

(No Model.)

2 Sheets—Sheet 1.

J. T. PENNYCOOK.
CIGAR WRAPPING MACHINE.

No. 414,572.

Patented Nov. 5, 1889.

Fig. 1.

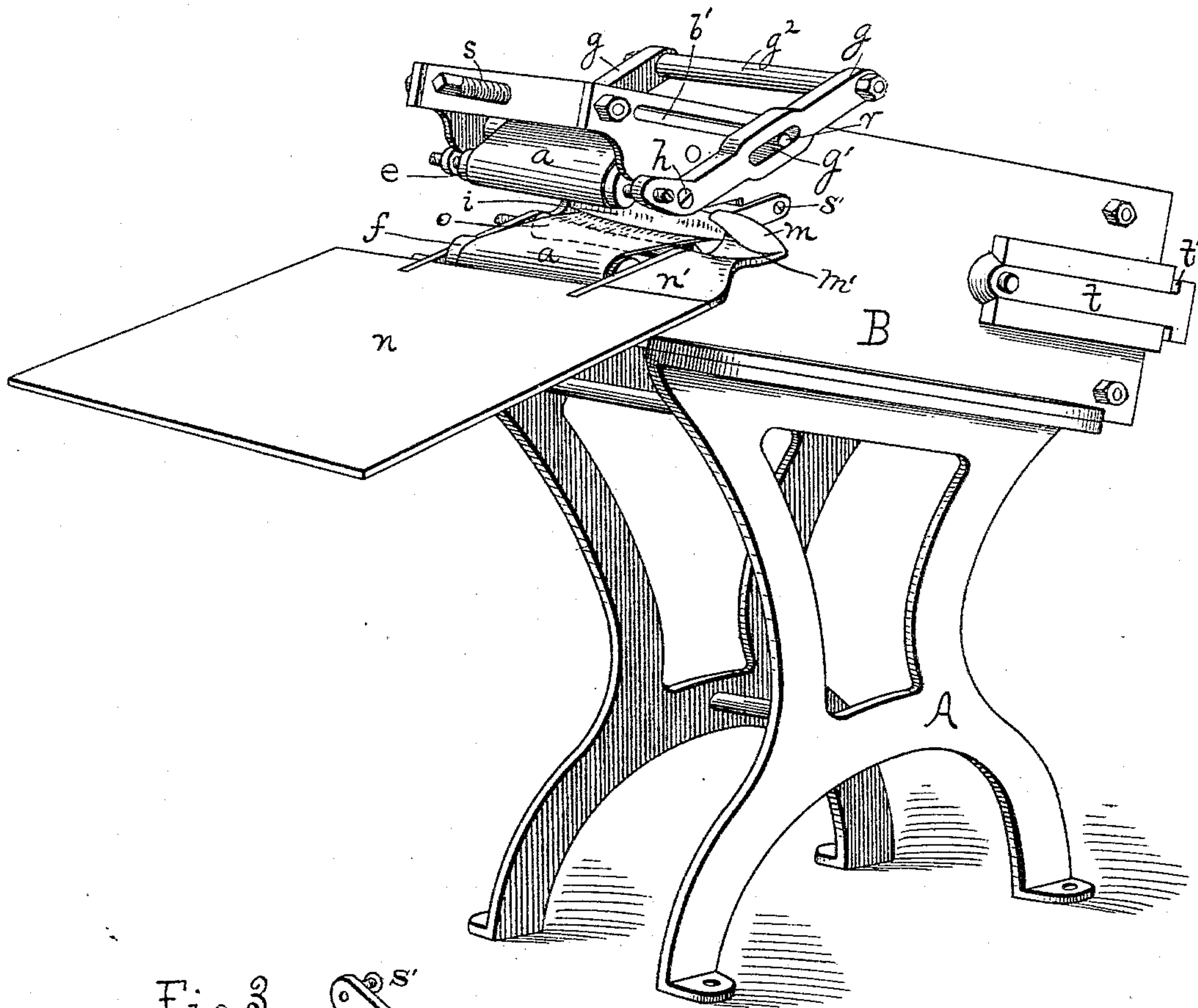


Fig. 3.

