(Model.)

J. KIRBY, Jr.

BERTH LOCK FOR SLEEPING CARS.

No. 271,867. Patented Feb. 6, 1883.

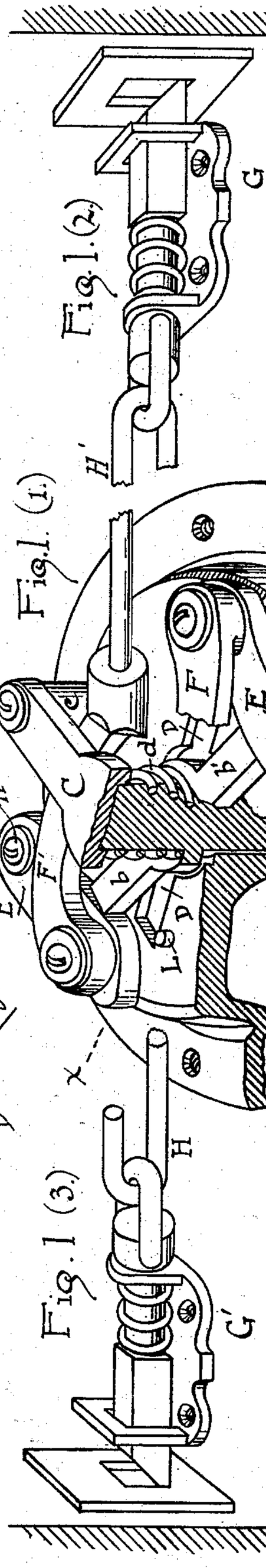

Fig. 1. (1.)

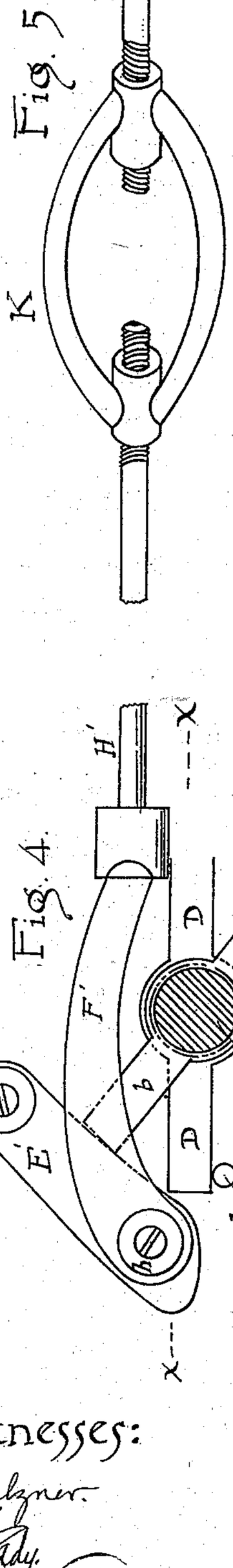

Fig. 5

Fig. 1. (2.)

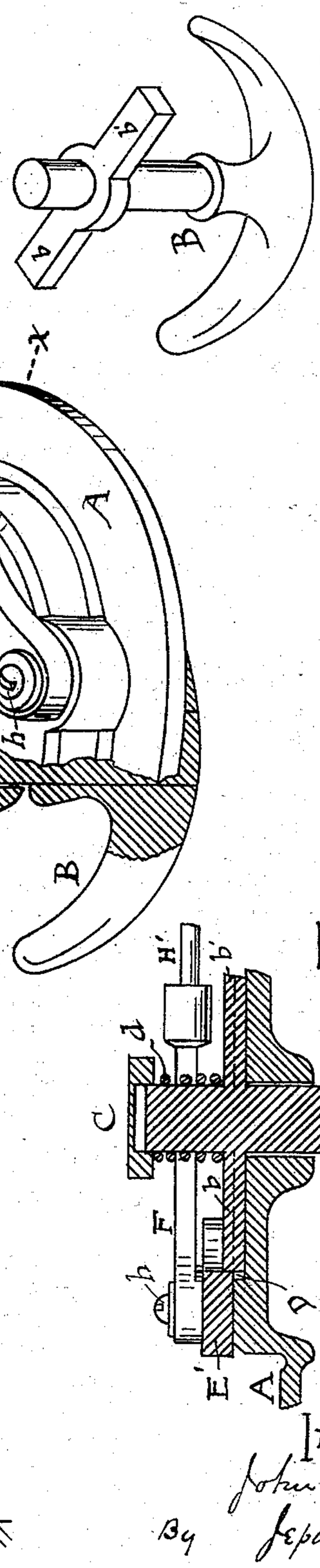

Fig. 3.

