

(No Model.)

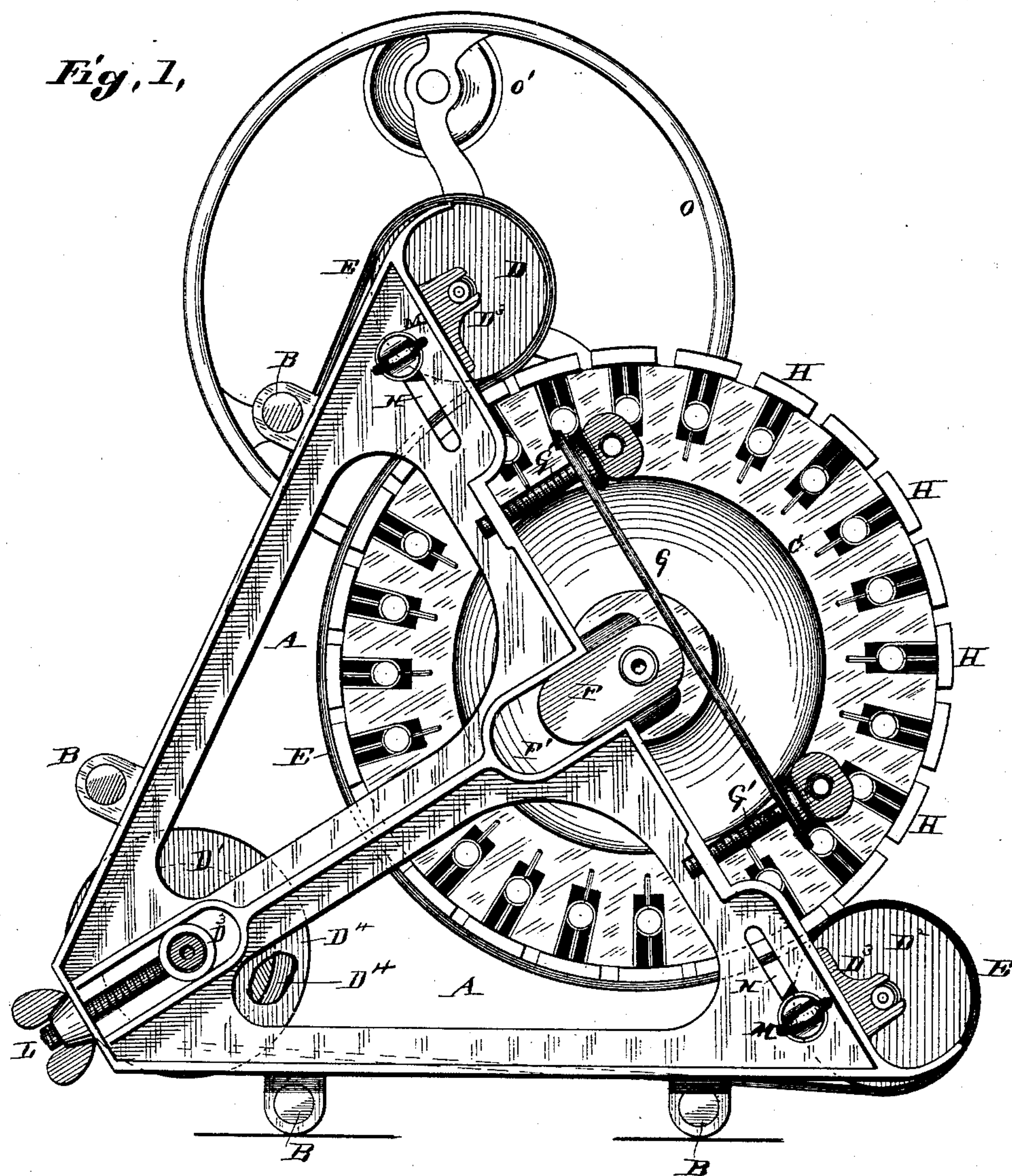
3 Sheets—Sheet 1.

G. D. ELGES.

CIGAR MOLDING MACHINE.

No. 375,616.

Patented Dec. 27, 1887.



Witnesses
H. E. Knight
Edmond Ster.

Inventor
G. D. Elges
By his Attorneys
Knight Bros

(No Model.)

