(Model.)

J. M. TUNIS & W. F. BEDFORD.

LOCK FOR SLIDING DOORS.

No. 389,345. Patented Sept. 11, 1888.

Fig. 1.

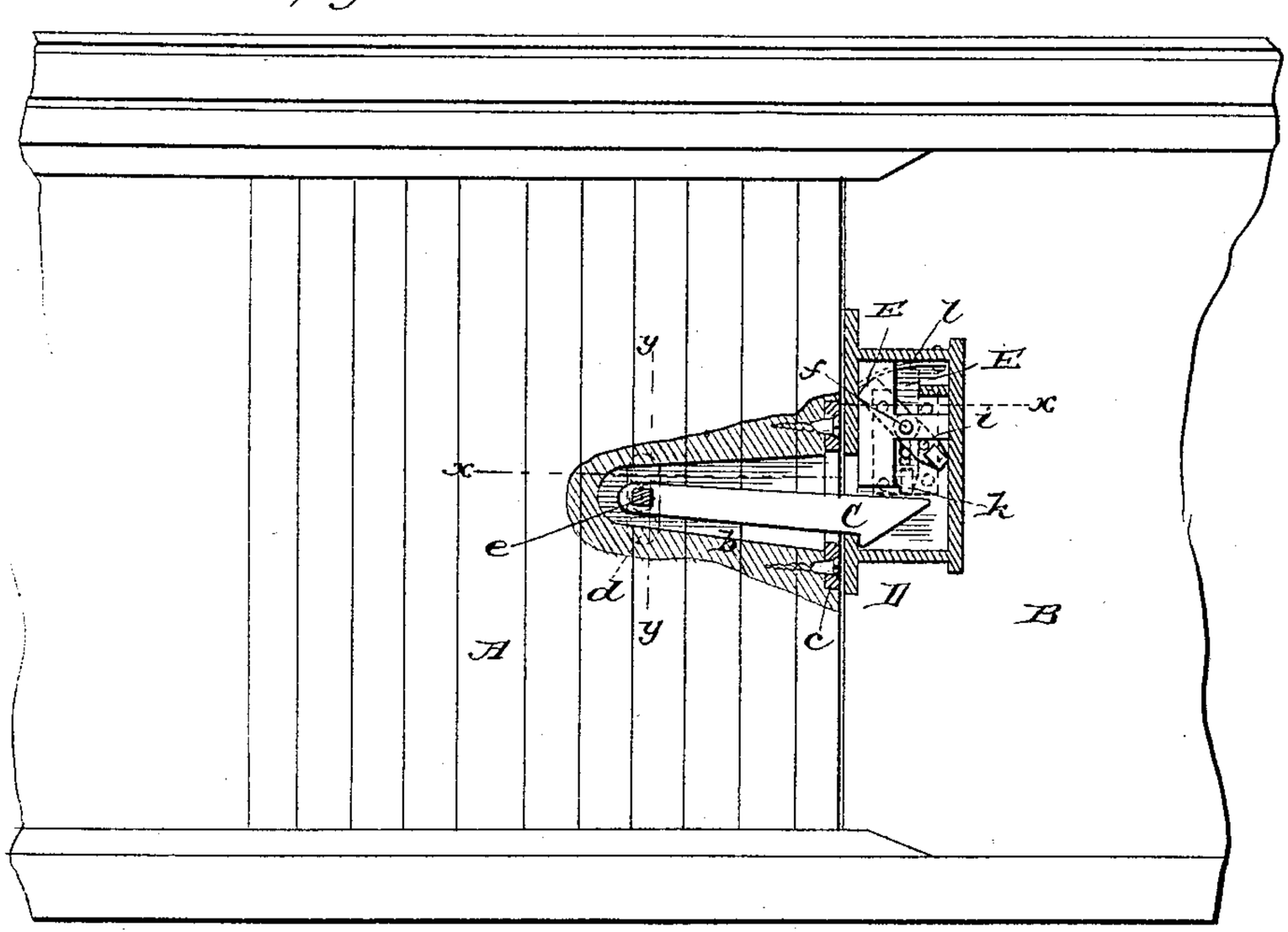


Fig. 2

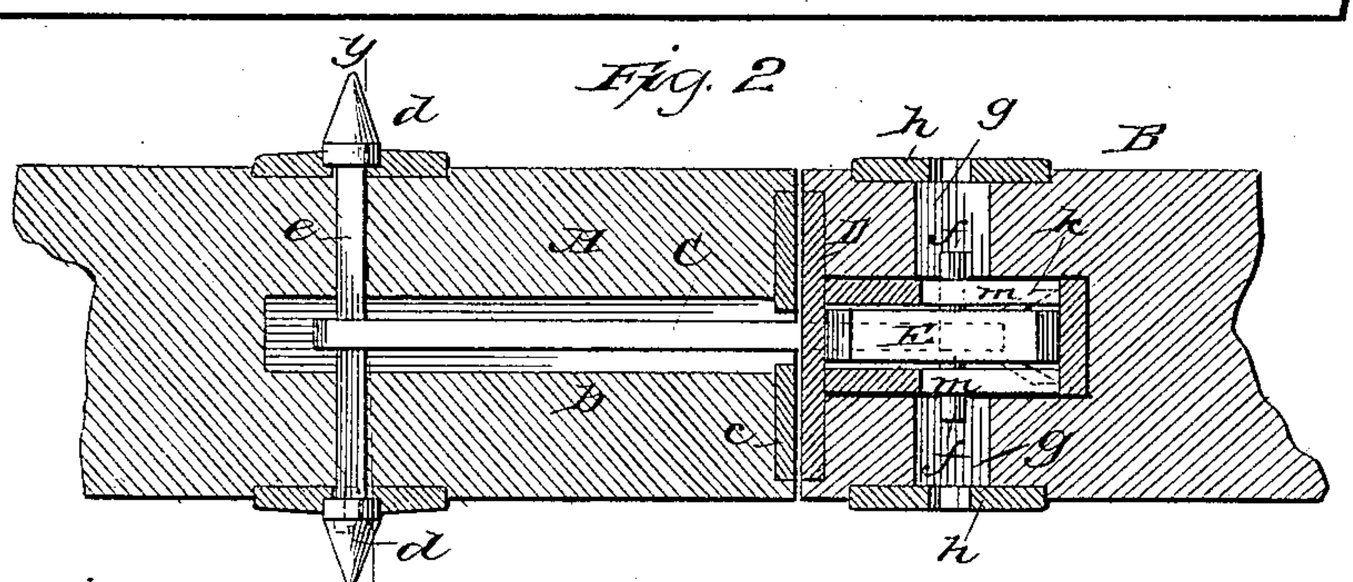


Fig. 3.

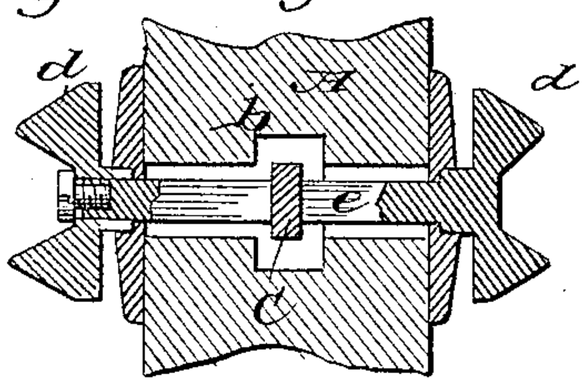
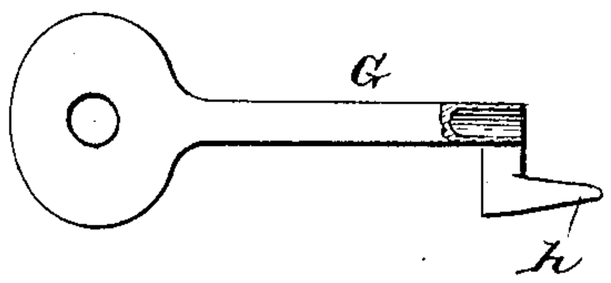


Fig. 4.



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JOHN M. TUNIS AND WILLIAM F. BEDFORD, OF MADISON, NEW JERSEY.

LOCK FOR SLIDING DOORS.

SPECIFICATION forming part of Letters Patent No. 389,345, dated September 11, 1888.

Application filed April 10, 1888. Serial No. 270,199. (Model.)

