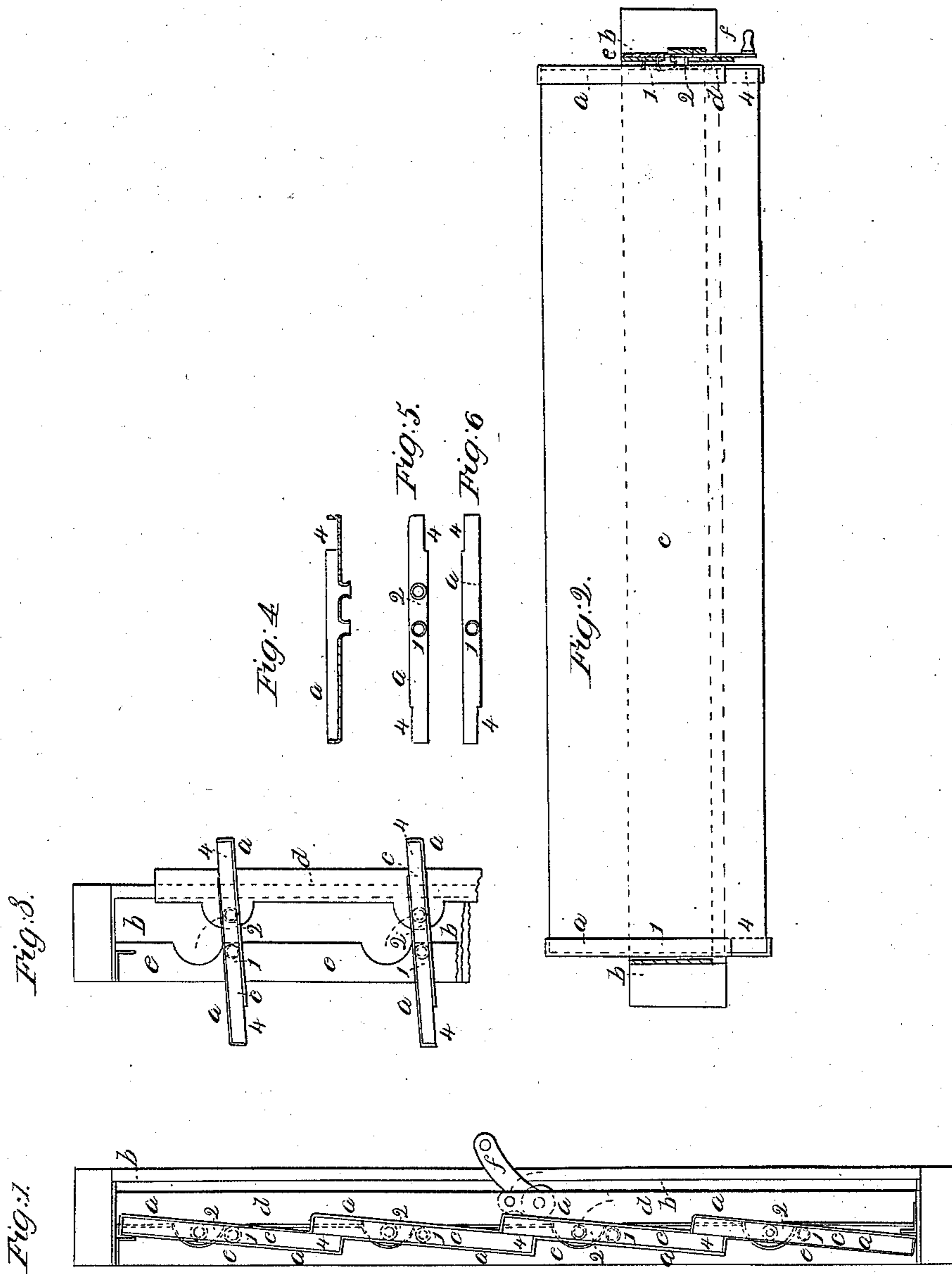


Loudon & Iverson,
House Ventilator,
No 31,672, Patented Mar. 12, 1861.



Witnesses:
Samuel M. Scrull.
Chas H. Smith.

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UNITED STATES PATENT OFFICE.

JOHN LOUDON AND H. IVERSEN, OF NEW YORK, N. Y.

VENTILATOR FOR WINDOWS.

Specification of Letters Patent No. 31,672, dated March 12, 1861.

To all whom it may concern:

Be it known that we, JOHN LOUDON and HANS IVERSEN, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Ventilators for Windows; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1, is a vertical section of our ventilator. Fig. 2, is a sectional plan thereof, and Fig. 3, is a section of a portion of our ventilator as open.

Similar marks of reference denote the same parts.

Ventilators have heretofore been made for windows in which metallic wheels or opaque slats of wood or metal have been used, and glass panes have been mounted in metallic frames so as to be swung in the sash. These, however, are all more or less inconvenient; they are either opaque, and not only interfere with the sight but are unsightly, or else they are in the way of moving the sashes.

The nature of our said invention consists in metallic sockets or end pieces constructed in a peculiar manner and receiving slats of glass so that they can be turned horizontally for opening said ventilator or vertically for closing the same.

In the drawing *a*, is a socket or end piece formed as shown sectionally in Fig. 4, and sidewise in Fig. 5. This socket should be stamped up by suitable dies and punches out of a piece of sheet metal, and at 1, 2, hollow centers are punched up similar to eyelets. *b*, *b*, is a metallic frame of the size and shape required for the window sash, and adapted to set into the same, either with or without a flange around the edge for stiffening the frame, and setting against the sash. This frame is perforated at the proper points for the centers 1, 1, to be entered and then spread similarly to an eyelet, which unites the sockets to the frame; at the same time said sockets are free to turn upon the

eyelets forming the centers. The sockets thus formed are to receive the slats of glass *c*, *c*, and only require to be inserted at their ends into said sockets before the parts of the frame *b* are put together, and in this form each slat could be turned separately, and if one of the glass slats was broken the sockets would not fall out or be lost on account of being attached to the frame by the eyelet centers; and for the purpose of causing the plates of glass to set closely when shut up, as in Fig. 1, the sides of the socket near the opposite ends are filed away as at 4, 4.

As the slats are generally required to move together we connect them to each other by the bar *d*, either on one or both sides, and for this purpose the eyelet centers 2, 2, are used, and the frame *b*, has an additional bar or strip *e*, on the side where the bar *d* is applied which shutting into or against each other as seen in Figs. 1 and 3, makes the inner surface of the frame flush and smooth so as to be tight with the sockets *a*. *f* is a lever between the frame *b*, and bar *d* by which the latter and the glass slats are moved. The sockets at the ends of the glass slats *c*, *c*, at which there is no bar *d*, do not require the second eyelet center 2; the same may be filed off, or the socket formed as shown in Fig. 6.

What we claim and desire to secure by Letters Patent is—

1. The metallic sockets *a*, *a*, formed with eyelet centers secured in a metallic frame and receiving slats *c*, *c*, of glass or other material as set forth.

2. The bar *d*, attached to said metallic sockets *a*, *a*, by the eyelet centers 2, 2, as set forth, for moving the said slats to open or shut the same as specified.

In witness whereof we have hereunto set our signatures this fifteenth day of September, 1860.

JOHN LOUDON.
HANS IVERSEN.

Witnesses:

LEMUEL W. SERRELL,
CHAS. H. SMITH.