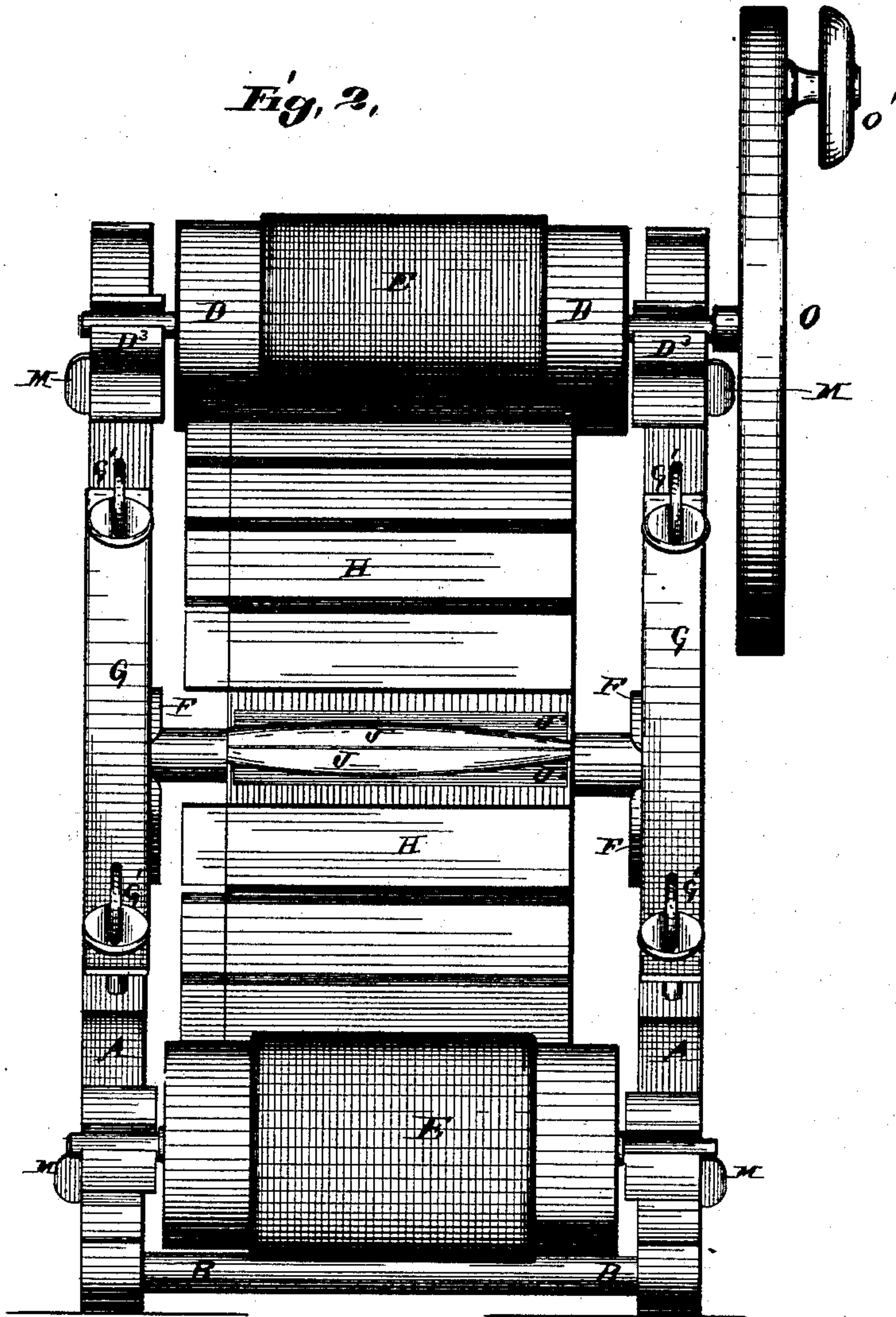
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Fig. 2.



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Fig. 3.

