JOHN FARREL & JACOB WEIMAR.

Improvement in Bolts for Safe Doors.

No. 121,711. Patented Dec. 12, 1871.

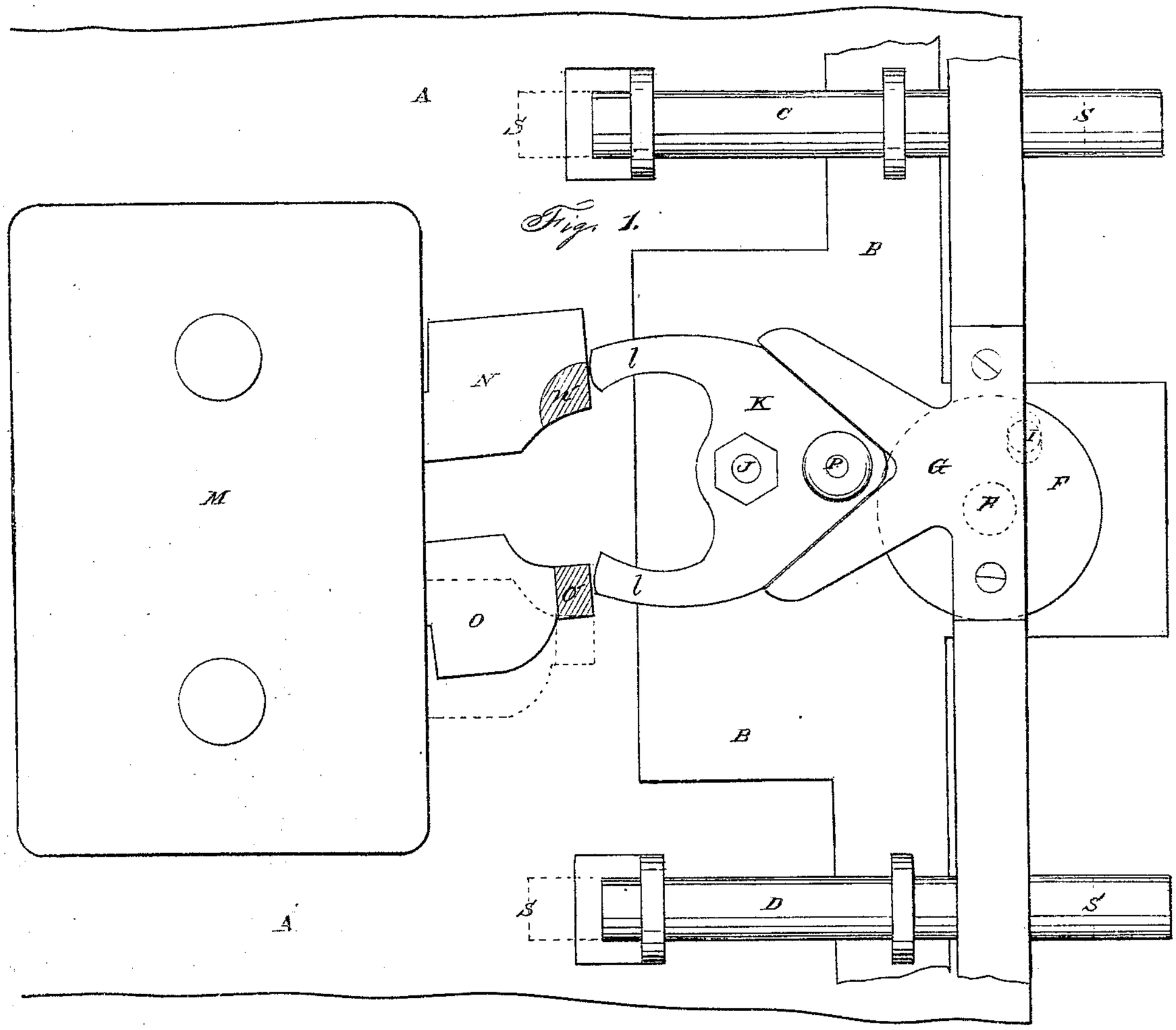

Fig. 1.

