

No. 896,928.

PATENTED AUG. 25, 1908.

W. W. MEYER.
BOLT OPERATOR.

APPLICATION FILED APR. 25, 1908.

Fig. 2.

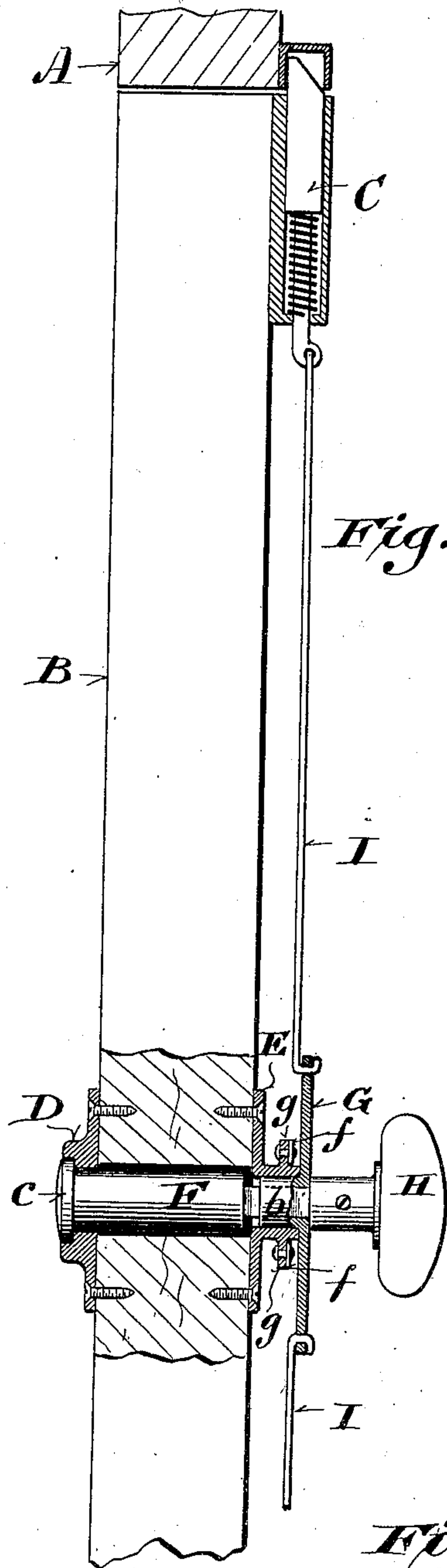


Fig. 1.