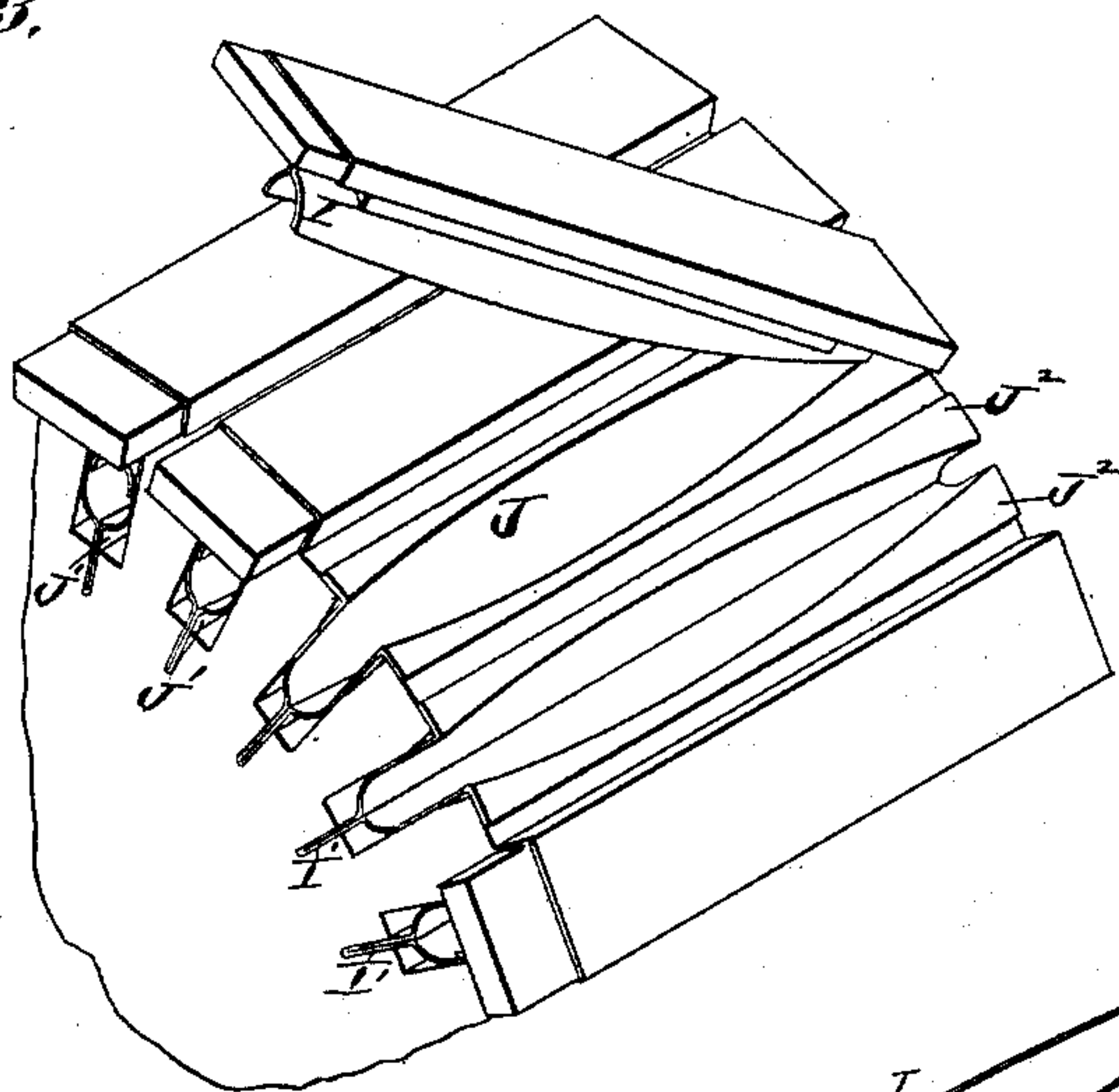


Fig. 4.

