

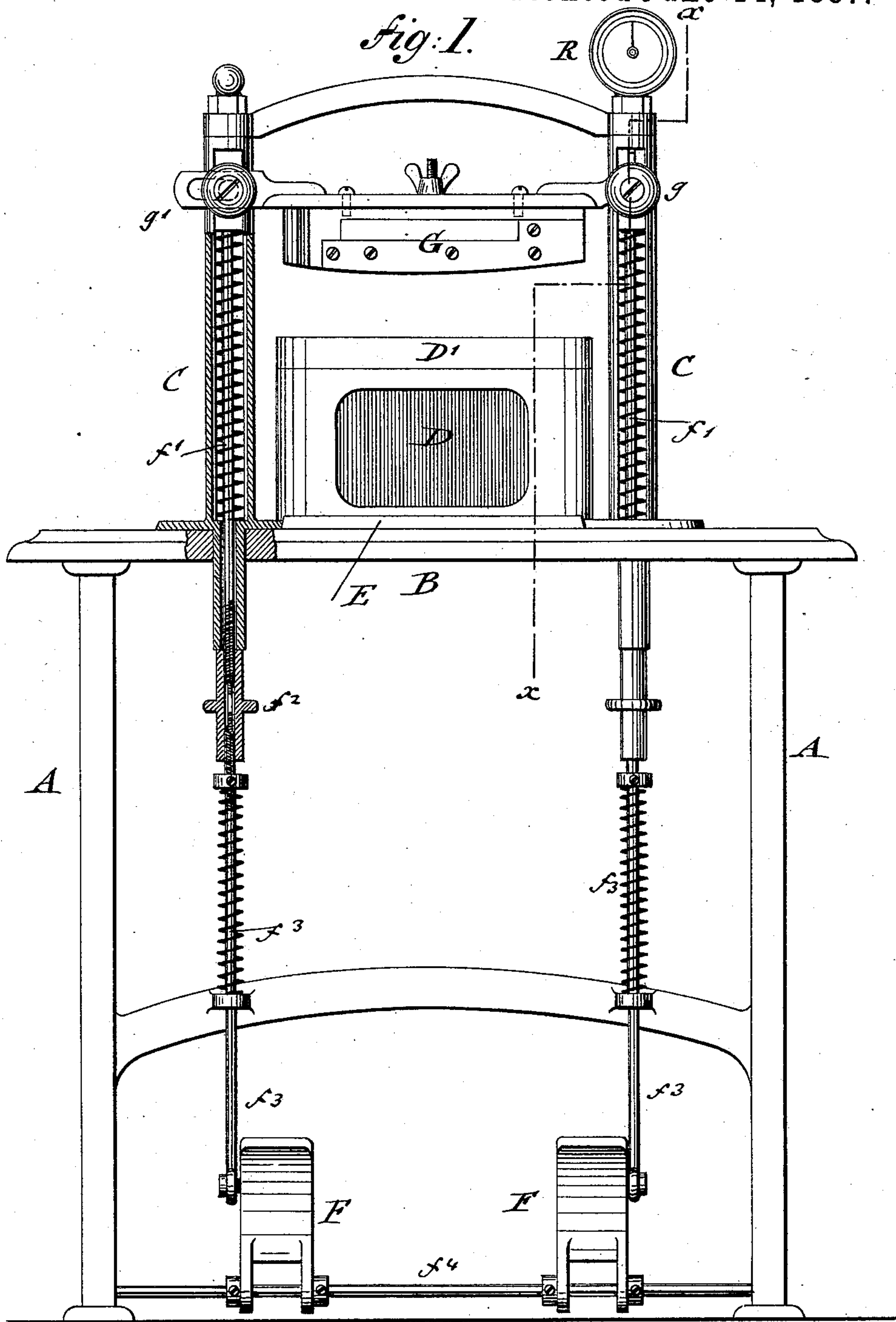
(No Model.)

4 Sheets—Sheet 1.

J. E. SCHMALZ.
MACHINE FOR CUTTING CIGAR WRAPPERS.

No. 364,774.

Patented June 14, 1887.



WITNESSES:

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Carl Kay

INVENTOR

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BY *James R. Rogers*
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(No Model.)

4 Sheets—Sheet 2.

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Fig. 2.

