J. Stephenson,

Latch for R.R. Car Doors,

No. 45,442, Patented Dec. 13, 1864.

Fig. 1

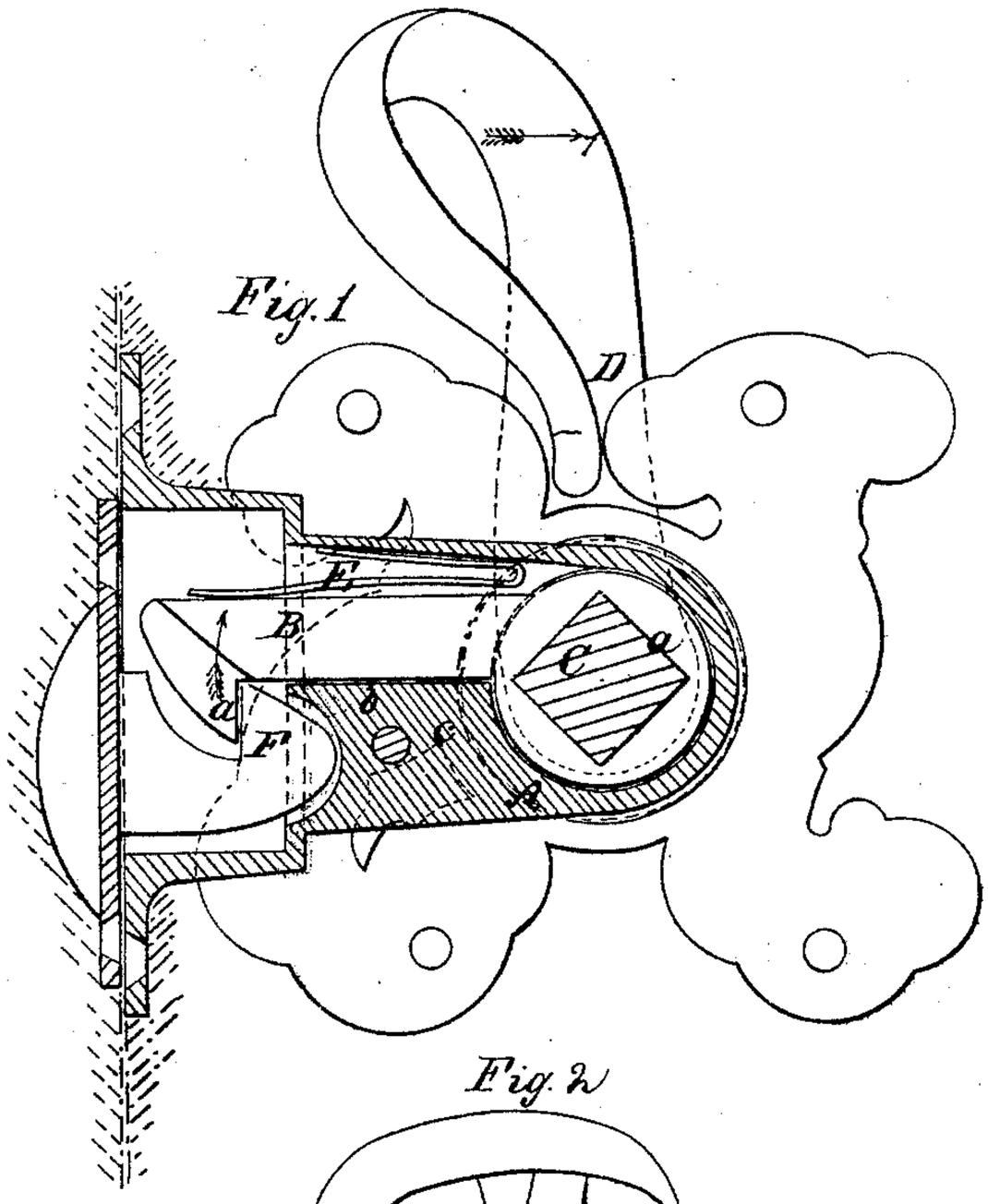
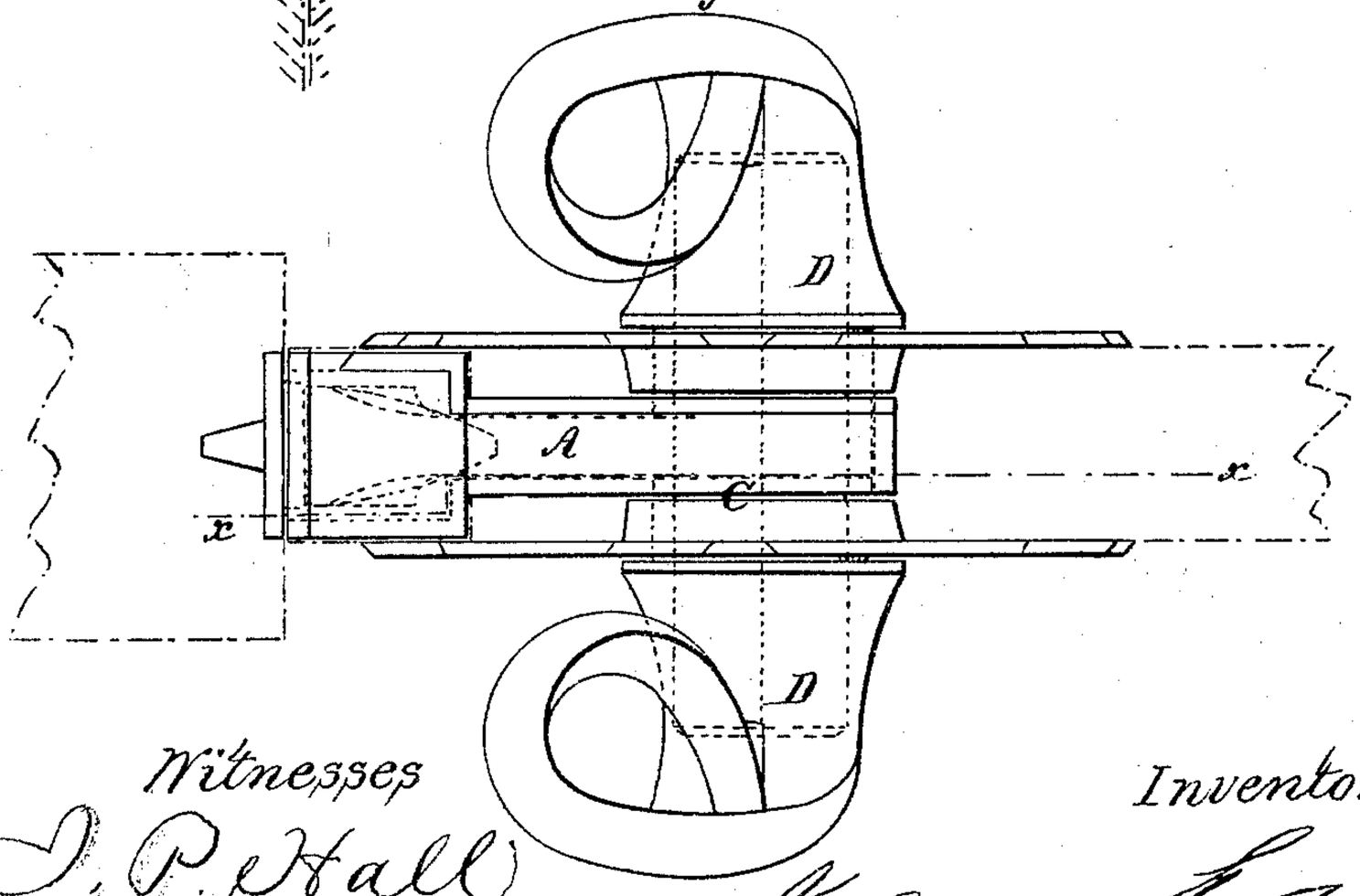


