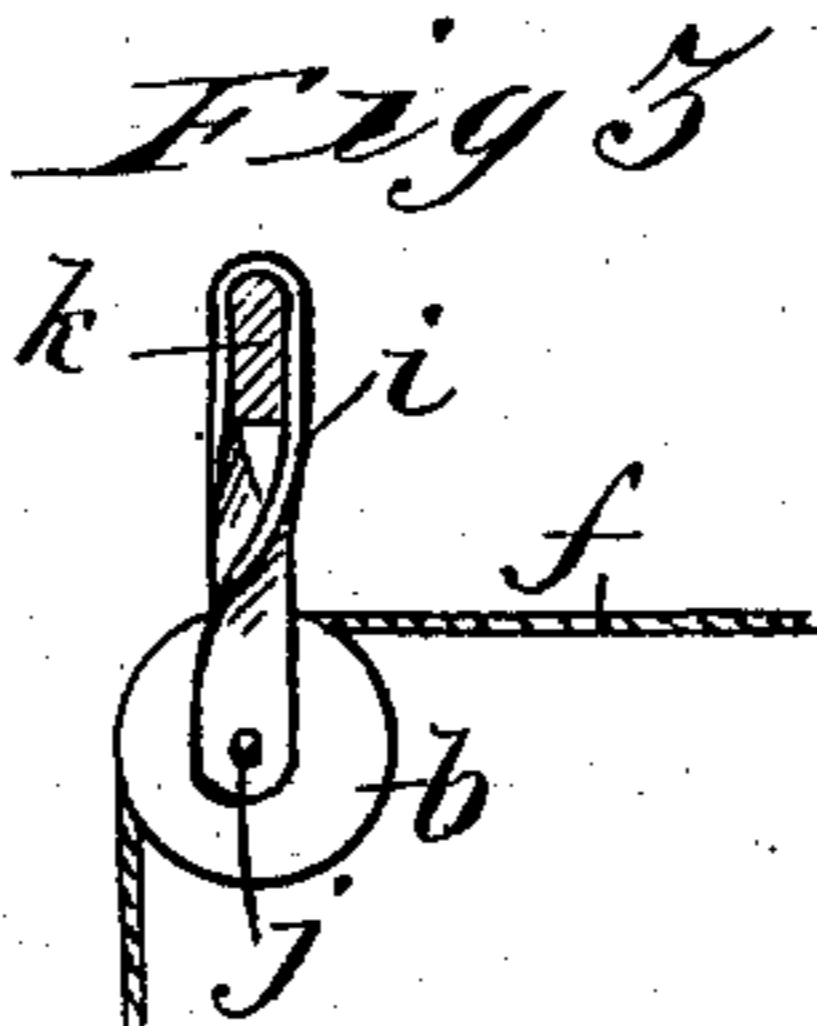
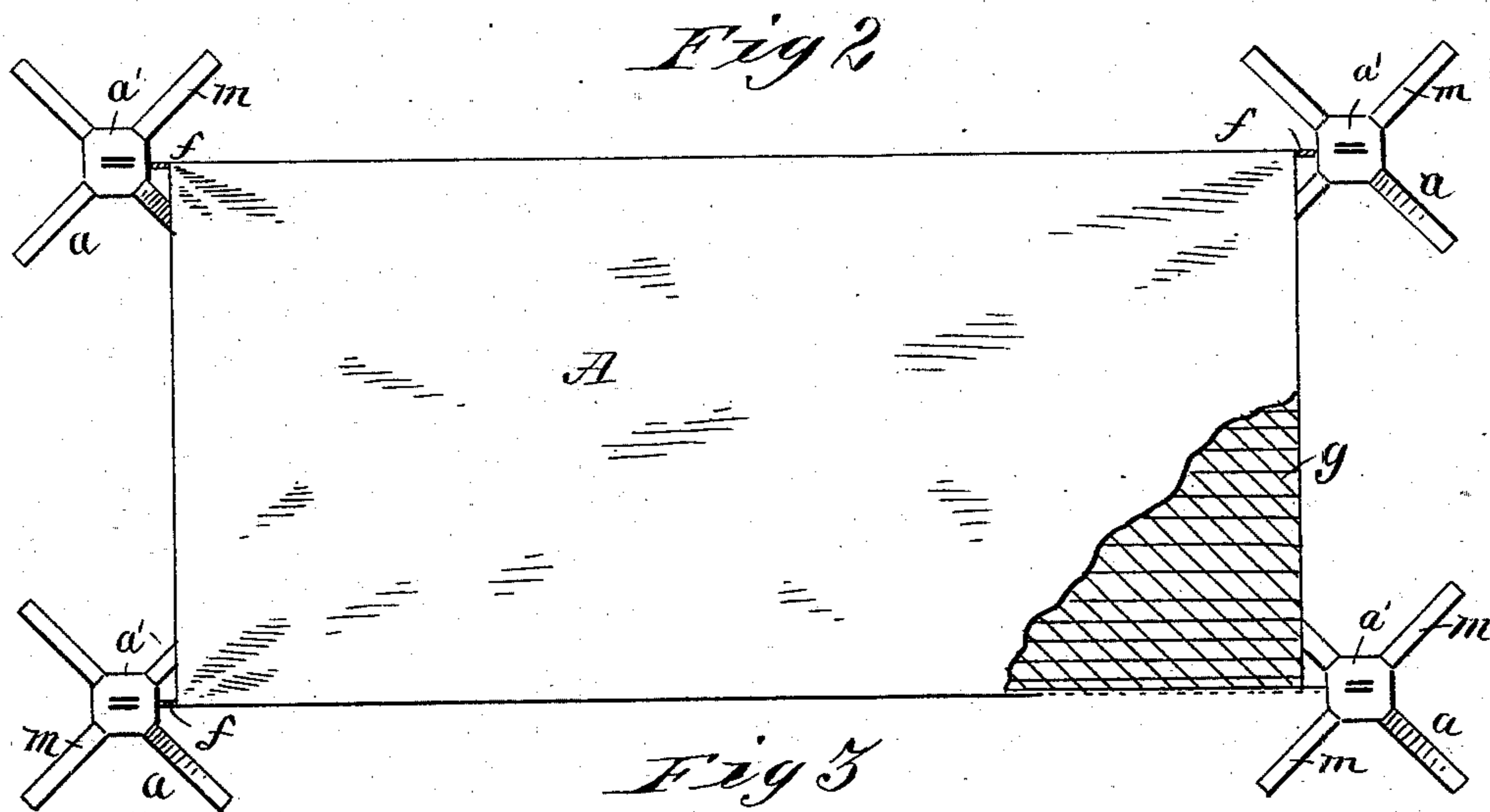
