

(No Model.)

2 Sheets—Sheet 1.

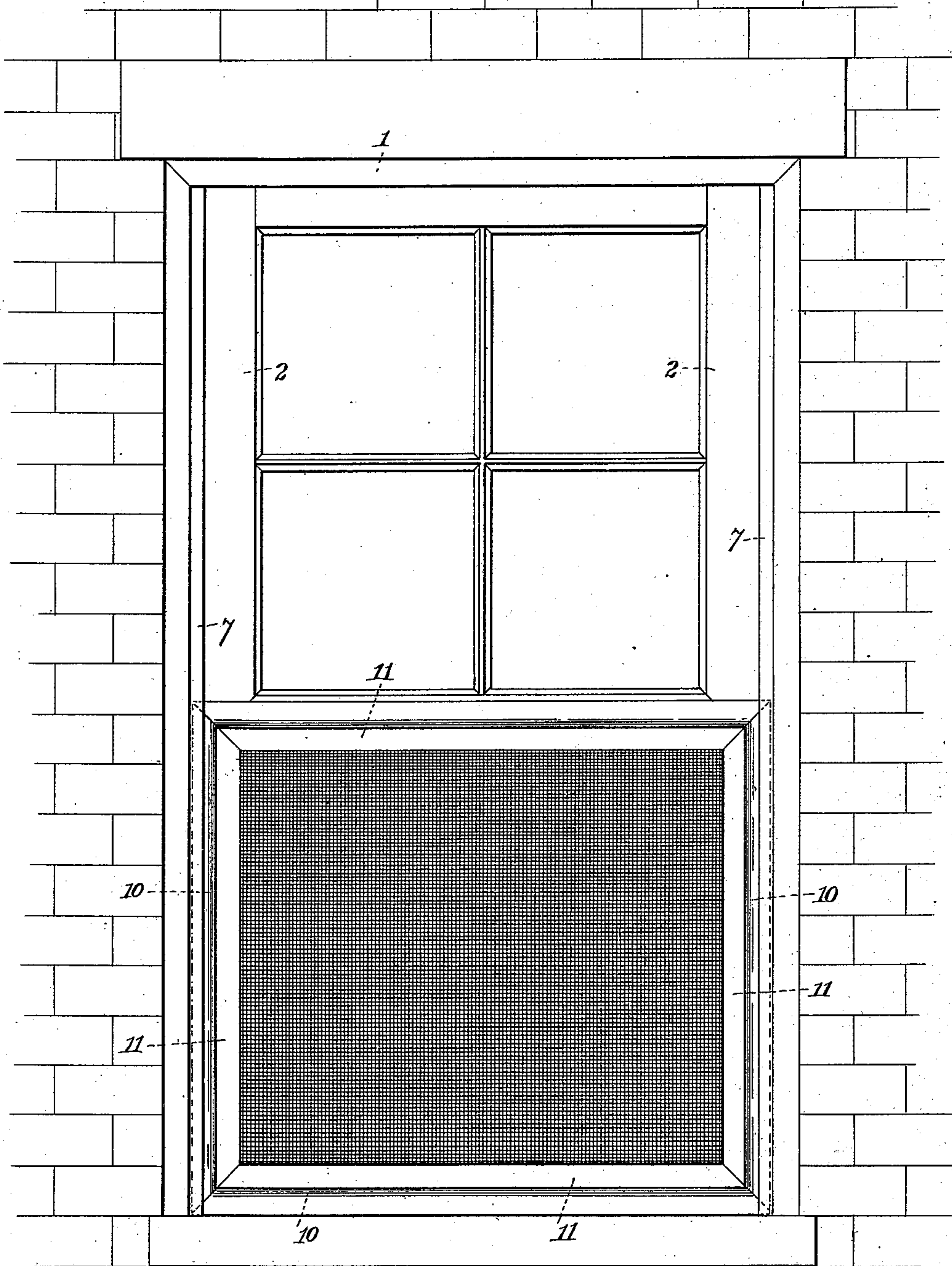
W. J. CONNELL.

WINDOW SCREEN.

No. 377,991.

Patented Feb. 14, 1888.

FIG. 1.



attest:
Geo. T. Smallwood
Geo. S. Wheelock

Inventor:
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(No Model.)

