J. DOUGHERTY.

Blind-Stops.

No. 158,630. Patented Jan. 12, 1875.

Fig: 1

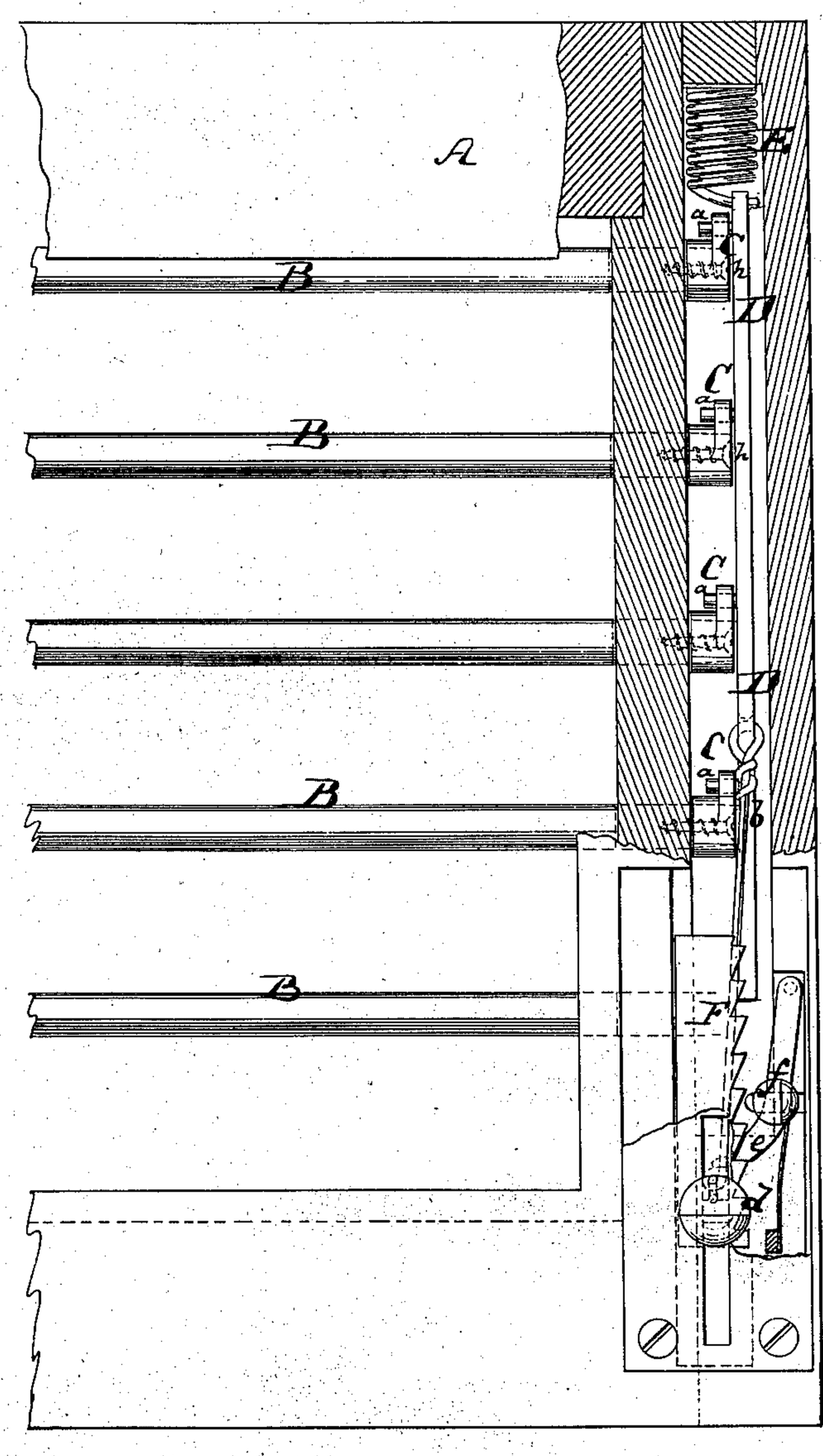

Fig: 2

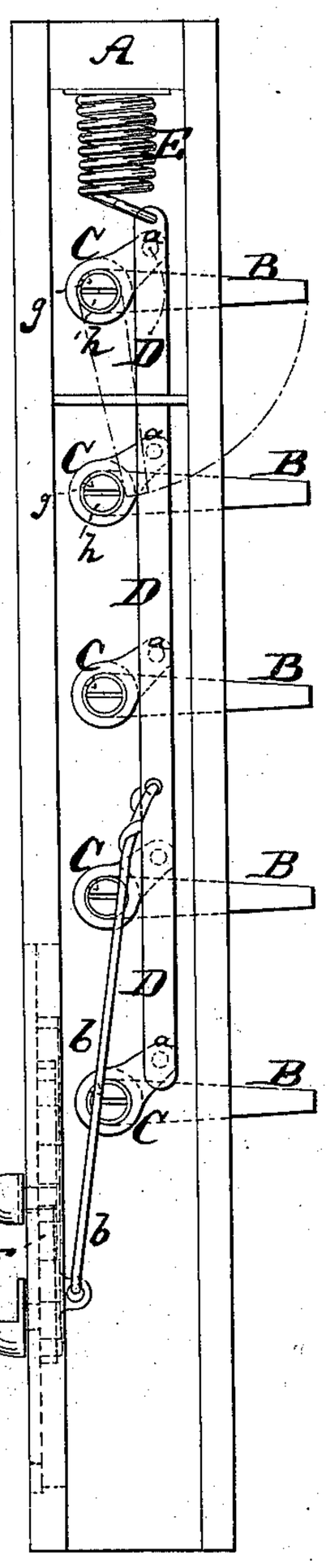

Fig: 3

Witnesses:

A. Moraga.
E. L. Webb.

Inventor:

James Dougherty
by his attorney
A. V. Briesen

UNITED STATES PATENT OFFICE.

JAMES DOUGHERTY, OF NEW YORK, N. Y.

IMPROVEMENT IN BLIND-STOPS.

Specification forming part of Letters Patent No. **158,630**, dated January 12, 1875; application filed September 18, 1874.

To all whom it may concern:

Be it known that I, JAMES DOUGHERTY, of New York, in the county of New York and State of New York, have invented a new and Improved Attachment to Venetian Blind, of which the following is a specification:

Figure 1 is a face view, partly in section, of part of a venetian blind containing my improvement. Fig. 2 is an end view of the same as it appears when the end plate is removed, and Fig. 3 is a detail longitudinal section of one of the cranks placed on the slat-gudgeons.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to new mechanism for actuating the slats of a venetian window-blind; and consists of the peculiar arrangement of parts hereinafter more fully described.

In the accompanying drawing, the letter A represents the frame of a window-blind. B B are the slats of the same, hung by projecting gudgeons at their ends in the frame A. One side piece of the frame is made hollow, for the reception of the cranks C C, that are mounted on the slat-gudgeons at one end of the slats. Every slat carries one such crank, C, as shown in Figs. 1 and 2. The wrist-pins *a* of these cranks all enter or otherwise connect with a rod, D, that connects thus all the separate cranks C, as shown. The upper end of the rod D connects with a spring, E, which has the tendency to draw the rod upward, and thereby open all the slats of the blind; but the cranks C may be placed at such an angle to the slats that the spring E will serve to close the slats instead of opening them. The drawing shows them to be so placed that the spring will tend to open the slats, as in Fig. 2. By means of a wire or rod, *b*, the rod D connects with a sliding rack, F, from