a swinging rod or arm, a bracket, a clutch pivotally mounted on the bracket and comprising a pivoted casing, spring-actuated levers fulcrumed between their ends and having openings at their engaging ends and receiving the rod or arm, and a stem connected with the other ends of the levers and adapted to disengage them from the swinging rod or arm and passing through the pivot of the clutch, and operating mechanism connected with the stem, substantially as described.

3. A device of the class described comprising a swinging arm, a pivotally-mounted clutch composed of an open pivoted casing, a pair of substantially L-shaped spring-actuated levers loosely fulcrumed at their angles on the casing and having openings receiving the said arm, and operating mechanism connected with the levers, substantially as described.

4. A device of the class described comprising a swinging arm, a pivotally-mounted clutch composed of an open casing, the substantially L-shaped clutch-levers loosely fulcrumed at their angles in the open casing and provided at their outer ends with openings for the reception of said arm, means for holding the levers in engagement with the rod, and a stem extending centrally through the casing and arranged to actuate the inner ends of the levers, and operating mechanism connected with the stem, substantially as described.

5. A device of the class described comprising a swinging arm, a pivoted clutch having spring-actuated levers for engaging the arm, a rock-shaft extending across the top of the door and provided at its ends with arms, one of the arms being connected with the said levers, and operating mechanism connected with the other arm of the rock-shaft for rotating the latter, substantially as described.

6. A device of the class described comprising a clutch, a rod connected with the clutch, a double eccentric designed to be mounted on a spindle, and a pair of rods connected with the eccentric and having a sliding connection with the rod, permitting the rod to be operated when the spindle is rotated in either direction and also adapted to permit the spindle to be operated independently of the rod when

the latter is locked out of operation, substantially as described.

7. A device of the class described comprising clutch mechanism, a rock-shaft connected with the clutch mechanism, a rod extending from the rock-shaft, a plate mounted on the rod and provided with openings, a double eccentric designed to be mounted on a spindle, a pair of rods passing loosely through the openings of said plate to form a sliding connection and pivotally connected with the eccentric at opposite sides of the spindle, and a clamping device for engaging the rods, substantially as described.

8. A device of the class described comprising an oscillating rod or arm, a clutch for engaging the arm, a rock-shaft connected at one end with the clutch, a rod connected with the rock-shaft at the other end thereof, a double-eccentric connection between the rod and a knob or spindle having a sliding movement on the rod, whereby the rod is normally adapted to be operated when the knob or spindle is rotated in either direction and is capable of being arranged to permit an independent operation of the spindle, and a clamping device engaging the rod and adapted to lock the spindle against movement, substantially as described.

9. A device of the class described comprising an oscillating arm, a clutch engaging the same, a rock-shaft connected with the clutch and adapted to disengage the same from the arm, a rod extending from the rock-shaft, means for connecting the rod with a knob or spindle, whereby the rod may be operated when the knob or spindle is rotated in either direction, and a clamping device engaging the rod and adapted to lock the knob or spindle against rotation, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JAMES M. CHRITTON.
JAMES ANDREW GOODNER.

Witnesses:
GEO. W. TROY,
A. E. LITZ.