(No Model.)

N. B. REES.

TIME LOCK.

No. 493,115. Patented Mar. 7, 1893.

Fig 1

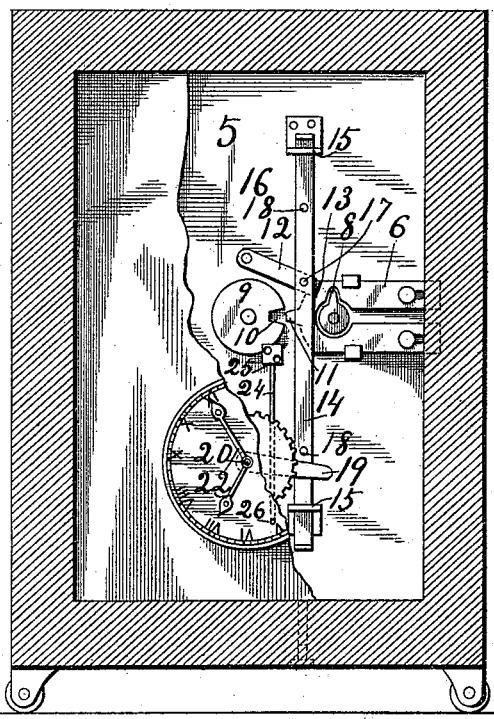
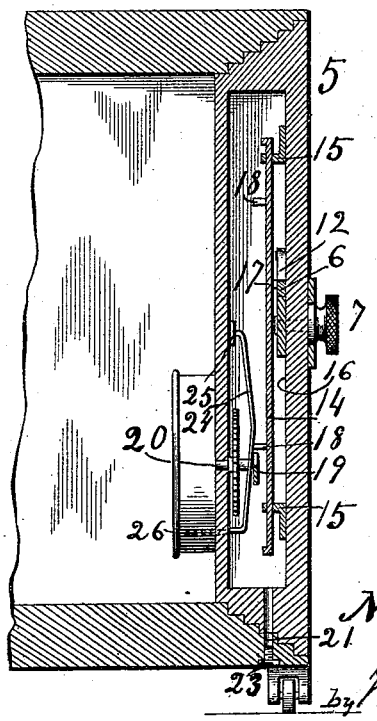


Fig 2



Witnesses
John C. Davis
M. C. Hillyard

Inventor
Napoleon B Rees.
By W. C. Stevens Attorney

UNITED STATES PATENT OFFICE.

NAPOLEON B. REES, OF LINCOLN, KANSAS.

TIME-LOCK.

SPECIFICATION forming part of Letters Patent No. 493,115, dated March 7, 1893.

Application filed July 21, 1892. Serial No. 440,807. (No model.)

To all whom it may concern:

Be it known that I, NAPOLEON B. REES, a citizen of the United States, residing at Lincoln, in the county of Lincoln and State of Kansas, have invented certain new and useful Improvements in Time-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to that class of locks which are connected with clockwork so arranged as to prevent them from being unlocked except at a given time by the clock, and its object is to produce a simple stop or bar to prevent withdrawing a lock-bolt until a given time and means for automatically releasing the lock-bolt so that it may be operated at that time; and in certain means in the nature of a secret arrangement whereby the lock-bolt may be released if anything should get out of order with the clock works.

To this end my invention consists in the construction and combination of parts forming a "time lock" hereinafter described and claimed, reference being had to the accompanying drawings, in which:

Figure I, is a view of a portion of the inside of a safe door partly broken away to show my invention within. Fig. II, represents a portion of a safe door in vertical section through its thickness showing my invention.

5 represents the door of a safe, 6 the locking-bolt, 7 a knob having a finger 8, to engage the bolt 6 whereby the same may be slid to and fro to lock and unlock the door.

9 is a guard which must have its notch 10 set to receive the rear end 11, of the bolt 6 before the bolt can be operated. This guard is shown to represent a guard of any combination lock and all the parts thus far described may be of any usual or preferred arrangement as they are not my invention.

12 represents a latch pivoted to the door or to the lock plate 16, and it is adapted to fall by gravity to engage a rear shoulder 13 of the bolt 6 when it is in its forward or locked position to hold it from being withdrawn or unlocked.

14 is a lifting rod fitted to slide vertically in studs 15 which project from the lock plate, and it is connected with the latch 12 by means of a pivot stud 17 whereby its weight is added to the weight of the latch to insure the falling of the latter when the bolt is locked.

18 represents one or more studs upon the lifting rod and 19 is a lever carried by the spindle 20 of a clock, and one of the studs 18 is in the circular path of this lever so that the clock in its progress of usual movement will at a given time, bring the lever 19 into engagement with a stud 18 and lift the rod 14 and latch 12 so that the bolt may be withdrawn or unlocked. There may be any number of clocks, each provided with a lever 19 to engage one of the studs 18, thus guarding against accident to any clock and insuring the release of the lock bolt at the given time even if one clock should fail. But to further enable those in the secret to open the safe door if the clocks fail I provide an aperture 21 directly through the safe and door under the lifting rod 14, to admit a rod from the outside, whereby my safety latch 12 may be raised and then anyone knowing the combination may unlock the door. This aperture 21 may be closed at the bottom by a screw plug 23 so as to be undiscoverable unless the secret is known to one searching for it. The relation between the clock hands 22 and the lever 19 may be changed so as to set the lever to engage the lifting rod 14 and release the bolt at any desired time, by arranging the time hand with a common friction thimble connection on its spindle 20.

24 is a spring rod fixed at 25 to the inside of the door, with the opposite end 26 projecting into the path of the minute hand of the clock. This rod is curved to project into the path of the arm 19 to be pushed thereby so that the end 26 will be projected at the time when the lifting rod 14 is raised and will stop the clock before the minute hand makes another circuit and before the arm 19 can escape from the stud 18, thus preventing the safe being

relocked even if not opened immediately on the appointed hour.

Having thus fully described my invention, what I believe to be new, and desire to secure by Letters Patent, is the following:

The combination in a time lock; of a locking bolt fitted to slide in a frame; a latch to engage and stop the bolt; a clock upon the said frame; a rod fitted to lift the said latch; a lever communicating between the clock and lifting rod; and a spring rod fixed at one end to the frame and projecting at the other end into the path of the clock hand, and projecting midway into the path of the said lever, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

NAPOLEON B. REES.

Witnesses:
W. H. CECIL,
W. S. GREEN.