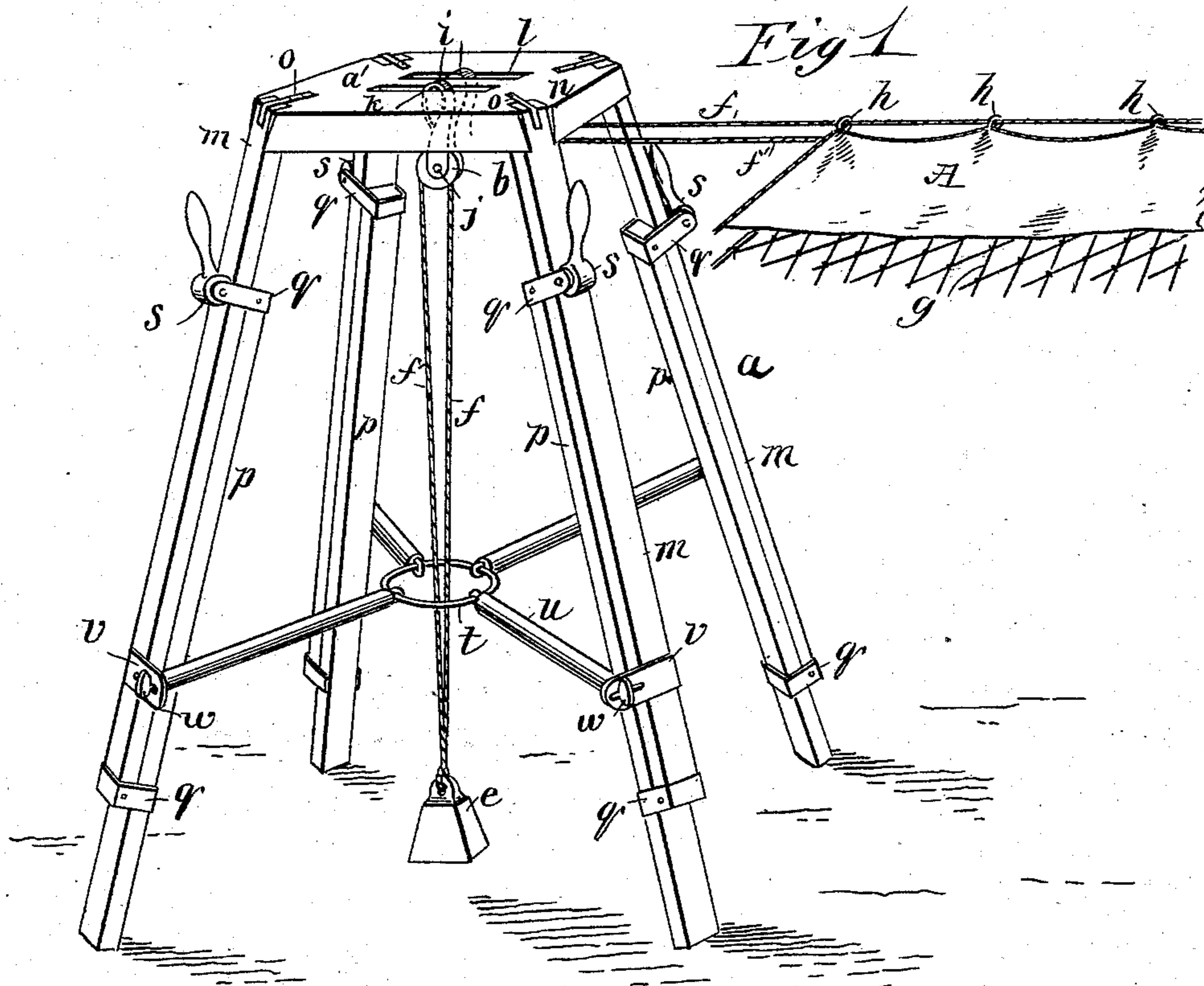