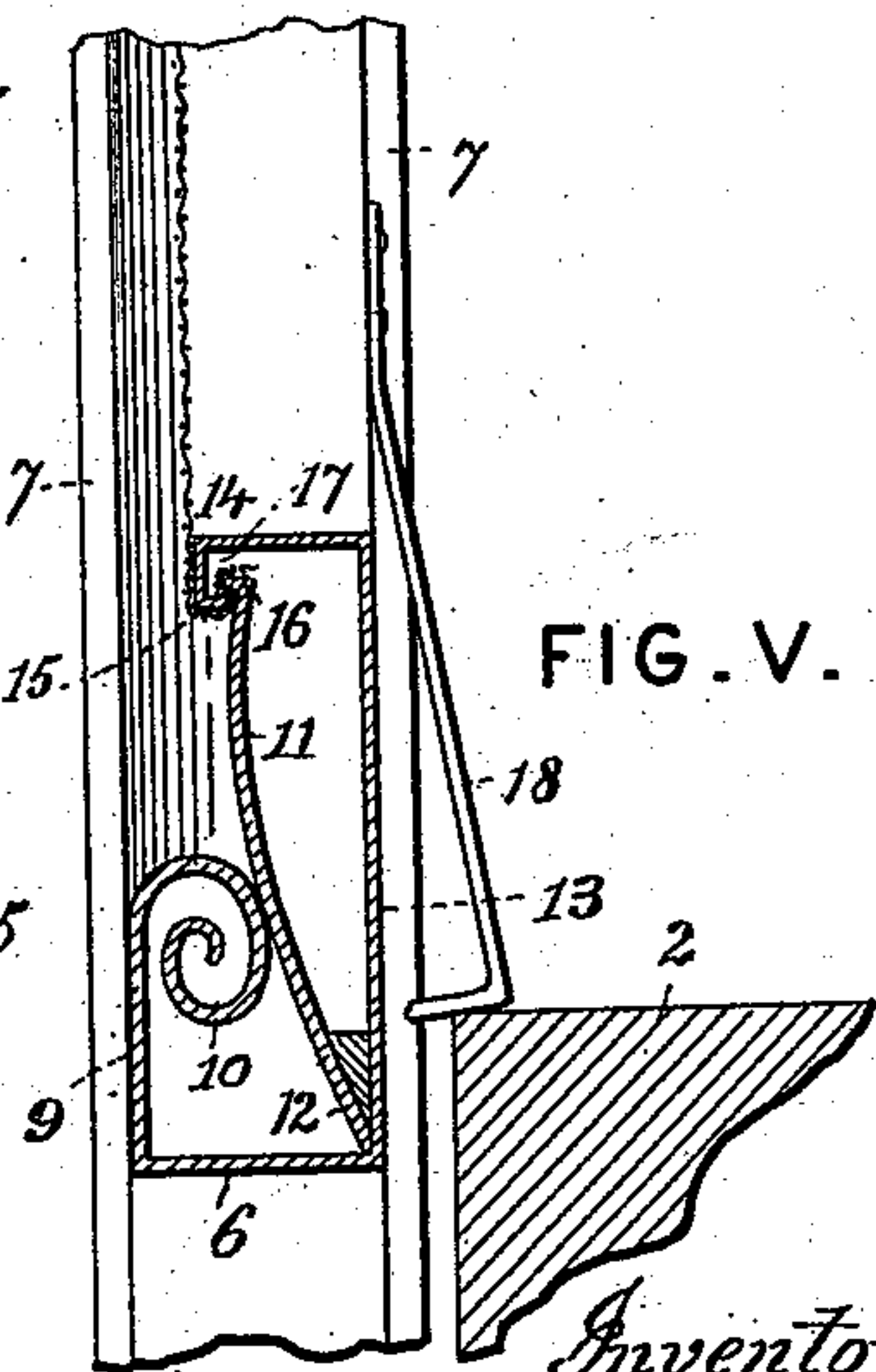
