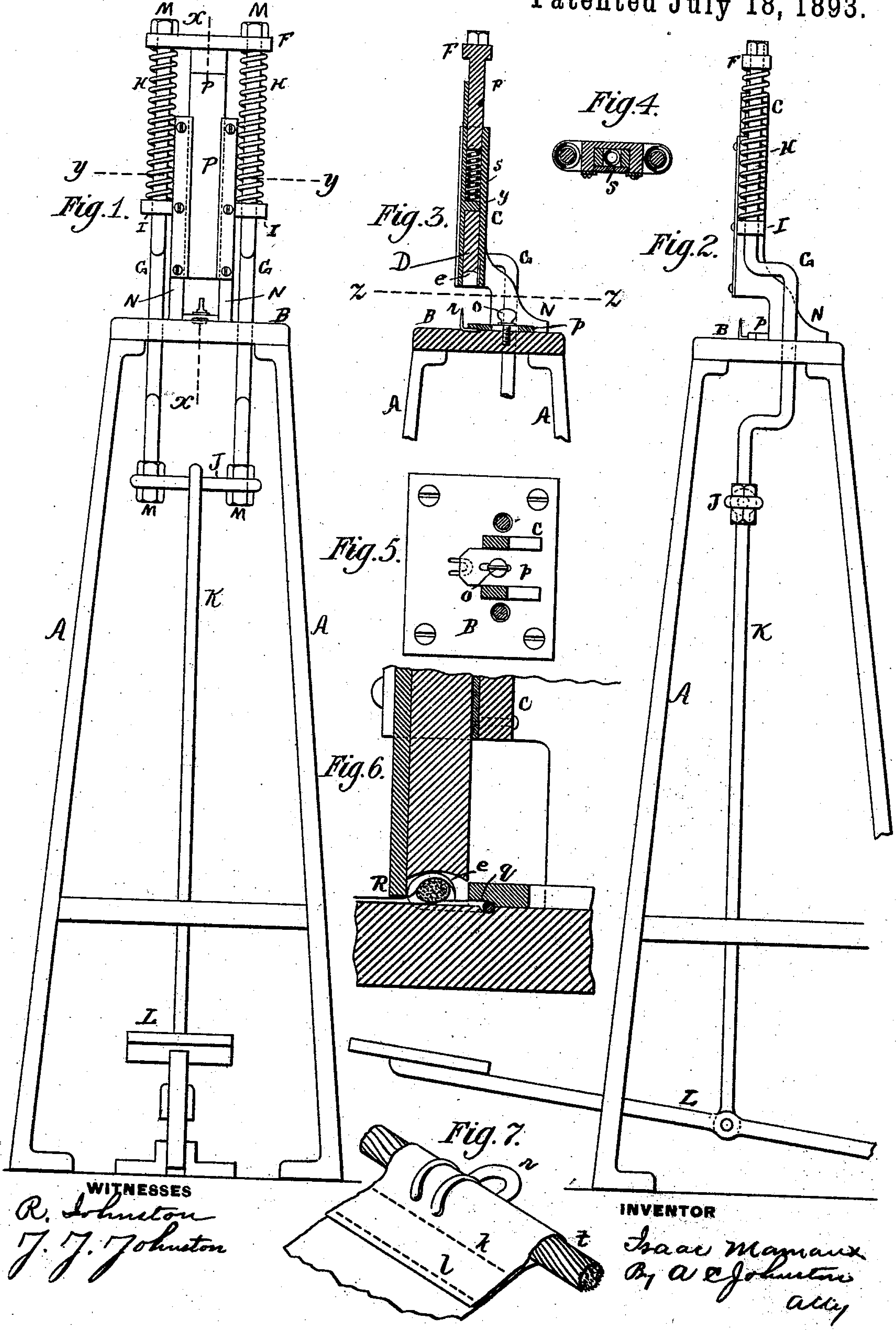
(No Model.)

I. MAMAUX.

STAPLE SETTING MACHINE.

No. 501,891. Patented July 18, 1893.



WITNESSES

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ISAAC MAMAUX, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO ALBERT MAMAUX, OF SAME PLACE.

STAPLE-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 501,891, dated July 18, 1893.

Application filed April 10, 1893. Serial No. 469,816. (No model.)

To all whom it may concern:

Be it known that I, ISAAC MAMAUX, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Inserting Staples in the Edges of Awnings; and I do hereby declare the following to be a full, clear, and exact description thereof.

In most awnings and similar articles made of heavy canvas, the cloth is generally strengthened around its edges by inclosing within the same a stout cord or small rope, and for the purpose of securely attaching such awning to a proper support, the edges of such awning have been provided with a number of rings sewed to that portion of said canvas outside the inclosed rope or cord, which rings require extra time and labor to affix, and are liable to break loose and also do not hold the edges of the canvas as closely to its support as is desired.

