

J. F. Hersam.

Skylight.

N^o 51717

Patented Dec. 26, 1865.

Fig:1

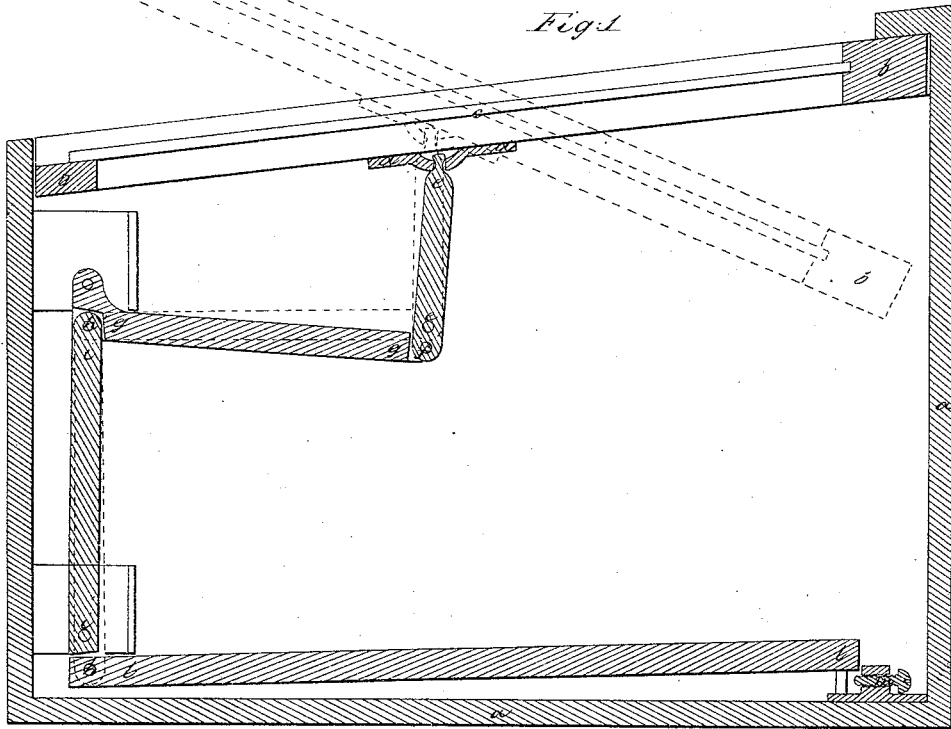
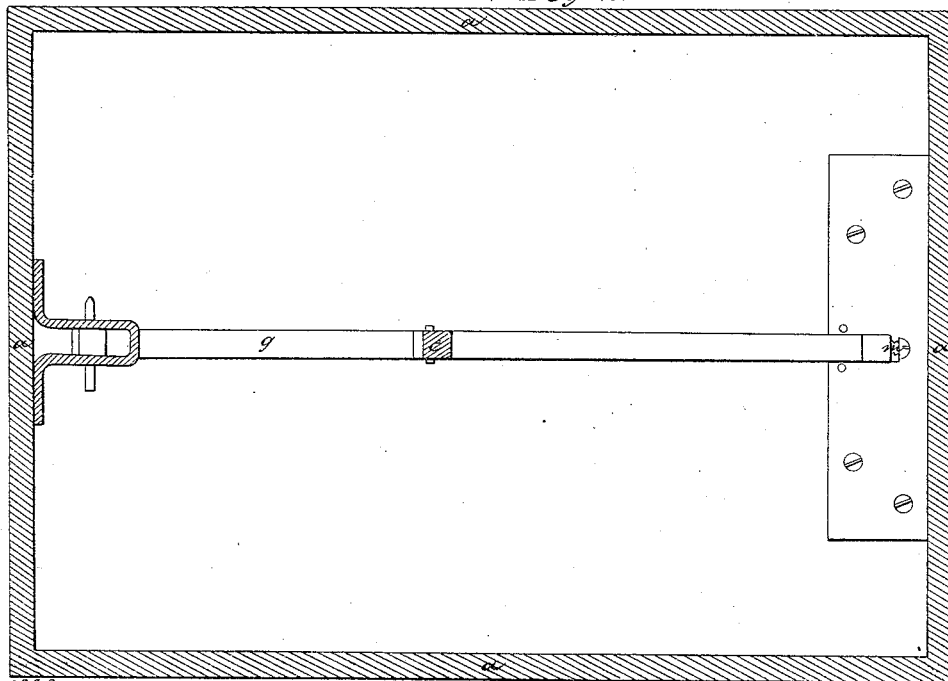


Fig: 2.



Witnesses
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UNITED STATES PATENT OFFICE.

ISAAC F. HERSAM, OF STONEHAM, MASSACHUSETTS.

IMPROVEMENT IN GREENHOUSE-SASHES.

Specification forming part of Letters Patent No. 51,717, dated December 26, 1865.

To all whom it may concern:

Be it known that I, ISAAC F. HERSAM, of Stoneham, in the county of Middlesex and State of Massachusetts, have invented a certain new and useful Improvement in the Method of Operating the Sashes or Windows of Greenhouses, &c.; and I do hereby declare that the following description, taken in connection with the accompanying plate of drawings, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

It is well known that for the preservation of plants in greenhouses the temperature should be kept as nearly uniform as possible. This requires great care, attention, and watchfulness on the part of the person in charge of them, who, if called away to attend to other duties, or from neglect or other causes is not at hand, or fails during the sudden change of temperature to open or close the sashes at the proper time, often causes the plants to be injured or destroyed. To prevent the possibility of such accidents, and to relieve in some measure the anxiety and care of those having greenhouses in charge, I have invented the following-described self-regulating sash.

The present invention consists of an arrangement of devices so operated upon by the variations in the temperature of the atmosphere that the expansion and contraction of iron rods or lever-arms serve to open or close a sash with which they are connected. Thus a self-regulating sash is formed which is perfectly reliable at all times, a sure protection to the plants, and a great saving of care, time, and labor to the gardener.

The accompanying plate of drawings represents my improvements.

Figure 1 is a central longitudinal vertical section of my improved sash. Fig. 2 is a horizontal section through line A B, Fig. 1.

a a a in the drawings represent the frame of a greenhouse. *b b* is a sash hung at its center on pivots *c c*. Attached to the center of the sash is a brace, *d d*, through which a vertical arm or rod, *e e*, is made to work. This rod *e e* is connected by a pivot-joint, *f*, with a horizontal arm or rod, *g g*, which, by the pivot-joint *h*, is attached to the vertical arm or rod *i i*, which is jointed at *k*, in the same manner as the other arms, with the horizontal bar *l l*, which butts against the stop or screw *m*. This screw *m* is regulated according as the bar *l l* is lengthened or shortened.

From the foregoing description it will be seen that as the temperature rises or falls it causes the metal bar *l l*, one end of which rests against the stop or screw *m*, to expand or contract; and as this bar, connected as it is with the series of other metal arms or rods, *e e*, *g g*, and *i i*, is shortened or lengthened it causes the sash to be raised or lowered accordingly.

Having thus described my improvements, I shall state my claim as follows:

What I claim as my invention, and desire to have secured to me by Letters Patent, is—

A series of devices, as hereinbefore described, for operating the sashes of greenhouses, &c., by means of the expansion and contraction of the metallic bars *e e*, *g g*, &c., substantially as specified.

ISAAC F. HERSAM.

Witnesses:

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