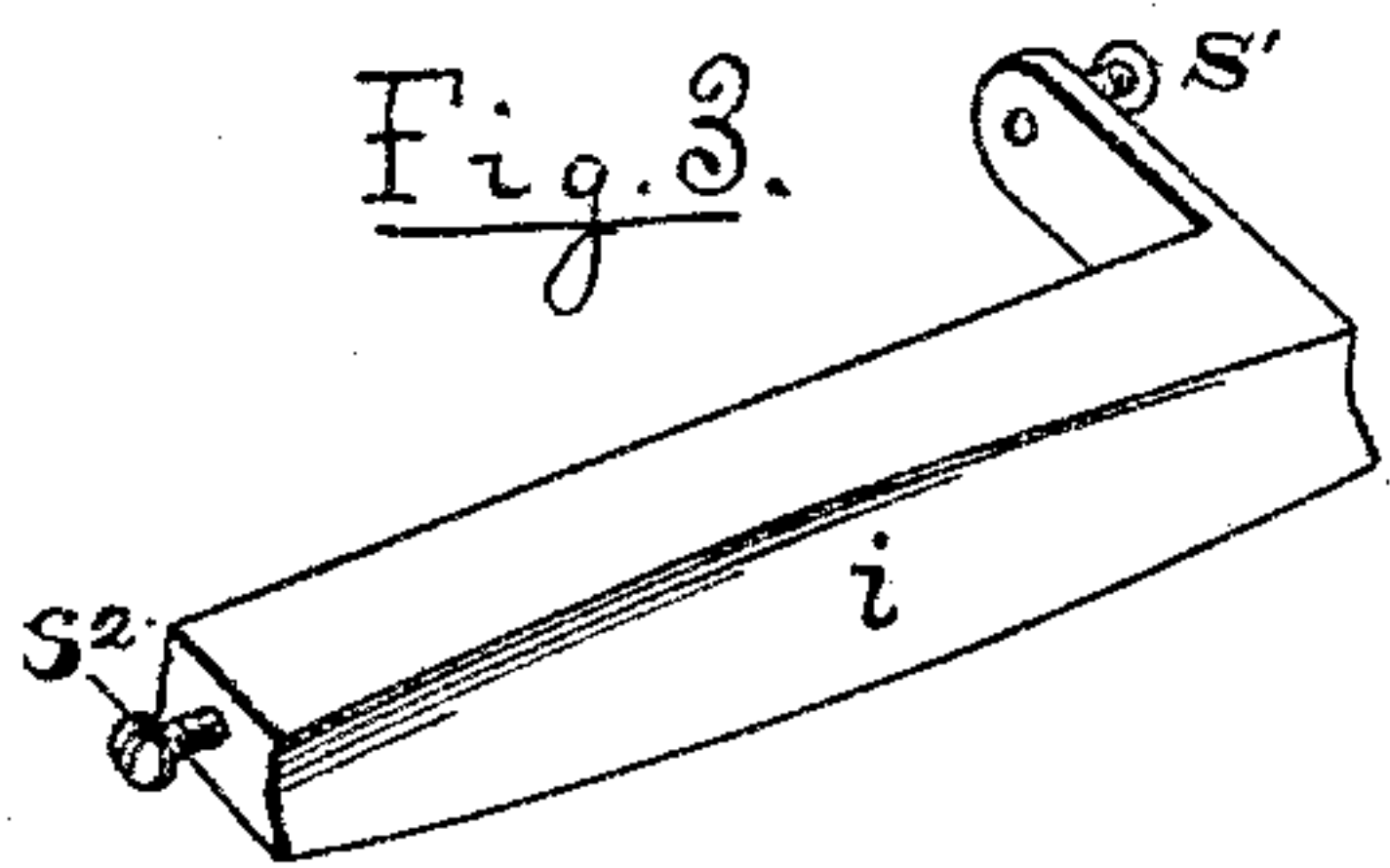
