

No. 627,237.

Patented June 20, 1899.

J. A. PAQUIN.
HAT SWEAT STRINGING MACHINE.

(Application filed Mar. 11, 1899.)

(No Model.)

2 Sheets—Sheet 1.

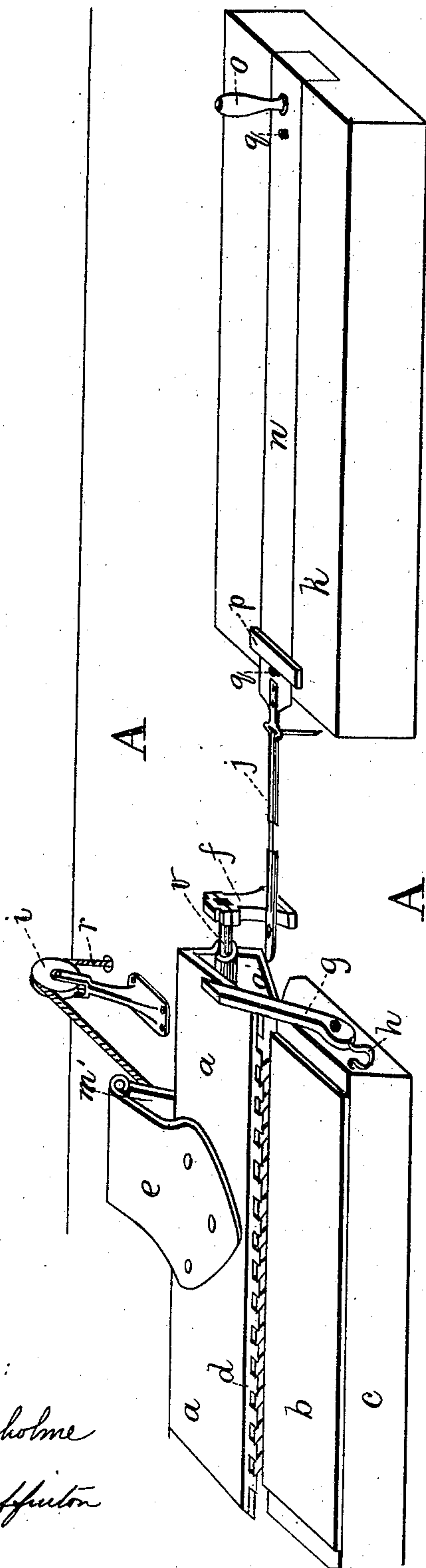


Fig. 1

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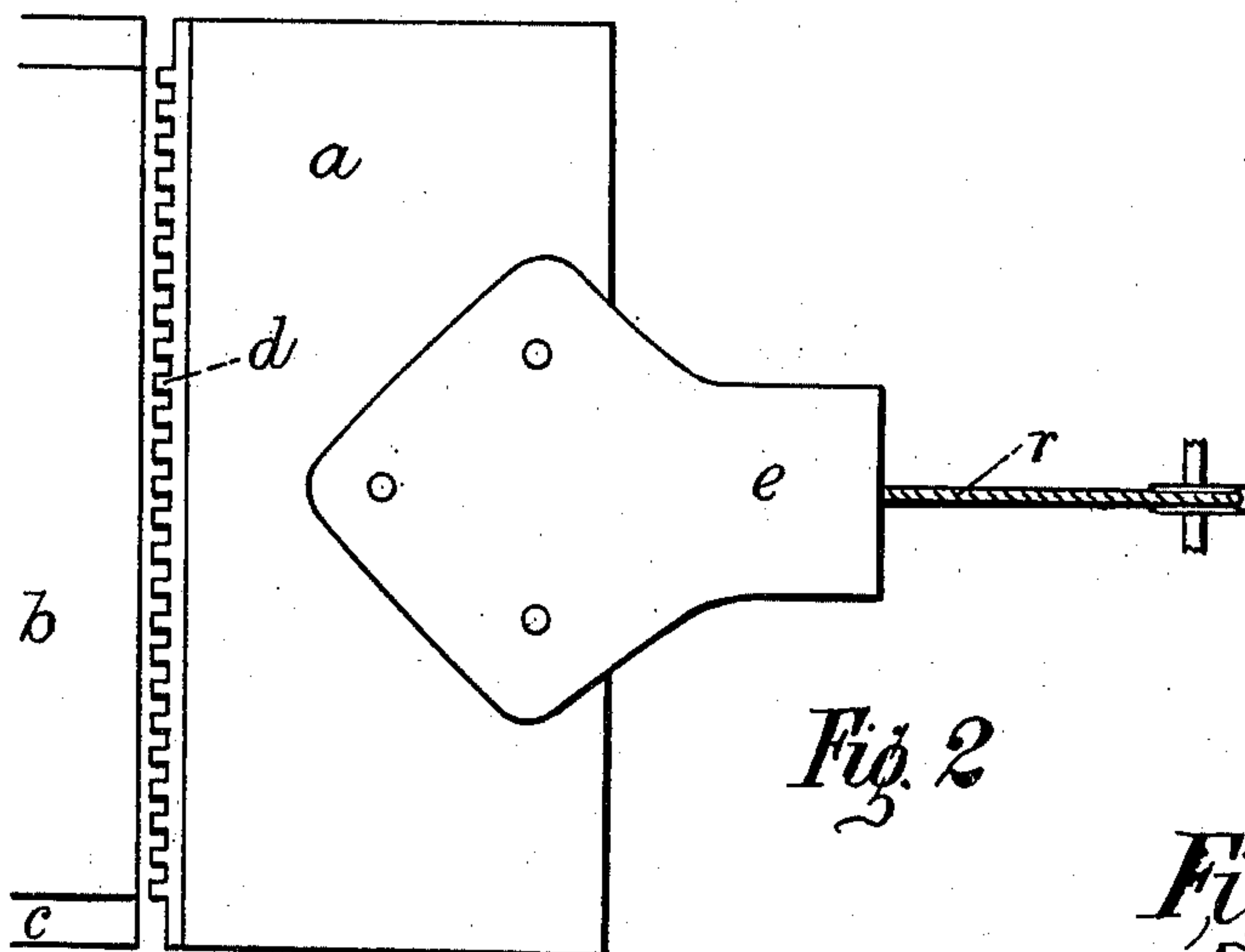


Fig. 2

Fig. 7.