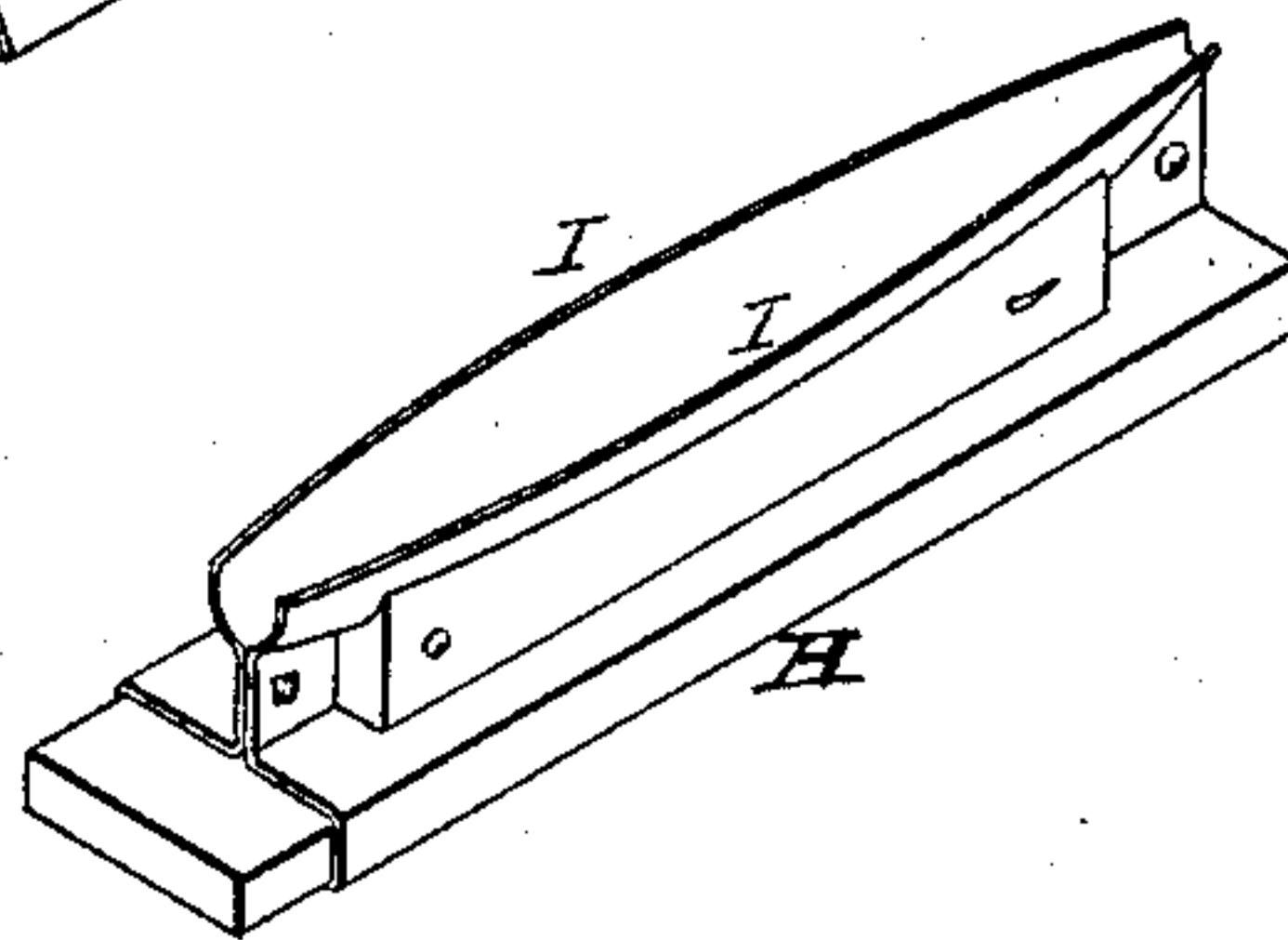


Fig. 5.