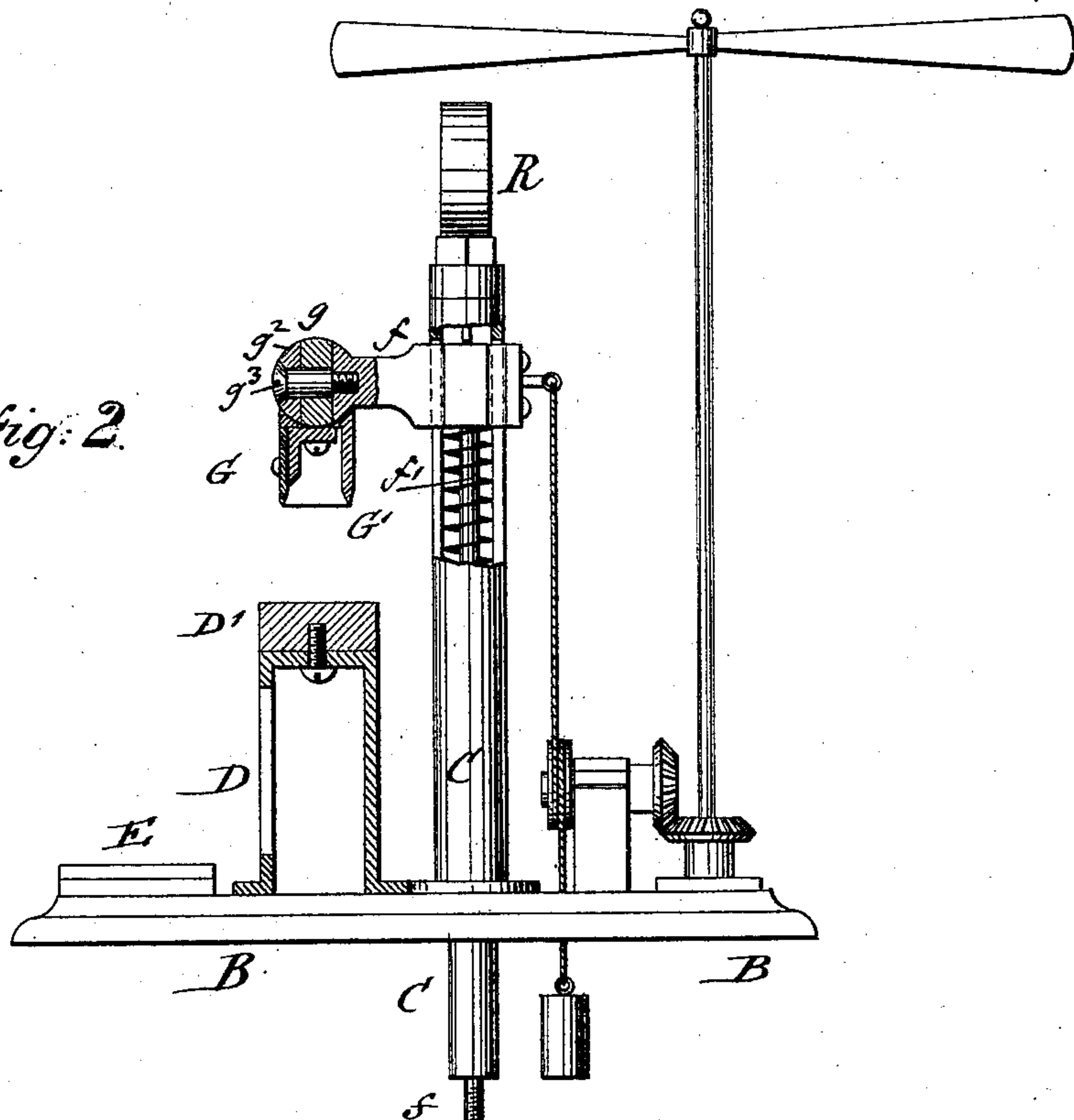
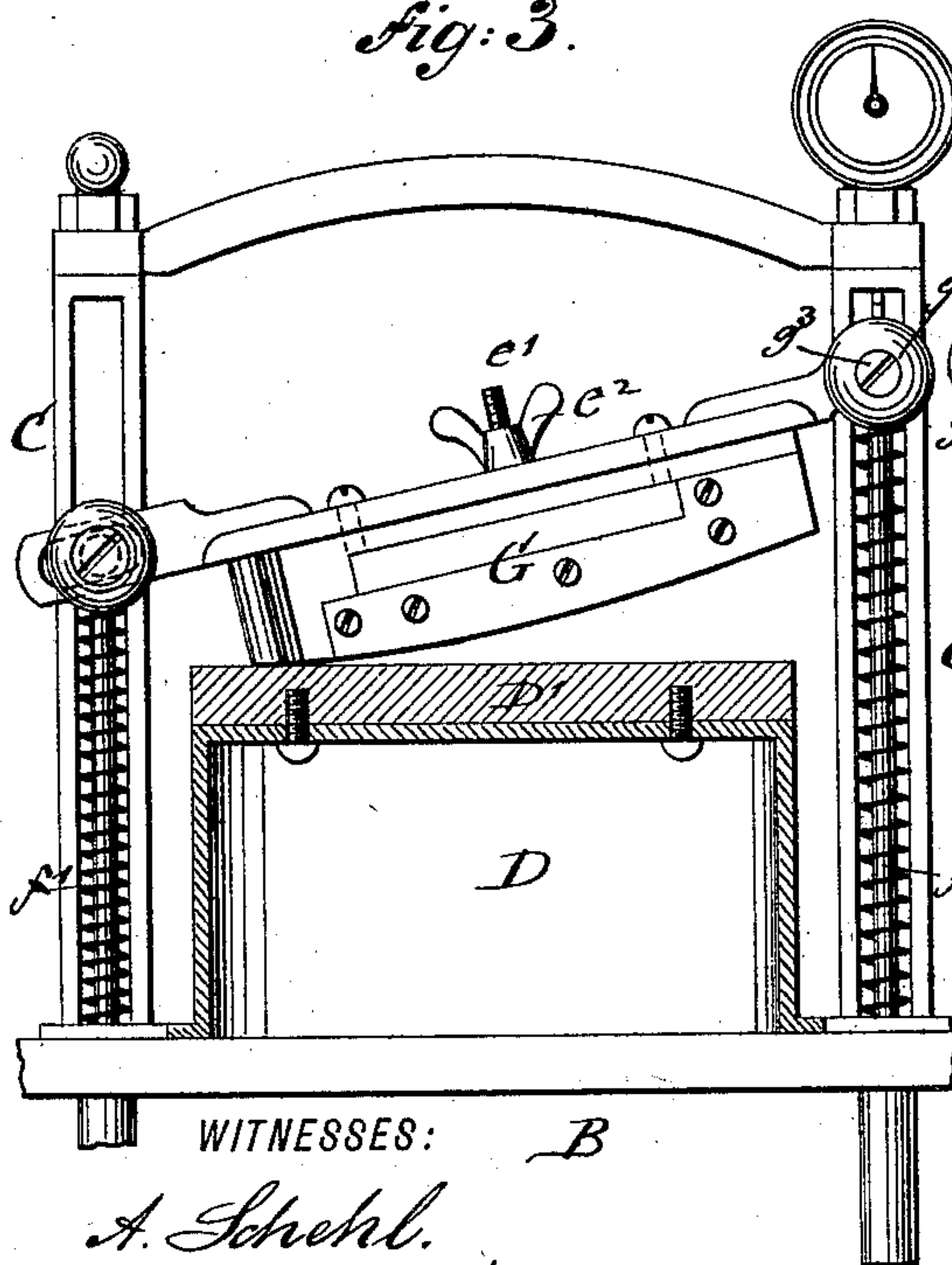
