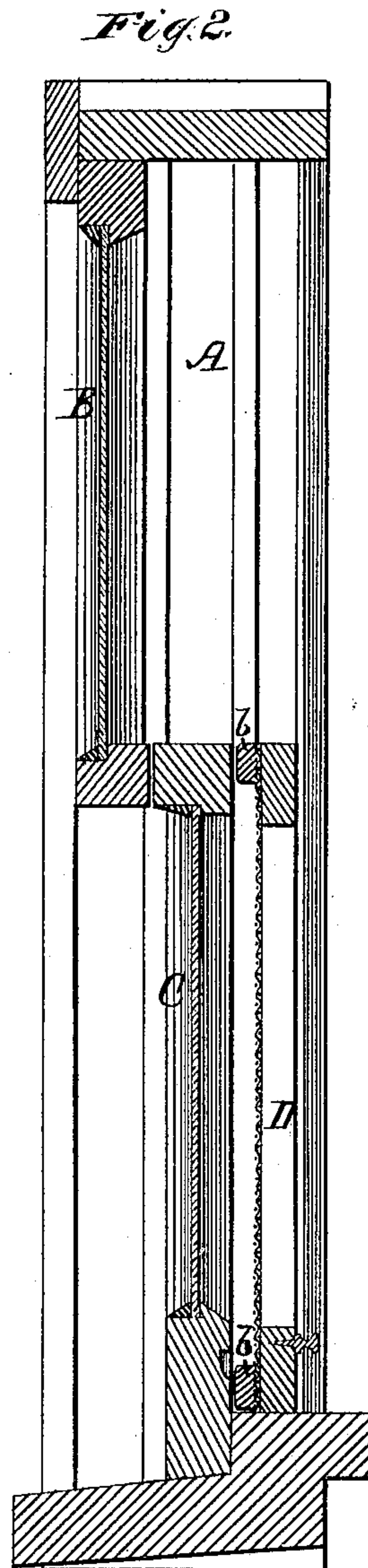
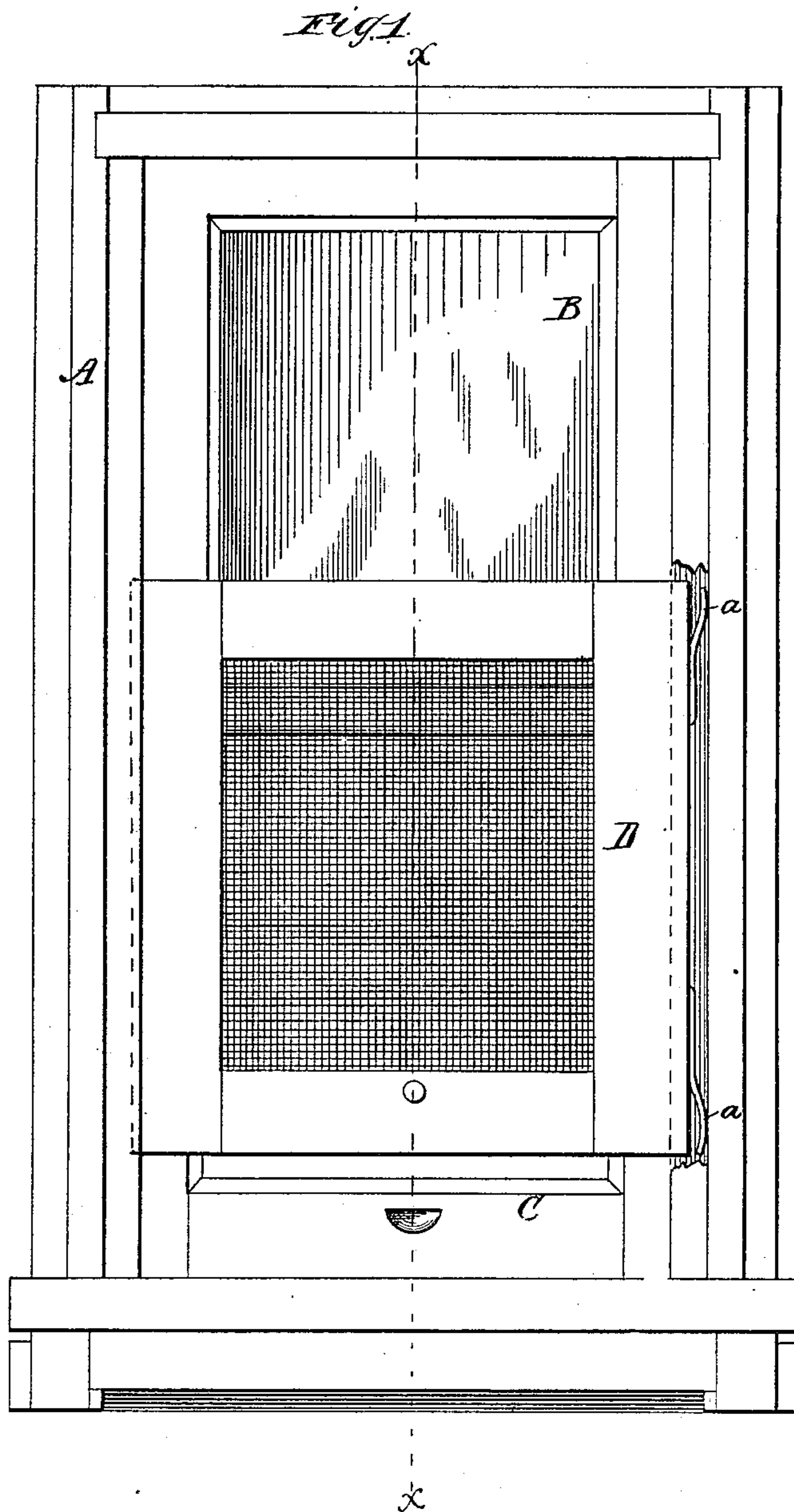