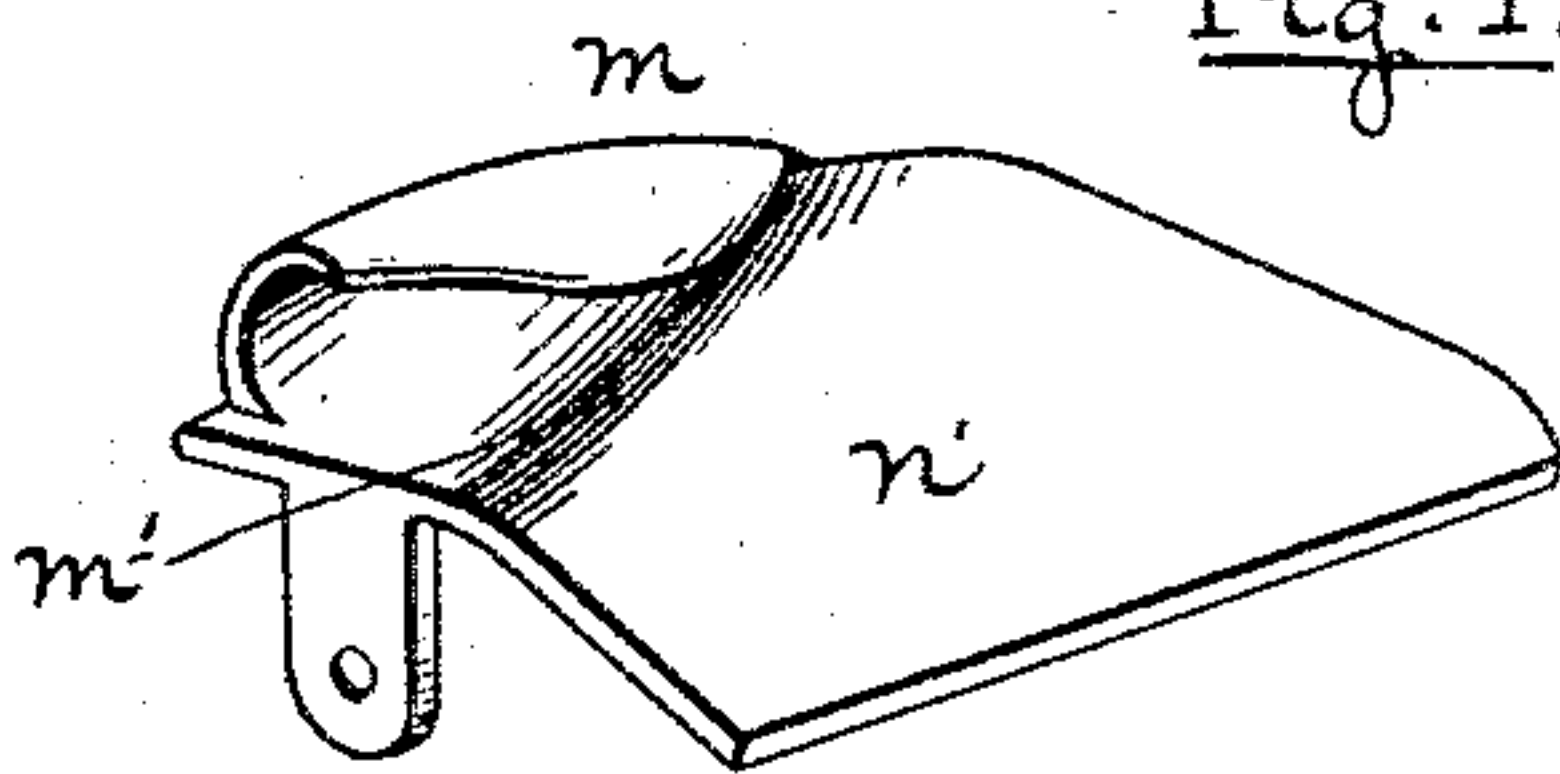