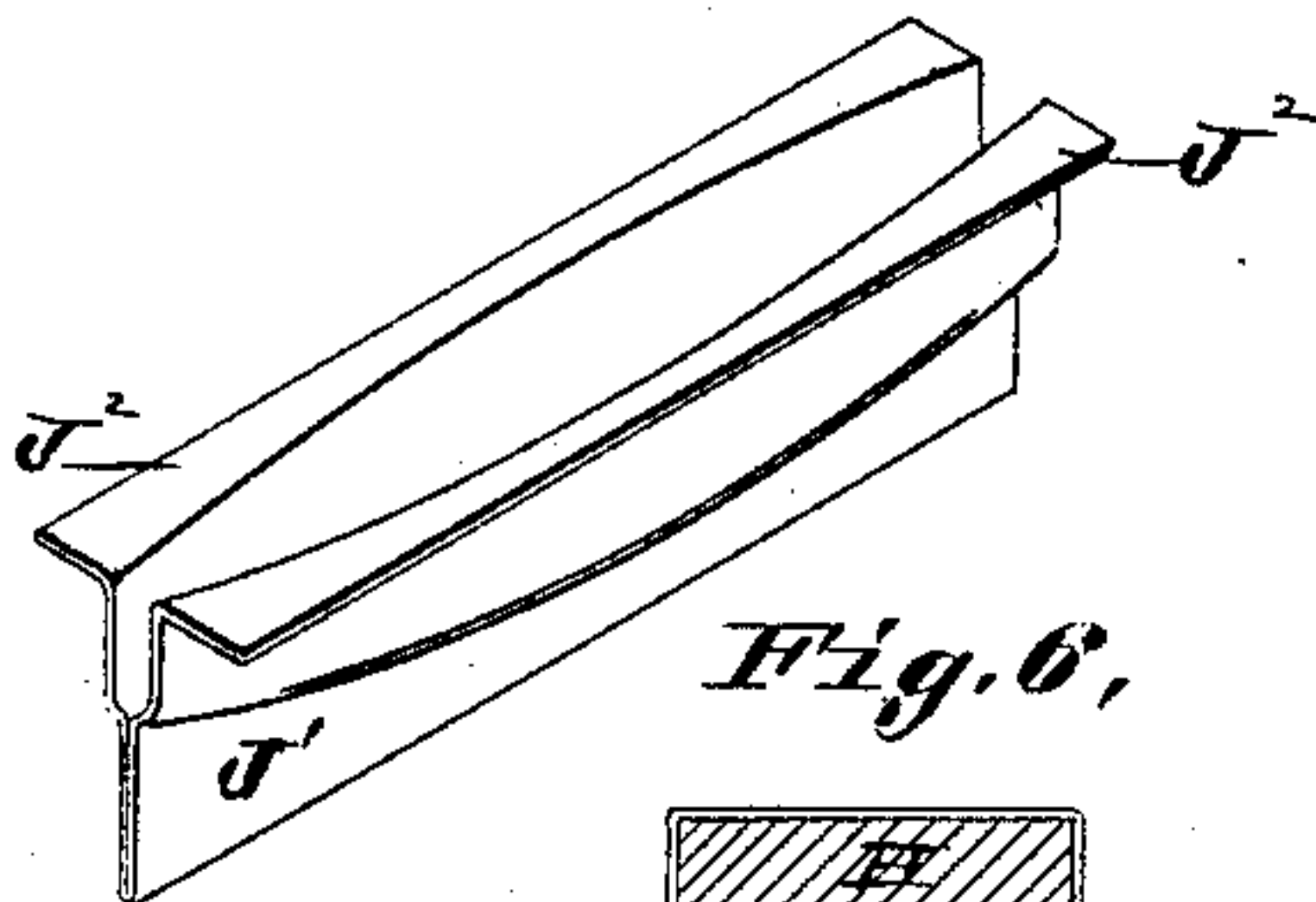


Fig. 6.