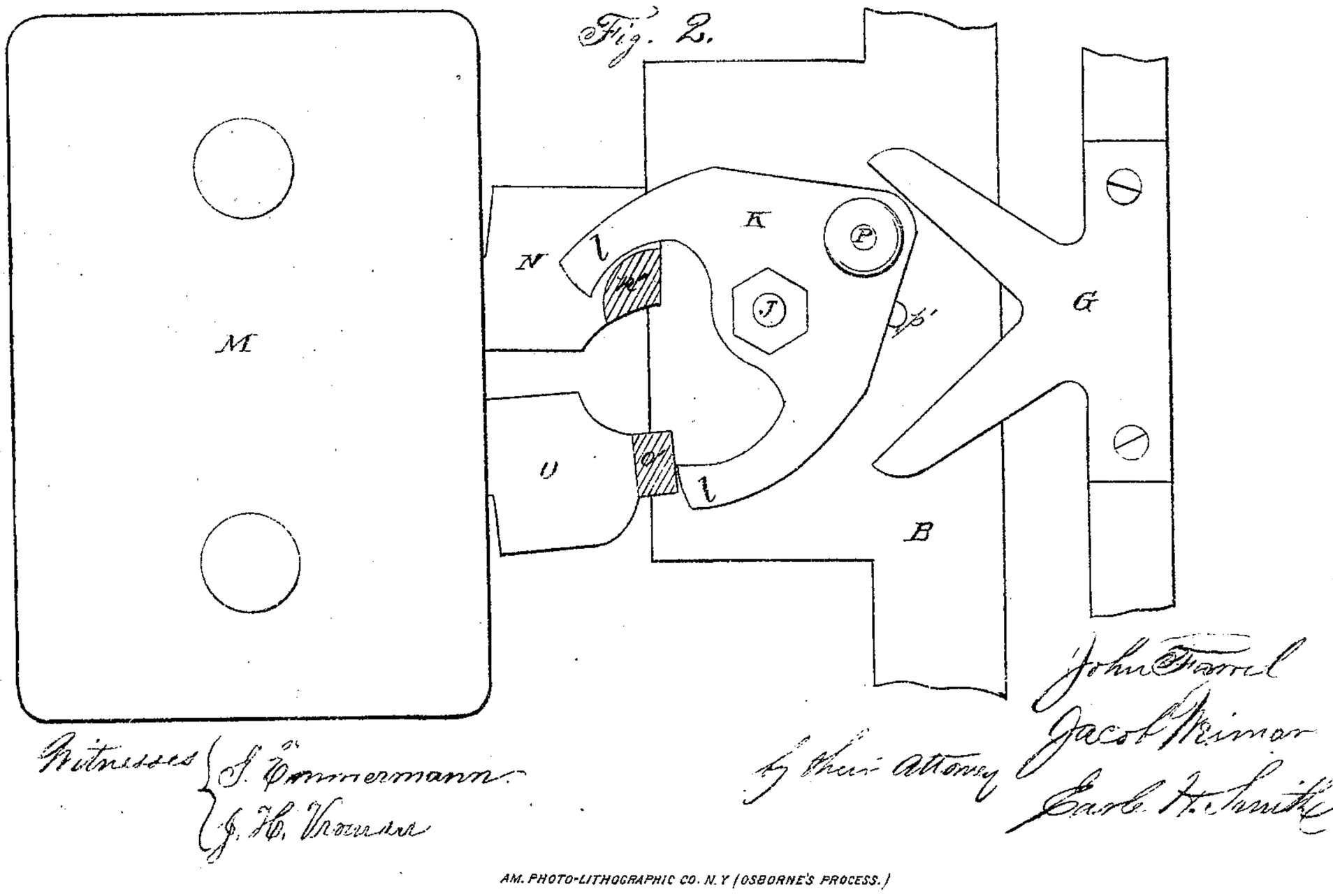

Fig. 2.

