

(No Model.)

2 Sheets—Sheet 1.

A. MATTSON.

WIRE SCREEN STRETCHER AND CLAMP.

No. 367,538.

Patented Aug. 2, 1887.

Fig. 1.

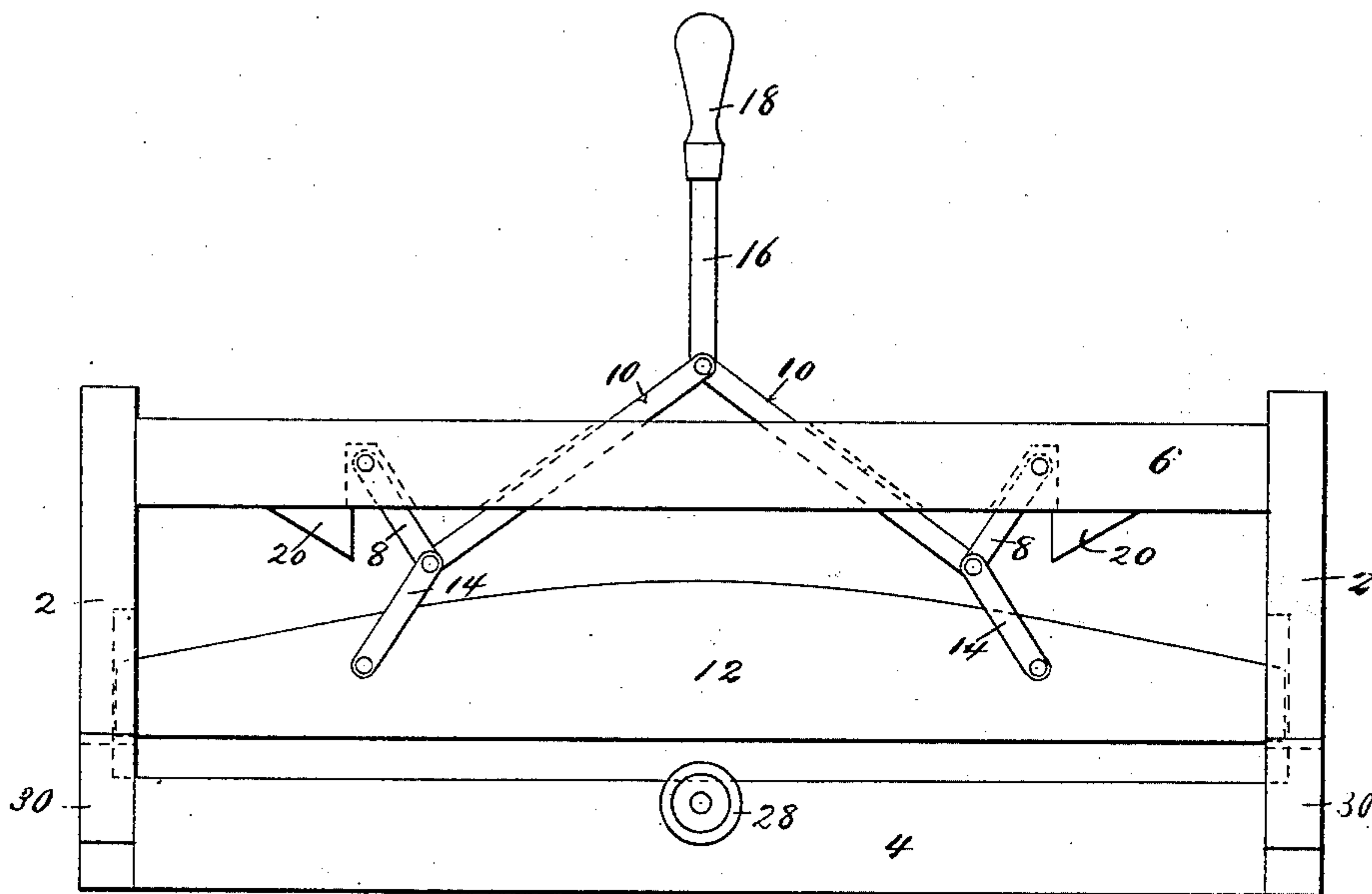


Fig. 2.