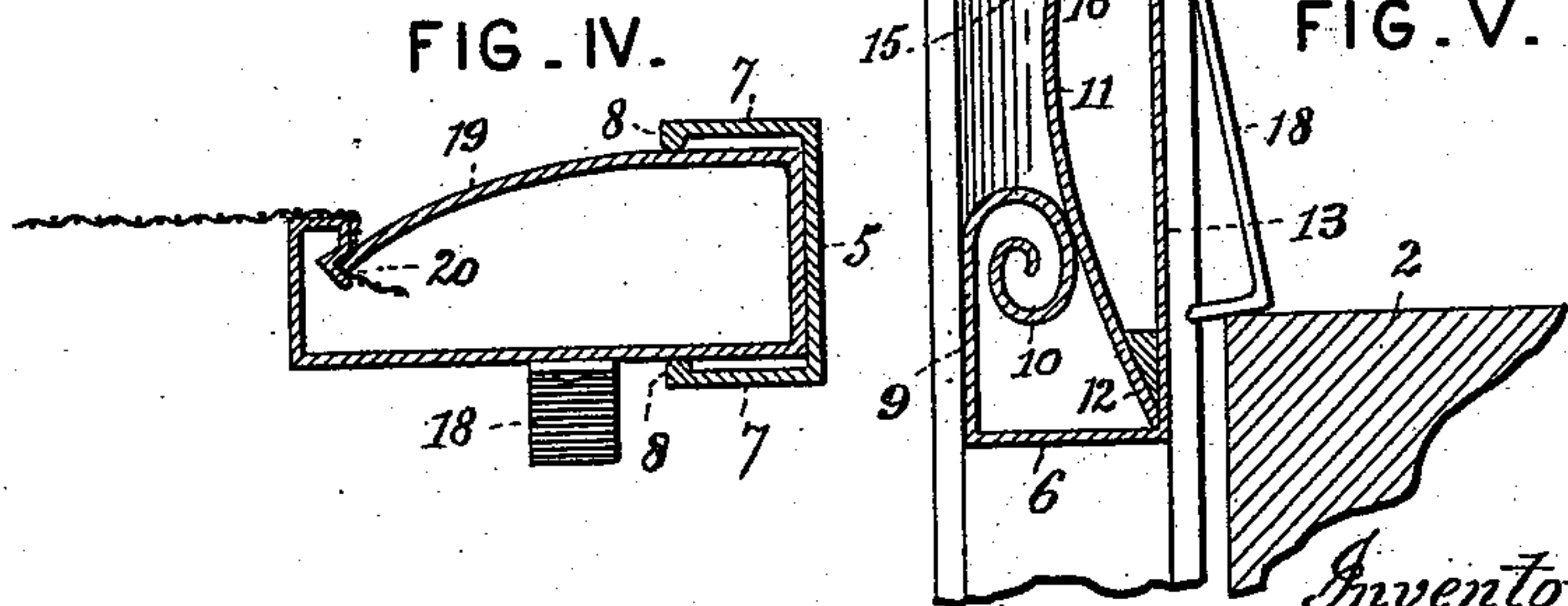
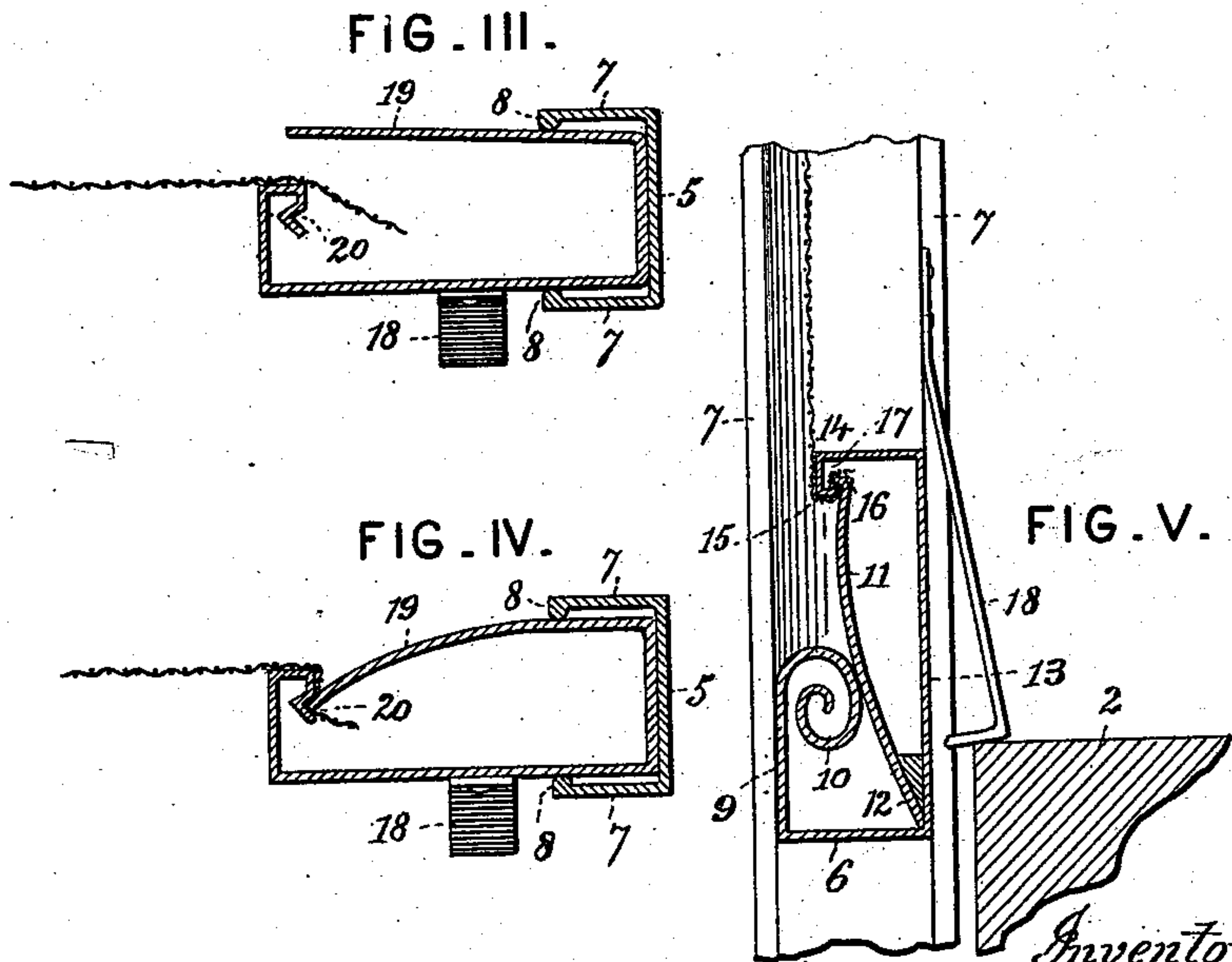
