H. WATERS.

Improvement in Lathes for Cutting Grooves in Metal Rollers.

No. 115,000. Patented May 16, 1871.

Fig. 2.

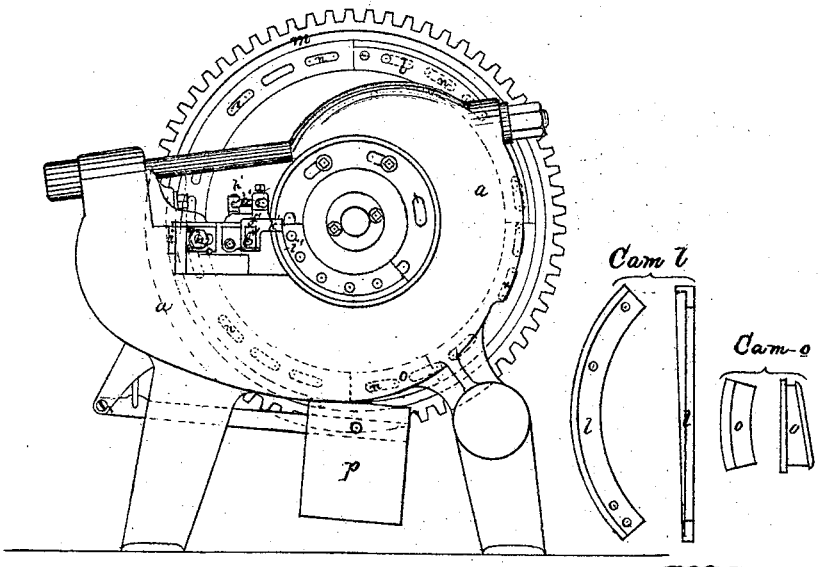
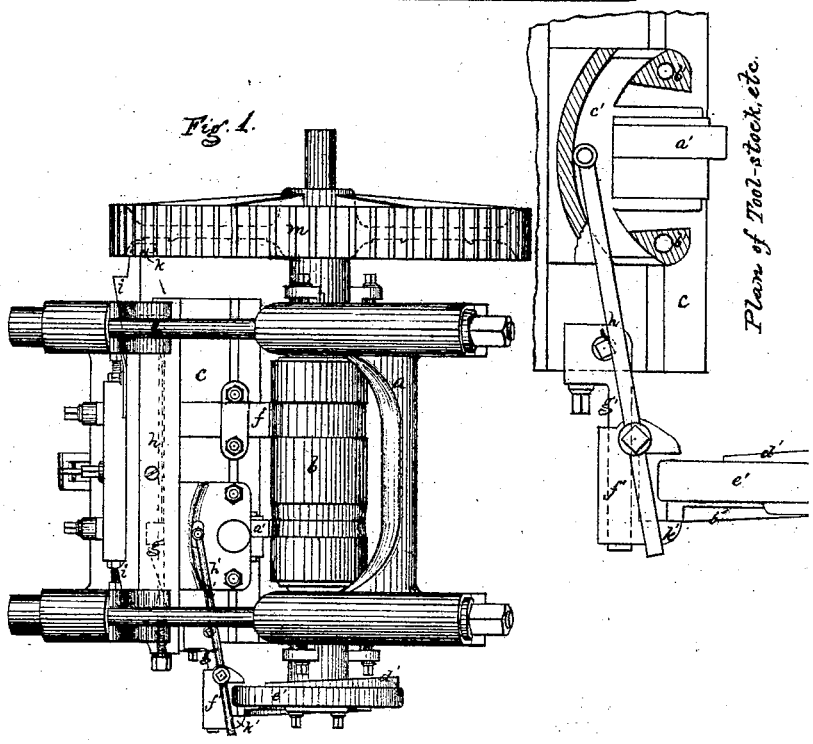


Fig. 1.



Witnesses
L. B. Hidder.
Ch. W. Frothingham.

Harvey Waters
by his attys
Crosby, Halsted & Gould

UNITED STATES PATENT OFFICE.

JACOB WEIMAR, OF NEW YORK, N. Y.

IMPROVEMENT IN SAFE-BOLTS.

Specification forming part of Letters Patent No. **115,001**, dated May 16, 1871.

To all whom it may concern:

Be it known that I, JACOB WEIMAR, of the city, county, and State of New York, have invented certain Improvements in Safe-Bolts, of which the following is a specification, reference being had to the annexed drawing.

The object of this invention is to perfect a system of locking-bolts which shall be less complex and costly than those now in use, and adapted to small doors—as, for example, those of small burglar-proof safes or compartments.

It is desirable in all safes to have the bolts arranged to throw out of the top and bottom of the door into the casing or door-frame, on account of the additional security afforded thereby; but it has not hitherto been deemed practicable to apply such bolts to small doors, owing to a lack of sufficient space for their operation.

My improvement furnishes a complete set of bolts for the top, bottom, and side of the door, simple in plan and compact of arrangement, and is adapted to doors of any size, from the smallest to the largest.

To enable others to make and use my invention, I will describe the same in detail.

In the drawing I have represented the door of a safe as seen from the interior.

A shows a strong frame, in which the bolts work, the same being firmly secured to the door. B B are sliding bolts, arranged to move back and forth horizontally, and used for locking the door at the side or edge. C C represent other bolts, used for locking the door at the top and bottom thereof. The bolts C are hung on pivots 1 1, so as to be capable of being turned in or out of the bolt-frame A with an oscillatory motion.

The dotted lines show the position of the bolts when thrown out in locking, and their position when withdrawn is shown at the bottom of the door, where the frame is broken away, exposing the bolt to view.

Immediately under the bolts B is a frame, E, by which all the bolts are moved. Said actuating-frame is arranged to slide, in suitable ways, in parallel lines with the bolts B. Upon the latter are collars 2, which are let into the said frame, and upon the bolts C are toothed segments D, which mesh into racks E′, formed or fixed on the frame. When, therefore, the frame is carried back and forth, as aforesaid, all the bolts are thrown out and in thereby.

The manner of moving the frame itself is not material; but it may be accomplished in any of the methods common to the art.

I do not confine myself to the rack and segment as the means of communicating the motion of the actuating-frame to the oscillating bolts, but shall use any other device adapted to the purpose.

Having thus described my improvements, what I claim as my invention, and desire to secure by Letters Patent, is—

1. A set of oscillating bolts pivoted to the door of the safe, and actuated by a sliding frame, the arrangement and operation being substantially as shown and described.

2. The oscillating bolts, the actuating-frame, and the sliding bolts, in combination, substantially as set forth.

JACOB WEIMAR.

Witnesses:

JOHN L. ROBERTS, Jr.,

SYLVESTER LAY.