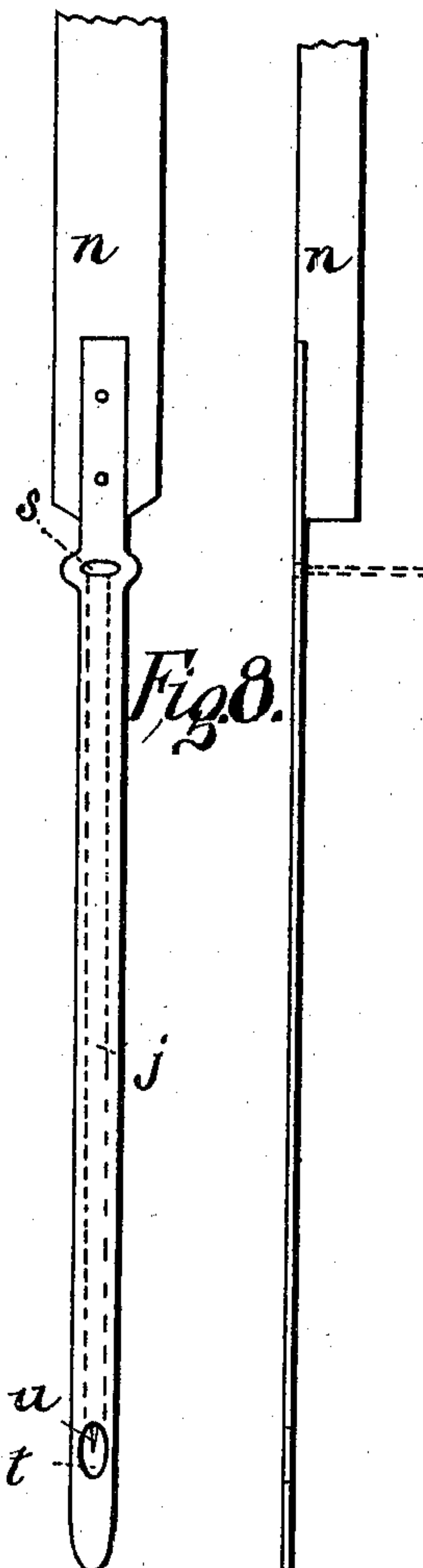


Fig. 8.