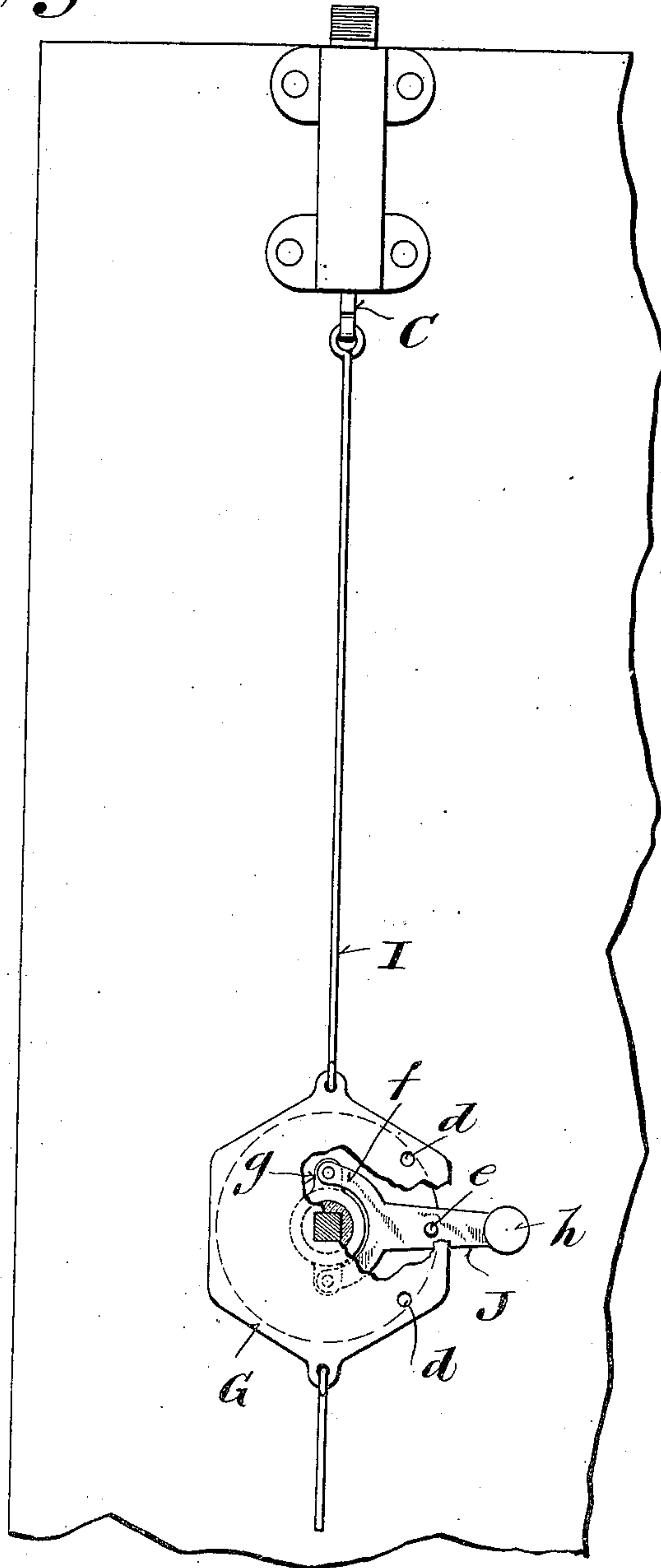
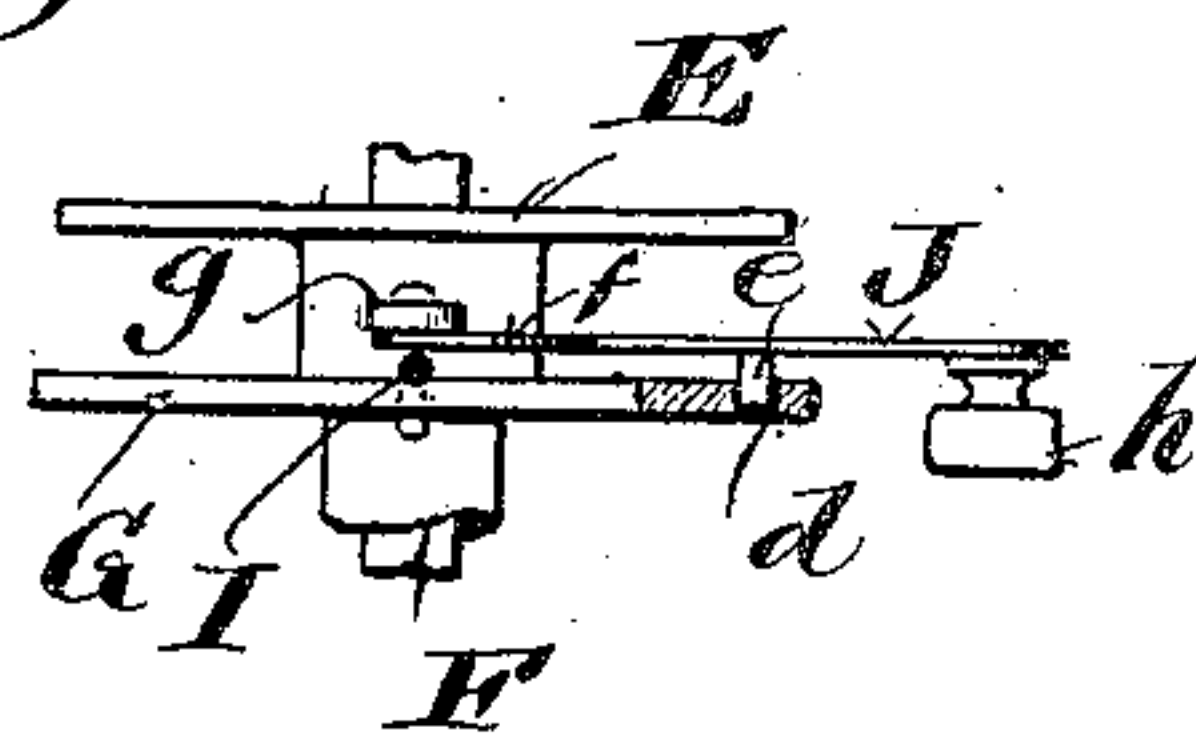


Fig. 3.