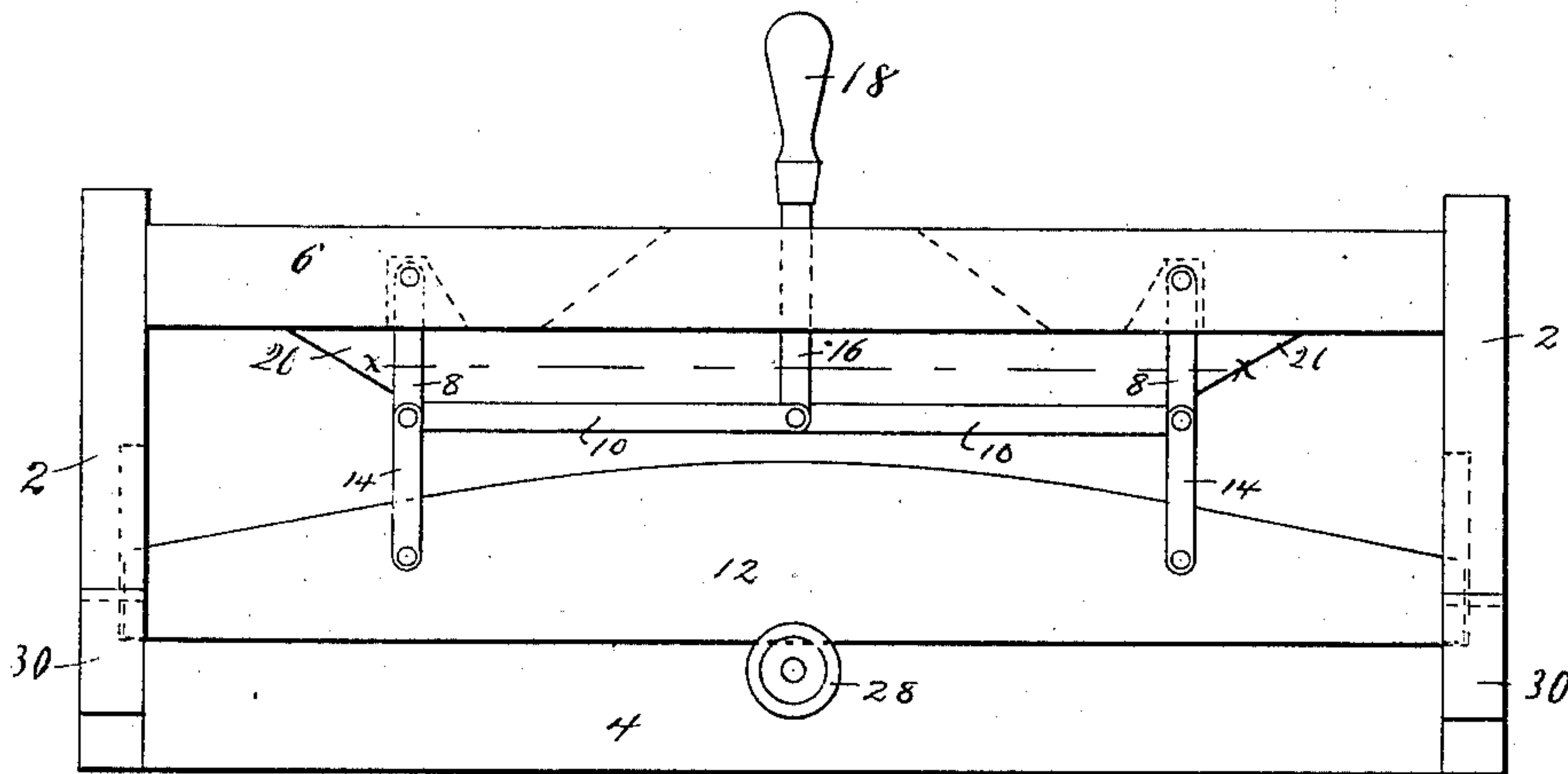
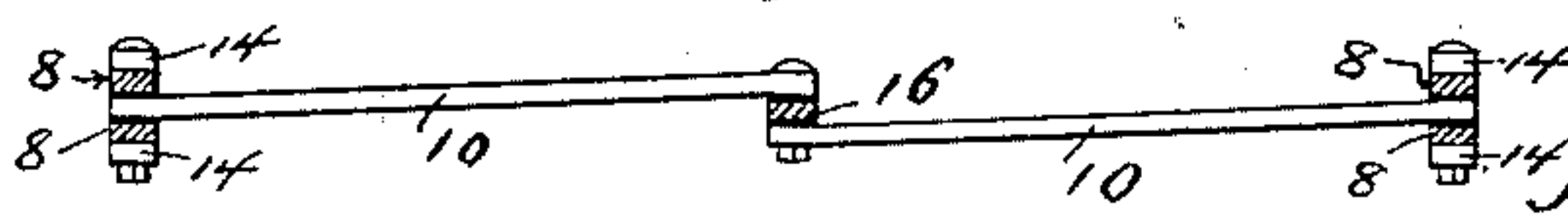