Witnesses { J. Zimmermann
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by their attorney

John Farrel
Jacob Weimar
Carl F. Smith

UNITED STATES PATENT OFFICE.

JOHN FARREL AND JACOB WEIMAR, OF NEW YORK, N. Y.

IMPROVEMENT IN BOLTS FOR SAFE-DOORS.

Specification forming part of Letters Patent No. 121,711, dated December 12, 1871.

To all whom it may concern:

Be it known that we, JOHN FARREL and JACOB WEIMAR, of the city and county of New York, State of New York, have invented certain Improvements in Bank-Locks; and the following is a specification thereof, reference being had to the accompanying drawing which forms part of this specification.

Our said invention consists in the arrangement and combination, with a double lock or with two locks, of independent bolts worked by a frame carrying a device termed a frog, the same being operated in connection with a stationary fork, and with the latches or latch-bolts of the lock or locks, substantially as hereinafter specified.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same.

The annexed drawing represents the invention as seen in practical use upon a door.

A is the door, the whole not being shown. B is a plate of metal, constituting part of a frame to which the main bolts C D are connected. This frame and with it the bolts, which are entirely independent of the lock or locks, are worked from the outside of the door by a suitable handle on a spindle, E, (dotted,) that extends inward through the door, and carries the disk or crank F having a crank-pin, I, (dotted,) arranged in a slot in the frame or plate B. Upon a stud, J, made fast in said plate there is mounted the device K, termed the frog. This has arms *l l* at the right, and at the left is of pointed shape, conforming to a reentrant angle between the prongs of a fork, G, that is fixed to the bar H near the edge, and which may form part of the frame of the door. M is a double lock or two locks having latches or latch-bolts N O, each controlled by a distinct and separate locking mechanism. Said latches have small lugs *n' o'*, darkly shaded for prominence; and the arms of the frog abut against them, and thus prevent the retraction of the main bolts C D when thrown out or protruded on closing and securing the door. P is a fastening-pin that is threaded into the frog, so as that it may by turning be screwed into a hole, *p'*, in the plate B immediately behind it, and thus fasten the frog in the normal position thereof, represented in Fig. 1. When so fastened, if both latches be locked as seen in Fig. 1, it will be necessary to unlock both before the main bolts can be retracted. This provides for such contingencies as require that two persons—for example, two officers of a bank—shall be present, and both officiate in opening the door.

On other occasions, however, it is desirable to have a lock or locks and coacting bolts so contrived that, while it shall require the use of two distinct and separate keys or combinations to secure the door, such door may be opened by the use of one of the keys only. In such case the fastening-pin P is unscrewed and withdrawn from its hole *p'* in the plate B, releasing the frog; then the unlocking of one of the latches, as shown in Fig. 2, for example, will permit the retraction of the main bolts. In said Fig. 2 the upper latch is seen unlocked and thrown down so as to clear its lug *n'* from the corresponding arm of the frog, which, being now free to move on its stud, the throwing back of the main bolts, in manner hereinbefore specified, to the points indicated by the dotted lines *s*, will cause it to swing around into the position shown in Fig. 2. A similar result ensues when the lower latch only is unlocked. Throwing it down is indicated by dotted lines in Fig. 1. It will now be apparent that, when the frog is fastened in the position seen in Fig. 1, it cannot turn on its stud, and hence the main bolts cannot be retracted until both latches have been unlocked and removed from behind the extremities of the frog, as hereinbefore explained.

We are aware that it is not new to have the main bolts so arranged with two locks that they may be retracted when either latch or latch-bolt is unlocked; or so that to permit such retraction both latches must be unlocked.

What we claim as our invention, is—

The arrangement and combination, with the double lock or with two locks, of the independent bolts worked by a suitable frame carrying the frog, and operating in connection with the stationary fork and the latches of the locks, substantially in the manner and for the several purposes specified.

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