2 Sheets--Sheet 1.

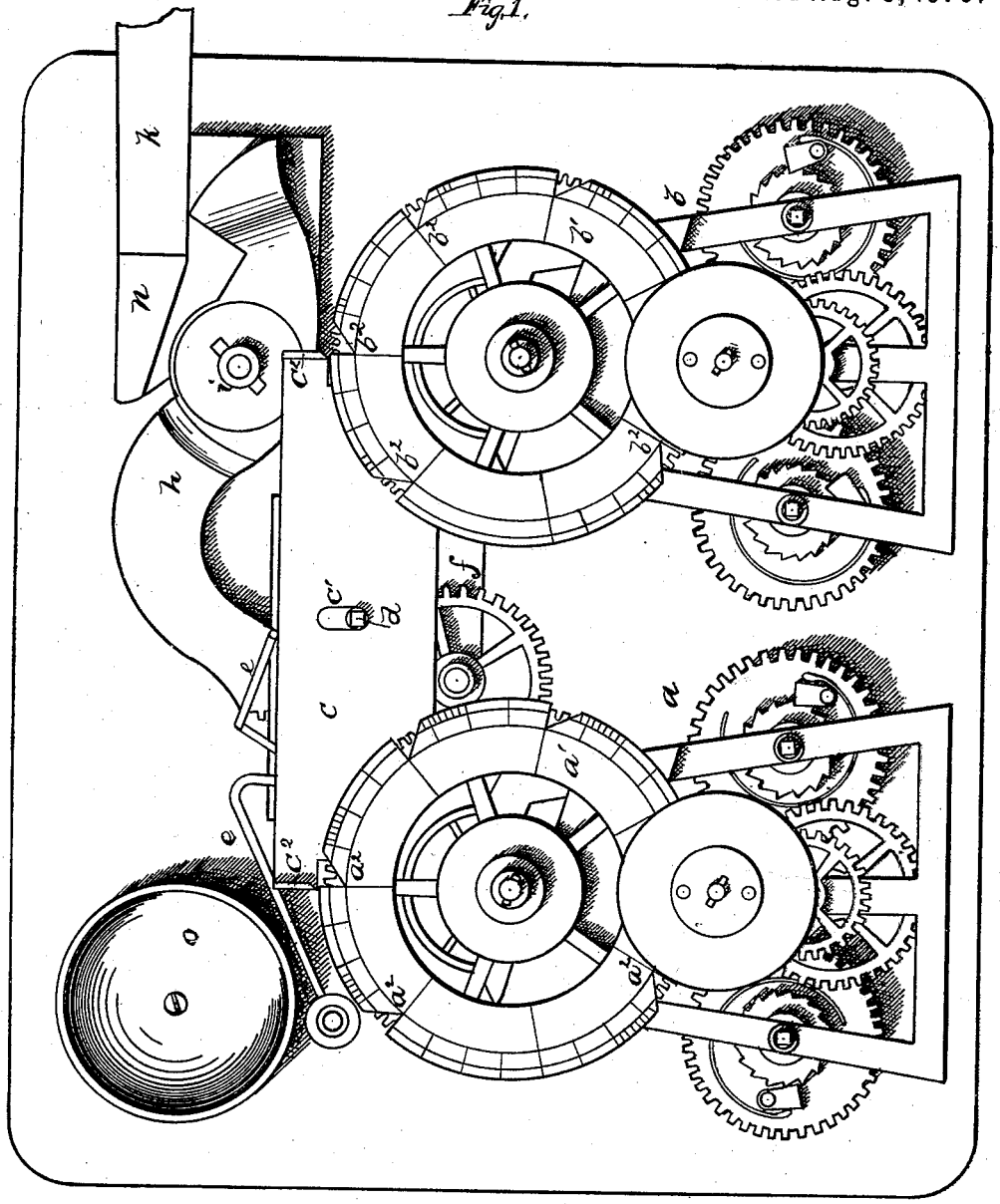
J. BURGE.

