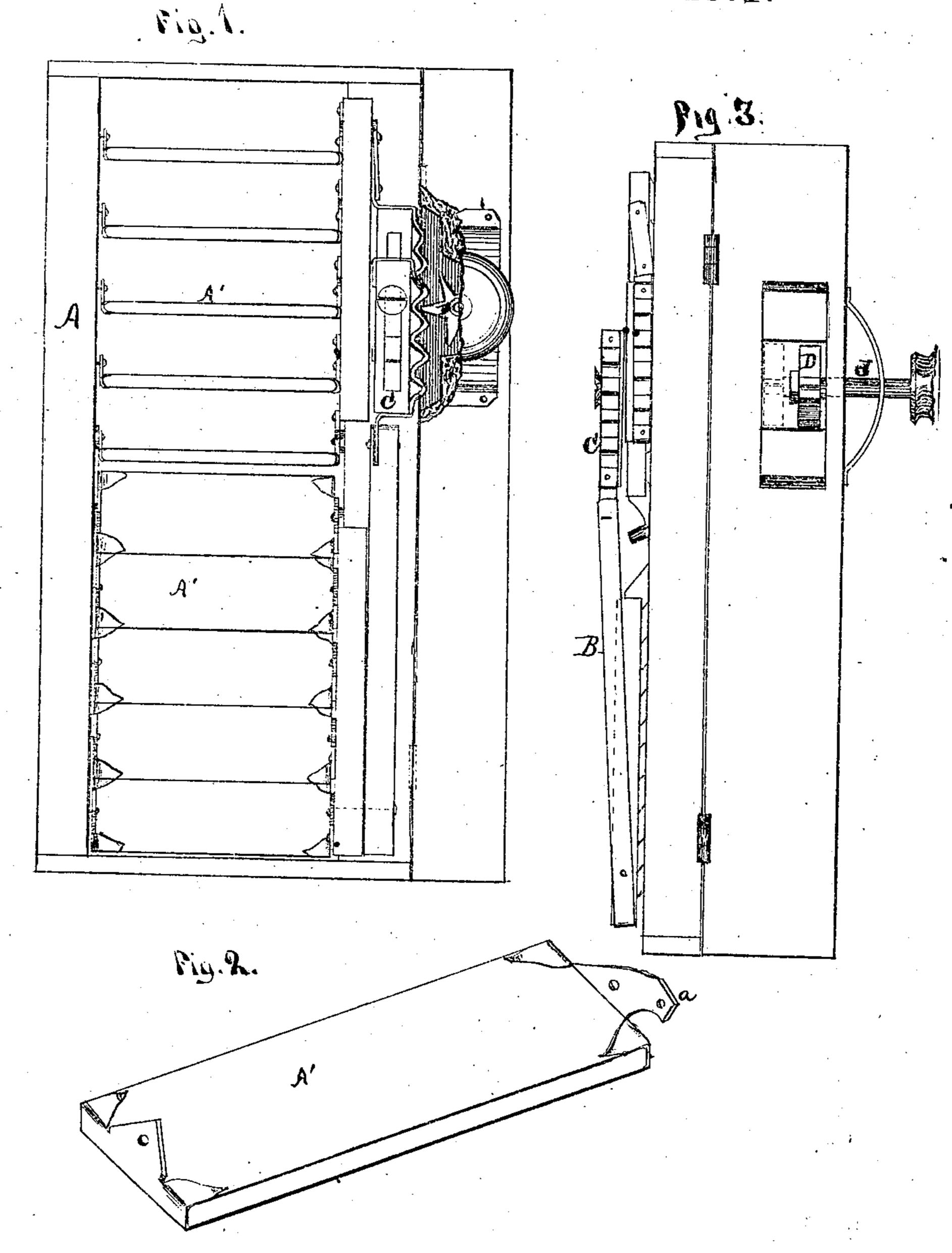
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UNITED STATES PATENT OFFICE.

SEELEY M. SHERMAN, OF FORT DODGE, IOWA.

IMPROVEMENT IN WINDOW-BLINDS.

Specification forming part of Letters Patent No. 117,001, dated July 11, 1871.

To all whom it may concern:

Be it known that I, SEELEY M. SHERMAN, of Fort Dodge, in the county of Webster and State of Iowa, have invented a new and Improved Window-Blind; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention is an improvement upon my Letters Patent No. 84,913, dated December 15, 1868; and consists in certain modified details of construction, which will be fully described here-

inafter.

In the drawing, Figure 1 represents a front elevation of the blind with the casing partially broken away; Fig. 2, a side elevation of the casing with the blind thrown back; and Fig. 3, a perspective view of one of the slats detached.

To enable others skilled in the art to make and use my invention, I will now proceed to describe

fully its construction and operation.

A represents the shutter, in the frame of which are secured the slats A', which are provided with metal ends, substantially the same as those shown in my previous patent referred to above. Instead, however, of fastening these ends to the slats by pins or screws, they are secured by having the projecting ends, which bear upon the slats, forced down into the wood of the latter, as is clearly shown in the drawing. The slats themselves are secured to the frame by means of headed pins, which are driven into the frame through an orifice in the metal ends. If desired a screw could be used in place of a pin. The marked advantage of this construction is, that each slat serves to unite the two sides of the frame and secure them to each other. By means of it they are secured together sufficiently strong to permit the usual division strengthening-bar to be entirely dispensed with. To prevent the ends of the slats from binding against the inner sides of the frame, washers may be interposed at any proper point, as is shown in the drawing. The employment of one or two near the center of the

frame upon each side will be sufficient to regulate all the slats in the shutter. The slats are immediately operated by means of the blind-rod B, which is connected to the lever projections a of the end pieces, which extend inward at right angles from the slats on one side of the shutter. The rod B is operated by means of a slotted bar, C, which is connected to it by a pivoted joint which permits the necessary play. The bar C moves upon a headed pin, and is provided upon its outer sides with a rack-bar, which is, in its turn, operated by a toothed wheel, D, upon the shaft d, located within the casing, as shown. If desired, the shutter may be divided into two operating parts, in which case two blind-rods will be needed with two slotted bars, as shown in the drawing. In this case the shaft d should be so arranged as to be capable of sliding slightly inward and outward, in order that the toothed wheel may be brought into contact with either rack-bar at will.

Some of the advantages of this construction over the ordinary shutter are cheapness of manufacture, greater durability, and more perfect operation in practice.

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

Patent, is—

1. In a window-blind having wooden slats, the metallic ends formed of sheet metal, part of which is bent over to firmly clamp the ends of the slat, and provided with a projection, a, which is pivoted to the stile by headed pins, as and for the purpose set forth.

2. The combination of the frame-slats A' with

metal ends and washers, as described.

3. The slotted and pivoted bar, combined with the blind-rod, when operated by means of the toothed wheel, as described.

This specification signed and witnessed this

14th day of November, 1870.

SEELEY M. SHERMAN.

Witnesses:

J. L. GILPATRICK, WITTER H. JOHNSTON.