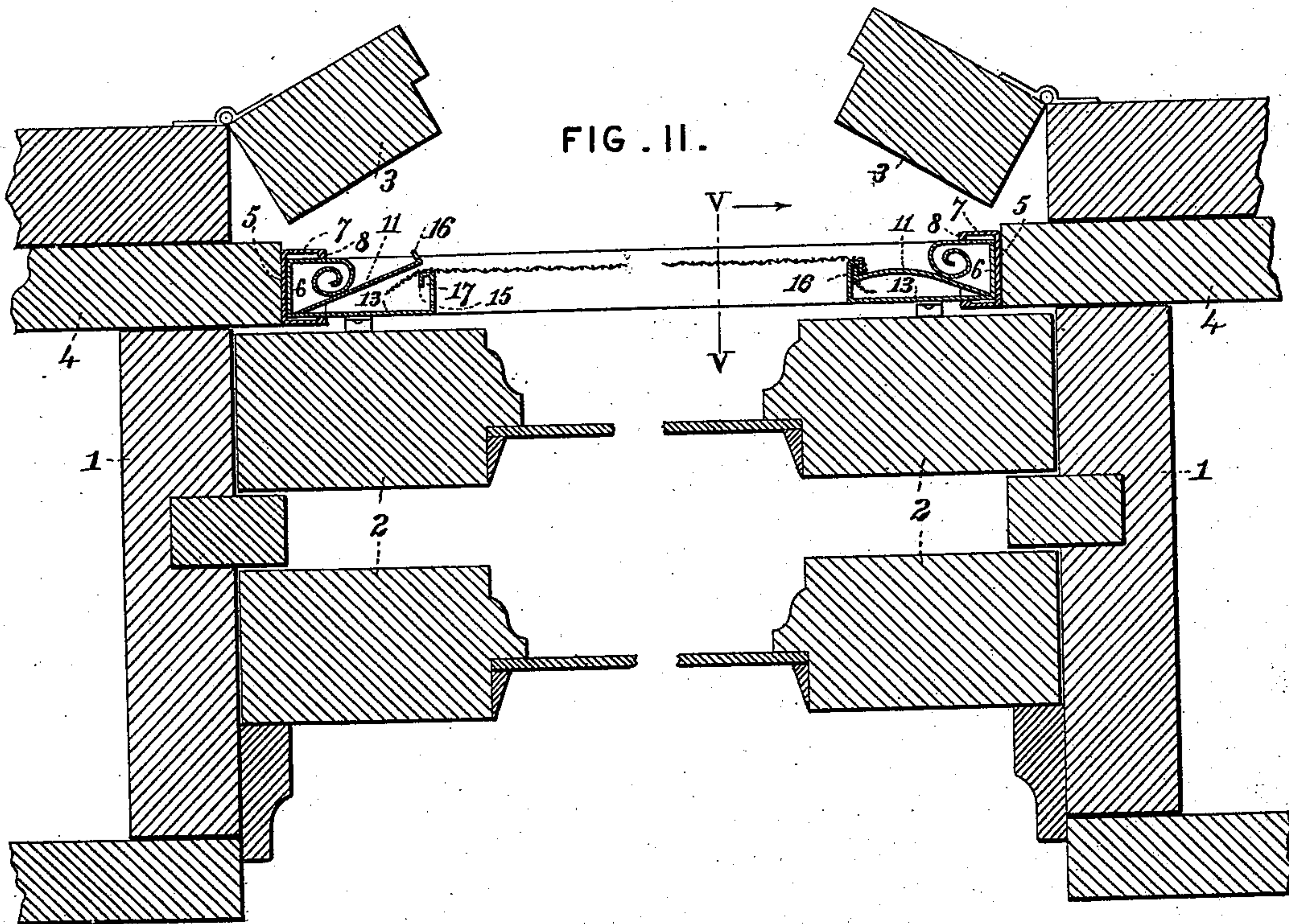
2 Sheets—Sheet 2.

