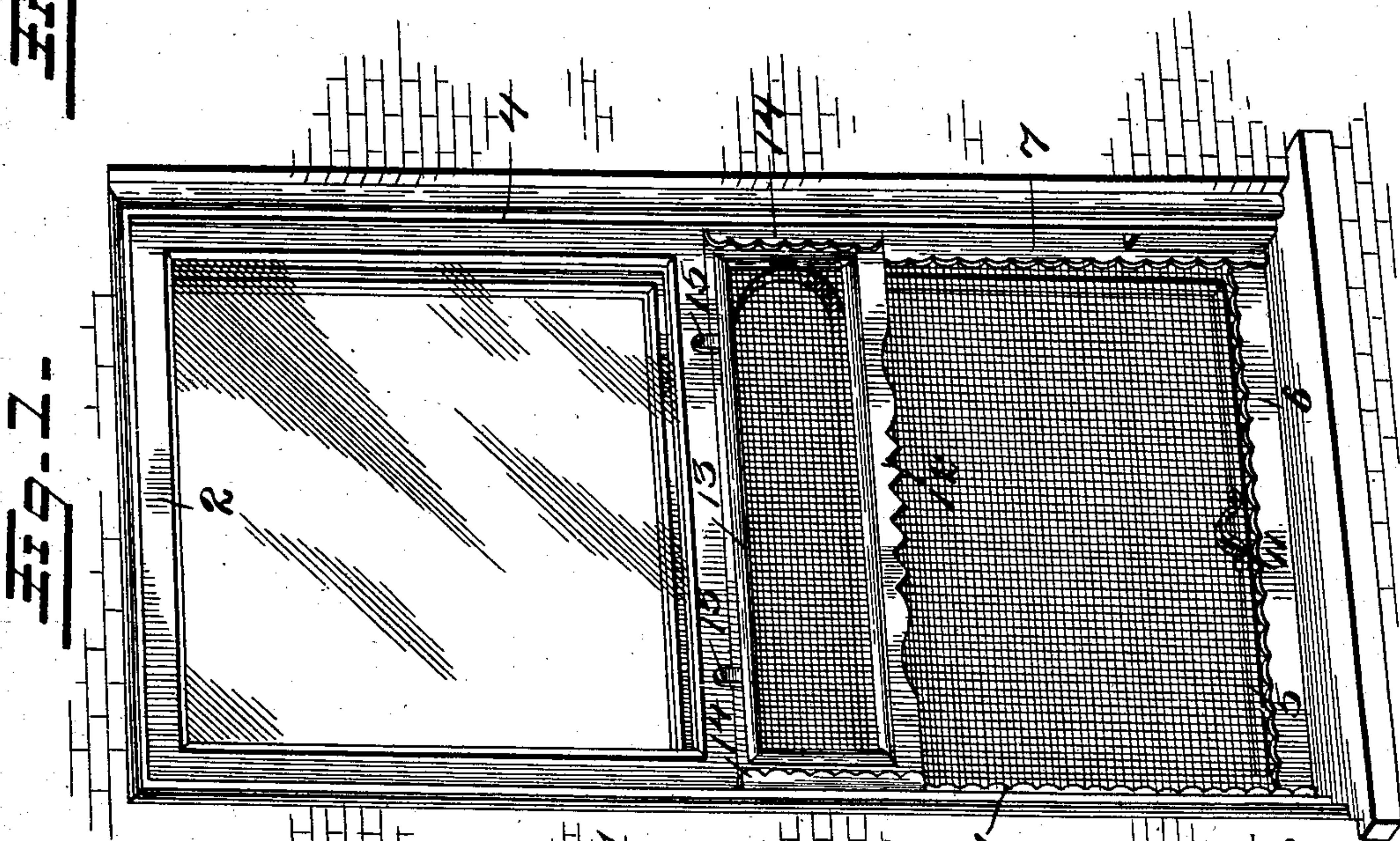