Witnesses
George Felber
Ralph Nelson

Inventor
William W. Meyer
By Clifton Young
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM W. MEYER, OF OSHKOSH, WISCONSIN.

BOLT-OPERATOR.

No. 896,928.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed April 25, 1908. Serial No. 429,224.

To all whom it may concern:

Be it known that I, WILLIAM W. MEYER, a citizen of the United States, and resident of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Bolt-Operators; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide simple, economical, easily operated and efficient bolt-retractors, especially designed for facilitating the opening of doors of school-houses and auditoriums of various kinds, particularly in case of fire; said invention consisting in the peculiar construction and arrangement of parts hereinafter specified with reference to the accompanying drawings and subsequently claimed.

Figure 1 of the drawings is a partly sectional view of a fragment of a door, its casing and bolt-extractor mechanism in accordance with my invention; Fig. 2, a front elevation of same, and Fig. 3, a horizontal view of a fragment of said mechanism partly in section.

Referring by letter to the drawings, A indicates a door-casing, B the door and C the uppermost of a pair of spring-bolts that have their casings secured to said door, suitable keepers being provided for the bolts.

The door is provided with bearing escutcheons D, E, for a knob-spindle F and the hub *b* of a plate G, this plate being of any preferred design. Like the knob H, the angular bore of a hub portion of the plate G has sliding fit on a corresponding angular portion of the spindle F, the remainder of this spindle being cylindrical and provided with a head *c* engaging a countersink of the escutcheon D upon the outside of the door. The door-knob is adjusted on its spindle to have its shank oppose the plate and thus hold the hub of this plate in engagement with the bearing escutcheon E provided for the same.

A link-rod or chain I connects each of the door-bolts C with the plate G and by turning the door-knob in either direction from normal position, said bolts are retracted, said plate being virtually a crank of the door-knob spindle.

From the foregoing it will be understood that the bolt-retracting mechanism cannot

be tampered with from outside of the building to which the door is fitted, and by having the bolt-pull devices in crank-connection with the knob-spindle of said door, the simple act of turning said spindle in either direction frees the door and permits ready opening of the same. For school-house doors the bolt-retracting mechanism aforesaid is particularly applicable because of the common knowledge of even very young children that the turning of a door-knob will free the door to which it belongs.

The crank-plate G is preferably provided with keeper-sockets or apertures *d* for the engagement of a lateral lug *e* of a spring-arm J having a spanner-end *f* riveted or otherwise rigidly secured to ears *g* of the escutcheon E, and a push-button *h* is preferably connected to the opposite end of said arm clear of said plate and the door-knob. The arm and its lug constitutes a spring-latch automatically engageable with either keeper socket or aperture in the crank-plate G to hold the door-bolts in retracted position, said plate being released when said arm is pushed back by pressure on its button *g* to disengage said lug from a keeper.

I claim:

1. A crank-and-keeper plate engageable with a door-knob spindle to turn either way therewith, a bolt-retracting device in connection with the plate, and a spring-latch arranged to automatically engage said plate when the same is turned in either direction from normal position.

2. A crank-and-keeper plate engageable with a door-knob spindle to turn either way therewith, an escutcheon attachable to the door and constituting a bearing for a hub of the plate, and a spring-arm having a spanner-end fastened to ears of the escutcheon, and a plate-engaging pin extending laterally from the arm, the other end of said arm being clear of said plate and the door-knob.

3. A countersunk escutcheon attachable to the outer side of a door, a spindle having a cylindrical and headed portion engaging said escutcheon, another escutcheon attachable to the inner side of the door, a crank-and-keeper plate having a hub-portion for which the inner escutcheon constitutes a bearing, the hub-bore being in sliding fit upon an angular portion of said spindle, a knob having its shank fast on the angular portion of the

spindle against the plate, a bolt-retracting device in connection with said plate, and a latch arranged to automatically engage the plate when the same is turned a predetermined distance out of normal position.

5 In testimony that I claim the foregoing I have hereunto set my hand at Oshkosh in

the county of Winnebago and State of Wisconsin in the presence of two witnesses.

WILLIAM W. MEYER.

Witnesses:

GEORGE B. MAYHER,
L. C. HANLEY.