Time-Lock.

No. 166,255.

Patented Aug. 3, 1875.

Fig. 1.



WITNESSES:

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INVENTOR

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ATTORNEY.

J. BURGE.

Time-Lock.

No. 166,255. Patented Aug. 3, 1875.

Fig. 2.

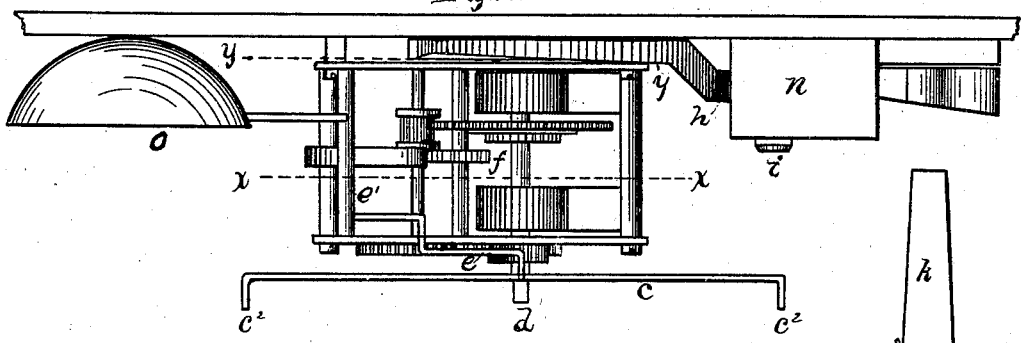


Fig. 3.

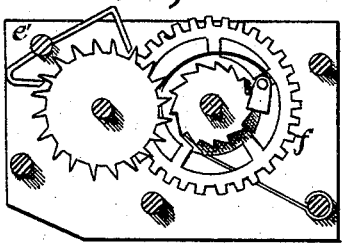
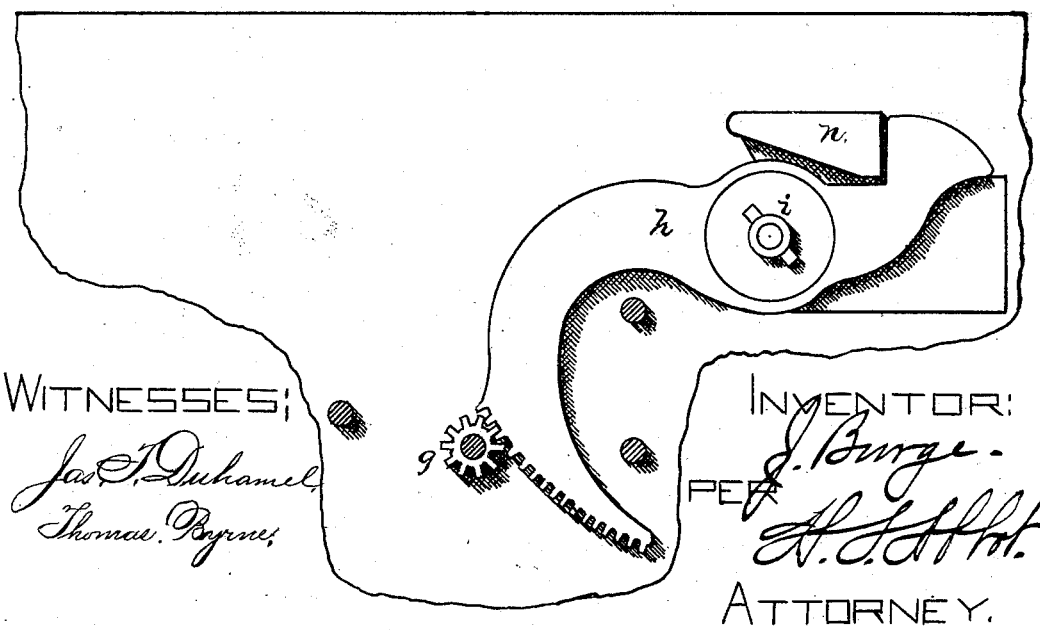


Fig. 4.