(No Model.)

P. SMITH.
FIRE ESCAPE.

No. 283,158.

Patented Aug. 14, 1883.



WITNESSES:

J. V. J. and filed
C. Sedgwick

INVENTOR:

P. Smith

BY

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

PETER SMITH, OF CATO, KANSAS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 283,158, dated August 14, 1883.

Application filed April 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, PETER SMITH, of Cato, Crawford county, Kansas, have invented a new and Improved Fire-Escape, of which the following is a full, clear, and exact description.

My improved fire-escape consists of means for suspending a strong canvas web between benches by weighted cords, which will yield to the stress of persons jumping from buildings onto the canvas, so as to afford safe means of landing by the large measure of relief the rising weights lend to the canvas before entirely arresting its descent under the stress of the person falling on it, the contrivance of the said means being hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of one of my improved fire-escape benches and part of the canvas web. Fig. 2 is a plan view of the whole apparatus on a reduced scale, and Fig. 3 is a detail of the weighted-cord contrivance.

For stretching a canvas or other web, A, for an elastic device to break the fall of persons jumping from burning buildings, I propose to use benches *a* to suspend pulleys *b*, by which I propose to hold the canvas by weights *e* and cords *f*, the benches being of suitable height to allow the requisite range of the canvas for descent to avoid breaking the fall too suddenly—say eight or ten feet—four of the benches being used, one to each corner of the canvas. Besides the canvas web I propose in practice to have another web of twine, *g*, below the canvas for re-enforcing it, and will employ separate pulleys *b* for the cords *f'* of said web, placing the pulleys side by side, and either connecting the cords of both webs to the same weight or to separate weights. The ropes will be connected to the webs by rings *h*, so that in case it may not be required to use the whole length of the canvas web the ropes may be disconnected from some of the rings. The pulleys will be slung from the tops *a'* of the benches by metal loop-hangers *i*, in which the

pivots *j* of the pulleys have bearings, and which are suspended from cross-bars *k* in the slots *l* of the tops of the benches, or other equivalent means.

The legs *m* of the benches are to be detachably fastened to the top by dovetail notches and tenons *n*, in which they are to be secured by a spring, *o*, to allow of quickly putting the benches together for setting them up, it being intended that they shall be taken apart for loading on a truck compactly to be carried to and from a fire. The legs are to have extension-sections *p*, connected by guide-clips *q*, and having fastening-clamps *s*, to enable them to be set level on uneven ground, and they are to be connected by braces consisting of ring *t* and bars *u*, the latter being detachably fastened to the legs by the slotted plate *v* and turn-button *w*, to facilitate the setting up and taking down of the benches. The ring *t* serves for connecting the bars of the several legs of a bench together, and at the same time affords open space in which the weight may rise and fall. By thus providing for the ready setting up and taking down of the benches it will be seen that their usefulness will be much increased by the convenience thus afforded for storing them when not in use, and for moving them to and from the place of using them.

Instead of connecting the twine-web ropes to the same weights that the canvas-web ropes are connected to, I intend in some cases to provide it with separate weights, and to so arrange it that it will be located about a foot below the canvas web for coming into action with the canvas when the canvas has been borne down to that extent, and check it thereby.

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

1. A canvas fall-breaker suspended on pulleys by weights and cords, substantially as described.

2. The combination, in a canvas fall-breaker, of a canvas web, *a*, re-enforcing twine web *g*, independent suspending-ropes *f f'* and pulleys *b*, and weights *e*, substantially as described.

3. The improved fall-breaker suspending-bench, consisting of top *a'*, detachable legs *m*,

the brace-ring *t*, and bars *u*, said bars *u* being detachably connected to the legs, substantially as described.

4. The legs *m*, connected to the top *a'* by dovetail notch and tenon *n* and fastening-spring *o*, substantially as described.

5. The combination, in a fall-breaker suspending-bench, of the weighted cords *f f'* and

leg-supporting braces having a connecting central ring for clearance of the weight, substantially as described.

PETER SMITH. •

Witnesses:

DANIEL BEECK,
SARAH E. SWAN.