Fig. 4.



WITNESSES:

Harry Keating.
George Brainerd.

INVENTOR

John Thomas Pennycook

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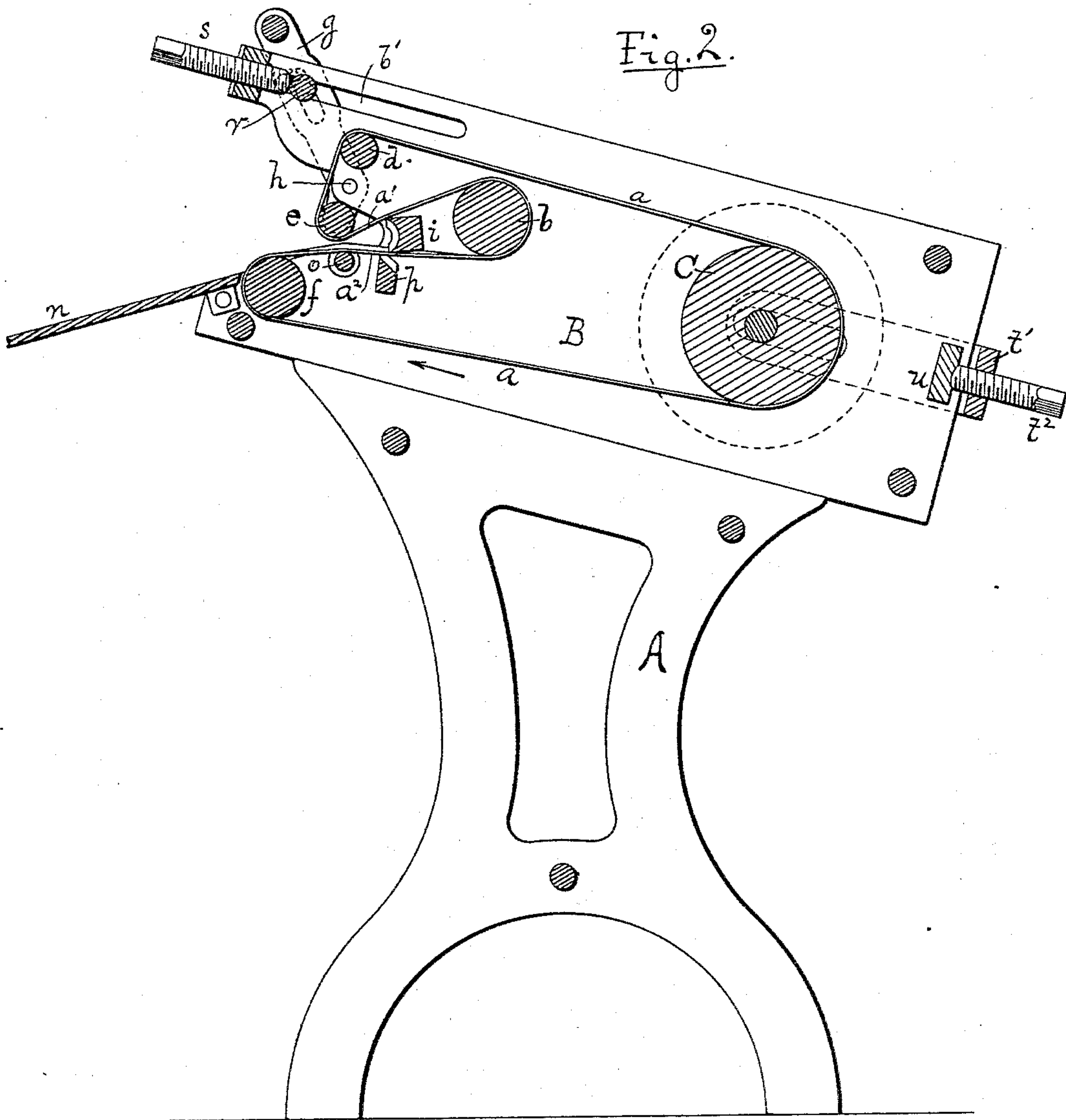
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2 Sheets—Sheet 2.