WITNESSES;

Jas. T. Duhamel,

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INVENTOR:

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PER

A. C. Fox

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UNITED STATES PATENT OFFICE.

JOHN BURGE, OF CIRCLEVILLE, OHIO.

IMPROVEMENT IN TIME-LOCKS.

Specification forming part of Letters Patent No. **166,255**, dated August 3, 1875; application filed August 22, 1873.

To all whom it may concern:

Be it known that I, JOHN BURGE, of Circleville, Pickaway county, Ohio, have invented certain new and useful Improvements in Time-Locks for the Doors of Bank-Vaults and the like, of which the following is a specification, reference being had to the accompanying drawing.

The letters *a* and *b* denote two clock-work mechanisms of similar construction, carrying disks a^1 and b^1 each, so set and adjusted as to make one complete rotation once in seven days. Each disk has six notches, a^2 b^2, which are all equidistant except two, which are separated from each other by just twice the separating distance of the other notches. The notches, except the two specified, are just a seventh of the circle apart, answering to the seven days of the week. No notch is cut for Sunday, as the lock is not designed to open on Sunday, and this is the cause of the wide separation of two of the notches. Behind the two disks is a detent-plate, *c*, having a central vertical slot, c^1, through which runs the shaft *d*, so that the detent-plate has a short vertical movement on the shaft *d*. This detent-plate has two laterally-extending arms, c^2 c^2, which rest on the peripheries of the two disks. When, in the revolution of either or both disks, one or both of the arms c^2 fall into a notch or notches, the inner end of the clapper-lever *e*, pivoted on the pin or shaft *e'*, is let down, thus releasing a third clock-work mechanism, *f*, similar to a common alarm, which revolves the pinion *g*, meshing into the cogged end of the lever *h*, pivoted on the pin *i*. The revolution of the pinion *g* raises the outer end of the lever *h*, on which lies the pawl *k*, pivoted to the back of the locking-bolt *m*, and which has, till thus raised, abutted against the shoulder *n*, so that the bolt could not be moved back. When the pawl is thus raised, the bolt can be moved back by the ordinary means. The outer end of the clapper-lever *e* strikes on the bell *o*, as the clapper-lever is vibrated by the running down of the clock-work *f*, thus giving notice that the pawl *k* is raised, so that the lock can be worked. I make use of the duplicate clock-work mechanisms *a b* for the purpose of insuring the safe operation of the apparatus. If only one of these were used the apparatus would work with probable safety; but by using duplicates, the operation of the mechanism is made practically certain, for it is hardly possible that both the clock-work mechanisms should stop at the same time, and the running of either will properly work the releasing mechanism. I am, of course, not positively obliged to use both the clock-work mechanisms, nor am I limited to the use of disks which release the lock but once a day, for the notches may be cut to any desired intervals, and the speed of the disks regulated accordingly. This apparatus may be set on the door or on the jamb.

Although I have herein spoken of double time-movement for locks, yet I wish it distinctly understood that I do not broadly claim the same, for it is not my invention; but

What I do claim as my invention is—

1. The combination of the notched disk or disks a^1 b^1, the slotted detent-plate *c*, clapper-lever *e*, clock-work mechanism *f*, pinion *g*, and lever *h*, substantially as and for the purpose set forth.

2. The clock-work mechanism *a*, disk a^1, detent-plate *c*, and clapper-lever *e*, in combination with the clock-work *f*, pinion *g*, lever *h*, and pawl *k*, substantially as described.

In witness whereof I have hereto set my hand this 15th day of August, 1873.

JOHN BURGE.

Witnesses:

WM. E. SIMONDS,

JOHN POLLITT.