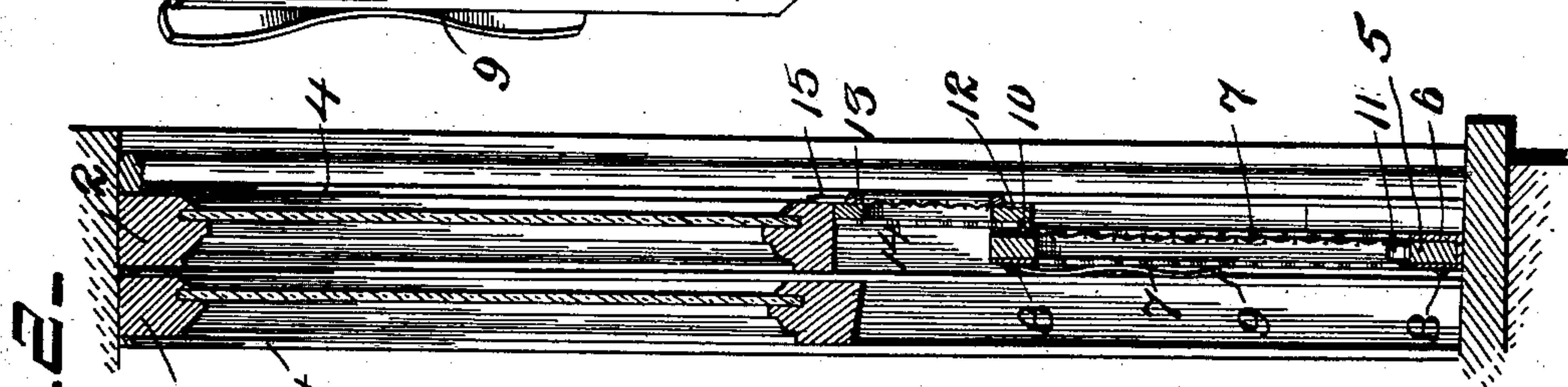
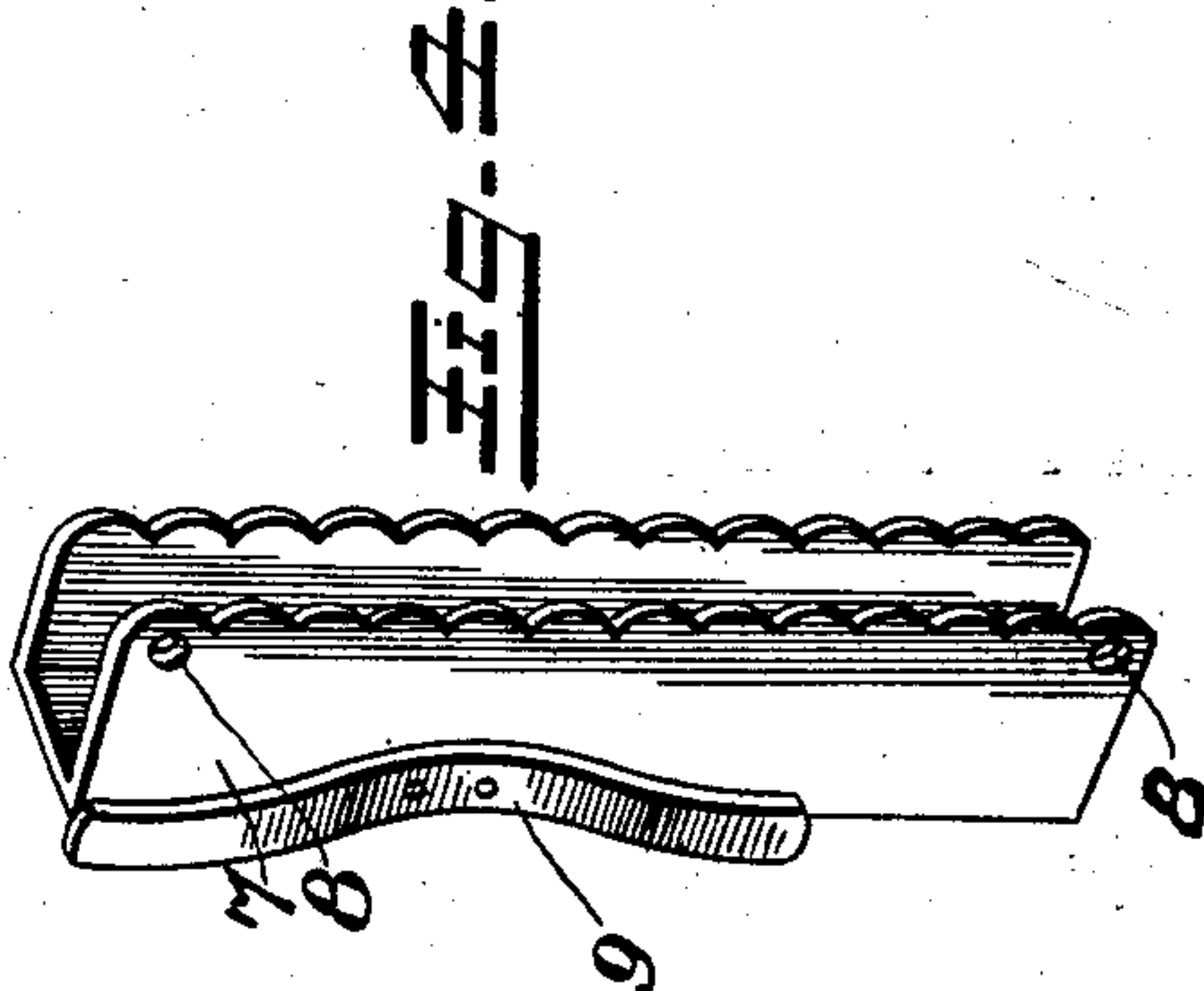
