

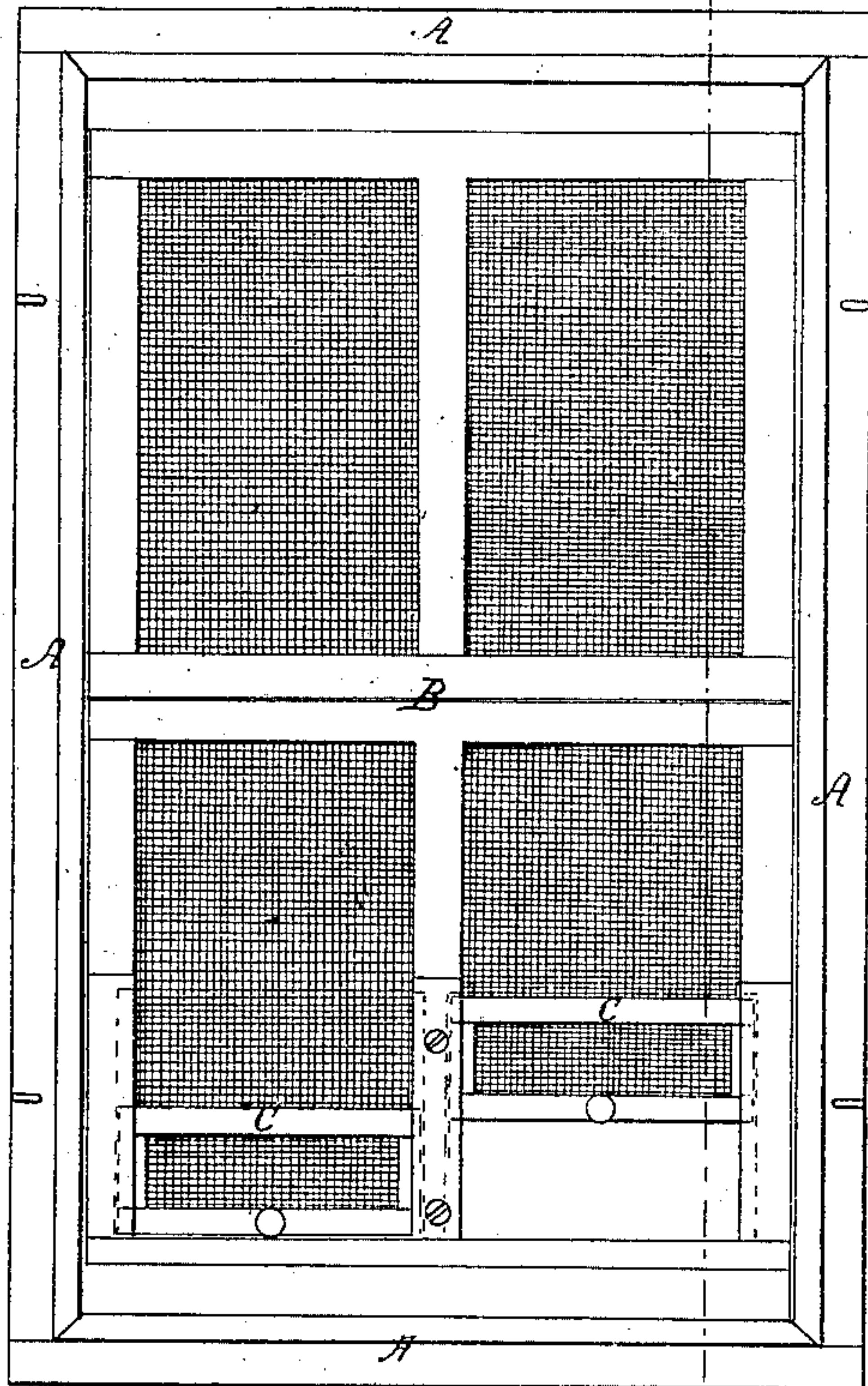
*T. Storer.*

*Window Screen.*

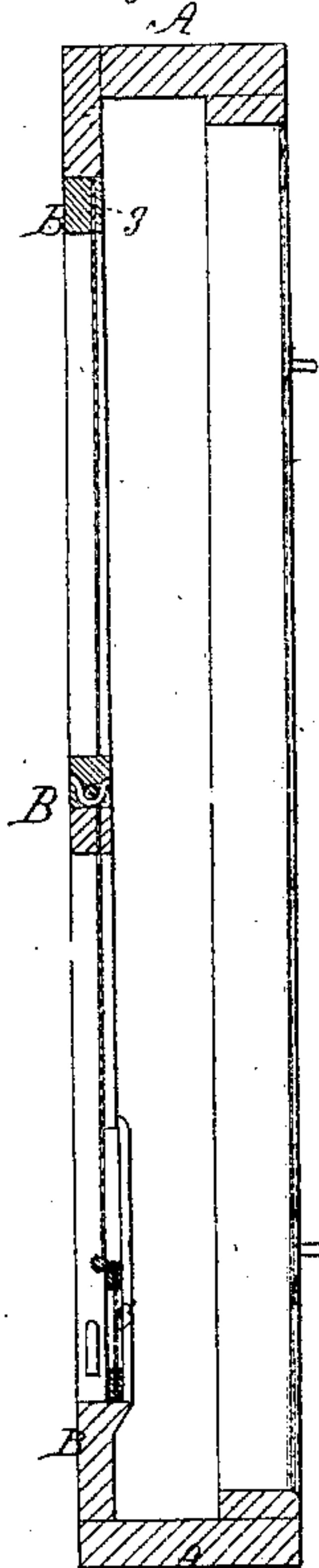
*N<sup>o</sup> 66,534.*

*Patented Jul. 9, 1867.*

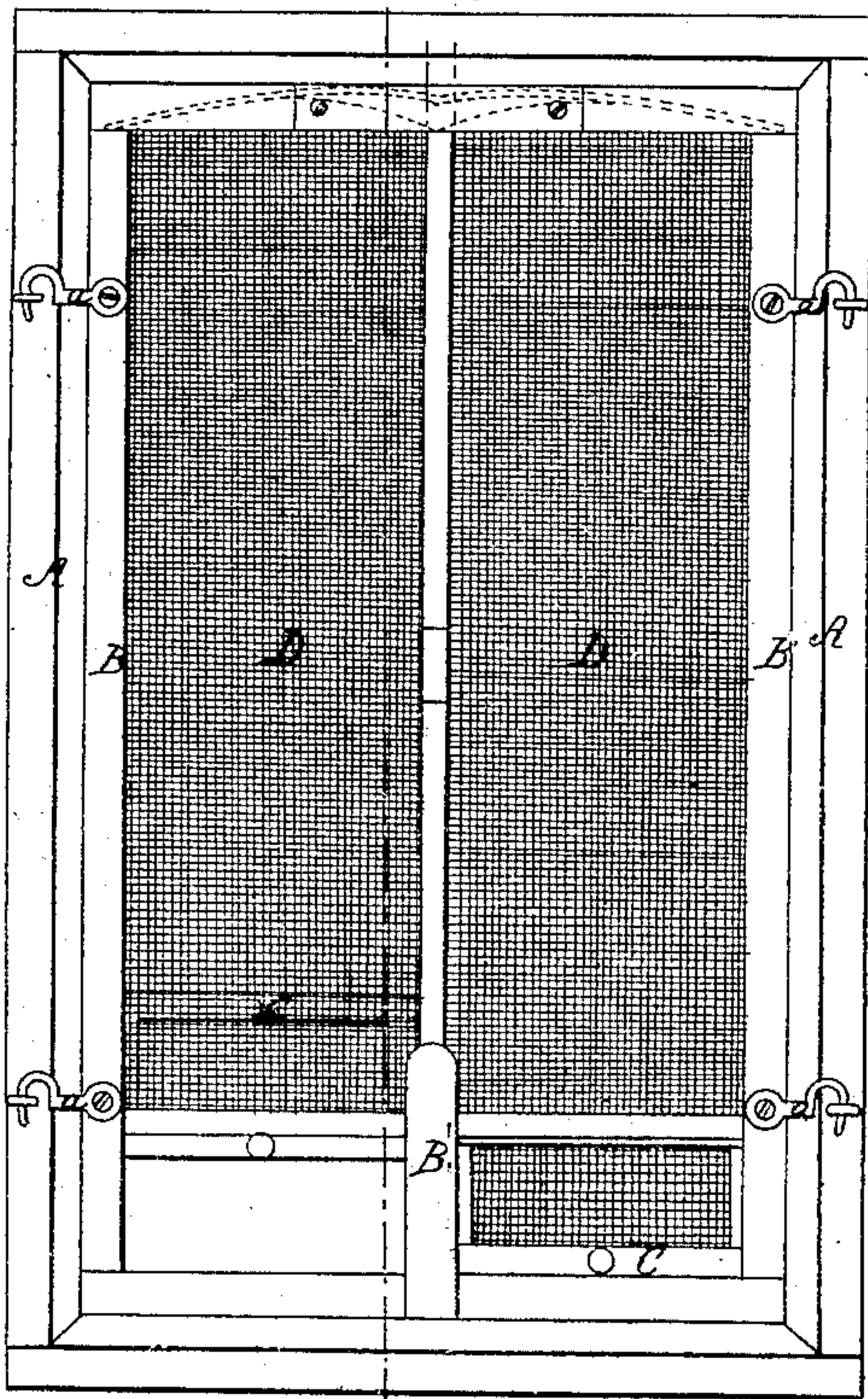
*Fig. 1.*



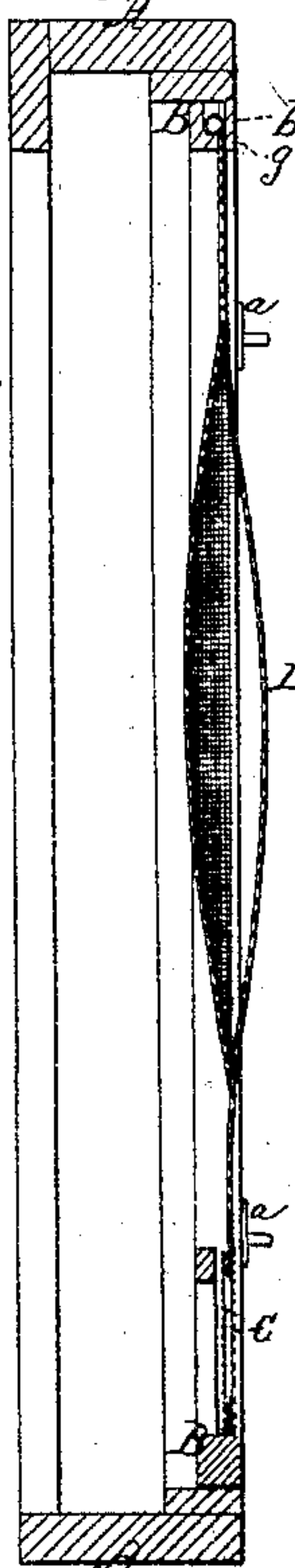
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Witnesses:*  
*Walter Hinchman*

*Inventor.*

*T. Storer*

*Wm. H. H. H. H. H.*



# United States Patent Office.

THEOPHILUS STOVER, OF CAMBRIDGEPORT, MASSACHUSETTS.

*Letters Patent No. 66,584, dated July 9, 1867.*

## IMPROVED MOSQUITO-SCREEN FOR WINDOWS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, THEOPHILUS STOVER, of Cambridgeport, in the county of Middlesex, and State of Massachusetts, have invented an Improved Mosquito-Screen for Windows; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of a window-frame, showing my improved screen applied to the outside of this frame, and constructed upon two screen-frames.

Figure 2 is a vertical cross-section of the same.

Figure 3 shows a screen applied to a single frame, and arranged upon the inside of the window-frame.

Figure 4 is a transverse section through the same.