Fig. 3.

Witnesses.
R. H. Sanford
S. J. Beardslee.



Inventor.

Andrew Mattson
By A. C. Paul att.

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Fig. 5.

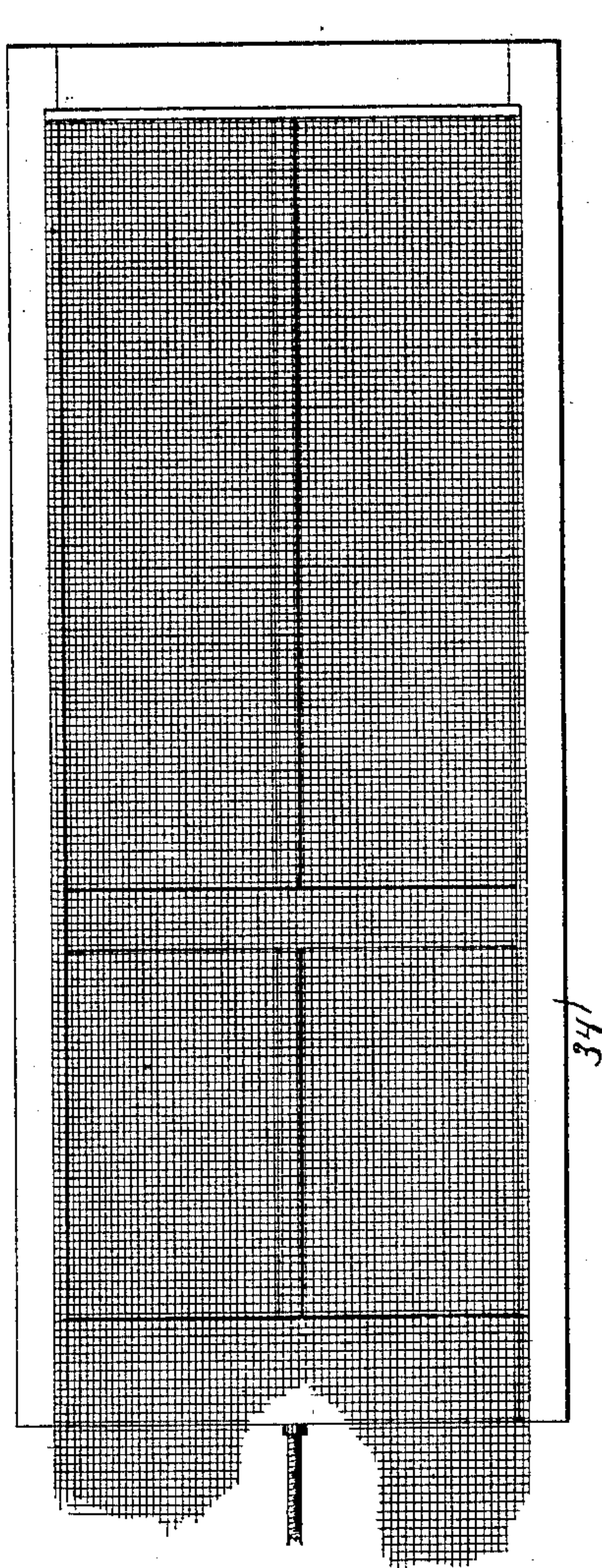
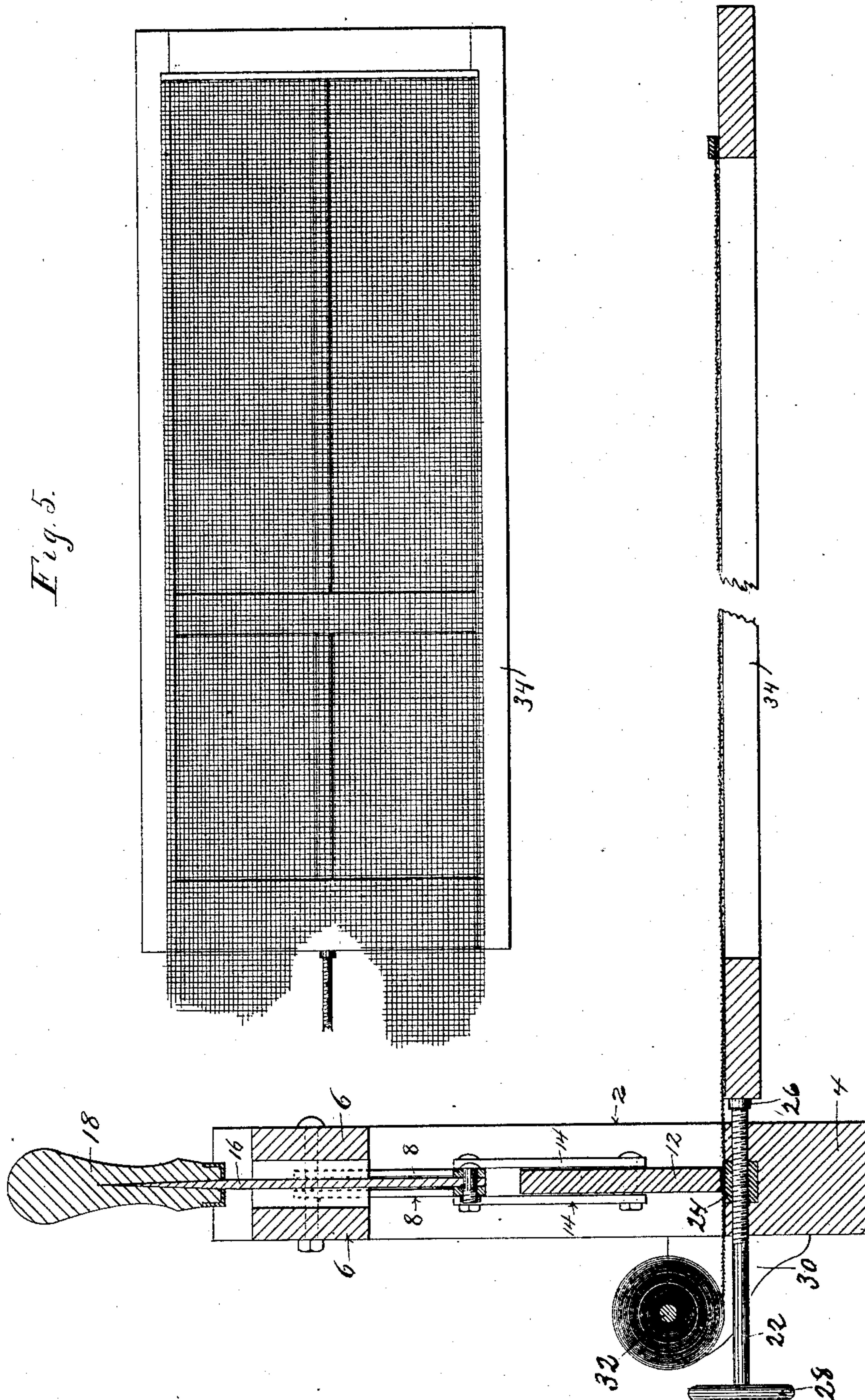


Fig. 4.



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UNITED STATES PATENT OFFICE.

ANDREW MATTSON, OF MINNEAPOLIS, MINNESOTA.

WIRE-SCREEN STRETCHER AND CLAMP.

SPECIFICATION forming part of Letters Patent No. 367,538, dated August 2, 1887.

Application filed May 28, 1887. Serial No. 239,718. (No model.)

To all whom it may concern:

Be it known that I, ANDREW MATTSON, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain Improvements in Wire-Screen Stretchers and Clamps, of which the following is a specification.