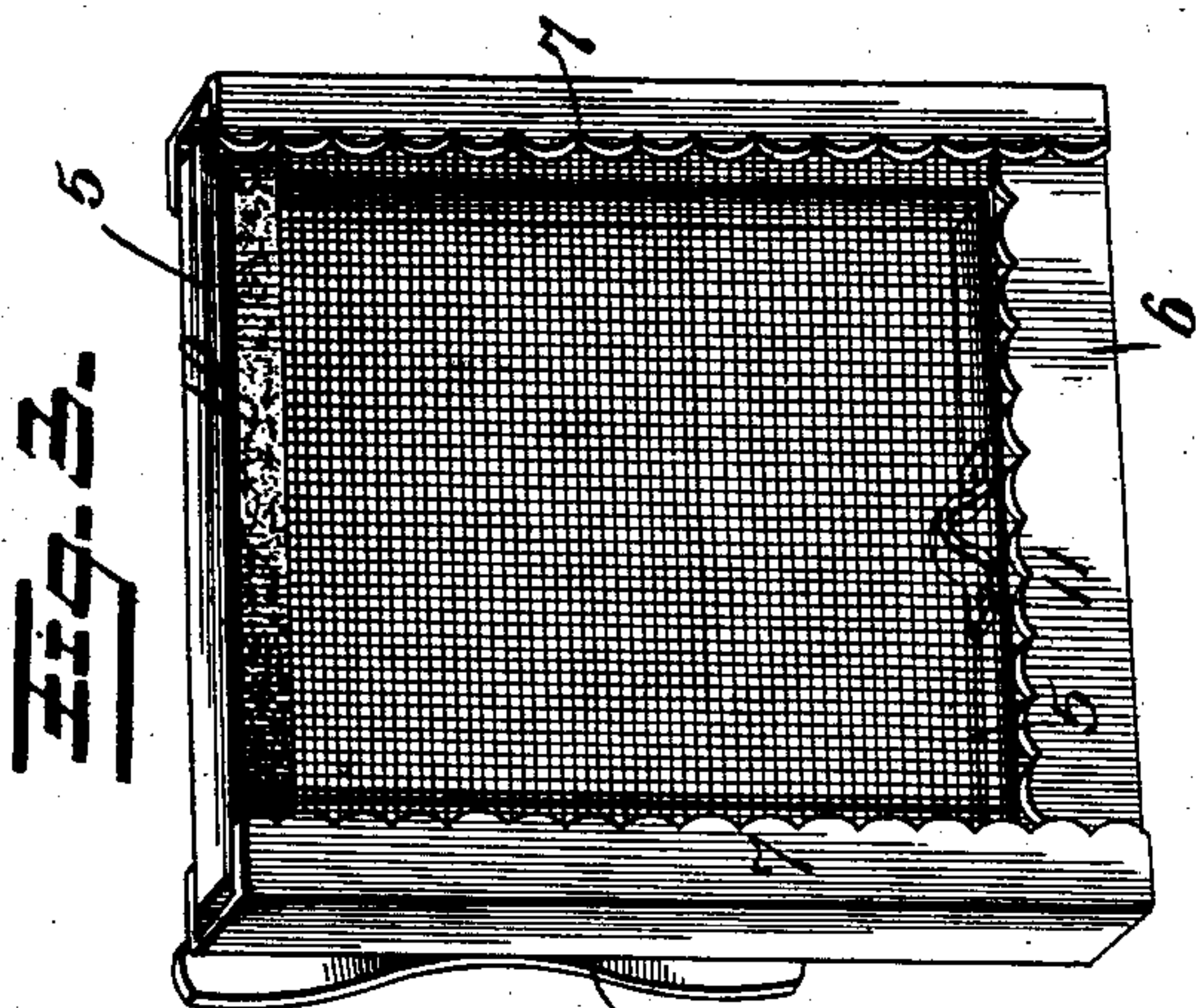


