L. B. LEECH.

Device for Holding Doors Open.

No. 216,195. Patented June 3, 1879.

Fig. 1

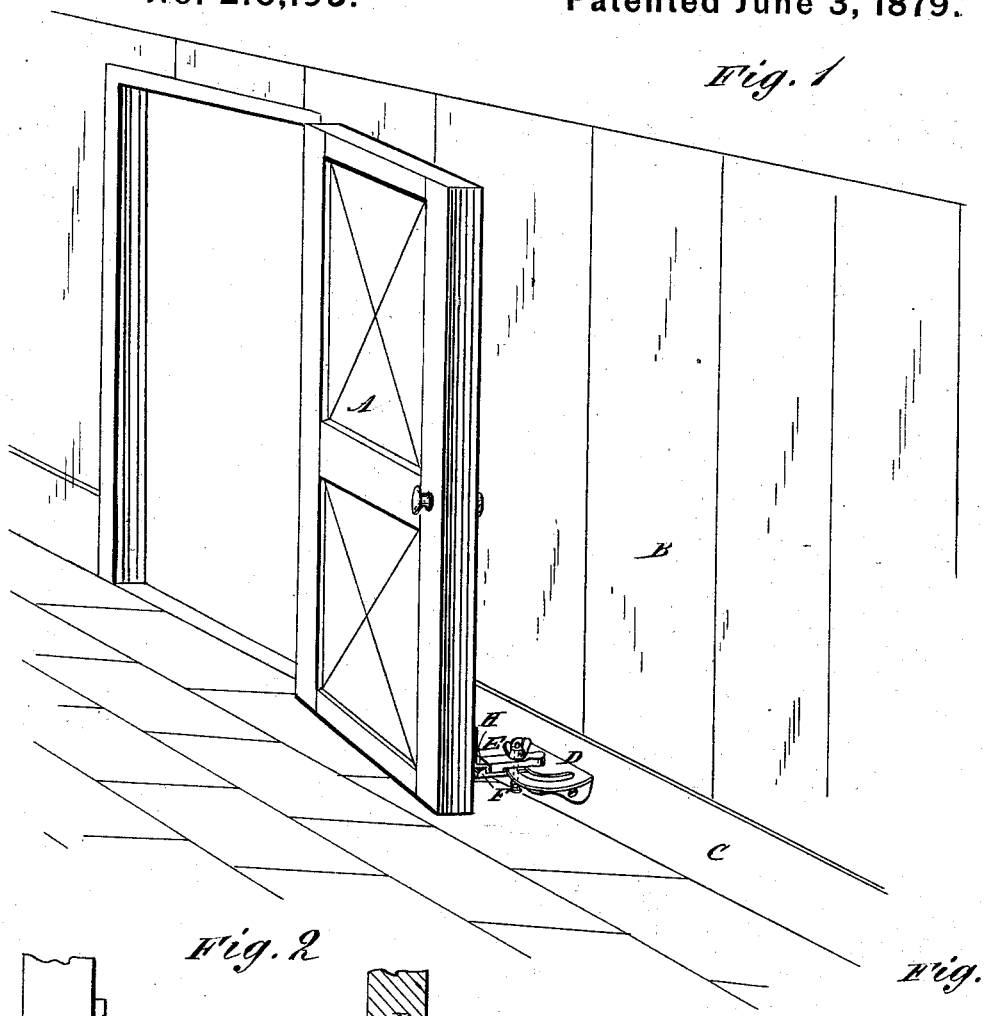


Fig. 2

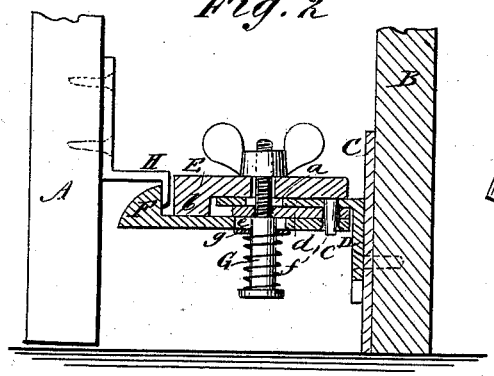
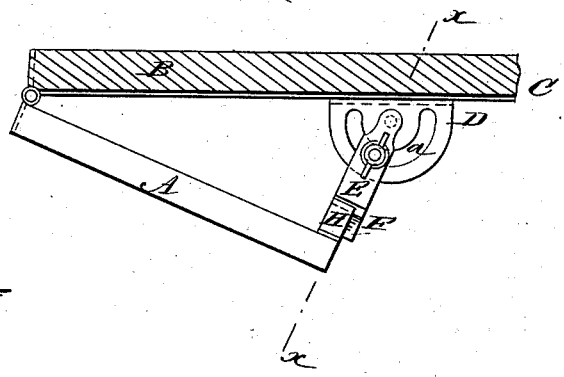


