(Model.)

C. S. REES & P. MILLS.

LOCK FOR SLIDING DOORS.

No. 274,658. Patented Mar. 27, 1883.

Fig. 1.

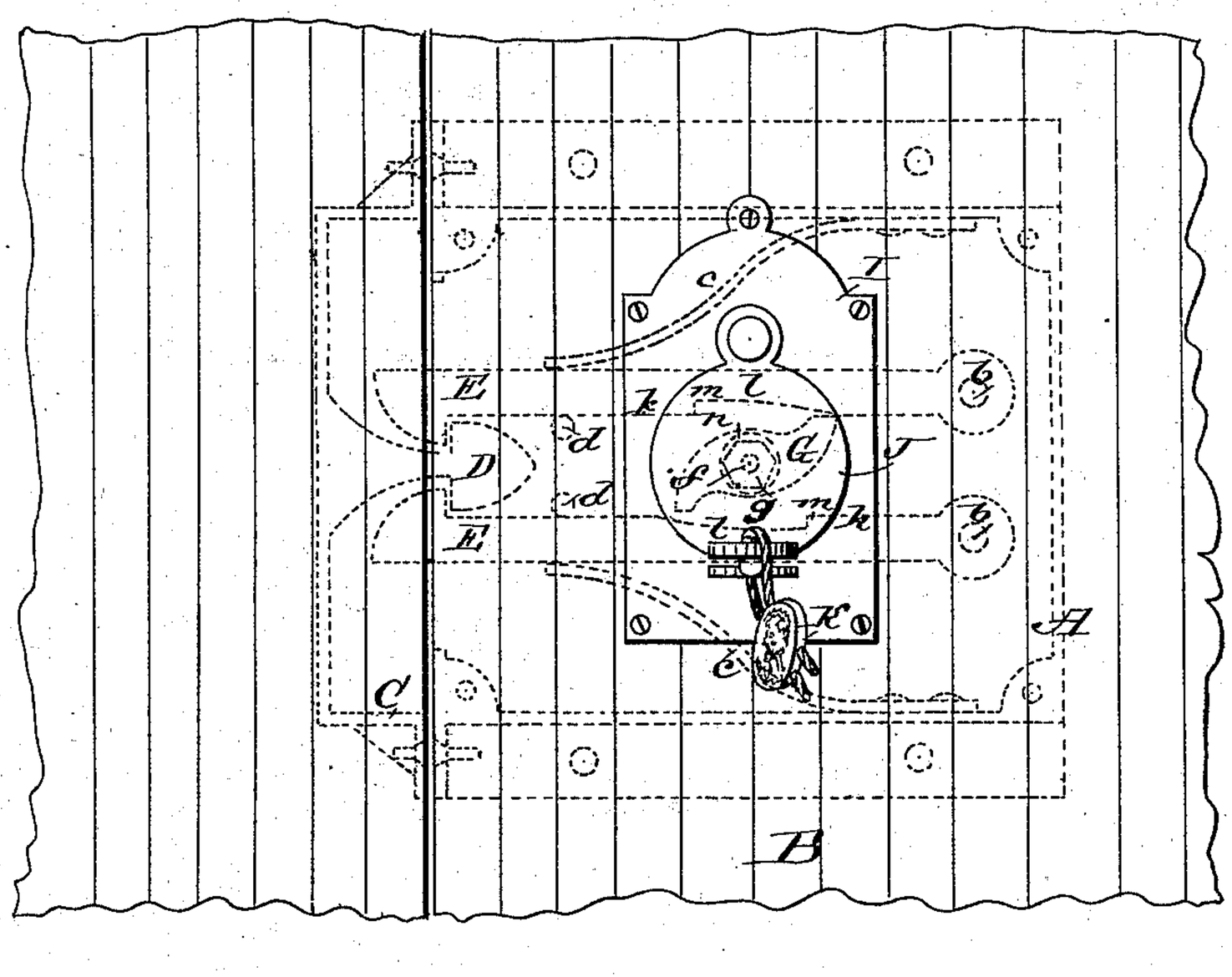


Fig. 2.

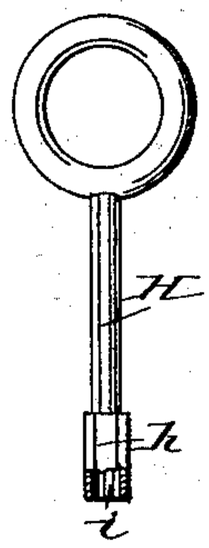


Fig. 3.