(No Model.)

A. BEARD.
WINDOW SCREEN.

No. 567,214.

Patented Sept. 8, 1896.



Inventor
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Witnesses
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UNITED STATES PATENT OFFICE.

ARNOLD BEARD, OF BONAPARTE, IOWA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 567,214, dated September 8, 1896.

Application filed July 30, 1895. Serial No. 557,608. (No model.)

To all whom it may concern:

Be it known that I, ARNOLD BEARD, a citizen of the United States, residing at Bonaparte, in the county of Van Buren and State of Iowa, have invented a new and useful Window-Screen, of which the following is a specification.

This invention relates to an improvement in window-screens, and the object in view is to provide a screen-frame with metal caps disposed around its side and bottom or top edges in such manner as to cover and protect from injury the selvage edges of the wire-cloth or other screen material and at the same time form extension pieces for regulating the size of the screen-frame with a view to adapting the same to fit more snugly within the window-frame, the side caps each being provided with a bow-spring adjustable therewith and adapted to bear against the parting-bead and serve to press the screen-frame into frictional contact with an adjacent screen or window-sash.

Other objects and advantages of the invention will be referred to in the ensuing description.

The invention consists in certain novel features and details of construction and the particular disposition of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is an exterior perspective view illustrating the application of the improved window-screen to an ordinary window. Fig. 2 is a vertical sectional view through the same. Fig. 3 is a detail perspective view of the main or lower spring-frame, looking from the outside. Fig. 4 is a similar view of one of the side caps of said frame.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 designates a window-casing of any usual or ordinary construction, in which are placed the vertically-sliding upper and lower sashes, (designated by the numerals 2 and 3, respectively,) said sashes being separated by means of the usual parting-beads and sustained laterally by the usual front and rear beads and strips 4.

The lower or main section of the improved

window-screen comprises a rectangular wooden frame or stretcher having the upper and lower rails and side bars or stiles, as shown, over which is stretched a sheet of woven-wire cloth or fabric, the same being secured at its edges by means of tacks or in any convenient manner.