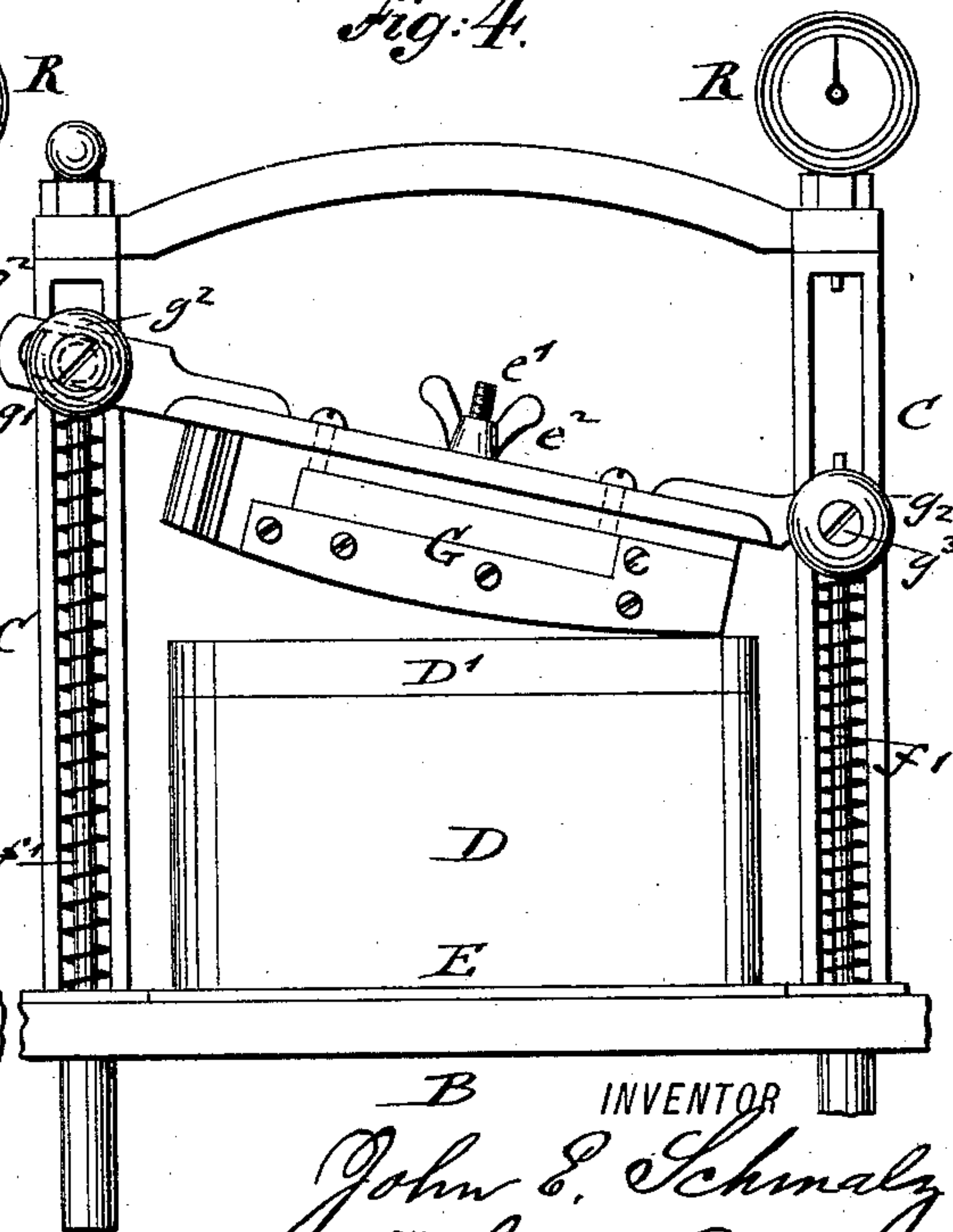