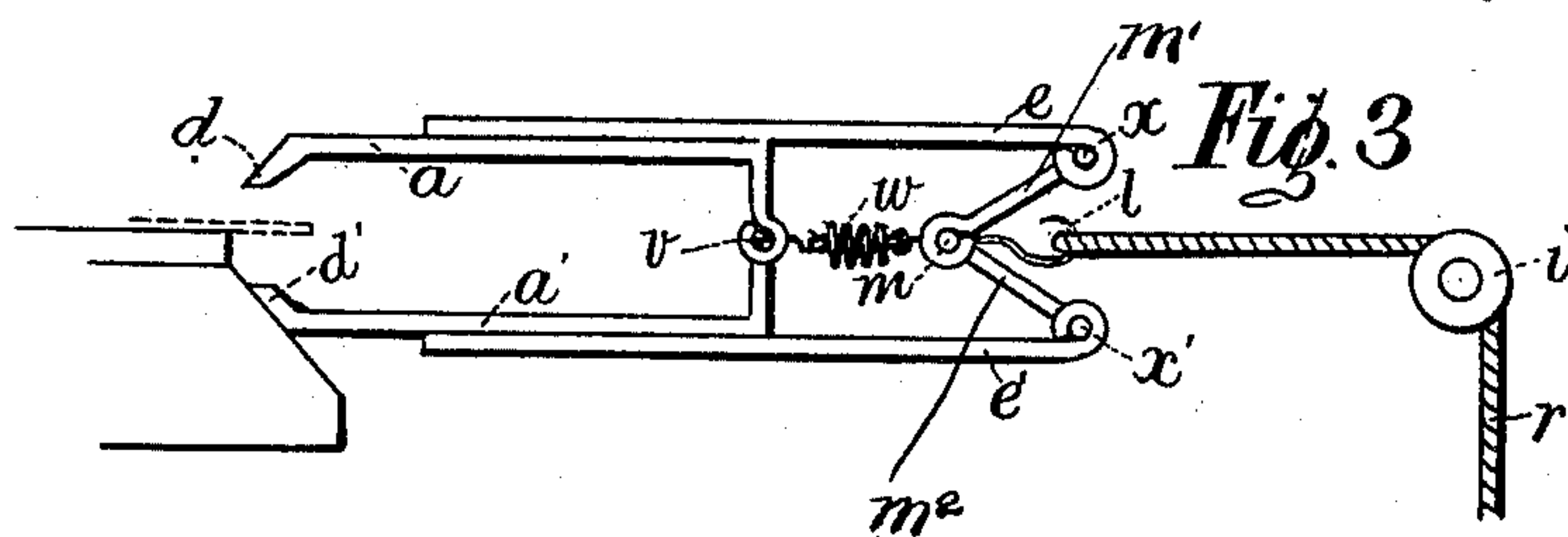


Fig. 3

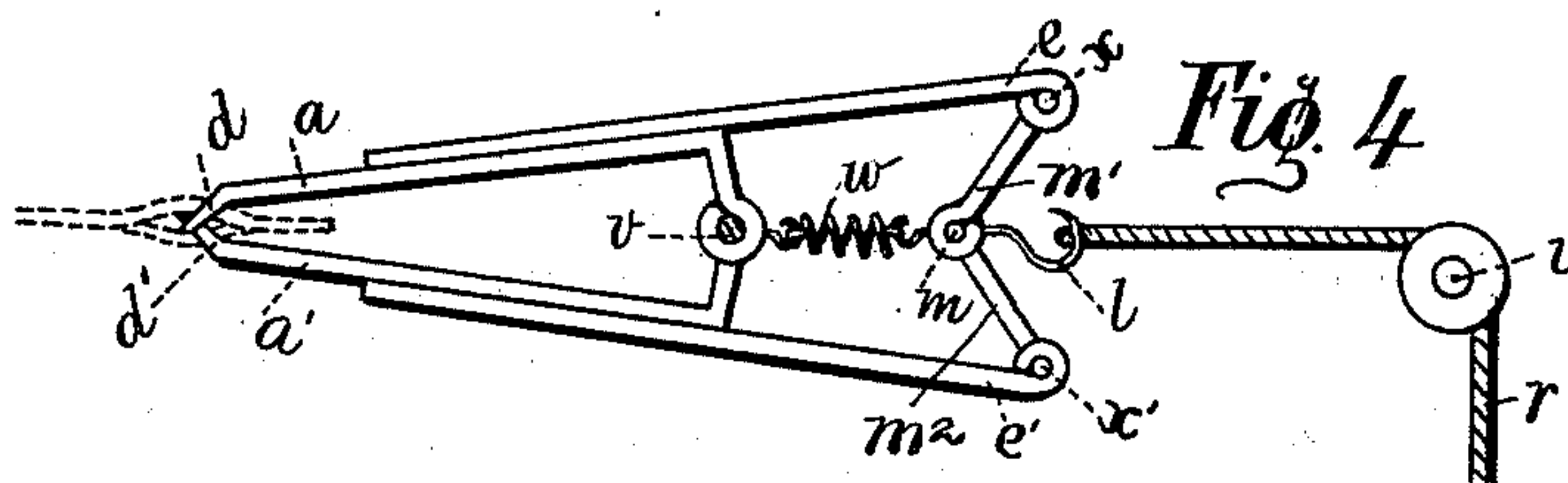


Fig. 4

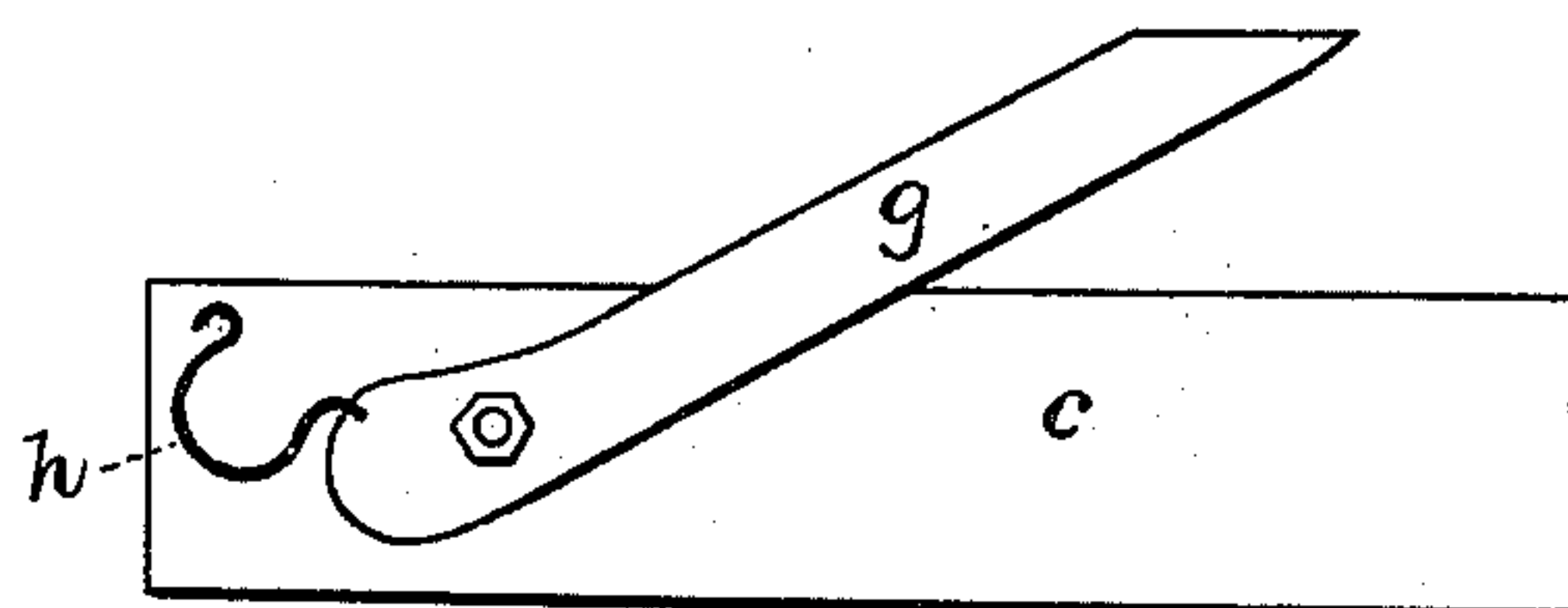


Fig. 5

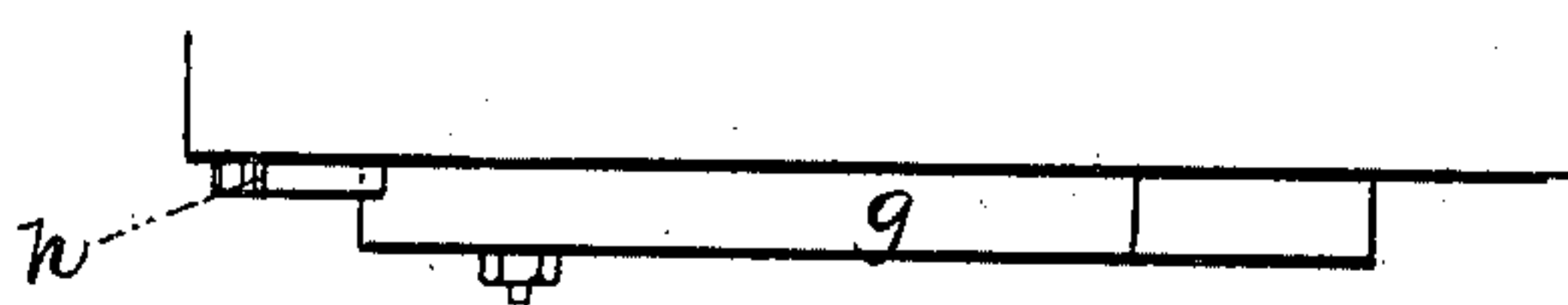


Fig. 6

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JOSEPH A. PAQUIN, OF FALL RIVER, MASSACHUSETTS.

HAT-SWEAT-STRINGING MACHINE.

SPECIFICATION forming part of Letters Patent No. 627,237, dated June 20, 1899.

Application filed March 11, 1899. Serial No. 708,774. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. PAQUIN, a citizen of the United States, residing at Fall River, in the county of Bristol and Commonwealth of Massachusetts, have invented a new and useful Hat-Sweat-Stringing Machine, of which the following is a specification.

My invention relates to a new hat-sweat-stringing machine, which machine spreads apart strips already cut in the sweat-band, passes a tape attached to a needle through them, and after withdrawal of the needle cuts off the tape.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a general view of the machine. Fig. 2 is a top view of the upper opener. Fig. 3 is a side view of the openers when open. Fig. 4 is a side view of the openers when closed. Fig. 5 is a side view, and Fig. 6 a top view, of the cutter. Fig. 7 is a top view, and Fig. 8 a side view, of the needle.