6 designates a U-shaped or three-sided cap, which is made from galvanized iron or other thin sheet metal and of a size adapted to fit snugly over and embrace the lower rail of the frame or stretcher 5, at the same time covering and protecting the selvage edge of the screen material. The wire cloth or fabric is thus protected at its edge and prevented from fraying, and the inner edges of the cap are scalloped or otherwise finished in such manner as to give an ornamental appearance to the cap. Similar caps 7 are applied to the side bars or stiles of the frame or stretcher, and when adjusted to the desired position for affording the proper width to the frame said caps are securely held by means of round-headed screws 8 or other suitable fastening devices. Each of the side caps is provided with a bow-spring, secured immediately adjacent to the outer corner and upon the inner face thereof, and said springs (indicated at 9) bear against the parting-bead for the purpose of pressing the meeting-rail of said screen-frame against the other section of the screen, to be hereinafter described.

10 indicates a strip of rubber or other flexible or resilient material, which is placed over the upper edge of the screen material and secured to the outer face of the meeting-rail of the lower or main screen-frame, said strip being adapted to press against the upper section of the screen and preserve a close joint between the two sections.

11 indicates a finger-hold which is secured to the lower rail of the screen-frame just described and serving to assist in the raising and lowering of the latter.

The screen-frame above described is mounted between the same guiding-beads as the upper window-sash, and the height of said screen-frame is purposely less than the distance between the lower or meeting rail of said upper sash and the window-sill, so that said screen-frame may have a slight movement between said parts for the purpose of

raising said screen-frame a predetermined distance. The main or lower screen-frame is also made of less thickness than the window-sash 2 above it, in order to allow room for an
 5 overlapping supplemental screen-frame 12. The overlapping section of the screen comprises a relatively small frame, preferably made from a single board, and formed with a
 10 central opening, over which is stretched a piece of woven-wire cloth or fabric, held in place at its edges by means of suitable molding 13. This supplemental overlapping screen is also provided with end caps 14, similar to
 15 the caps 6 and 7 of the lower or main section, and the lower edge may be scalloped or given any desired ornamental finish, as shown. This overlapping screen is secured to the lower face of the meeting-rail of the upper sash by means of suitable fastening straps or
 20 devices 15, and the thickness of said screen corresponds to the distance between the outer window bead or strips 4 and the adjacent face of the lower or main screen.

By means of the construction described a
 25 simple and efficient screen is obtained in which provision is made for protecting the selvage edges of the screen material and at the same time adjusting the sizes of the screen-sections to correspond to the window-casing.
 30 By attaching the springs 9 permanently to the extension pieces or caps the springs are adjusted therewith, so that when the caps are adjusted to suit the width of the window the springs are at the same time moved into
 35 position to engage the parting-beads. Provision is also made for raising the lower screen partially for the purpose of opening the blinds or lowering the upper sash with a view to obtaining ventilation from above the same.
 40 Under either adjustment the screen-sections overlap and slide upon each other and the bow-springs carried by the lower or main screen serve to preserve close contact between said sections, thus excluding flies and
 45 other insects.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a window-screen having a rigid rectangular frame, of the independently-adjustable attachment-caps U-
 55 shaped in cross-section, embracing the opposite sides of the frame and adapted to protect the edges of the meshed fabric employed, and also to vary the width of the screen and enable it to fit snugly in the window, and the
 60 bow-springs permanently attached to the outer faces of the said caps, adapted to engage the adjacent parting-beads and adjusted simultaneously with the caps, substantially as described. 65

2. The combination with a window-frame having inner and outer ways, and upper and lower sashes arranged in said ways, of a window-screen arranged in the lower portions of the ways of the upper sash and terminating
 70 short of the same, whereby the screen and the upper sash are capable of a limited movement in the said ways, the independently-adjustable attachment-caps, U-shaped in cross-section, embracing the side edges of the screen
 75 and provided with bow-springs bearing against the adjacent parting-beads, and the overlapping screen-section secured to and depending from the upper sash and covering the space between the same and the said
 80 screen, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ARNOLD BEARD.

Witnesses:

W. E. SMITH,
 W. T. DICK.