Fig. 3.



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Fig. 4.



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4 Sheets—Sheet 3.

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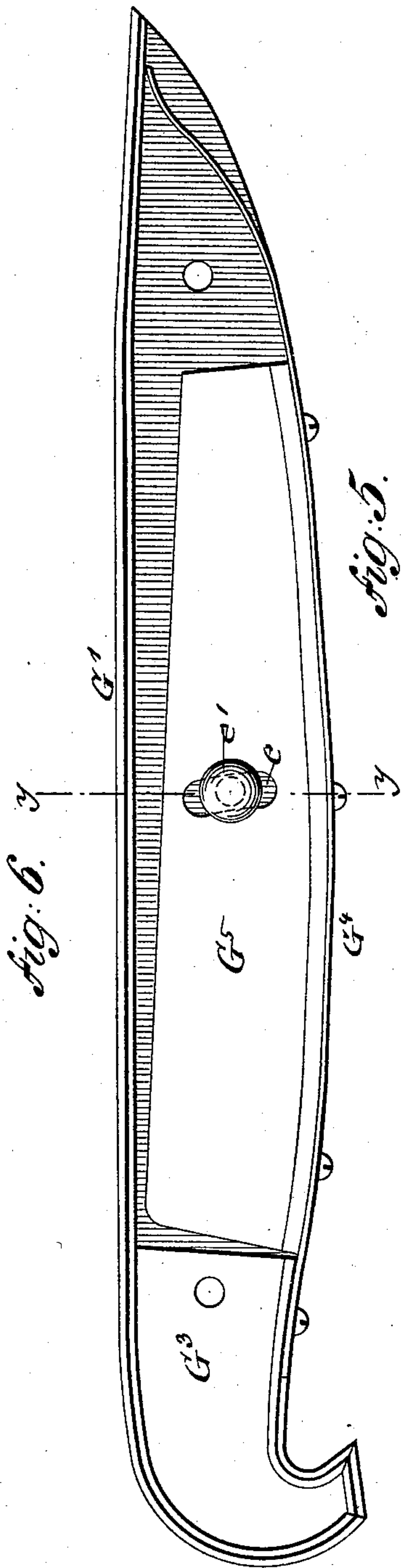


fig. 5.