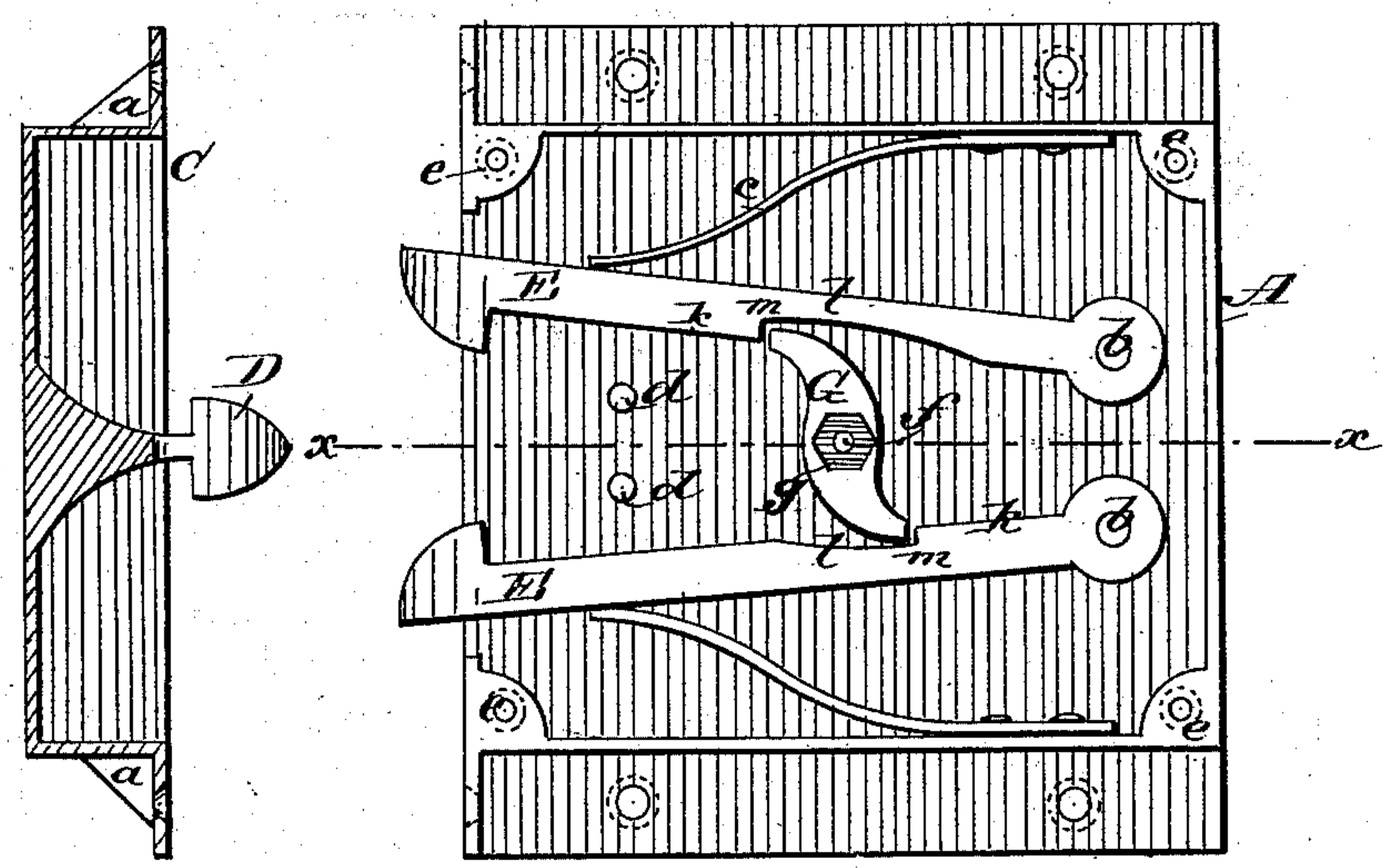
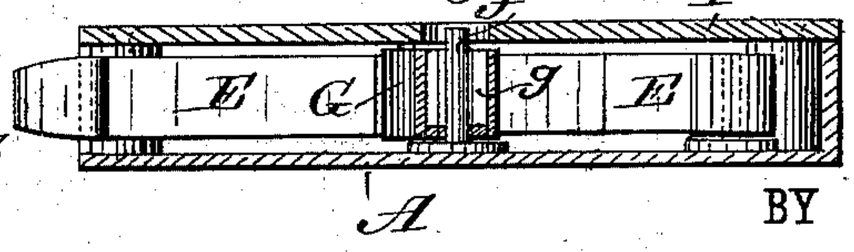


Fig. 4.



WITNESSES:

Geo. Beyer

C. Sedgwick

INVENTOR:

C. S. Rees

P. Mills

Munn & Co

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES S. REES AND PATRICK MILLS, OF PUEBLO, COLORADO.