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WITNESSES:

Mary Keating.
George L. Brainerd.

INVENTOR

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his ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN THOMAS PENNYCOOK, OF NEW YORK, N. Y., ASSIGNOR TO THE ALPHIA GLASS AND METAL COMPANY, OF NEW JERSEY.

CIGAR-WRAPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 414,572, dated November 5, 1889

Application filed January 25, 1889. Serial No. 297,565. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMAS PENNYCOOK, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Cigar-Wrapping Machines, of which the following is a specification.

My invention relates to a machine for putting the outer wrapper upon a cigar-bunch, and has for its object the winding of the wrapper upon the cigar-bunch; and to this end the novelty consists in the construction and novel combination of parts, as will be hereinafter described and claimed.

In the accompanying drawings, in which the same characters designate analogous parts, Figure 1 is a perspective view of a complete machine according to my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a perspective view of the mold against which the cigar turns, and Fig. 4 is a perspective view of the thimble with a plate which would ordinarily be attached to it.

A is the table to support the machine, shown in the drawings with the top sloping backward, so that the operator can see the cigar when it is being wrapped.

B is the upright side of the machine, there being one on each side of the machine, each of which serves as a bearing for the different rollers.

C is the driving-roller. The endless belt *a* passes around the driving-roller C, and also around the cylindrical rollers *b*, *d*, *e*, and *f*, all of which, except the roller *e*, have their bearings in the frame B of the machine. The roller *e* has its bearings on each side in the lower end of the levers *g*, which are pivoted to the upright sides of the frame B at the point *h*, and united together by the bar *g*². The screw *s* is an adjustable limit-stop against which the rod *r* strikes, so as to limit the forward motion of the levers *g*, thereby regulating the pressure of the belt *a* on the bunch.

The part *i* is the mold against which the cigar is pressed, preferably made about one-third of the circle in section, and it is situated in front of the roller *b*. The roller *e* is thus capable of two positions—that shown in Fig. 2, which is its position while the bunch is being

wrapped, and that shown in Fig. 1, which is its position when the operation is finished.

The operation is as follows: The filler is made and the binder put on, and then it is put in an ordinary mold and placed in the press to give it the proper shape and form, and when taken therefrom it is what is technically known as the "bunch." The machine being in the position shown in Fig. 1, the operator places the cigar-bunch to be wrapped against the mold *i*, with its tip resting in the thimble *m*. He places the end of the wrapper (made of proper form, according to the shape of the bunch to be wrapped) in contact with the tuck end of the cigar, between the belt *a* and the cigar, and then brings the upper ends of the levers *g* forward, as in Fig. 2. This (by changing the position of the roller *e*) tightens the belt upon all its rollers, and also causes the belt *a* to close down upon the bunch and hold it against the mold *i*, (see *a'* *a*².) The lower side of the roller *e* in the position of Fig. 2 comes below the upper edge of the mold *i*. The driving-roller C being then revolved, the movement and pressure of the belt *a* in the direction of the arrow causes the bunch to revolve, and thereby winds the wrapper spirally upon it, the wrapper passing between the cigar and the mold. The other end of the wrapper when reached passes into the thimble *m* through the slot or opening *m'*, and, owing to the curvature of the slot *m'*, when the extreme tip is reached the end of the wrapper is turned back upon the bunch at the point to finish the tip neatly. Paste is applied by hand to the end of the wrapper, as usual. It is to be noticed that the movement of the belt *a* not only causes the bunch to revolve, but also presses it against the mold *i* by a gentle and even pressure.

The plate *n* is for the purpose of resting and guiding the wrapper upon during the operation of rolling. The roller *o*, lying underneath the belt *a* and shaped more or less to the shape of the mold *i*, helps to hold the belt *a* up against the lower edge of the mold *i* along the entire length. To insure the first edge of the wrapper passing between the bunch and the mold, the fixed block *p* is pro-

vided, having its upper edge as near as possible to the lower edge of the mold *i*, but a very little in front of it. The rod *r*, moving in slots *g'* of the levers *g* and the slots *b'* of the frame B, is merely a guide for the levers *g*.