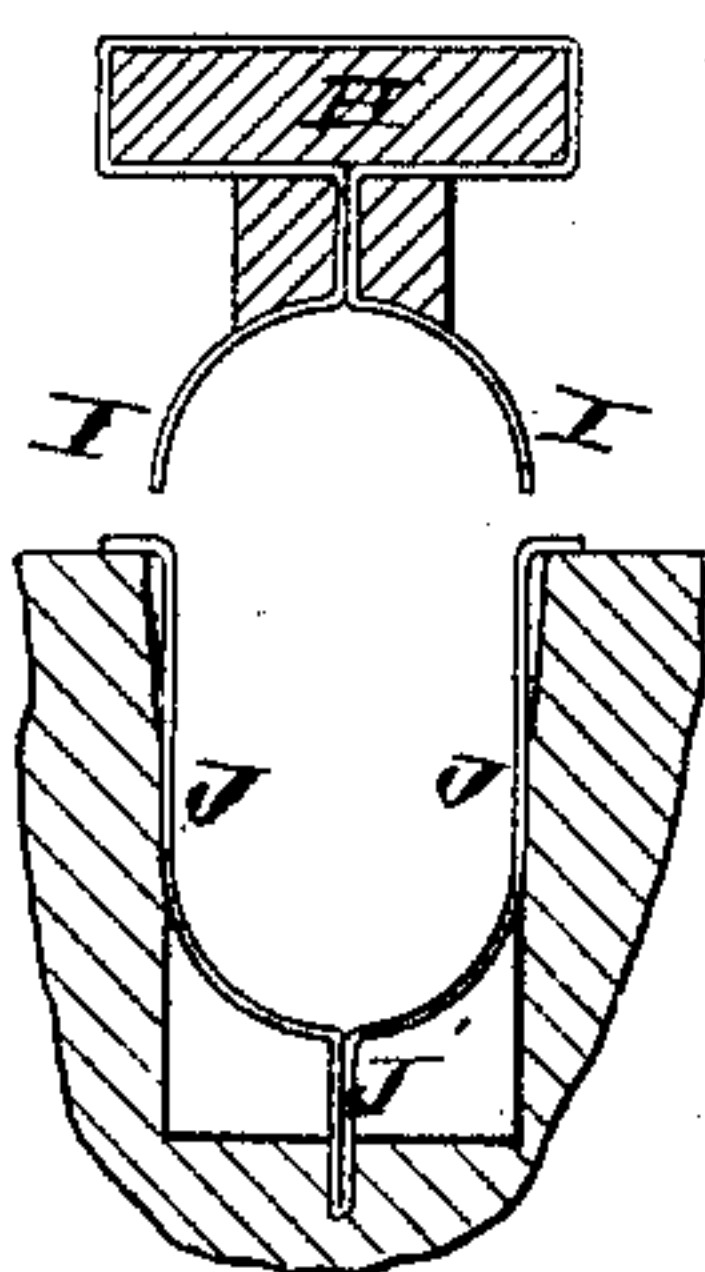
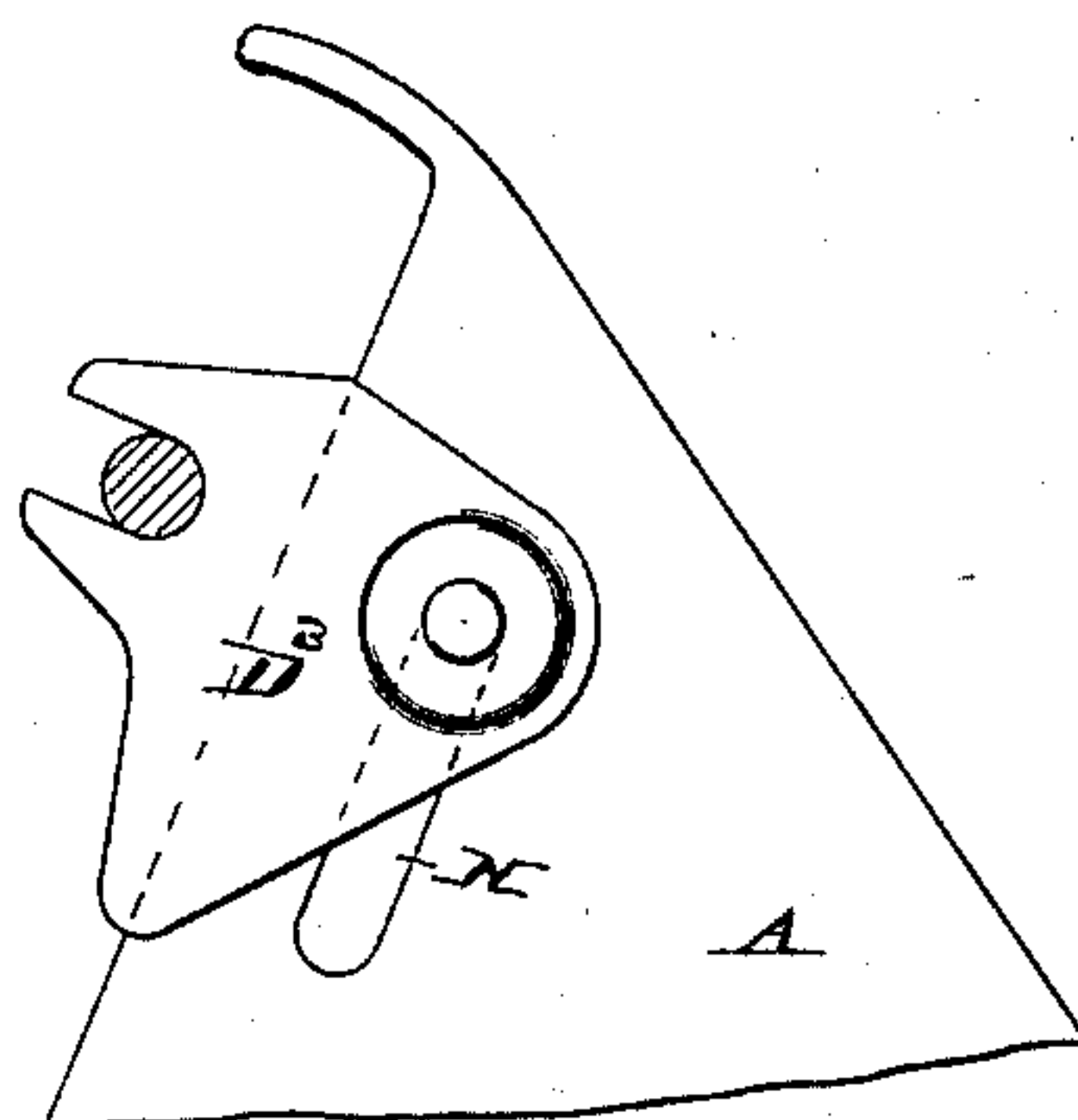
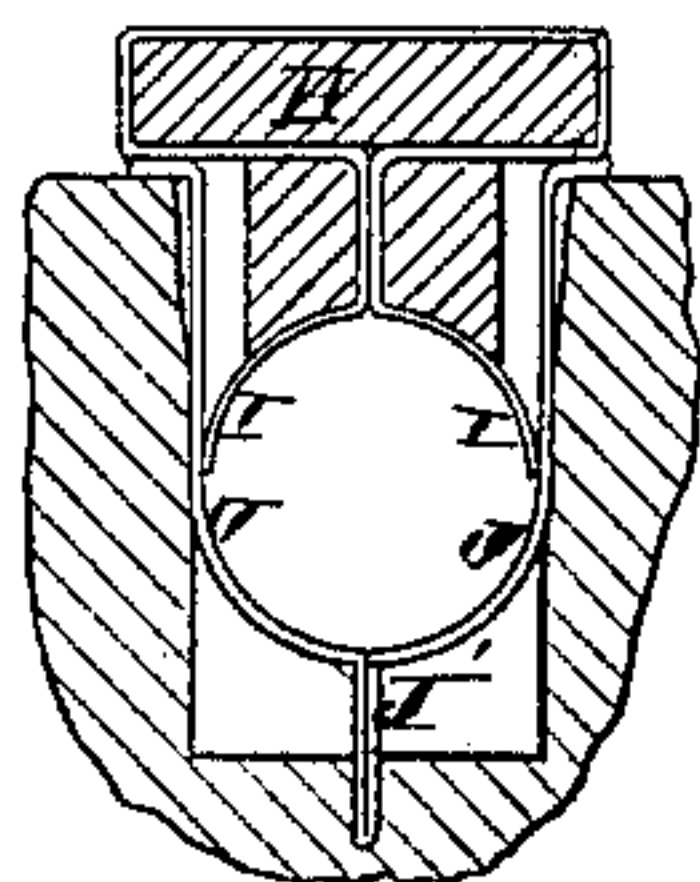