Fig. 4.

Fig. 1. (3)

Fig. 2

Witnesses:

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BERTH-LOCK FOR SLEEPING-CARS.

SPECIFICATION forming part of Letters Patent No. 271,867, dated February 6, 1883.

Application filed November 11, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOHN KIRBY, Jr., of Ludlow, Kenton county, Kentucky, have invented certain new and useful Improvements in Berth-Locks for Sleeping-Cars, of which the following is a full, clear, and exact specification, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view of my berth-lock. 1 is a view of handle-plate, broken away in part, showing mechanism used in withdrawing latches, 2 and 3 showing latches, latch-rods, and latch-receiver attached to frame of berth. Fig. 2 is a part section on line *x x*, Figs. 1 and 4, of handle and handle-plate, showing arm on end of handle resting in recess in plate. Fig. 3 is a view of handle detached from its plate. Fig. 4 is a view of the withdrawing-arms, showing also arms on end of handle that actuate the withdrawing-arms, showing also recess in plate to receive arms on end of handle when the lock is unlocked. Fig. 5 is a view of screw-links for varying length of rods.

Similar letters of reference in the several drawings indicate the same parts.

A is the handle-plate; B, sliding spring-handle; *b b'*, arms of handle B; C, supporting-bar for handle; *c c*, attaching-lugs; *d*, spring on handle; D, recess in back face of plate A; E E', retracting-arms pivoted on back face of plate A; F F', arms pivoted to arms E E' and to rods H H'; H H', retracting-rods for latches; and G G', latches.

My invention relates to locks for the upper berths of sleeping-cars, and to that class in which the bolts are held positively in the unlocked position; and its object is to prevent the locking of the berth in case of accident, so that if it closes it may not lock.

My lock is made as follows: The working parts being attached to a saucer-shaped plate, A, as shown in Fig. 1, a handle, B, is inserted. The shank of the handle extends through the plate A and into the supporting-bar C, which serves to guide it, and which is attached to the back of the plate by brackets or legs *c c*. The handle B has projecting arms *b b'*, and has a spiral-shaped spring, *d*, around it, resting at one end against the supporting-bar C and at the other against the arms *b b'*. In the back face of the depressed portion of plate *d* is a recess, D, of a size and shape to receive and hold the arms *b b'* when the handle is turned to the unlocking position, in which position the arms *b b'* are forced into the recess and there held until occasion comes for turning the handle to the locking position. To turn the handle it is necessary first to overcome the resistance of the spring *d* and to press the arms *b b'* out of the recess D. The handle B has a play through the plate A limited to the distance between the back face of plate A and the supporting-bar C, and modified by the spring *d*. At opposite points, *h h'*, on the back face of plate A are pivoted the arms E E'. To these arms are pivoted other arms, F F', and to these latter arms are attached latch-rods H H', which link onto latches G G'. A screw-coupling, K, Fig. 5, may be used to connect parts of either rod to vary its length.

The operation of my invention is as follows: When it is desired to let down the berth (unlock it) the handle B is turned until the arms *b b'*, which by their movement actuate the arms E E' and so retract the latches, come over the recess D, into which they are forced by the spring *d*. A pin, L, prevents the arms *b b'* turning too far. The arms *b b'* are thicker than the depth of recess D, and their ends rest against the arms E E', thus acting as a catch when the lock is unlocked for said arms, and preventing them from turning by the action of the springs on the latches G G' until the arms *b b'* are pressed out of the recess D. As the handle B requires positive pressure before it can be turned, the mere closing of the berth will not cause the latches to engage in their receptacles on the other part of the car.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. In a berth-lock, a sliding spring-handle having arms for actuating the retracting latch-rods, in combination with a lock-plate having a recess in its back face adapted to receive and hold securely the said arms when the lock is unlocked, substantially as described.

2. In a berth-lock, the sliding spring-handle B, having the arms *b b'*, and the plate A, having the recess D and pivoted arms E E'.

The foregoing specification of my invention signed by me.

JOHN KIRBY, JR.

Witnesses:
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