which a button, *d*, extends outward to the face of the frame A through a slot therein, as indicated in Fig. 1. A spring-pawl, *e*, engages in the teeth of the rack F. When the spring E is contracted to its full extent, (the slats being all opened, as in Fig. 2,) and when it is desired to more or less shut the slats or swing them together, it is only necessary to draw the button *d* down, thereby drawing the rack F, and with it the rod D, farther down, swinging, by the movement of the rod, the cranks C and slats B in the required manner for closing the slats together. The spring-pawl *e* will lock the rack in any position in which it is desired to retain the same. A button, *f*, extends from the pawl *e* through the face of the frame A, and by its means the spring-pawl can be pushed out of the rack F whenever it is desired to liberate the spring E and reopen the slats B B. Thus, by either touching the knob *d* or the button *f*, the position of the slats can be regulated at will, and the same can be locked in any desired position.

It is evident that, if the cranks are put at such an angle that the spring E will close the slats together, the downward movement of the rack F will serve to open the slats.

In order to properly fasten the cast-metal cranks C on the usual wooden gudgeons of the slats, I prefer to form inwardly-projecting teeth *g* in the sockets of the cranks, so that such teeth, by entering the sides of the gudgeons, may properly lock the cranks to the latter, further security being obtained by the fastening-screws *h*, that enter the gudgeons through the sockets of the cranks, as indicated by dotted lines in Fig. 1.

I claim as my invention—

1. The combination of the slat-cranks C with the rod D, spring E, sliding rack F, pawl *e*, and buttons *d* and *f*, all being concealed within the frame of the blind, excepting the buttons *d* and *f*, for operation substantially as described.

2. The crank C, made with the inwardly-projecting tooth *g*, combined with the projected tenon of a blind-slat, substantially as and for the purpose specified.

JAMES DOUGHERTY.

Witnesses:

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