Fig. 7.



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UNITED STATES PATENT OFFICE.

GOTTLIEB D. ELGES, OF CLINTON, MISSOURI.

CIGAR-MOLDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 375,616, dated December 27, 1887.

Application filed August 30, 1886. Serial No. 212,227. (No model.)

To all whom it may concern:

Be it known that I, GOTTLIEB D. ELGES, a citizen of the United States, residing at Clinton, in the county of Henry and State of Missouri, have invented a certain new and useful Improvement in Cigar-Molding Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a side elevation of my improved machine. Fig. 2 is a front elevation with one of the upper cups of the molds removed. Fig. 3 is a detail perspective view of a portion of the drum, showing one of the upper cups removed and another partly removed. Fig. 4 is a perspective view of the lower cup of one of the molds. Fig. 5 is a section through one of the molds, showing the cup in place. Fig. 6 is a similar view with the cup removed. Fig. 7 is a detail end view of part of the frame and the upper roller.

This invention relates to certain improvements upon Letters Patent granted to me October 17, 1882, No. 266,024.

This invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, A represents the frame of the machine, consisting, preferably, of two triangular side pieces connected by rods B.

C represents the drum provided with a number of molds or matrices, D.

D' D² are rollers journaled in boxes D³, secured to the frame A, and E an endless belt that passes around these rollers and around one side of the drum, as shown in the drawings, and as fully described in the patent referred to. The drum is journaled in boxes F, fitting in openings F' of the frame A, and held against the pressure of the belt by plates G and set-screws G', these parts being also shown and described in my former patent, and therefore need no further description here. The drum, *per se*, is substantially the same as shown in my former patent, and the parts of the molds formed therein are substantially the same as in an application filed herewith, No. 212,226, wherein they are particularly described. The upper cups of the molds differ from my former patent in this respect, that the edges I are made

elastic, so that as they enter the molds the edges I will spring inward, forming a complete circle, as shown in Fig. 5, these flexible sides operating in conjunction with the endless belt to produce a new result—*i. e.*, a perfectly round cigar-filler. The upper cups are shown in said patent as formed directly in a suitable block or backing, while in the present case I have shown the block or backing passed through a loop formed on the back of the cup in the manner described in my contemporaneous application, already referred to. So far as many features of the present invention are concerned it is immaterial how they are formed.