The driving-roller C may have its bearings in sliding pieces *t*, connected together at the back of the machine by the piece *t'*, which threads with a screw *t²*, which in turn bears against the fixed piece *u*. By this means the driving-roller C may be drawn backward in order to tighten the belt *a*. The roller C may be driven by power or by hand. The belt *a* is designed to be so adjusted as to tightness over the rollers that its friction on the roller C will not propel it when the machine is in the position of Fig. 1, but will do so in the position of Fig. 2. The belt may be, however, continuously in motion.

By means of the screw *s'* and a similar screw *s²* in the opposite end of the mold it will be readily understood that the mold may be removed and one of different form substituted, so as to allow a bunch of any desired shape or style to be wrapped. The slot or opening through which the end of the wrapper enters the thimble has its end curved, so that the line of said slot will be a regular continuation of the curve of the mold, thereby causing the end of the wrapper, after the tip is formed or covered, to return upon itself.

The effect of the curve or spiral is to roll the wrapper to the extreme tip and then turn it back, so that the small remaining part of the wrapper is smoothly rolled over and fastened on that part of the bunch just back of the extreme tip, thus presenting the desired neat appearance. This thimble can of course be used in combination with other cigar-machines. The plate *n'* is not a necessary part of the thimble, but is of course convenient as a continuation of the plate *n*, upon which the wrapper rests. The upper side of the thimble may be cut away at its base, as shown in Figs. 4 and 1.

I claim as my invention—

1. In a cigar-wrapping machine, the traveling belt *a*, operating-roller C, and rollers *b*, *d*, *e*, and *f*, over which the belt passes, in combination with the stationary concave mold *i*, arranged between the rollers *b* and *e*, the oppositely-moving surfaces of said belt passing on each side of the mold and engaging and

rotating the cigar-bunch placed therein, substantially as shown and described.

2. In a cigar-wrapping machine, the traveling belt *a*, operating-roller C, and rollers *b*, *d*, *e*, and *f*, in combination with the stationary concave mold *i*, arranged between the rollers *b* and *e*, the oppositely-moving surfaces of said belt passing on each side of the mold, the said roller *e* being provided with suitable operating devices for adjusting it to and from the said mold, substantially as shown and described.

3. In a cigar-wrapping machine, the traveling belt *a*, operating-roller C, and rollers *b*, *d*, *e*, and *f*, over which the belt passes, and the stationary concave mold *i*, arranged between the rollers *b* and *e*, the oppositely-moving surfaces of said belt passing on each side of said mold, in combination with the levers *g g*, in the lower ends of which the roller *e* is journaled, whereby said roller may be operated to and from the concave face of the mold, substantially as shown and described.

4. In a cigar-wrapping machine, a removable concave-faced cigar-mold *i*, an endless belt *a*, and the rollers C, *d*, *b*, and *f*, for carrying the belt, the oppositely-moving surfaces of said belt passing on each side of said mold, in combination with the movable roller *e*, around which the belt passes, and means for adjusting said roller *e* with reference to the face of the mold, whereby cigar-bunches of different sizes may be rotated directly against the face of the mold, as and for the purpose set forth.

5. In a cigar-wrapping machine, a concave mold *i*, endless belt *a*, and rollers C, *b*, *d*, *e*, and *f*, upon which the said belt is mounted, the oppositely-moving surfaces of said belt holding the cigar-bunch in contact with said mold, in combination with a tip-forming thimble *m*, provided with a longitudinally-curved slot *m'*, substantially as and for the purpose set forth.

In witness whereof I have hereunto set my name, this 19th day of January, 1889, in the presence of two witnesses, at the city of New York.

JOHN THOMAS PENNYCOOK.

Witnesses:

SALTER STORRS CLARK,
WALTER S. LOGAN.