To all whom it may concern:

Be it known that we, JOHN M. TUNIS and WILLIAM F. BEDFORD, both of Madison, in the county of Morris and State of New Jersey, have invented a new and useful Improvement in Locks for Sliding Doors, of which the following is a full, clear, and exact description.

Our improvement is applicable to sliding doors or gates generally, including rolling sliding doors suspended from above and others, irrespective of the purpose for which the same may be used. It will be found particularly desirable, however, for sliding and rolling doors of street-cars and railroad freight-cars, or wherever, when the door is locked, it is desirable that it should be proof against being unlocked by jar.

The invention relates to that description of locks for sliding or rolling doors which combines both a latch and lock, or, in other words, provides for either the door being simply latched or locked by a removable key, as desired; and the invention consists in certain novel constructions and combinations of parts, substantially as hereinafter described, and pointed out in the claims, and whereby a good or efficient combined latch and lock which is both simple and durable can be produced at a moderate cost, no jar of any kind will unlock it, and the key, which is removable when the door is unlocked, is not liable to fall out of the door, the lock being a mortise one and out of the way and protected by the wood in which it is inserted, and, furthermore, not necessarily dependent upon springs for its operation.

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 a front view of a sliding door and door-frame in part, with the lock case or frame and latch-pocket in section, and having our invention applied. Fig. 2 is a horizontal section, upon a larger scale, on the irregular line *x x* in Fig. 1; Fig. 3, a vertical section in part, mainly upon the lines *y y* in Figs. 1 and 2; and Fig. 4, a side view of a key suitable for the lock.

A indicates the sliding door, and B the jamb or that portion of the stationary frame against which the door closes.

C is an ordinary or any suitable drop-latch let into a mortise or pocket, *b*, having a face-plate, *c*, in the door. This drop-latch, which may be operated by knobs *d* on an attached knob-spindle, *e*, from either or opposite sides of the door, is free to rise and fall, and engages, when the door is shut, with or over the lower wall of the slot in the face-plate of the lock case or frame D, through which the nose of the latch enters, said lock case or frame D being mortised in the jamb B of the door case or frame. This construction so far simply provides for the self-latching of the door when shut to and for its being unlatched by suitably turning the knob-spindle *e*, so as to raise the latch.

The mortised lock case or frame D, which is open at its sides, carries within it a tumbler or locking-catch, E, having attached side pivots, *f*, which have their bearing in opposite side guards, *m*, secured to the frame D, or which may be otherwise carried within the frame D; but the guards are preferred as affording a limited protection against picking of the lock. The pivots *f*, which provide for oscillating the tumbler E, are in line with the key-hole *g* and openings in the key-hole face-plates *h* on opposite sides of the jamb B, or it may only be on one side where the door is not designed to be locked from both sides. These pivots *f* serve to receive over them the hollow shank of the key G, the bit *h* of which engages with an aperture, *i*, in the tumbler E, so that upon suitably turning the key in reverse directions the tumbler E may either be turned into an upright position, as shown by dotted lines in Fig. 1, to bear down by its lower nose end, *k*, upon the top of the latch C to lock or hold it closed when the door is shut, or said tumbler may be swung to one side out of the way of the latch, as shown by full lines in Fig. 1, to provide for the working of the latch and to make the door simply a latch one. A spring, *l*, may, if desired, be applied to the tumbler E, to put friction upon it, so as to insure the tumbler being held in either of its set positions; but such spring is not what may be termed an "operating" part of the lock.

The key is not restricted to the construction here shown, and it may be made to engage with and disengage from the locking catch or tumbler in various ways.

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

1. In a lock for sliding doors, the combination, with a casing into which a latch is adapted to project and engage, of a catch provided with pivots having bearings in the side of the casing, the said pivots forming posts adapted to enter the barrel of a key, the bit of which engages the said catch, substantially as herein shown and described.

2. In a lock for sliding doors, the combination, with a pivoted latch adapted to be secured to a door, of a lock-casing adapted to be secured to the door-jamb, and into which the latch projects and engages, a catch, E, provided with an aperture, *i*, and pivots *f*, which serve as posts to enter the barrel of a key, and a spring, *l*, secured to the casing and engaging the catch for holding it in the position into which it has been turned, substantially as herein shown and described.

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