LOCK FOR SLIDING DOORS.

SPECIFICATION forming part of Letters Patent No. 274,658, dated March 27, 1883.

Application filed October 17, 1882. (Model.)

To all whom it may concern:

Be it known that we, CHARLES S. REES and PATRICK MILLS, of Pueblo, in the county of Pueblo and State of Colorado, have invented certain new and useful Improvements in Locks for Sliding Doors, of which the following is a full, clear, and exact description.

Our improved lock, while applicable to sliding doors or gates generally, is more particularly designed for the sliding doors of freight-cars on railroads.

The object of our invention is to construct a lock for the purposes above expressed which shall combine simplicity and efficiency with safety.

The invention relates to locks in which movable jaws or hooks controlled by springs and stops are combined with a catch of dart-head or equivalent construction; and it consists in a novel construction, combination, and arrangement of parts, essentially as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents an exterior view of the side of a freight-car in part with our improved lock applied to the sliding door thereof. Fig. 2 is a view of the key of the lock. Fig. 3 is an inside face view of the lock and its catch in partial section, and Fig. 4 a transverse section of the lock on the line *x x* in Fig. 3.

A is the lock-case, made with suitable inside and face flanges, and secured by screws to or on the inside of the sliding door B.

C is the strike-plate, of box-like construction, with flanges stiffened by braces *a a*, for securing it to the jamb of the door, into which it is inserted, and holds within it a dart-head catch, D.

E E are the movable jaws or hooks, pivoted at *b b* to the lock-case, and closed by springs *c c*, applied to their backs and arrested when closing from coming together by stops *d d*.

Blocks *e e* are cast in the corner of the lock-case to strengthen the lock and to provide for the firm fastening of the cover F.

G is a pivoted tumbler, arranged between the hooked jaws E E, for operation upon them both simultaneously to open or force them apart. It turns upon a pin or post, *f*, secured to the lock-case and extending outward to its front to receive the pipe portion of the key H, and to serve as a guide to the key. Said tumbler is formed with a cavity, *g*, of hexagonal or other polygonal shape in its transverse section, for a correspondingly-shaped enlarged portion, *h*, of the key, outside of its pipe *i*, to enter and turn the tumbler, as required. When the door is open and the tumbler G is turned so that the hooked jaws E E are forced by their springs *c c* against the stops *d d*, then the door may be closed and locked by simply pushing or sliding it to close it, so that the hooked jaws E E receive within them the dart-head catch D. Upon turning the tumbler G by the key H to the right to unlock the door said tumbler, which is of double-cam or leaf form, as shown, acts first upon plain portions *k k* of the inside of the jaws E E to force them apart, and after being turned partly round drops into recesses *l l* in the jaws and against shoulders *m m* to hold the jaws extended and leave the lock open, when the key may be removed and the door B may be opened and closed as if there were no lock; or the key H and tumbler G may be turned to the right still farther or wholly round, which will place the jaws E E once more in a self-closing position.

The key-hole in the door and in a plate, I, on the outside of it is of circular form, as shown by dotted lines *n* in Fig. 1, and of sufficient diameter to admit the enlarged polygonal-shaped portion *h* of the key through it, thereby not exposing the necessary shape of the key.

An escutcheon, J, may be arranged over the key-hole, with attached seal-box K, for protecting the lock against insertion of the key without detection, as freight-car doors are ordinarily secured; but even if the seal be broken, or where there is no such protection, the manner of opening the lock by requiring the tumbler to be turned only partly around will act as a check or safe-guard against others than those authorized to use the key from opening the lock, inasmuch as if the tumblers be turned beyond a given point, or the key be turned wholly round, the lock will not be opened, but the locking-jaws return, after being sprung back, to their engagement with the catch.

We are aware that it is not new, broadly,

to employ two oppositely-disposed pivoted spring-jaws adapted to be separated and so held by an intermediate tumbler or cam, and to automatically close or come together when released from the action of the cam or tumbler.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

In a lock, the pivoted hooked spring-jaws E, having abrupt shoulders *m*, arranged one on each side of a vertical plane passing through the key-hole, or diagonally opposite to each other, and facing in opposite directions, said jaws also having oppositely-inclined recesses *l*, extending from the bases of said shoulders, in combination with the centrally-pivoted cam or tumbler G, having oppositely-extended arms, adapted to bear against the shoulders *m* of the jaws E, whereby by a certain extent of movement of the key or the tumbler the opening of the lock is effected, while by further movement of the key or tumbler the jaws will be permitted to close, as set forth.

CHARLES S. REES.
PATRICK MILLS.

Witnesses:
J. J. LAMBERT,
W. H. FAYETTE.