The object of my invention is to provide a means for securing the edges of the canvas to a supporting frame in a strong, cheap and effective manner, which means consists of a machine whereby a series of projecting staples is readily and rapidly inserted in said canvas and its surrounding cord as hereinafter shown and set forth, whereby a number of projecting open metallic eyes or semi-rings are attached and arranged around the edges of said canvas for the purpose of enabling the same to be readily connected to an equal number of projecting hooks attached to and around the supporting frame, all of which will be readily understood from the following description taken in connection with the accompanying drawings wherein—

Figure 1. is a front elevation of my improvement in staple setting machines. Fig. 2. is a side elevation of the same. Fig. 3. is a vertical section on the line *x x* of Fig. 1. Fig. 4. is a horizontal section on the line *y y* of Fig. 1. Fig. 5. is a similar section on the line *z z* of Fig. 3. Fig. 6. is a sectional view on an enlarged scale showing the staple as it appears at the end of the operation. Fig. 7. is a view in perspective, showing the staple passed through a fold of canvas and turned down.

To give my invention bodily form I prepare a suitable upright frame A on the top of which is affixed a small horizontal table B, and in addition thereto a vertical guide C having therein a plunger D the bottom end of which has a concave recess *e*. To the upper end of this plunger is affixed a cross bar F through each extremity of which is secured a downwardly extending rod G having around it a spiral spring H the lower ends of which rest upon brackets I projecting laterally from each side of the vertical guide frame in such manner that the resiliency of said springs act to lift the aforesaid plunger to a proper height. These vertical rods G are connected at their lower ends by means of a suitable cross-bar J, to the center of which is attached a long link K connecting the same with a suitable pivoted treadle L whereby the said springs may be compressed and the plunger forced down a sufficient distance, the length of which stroke may be varied by a proper adjustment of the nuts M at the top and bottom of the vertical rods G.

The plunger guide is supported on the table and secured thereto by means of two short legs N, between which and made adjustable on said table by means of a thumb screw O is a slotted plate *p* having on its under side and at its forward edge a recess for receiving the curved portion of the staple *r* most remote from its points which points are turned up or bent alike to occupy a plane at right angles or nearly so to the body of the staple so that when said staple is placed in the recess made to receive it the points of the staple will extend upward. A canvas *k* or piece of suitable cloth having been prepared and its edge turned over so as to form a narrow fold *l* around a cord *t* or small rope of suitable size and length and the edge of the canvas sewed down to the body of the same so as to securely retain said cord within the fold the corded edge of said canvas is placed within the machine so that the cord will be just beyond the points of the staple previously arranged in position, when by bringing down with a sufficient force the plunger the points of the staple will be forced through the double portion of the canvas near to the rope and turned outward and down into the same in such manner as to firmly secure the staple and give increased security to the rope. These staples are to be affixed to the canvas as set forth at suitable intervals from each other around such portions of the canvas as may be desired. That portion of each staple projecting outside of the edge of the canvas forms a metallic loop or eye enabling the same to be readily attached to any hook or nail affixed around the edges of a frame to which the canvas is intended to fit.

To hold the canvas down and in proper position preparatory to the descent of the plunger I have provided the same with a vertically sliding bar P provided with a presser foot R or means for forcing the canvas over the staples in advance of the downward movement of the staple bending mechanism, and this vertically sliding bar P is so connected to the plunger as to partially move with it but always in advance of it in its downward movement, being actuated to that extent by means of an intervening spiral spring S inclosed within said plunger and operating on said vertical bar with its presser foot by means of a projection y extending into the plunger underneath said spring whereby the presser foot not only forces the canvas down and over the upturned points of the staple but holds the canvas down until the plunger has descended and turned the points of the staple over and into the rope; as the plunger recedes preparatory to another stroke the presser foot remains in contact with the canvas and holds it down until such time as the plunger has made a portion of its upward stroke when the presser foot will be lifted from the canvas by a further upward action of the plunger thereby releasing that portion of the canvas, which may be then moved along for the reception of another staple placed in the machine for that purpose and thus a series of staples may be placed and secured in and along the edge of the canvas and to the inclosed rope at suitable intervals and such distances apart as may be required.

Having thus described my improvement, what I claim as of my invention is—

In a machine for setting staples in awnings, the combination with a table having a U-shaped recess to receive the bend of the staple, of a plate secured on said table, recessed so as to overhang the recess in the table, the overhanging edge of said plate being a sufficient distance from the ends of the U-shaped recess to permit the insertion of the border rope of the awning between the end of said plate and the upturned spikes of the staple when placed in said recess, a vertically sliding bar arranged to descend close to the outer sides of the upturned spikes to force the canvas down and over said spikes, and a concave plunger arranged in its descent to contact with the upturned spikes and turn the same over said rope, substantially as described.

In testimony whereof I have hereunto set my hand this 9th day of March, A. D. 1893.

ISAAC MAMAUX.

Witnesses:

A. C. JOHNSTON,

J. J. JOHNSTON.