(No Model.)

J. C. DUKE.
INSECT SCREEN.

No. 266,789.

Patented Oct. 31, 1882.



Attest.

C. L. Emery
C. H. Price

Inventor.

John C. Duke

UNITED STATES PATENT OFFICE.

JOHN C. DUKE, OF OTTUMWA, IOWA.

INSECT-SCREEN.

SPECIFICATION forming part of Letters Patent No. 266,789, dated October 31, 1882.

Application filed November 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. DUKE, a citizen of the United States, residing at Ottumwa, in the county of Wapello and State of Iowa, have
5 invented certain new and useful Improvements in Window-Screens; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

10 Figure 1 is an inner side elevation of my invention, and Fig. 2 a sectional elevation taken on line *x x* of Fig. 1.

The present invention has relation to certain new and useful improvements in that class of
15 window-frames provided with an adjustable and removable screen adapted to operate in connection with the usual window-sashes.

The object of the invention is to so construct the screen that in connection with the window-
20 sash a perfect cut-off will be formed for the exclusion of insects, and at the same time admitting of the necessary ventilation. These objects I attain by the construction substantially as shown in the drawings and hereinafter de-
25 scribed.

In the accompanying drawings, A represents the window-frame, and B C the window-sashes, of the ordinary construction.

30 The screen D, which is secured to and adapted to be operated from the inside of the window-frame, slides in grooves in the sides of the frame A, so that the screen can be adjusted for use at the top or bottom of the frame, as found desirable.

35 The screen D may be composed of wire cloth or netting secured to a suitable frame, or in any other manner constructed as is common in window-screens to accomplish the end desired.

40 The screen D has secured to one of its edges curved springs *a*, of any desired form and construction, which bear in a deep groove in one

side of the frame A, the opposite groove being shallow, so that by pressing the screen in the direction of the deep groove the opposite edge
45 of the screen will be disengaged from the shallow or opposite groove, and thereby admit of said screen being removed from the window-frame.

The screen D upon its outer side, at both the
50 top and bottom, has secured to it moldings *b*, so that when the screen is at the bottom of the window-frame A and the sash C thrown up the molding at the top of the screen, in connection with the bottom rail of sash, forms a
55 complete cut-off for the exclusion of insects, and ventilation is received from bottom of window-frame, and when the sash B is lowered and the screen D at the top of the window-frame the molding *b* at the bottom of the
60 screen, in connection with the upper rail of the sash C, will together form a cut-off at that point.

The top sash, B, can be lowered to any desired point, and at the same time a perfect cut-
65 off is formed by means of meeting-rail of lower sash and molding at the bottom of the screen coming in immediate connection with each other, thereby enabling ventilation through upper part of window-frame.

70 Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the sashes B C, of the adjustable and removable screen D, having at
75 both top and bottom moldings *b*, upon the outer side thereof, to operate in connection with the rails of the lower sash to form a cut-off, substantially as and for the purpose set forth.

JOHN C. DUKE.

Witnesses:

JNO. W. CALHOON,
J. B. GORDON.