Fig. 2



Witnesses

D. P. Hall

Geo. W. Reed

Inventor.

John Stephenson

UNITED STATES PATENT OFFICE.

JOHN STEPHENSON, OF NEW YORK, N. Y.

IMPROVED LATCH FOR RAILROAD-CAR DOORS.

Specification forming part of Letters Patent No. **45,442**, dated December 13, 1864.

To all whom it may concern:

Be it known that I, JOHN STEPHENSON, of the city, county, and State of New York, have invented a new and Improved Latch for Sliding Doors, designed more especially for city railroad-car doors; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate like parts.

This invention relates to an improved latch of that class in which the parts are arranged with the handles of the same in such a manner that when force is applied to the handles in order to disengage the latch, in order to release the door, the same force, or its continuation in the same direction, will serve to slide open the door, thereby rendering but one manipulation necessary in order to effect the above result.

The object of the within-described invention is to obtain a latch of the class specified, which will be capable of being manipulated with greater facility than those previously devised, and one which any person unacquainted with would naturally operate or unlatch at the first essay or attempt, repeated trials being frequently required by strangers before they can open the latches of the class hitherto used on city horse-cars.

A represents the case of the latch, which may be of any proper or desired form, and B represents the latch-bolt, which is formed with a hook, *a*, at its outer end, as shown clearly in Fig. 1. The inner end of the latch is formed with a cylindrical hub having a square hole, *a'*, made centrally through it to admit of the insertion of a corresponding-shaped arbor, C, said arbor passing entirely through the door and projecting sufficiently far from each side of it to admit of a handle, D, being inserted on each end, as shown in Fig. 2, in which the door is indicated by a red outline. The handles D D project from the arbor-like levers, and in fact are levers, by which the latch B is raised.

E is a spring, which is fitted between the upper side of the latch and the top of the case A, and has a tendency to keep the latch B down upon the horizontal portion *b* of a projection, *c*, in the case, in which position the latch, when the door is closed, is engaged with a catch, F, attached to the door-jamb, and the door secured in a closed state. (See Fig. 1.)

In order to unlatch the latch and release the door, the operator presses the handle D at either side of the door backward or in the direction in which the door slides open, (see arrow 1,) and the handle is thereby turned so as to raise the hook *a* of the latch free from the catch F, and the continuation of the same force will slide open the door. The handles D D, it will be seen, are in an upright position, convenient to be operated upon, so that no difficulty whatever will be experienced by any one in unlatching and sliding open the door.

I am aware that it is not new to so construct a door-catch that the door may be unfastened and slid back with one motion.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

As a new article of manufacture, the door-fastening hereinbefore described, consisting of the hooked latch B and two handles, D D, rigidly secured upon and connected by the arbor C, the casing A, spring E, and catch F, all constructed, arranged, and employed as specified.

JOHN STEPHENSON.

Witnesses:
J. P. HALL,
GEO. W. REED.