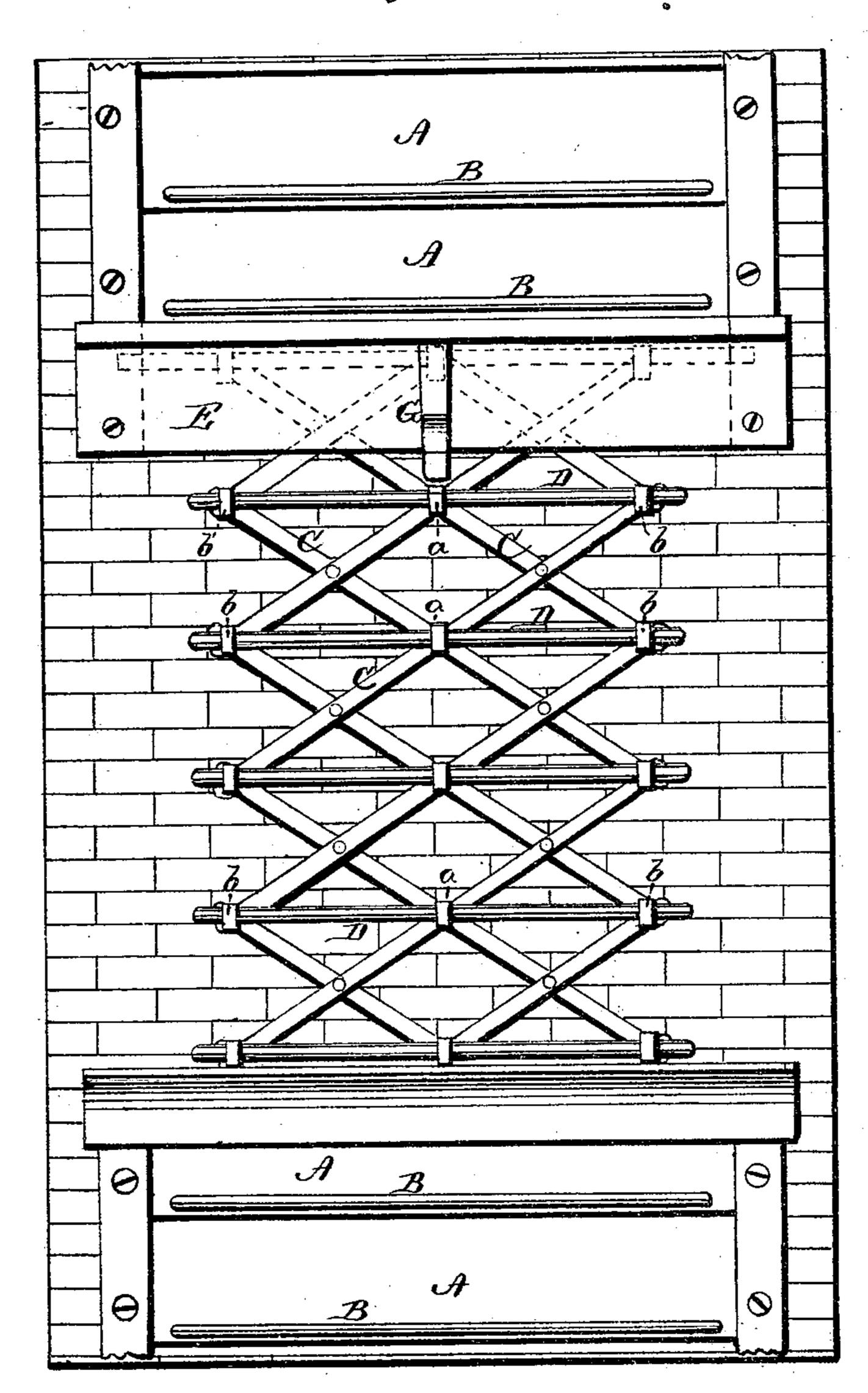
## S. M. GILLETT, R. T. SILL & S. K. CRAWFORD. Fire-Escapes.

No.151,379.

Patented May 26, 1874.

Fig. 1.



WITNESSES.

F. H. Schott. C. L. Evert Fig. 2. A. Sylvanus M. Lillett.

Robert M. Sill.

Samuel K. Crawforde.

By

Attorneys.

## UNITED STATES PATENT OFFICE.

SYLVANUS M. GILLETT, ROBERT T. SILL, AND SAMUEL K. CRAWFORD, OF WARSAW, MISSOURI.

## IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. 151,379, dated May 26, 1874; application filed April 25, 1874

To all whom it may concern:

Be it known that we, Sylvanus M. Gil-LETT, ROBERT T. SILL, and SAMUEL K. CRAW-FORD, of Warsaw, in the county of Benton and in the State of Missouri, have invented certain new and useful Improvements in Fire-Escapes; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and arrangement of a fire-escape, and also in the attachment of horizontal bars or rounds to the outer side of a metallic shutter to form a ladder, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the

annexed drawing, in which—

Figure 1 is a front view of a section of a wall and window-frames with my invention applied thereto. Fig. 2 is a perspective view of a spring-catch for holding the fire-escape

folded up.

A A represent leaves of the metallic shutter, for which Letters Patent No. 147,932 were granted to us February 24, 1874, or they may represent the leaves of any metallic shutter for windows. To the lower edge of each leaf or plate A is attached a horizontal metallic rod, B; or such rods may be attached to any metallic shutter at suitable distances apart, and the rods should project sufficiently far in front of the plates or shutter to form ladderrounds.

When our patented shutter is used, the shutter may be operated from the outside, as well as from the inside, by placing the crank or key on the outer end of the shaft of the drum.

We also construct a series of jointed bars, C C, arranged on the principle of lazy-tongs, provided with metallic rods or rounds D D, placed horizontally in front of the jointed bars firmly secured to the center pivot a, and passing through pivot-eyes b b on the ends of said bars, which pivot-eyes direct and hold

the horizontal rods in position, and allow the whole movement to extend and form a ladder or fire-escape, and also to be folded compactly together under the window-sill, behind the casing E, and out of sight, against the wall of the building, or in any position needed for a fire-escape and ladder. The fire-escape is held in position when folded by means of a catch or spring, G, and may be operated from the window within, or from the approach above or below by means of a rod or wire, or their equivalents.

The fire-escape is intended to afford a connection between windows and doors, as the case may be; and, from its attachment under the window above, will drop down and rest upon the top of the window below, being held in position by suitable attachments. Should a greater extension be required than may be necessary to connect the windows, the fire-escape may be dropped over the top of the window below, and extended to the bottom.

The same adjustment is intended to connect

doors.

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

1. A fire-escape or ladder composed of the lazy-tongs C C and rods D D, permanently attached to the wall of a building, substantially as and for the purposes herein set forth.

2. The combination of the lazy-tongs C C, rods D D, the center pivots a a, in which the rods are secured, and the pivot-eyes b b, in which the rods slide, substantially as and for the purposes herein set forth.

3. The combination, with a metallic shutter, of a series of horizontal rods, BB, permanently attached to the outside of the shutter, to form a ladder, substantially for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 1st day of April, 1874.

> SYLVANUS M. GILLETT. ROBERT T. SILL. SAMUEL K. CRAWFORD.

Witnesses:

A. H. HACKETT, R. H. BIBB.