Fig. 3



WITNESSES:

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LUCIAN B. LEECH, OF SMITHFIELD, PENNSYLVANIA.

IMPROVEMENT IN DEVICES FOR HOLDING DOORS OPEN.

Specification forming part of Letters Patent No. **216,195**, dated June 3, 1879; application filed April 10, 1879.

To all whom it may concern:

Be it known that I, LUCIAN B. LEECH, of Smithfield, in the county of Fayette and State of Pennsylvania, have invented a new and Improved Back-Latch for Doors, of which the following is a specification.

The invention will be first described in connection with the drawings, and then specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a door and the latch, showing the manner of applying the same. Fig. 2 is a longitudinal section of the same on line *x x* of Fig. 3, which shows a top plan of the same in position.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A is the door. B is the wall, and C is the base-board, to which the latch is attached. D is a right-angular plate, attached to the base-board by one side; the other, projecting out horizontally, has its edge formed into a semicircle, and is provided with a semicircular slot, *a*. E is a short bar, placed on top of the plate D, with its outer end provided with a downward projecting piece, *b*, while its inner end is provided with a pivot, *c*, passed down through a hole in the plate, then through a short bar, *d*. F is the latch, placed under the slotted plate next to the bar *d*, with a hole, *f*, near its inner end to receive the pivot *c*, while immediately under the slot *a* it has a slot, *e*.

A stud, G, with a reduced screw-threaded extension, is passed up through slot *e*, and the screw-extension is passed through a threaded hole in bar *d*, thence through slot *a* and a hole in bar E, and its projecting end is fitted with a thumb-nut. The stud has a head, against which the lower end of a spring, *f'*, wrapped around it, bears, while the upper end bears against a washer, *g*, which, in turn, is in contact with the under side of the latch. The shoulder of the stud bears against the under side of the bar *d*. The spring *f'* presses the latch up in contact with the under side of the bar *d* and the projection *b* of bar E, between which and the latch is a space.

By loosening the thumb-nut *f* the latch E can be swung around on its pivot, and thus set at any angle to the base-board; and by pressing on the latch it can be turned down away from the projection *b;* but on releasing it the spring *f'* returns it to the proper position. On the door, near the free edge and in line with the latch F, is placed a projecting bolt, H.

The latch is adjusted to the proper angle, as shown in Fig. 3, and secured by the nut *f*. When the door is thrown open the end of the bolt H strikes the curved face of the latch, and, forcing it down, passes over it and strikes against the end of bar E, and being stopped the latch flies up and catches it, as in Fig. 2, thus fastening it open.

If the door is to open to a different angle, the latch can be adjusted accordingly. The bar E, remaining in the position to which it is fixed by the set-nut *f*, always acts as a stop for the door, and prevents it from failing to be caught, or from passing back and striking the wall with the key or knob.

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

1. As an improvement in back-latches for doors, the plate D, with semicircular slot *a*, and the bar E, in combination with the latch F, the shank whereof is connected with the plate by pivot *c*, and the stud G, with spiral spring and washer bearing against the under side of the latch, and having a screw-extension passed up through slot *a*, and provided with a set-nut, *f*, whereby the said latch can be swung around on its pivot and adjusted at any suitable angle, substantially as described.

2. The combination of the angle-plate D, having curved slot *a*, the bar E, having projection *b* and pivot *c*, the apertured bar *d*, having threaded hole, the latch F, having slot *e* and hole to receive pivot *c*, the stud G, having threaded extension, and the bolt H, as shown and described.

LUCIAN BONAPART LEECH.

Witnesses:

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