I do not claim in this application, broadly, the flexible molds, as they are made the subject-matter of another application; but I claim them in this application when used in connection with a pressing-belt. The fillers are inserted and removed from the molds as shown and described in my patent mentioned.

The lower cups, J, of the molds in the drum are each formed with a lower fin or projection, J', extending into the drum, and outturned upper edges, J², to lap over the top of the drum, as shown in Figs. 4 and 5.

The roller D' in this application is made adjustable by means of thumb-screws L, for the purpose of tightening the belt, as shown in my former patent.

The rollers in my former patent, which correspond with the rollers D and D² of this application, were made stationary, and to perform a desirable result I make them in this application adjustable. The result I wish to accomplish by making them adjustable is this: When the drum C is moved inward, by turning the thumb-screws G' the outer periphery of the drum will move away from the rollers D and D², owing to the largest diameter of the drum being within or past the center of these rollers D D². Now, in order to adjust the rollers up to the drum after it has moved inward, as stated, I make them movable, and the reason for moving them up to the drum is that it has been found desirable that they should press against the drum, as shown in Fig. 1, so that they will keep the entire surface of the belt against the outer cups of the molds, and so that they themselves will force the cups inward. I have shown them adjustable by means of the boxes D³, sliding on the frame, upon which

they fit, and held to any adjustment by thumb-screws M, passing through slots N in the frame. The thumb-screws enter the boxes, and when the rollers are adjusted and they are tightened 5 they hold the rollers from backward movement away from the drum, as described. By thus making the drum C adjustable, and the rollers D D² also adjustable, more or less of the circumference of the drum may be brought in 10 contact with the pressing-belt to increase or diminish the number of molds being pressed at any one time, and consequently increase or diminish the amount of pressure the tobacco or fillers receive owing to any particular mold 15 remaining a longer or shorter time under pressure. With this arrangement the amount of pressure required at different times, according to the condition of the tobacco, is obtained. By making the rollers D D² adjustable and fixing 20 them to their adjustment the belt may always be kept against the drum at the front of the rollers, whether the drum be set in or out—a result which would not be accomplished were the rollers not capable of being thus adjusted 25 and fixed. As the drum is adjusted in or out, the belt is kept taut by the adjustable roller D'.

The roller D' has a flange, D⁴, on each end extending over the belt to keep it in its proper place and prevent it slipping off the roller. 30 (See Fig. 1.)

The roller D is provided with a hand-wheel, O, which may be grasped to turn the drum; and this hand-wheel may be provided with a hand-knob, O', if desired, which may be grasped 35 to turn the drum, if found more convenient than taking hold of the hand-wheel O.

Letters Patent No. 266,024, which were granted to me on the 17th of October, 1882, show rollers corresponding in position to the 40 rollers D D' D² in the present invention, but differing therefrom in construction in that the rollers shown in said patent are of ellip-

soidal shape, while those in the present invention are cylindrical. The ellipsoidal rollers are objectionable, for the reason that they 45 stretch the center of the belt to such an extent that it does not bear flat against the rollers. Furthermore, it will be observed that while passing over the conoidal rollers the tension is on the center of the belt, and that when 50 the belt reaches the cylindrical drum (the center of the belt being stretched) the tension will be on the outer edges. This tends to materially increase the length of the belt in a very short while. 55

I am aware that cigar-mold cups have been constructed with flexible sides, and do not claim such, broadly, as my invention.

I claim as my invention—

1. In combination with the mold-drum and 60 belt, the cylindrical rollers D D' D², the roller D' having flanges D⁴, substantially as and for the purpose set forth.

2. In a cigar-molding machine, the combination, with the frame A, the rotary drum C, 65 mounted therein and having means for adjustment, and the belt E, encircling a portion of the drum, of the pressure-rollers D D², adjustable toward and from the periphery of the drum, and the guide-roller D', the belt being 70 passed around the rollers D, D', and D², substantially as and for the purpose set forth.

3. In a cigar-molding machine, a rotary drum having the lower cups and the upper cups having flexible sides, in combination with 75 a roller for pressing said cups together, a presser-belt embracing a portion of the drum, and suitable guide-rollers over which said belt passes, substantially as set forth.

GOTTLIEB D. ELGES.

In presence of—

GEO. H. KNIGHT,
EMIL BERGER.