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

This invention relates to certain new and useful improvements in the construction of screens which are applicable to windows for preventing the entrance of mosquitoes, flies, and other insects into houses, but allowing the free entrance of air.

The nature of my invention consists in so constructing window-screens that they can be applied permanently to window-frames during the summer months, and access can be conveniently had to the window-sash and outside shutters without the necessity of removing the screens or exposing a large opening through which flies or mosquitoes might enter the apartment, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents a common form of window-frame, and B a light frame, which is adapted for fitting snugly into said frame A, as shown in the several figures. This frame B may be made in two parts, as shown in figs. 1 and 2, or it may be made of one part, as shown in figs. 3 and 4. Either plan will answer the purpose, but I prefer the latter plan, on account of cheapness, both for inside and outside screens. Figs. 1 and 2 show an outside screen, that is to say, a screen arranged within the window-frame A, but outside of the window-sash. In this case I employ two slides, C C, consisting of light rectangular frames, covered in a suitable manner with netting or wire gauze, and applied to the bottom of the frame B in such a manner that they can be raised and lowered at pleasure. These smaller screens or slides when raised expose openings of sufficient size to allow of the passage of the arm for opening or closing the outside shutters. They are provided with knobs or handles, by which they can be conveniently raised and lowered, and they are fitted to the frame B so as to slide vertically in grooves made for that purpose, and be kept down in place by their own weight. In the side and upper edges of the screen-frame B dowel-pins are secured, which enter holes made in the window-frame, and thus secure the screen-frame or frames in place. If desirable, hooks, sliding-bolts, or other fastenings may be used for the purpose of securing the frame or frames to the window-frame. In figs. 3 and 4 the screen B is represented applied inside of the window-sash, and the netting applied to a single frame, B, instead of to two half frames, as shown in figs. 1 and 2. This inside frame B may be secured to the window-frame by means of hooks *a a*, or by dowel-pins or sliding-bolts, or in any other suitable manner. It should also be provided at its bottom with sliding frames C C, covered with netting or wire gauze, as shown in figs. 1 and 2, for the purpose of allowing access to be had to the outside window-shutters without removing the frame B. The netting which is applied to this frame B of figs. 3 and 4 is composed of two strips D D, the outside edges of which are suitably secured to the vertical sides of this frame, and their lower edges to a central vertical strip, B. The inner edges of these strips are properly bound and lapped, and the upper ends of these binding strips are slipped over the ends of spring rods *b*, which keep the edges of the netting drawn tightly together, but admit of the passage of the hand when it is desired to raise or lower the sash. To prevent the netting strips from drawing apart and exposing an opening, I cut them wider in the middle of their length than at their ends. The spring rods *b* are inserted into grooves made in the upper edge of the frame B, so as to be out of sight and out of the way, and so that they will keep the binding strips, to which the inner lapped edges of the two pieces of netting are stitched, always under tension, and yield and allow the strips to be separated when desired, for the purpose described. The netting or wire gauze, whichever material it may be desired to use, may be secured to the frame B in any suitable manner. I prefer to secure them by means of their strips *g g*, glued or screwed upon the frame, with the edges of the netting between the strips and frame, as shown in fig. 2. Or, if desirable, the netting may be

properly bound around its edges and secured to its frame by means of screws or nails inserted through eyelets applied to the bound edges of the netting. Where the screens are applied outside of the window-sash, it is not necessary to apply the netting as above described and shown in figs. 3 and 4. It is, however, necessary to employ the sliding doors C C, in order to get at the shutters for opening or closing them.

One great advantage of my invention is the facility afforded of reaching the outside shutters without removing the screen-frame, or leaving such an opening therein as would allow of the entrance of flies or other insects.

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

1. The application of sliding screens C to screen-frames B, substantially in the manner and for the purposes described.
2. The netting strips D D, with a passage between their lapped edges, applied to a frame and controlled by springs, or their equivalents, substantially as described.

THEOPHILUS STOVER.

Witnesses:

S. S. JACKSON,  
MARK NEWMAN.