The machine rests on a table A.

c is a block secured to the table and to which is fastened plate *b*.

a is the upper opener, having inclined teeth *d* on the forward edge. *a'* is the lower opener, also having inclined teeth *d'* on the forward edge. The openers are operated by foot-power applied to a stirrup at the end of rope *r*, which comes up through a hole in the table A over the pulley *i* and is attached to a hook *l*. The rear ends of the plates or openers *a* and *a'* are provided with a toggle-lever formed by two arms *m'* and *m''*, pivotally connected to said plates or openers and pivotally connected together at *m*. The hook *l* is connected to the toggle-lever at the central pivotal connection *m* of said arms. When the power is applied to the stirrup, the rope *r* draws back the hook *l*, which, operating on the hinge *m*, forces apart the rear end of the plates *e* and *e'* and brings into use the teeth *d* and *d'*.

The teeth *d*, acting on the sweat-band, (which rests on the plate *b*,) press down the alternate strips of leather in the band, and the teeth *d'* lift up the strips in the sweat-band not operated on by the teeth *d*, leaving between the strips an opening for the needle *j* to enter, as shown in Fig. 4.

The needle *j* is attached to a bar *n*, which runs in a groove in the block *k* and is operated by hand applied to the handle *o*.

q q are set-screws inserted in the bar *n*, which prevent the needle *j* from running too far in either direction by coming in contact with plate *p*.

j is a needle with a slot *s* near one extremity, and near the other end is an eye *t*, into which is fastened a sharp point *u*, which I term a "retaining projection" and which extends toward the point of the needle. The braid for stringing the sweat-band comes from a reel under table A, through a hole in the top of the table, through the slot *s*, along the top of the needle *j*, down through the eye *t* and is caught on the retaining projection *u*.

In operation the openers are closed, as in Fig. 4, thus separating the strips in the sweat-band. The needle *j*, carrying the tape, is pushed along through the opening between the strips until the eye has passed beyond the other end of the openers. The tape is then held by hand while the needle is withdrawn to its former position.

g is a cutter working along the edge of block *c* and cuts the tape after the needle has been withdrawn.

h is a spring held at one end by a pin and at the other end by a slot in the cutter *g*, that lifts up the cutter after cutting the tape.

The point *u* in the eye of the needle holds onto the tape and prevents the needle from becoming unthreaded.

After the machine has been operated and the power taken from the stirrup the spring *w* contracts, drawing in the hinge *m*, which brings closer together the rear ends of plates *e* and *e'* and separates the openers *a* and *a'*, as in Fig. 3.

v is a shaft supporting the rear end of the openers and is itself supported at the ends by standards, one of which is shown at *f*.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a hat-sweat-stringing machine, the combination with the movable plates provided with interlocking teeth, and means for bringing said plates together, of a needle-slide, and a needle carried by said slide having an eye adjacent to its point and a retaining projec-

tion, extending into said eye in a direction toward the point of the needle, substantially as described.

2. In a hat-sweat-stringing machine, the
5 combination with the movable plates provided with interlocking teeth and means for bringing said plates together, of a needle-slide, and a needle carried by said slide having an eye adjacent to its point, a retaining projection
10 extending into said eye and extending toward the point, said needle having a transversely-disposed slot adjacent to its butt, substantially as described.

3. In a hat-sweat-stringing machine, the

combination of a pair of pivotally-mounted 15 plates, having meeting edges provided with interlocking projections, a toggle-lever having its ends connected to said plates, an operating device connected to said toggle-lever between its ends, a needle-slide and a needle 20 carried thereby, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

JOSEPH A. PAQUIN.

Witnesses:

DENNIS V. SULLIVAN,
JOS. T. TOUHEY.