My invention relates to an improved apparatus to be used in stretching and holding wire screens while they are being fastened to their frames; and it consists generally in the combination and arrangement hereinafter described, and particularly pointed out in the claims.

In the drawings, which form a part of this specification, Figure 1 is a front elevation of my improved clamp with the clamping-bar raised. Fig. 2 is a similar view showing the position of the parts when the clamping-bar is forced down and holding the material. Fig. 3 is a detail of the connecting or operating rods. Fig. 4 is a longitudinal section to more clearly illustrate the stretching device. Fig. 5 is a plan view of a frame with the screen stretched over it, showing the horizontal position of the stretching-screw.

In the drawings, 2 represents the side bars of the clamping-frame. These bars are connected by a bottom rail, 4, which may be secured to an ordinary carpenter's bench or to any suitable support. The bars are also connected by means of a stringer or top bar, 6, placed at a suitable distance above the bottom bar. This bar is preferably recessed to receive the links 8, which are pivoted to it. This bar is also preferably provided with a tapering slot through the center to allow for the passage of the operating-rods 10 when the clamp is raised.

12 represents a clamping-bar, which slides in ways formed in the side bars, 2. This bar is supported upon links 14, which are pivoted thereto, and also pivoted to the links 8 in such a manner that as the two sets of links 8 and 14 are straightened out the clamping-bar is forced downward until it strikes the bottom rail, 4. In order to conveniently operate these links in this way I attach the rods 10 at the elbow or the point where the links join each other. The rods 10 are preferably so arranged that when the clamp is closed they will lie

horizontally and be of sufficient length to cause the suspension-links to assume a perpendicular position, as shown in Fig. 2, thus forming a double toggle-joint, exerting great pressure upon the bar and holding it locked in position, but capable of being readily and quickly released when desired. An arm, 16, may be attached to the rods 10 at the point where they are joined together. This arm passes through the opening in the top bar as the rods are forced down, and by means of a handle, 18, upon said rod the device is readily operated. An abutment, 20, may be placed upon the under side of the cross-bar 6 to limit the motion of the links and hold them firmly in working position.

22 represents a shaft provided for a portion of its length with an external screw-thread, the threaded portion passing through a nut, 24, in the bottom rail, 4. This shaft is preferably provided with a loose collar or washer, 26, upon its inner end, and a hand-wheel, 28, upon its outer end.

30 are brackets upon the side frames. These brackets are for the purpose of supporting a shaft, 32, upon which a roll of wire-cloth is wound.

34 represents the frame upon which it is intended to fasten the screen. The clamping-bar 12 is raised and the screen or wire-cloth unwound from the roll to the proper length to suit the length of the frame, and is securely fastened to the frame across the end farthest from the clamp. The clamp is then operated and the screen held firmly between the clamping-bar and the bottom rail, and by operating the screw 22 the frame is forced out and the screen drawn tightly over the frame, and thus held until it is securely fastened upon the three loose sides.

The relative position of the screw 22 and the frame are as shown in Fig. 5, making a pivoted point of support. The screen is properly spaced and secured at the upper end of the frame, and a screw being attached to the clamping-frame will hold the door in its proper position under the screen at the bottom. If, however, one side of the screen should be slightly uneven or stretched (which is a common occurrence) as the pressure of the screw is brought to bear upon the frame, it will swing

to one side or the other over the supporting-screw and allow for this unevenness without varying the relative position of the screen and the frame.

5 I claim as my invention—

1. The combination, with the bottom rail, of the clamping-bar 12, and means for operating said bar, and the screw-shaft 22, passing through a nut or screw-threaded opening in
10 said rail at right angles thereto, substantially as described, and for the purpose set forth.

2. The combination, with the bottom rail, 4, and the clamping-bar 12, and means for op-

erating said bar, of the screw-shaft 22, passing through a nut or screw-threaded opening in
15 said bottom rail at right angles thereto, the brackets on the frame, and the shaft 32, supported upon said brackets and adapted to hold a roll of wire cloth or screen, substantially as described. 20

In testimony whereof I have hereunto set my hand this 22d day of May, 1887.

ANDREW MATTSON.

In presence of—

R. H. SANFORD,

A. C. PAUL.