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Geo. T. Smallwood,
Geo. L. Wheelock.

Inventor:
William J. Connell.
By Knight & Bro Attys

UNITED STATES PATENT OFFICE.

WILLIAM J. CONNELL, OF CHARLESTON, WEST VIRGINIA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 377,991, dated February 14, 1888.

Application filed August 10, 1887. Serial No. 246,598. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. CONNELL, a citizen of the United States, residing at Charleston, in the county of Kanawha and State of West Virginia, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification.

My invention relates to a metallic-frame window-screen, and has for its object the allowing of the wire screen or netting to be replaced when worn by a new piece, which can readily be adjusted to the frame; and my invention consists in features of novelty, to be hereinafter fully described, and then pointed out in the claims.

In order that my invention may be fully understood, I will proceed to describe the same with reference to the accompanying drawings, in which—

Figure I is an elevation showing my improved screen as it appears when set in a window-frame. Fig. II is an enlarged cross-section of a window-frame, &c., showing my improved screen, the central portion being broken away. Fig. III is a modified form of the device for securing the netting or wire screen, showing the parts disengaged. Fig. IV is a similar view showing the netting set, the parts being engaged. Fig. V is a cross-section on the line V V, Fig. I, showing the catch.

Referring to the drawings, 1 represents the window-frame, having the window-sashes 2 2; and 3 3, portions of the blinds.

4 4 represent the blind-stops, to which the guides 5 5 for the screen-sash are secured. The guides and the screen-sash 6 are preferably made of tin or galvanized iron. In cross-section the guide is [] shape, having flanges 7 turned at right angles thereto, so as to embrace the screen-sash on both sides. The outer edges of the flanges are turned into beads 8, to securely hold the sash.

The sash 6 is formed of metallic strips bent at right angles to fit in the guides, with the outer portion, 9, turned in a scroll, 10, which bears against a metallic fastening-strip or holding device, 11, which is secured by solder or other suitable means at 12 to the inner angle of the sash-strip, the inner portion, 13, of the latter being longer than the outer portion, and bent out at right angles thereto, and terminating

at 14 in a hook portion or outturned lip, 15, with which engages the fastening-strip 11 for holding the netting or wire screen in place. Said fastening device has a lip, 16, for engaging under the material back of the lip 15 of the sash, into the recess 17 of which the lip 16 springs. By this device the old screens can be removed and new ones put in with little trouble.

To hold the screen-sash up, I provide springs 18 on its inner side, which bear, when in locking position, against the top of the upper window-sash when the latter is down. When the upper sash is up, a similar spring may hold the screen-sash down, a simple pressure on the spring only being necessary to release the screen-sash.

The utilization of the window-sashes as a stop for the spring or springs of the screen does away with the cutting into the sashes or window-frame of mortises, notches, &c.

In the modification shown in Figs. III and IV the spring fastening-strip and sash are formed in one, 19 being the fastening-strip, and 20 an angular or other groove in which it engages.

The top, bottom, and sides of the screen-sash are all constructed as set forth.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In combination with strips of metal forming the top, bottom, and sides of a frame and having spring-engaging edges lengthwise of the strips, a removable netting or wire screen secured by said engaging edges to the frame, substantially as set forth.

2. In combination with a window-frame, the upper and lower sashes, a frame for netting or wire screen, provided with spring-catches on its inner side at both top and bottom adapted to automatically engage the upper sash when raised and when lowered, substantially as and for the purpose set forth.

3. A sheet-metal frame for screens, having a spring-lip, and a recess in which the lip engages to hold the netting in place, substantially as set forth.

WILLIAM J. CONNELL.

Witnesses:

THEODORE TAYLOR BELL,
GEO. H. NUTTER.