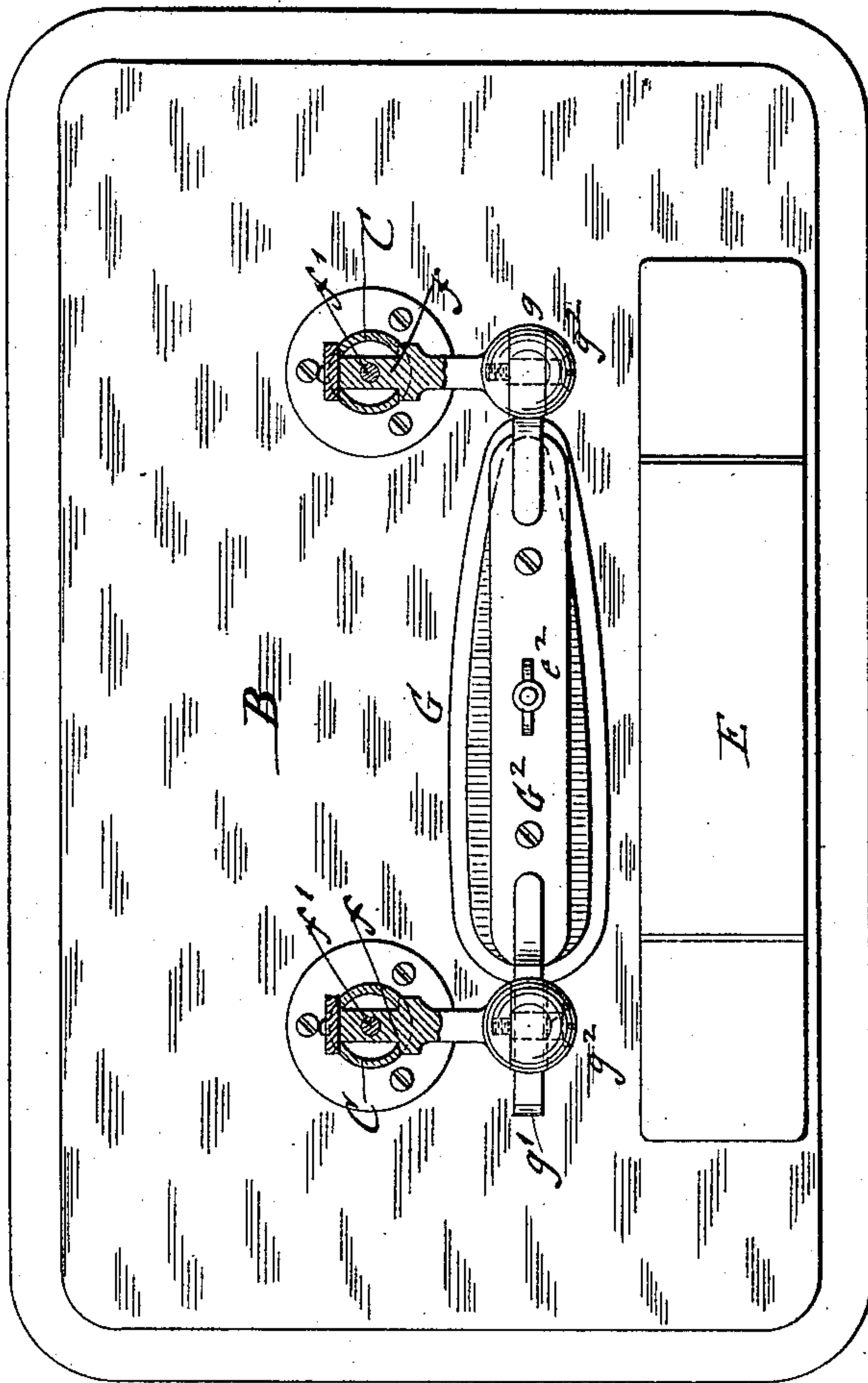


fig. 7.

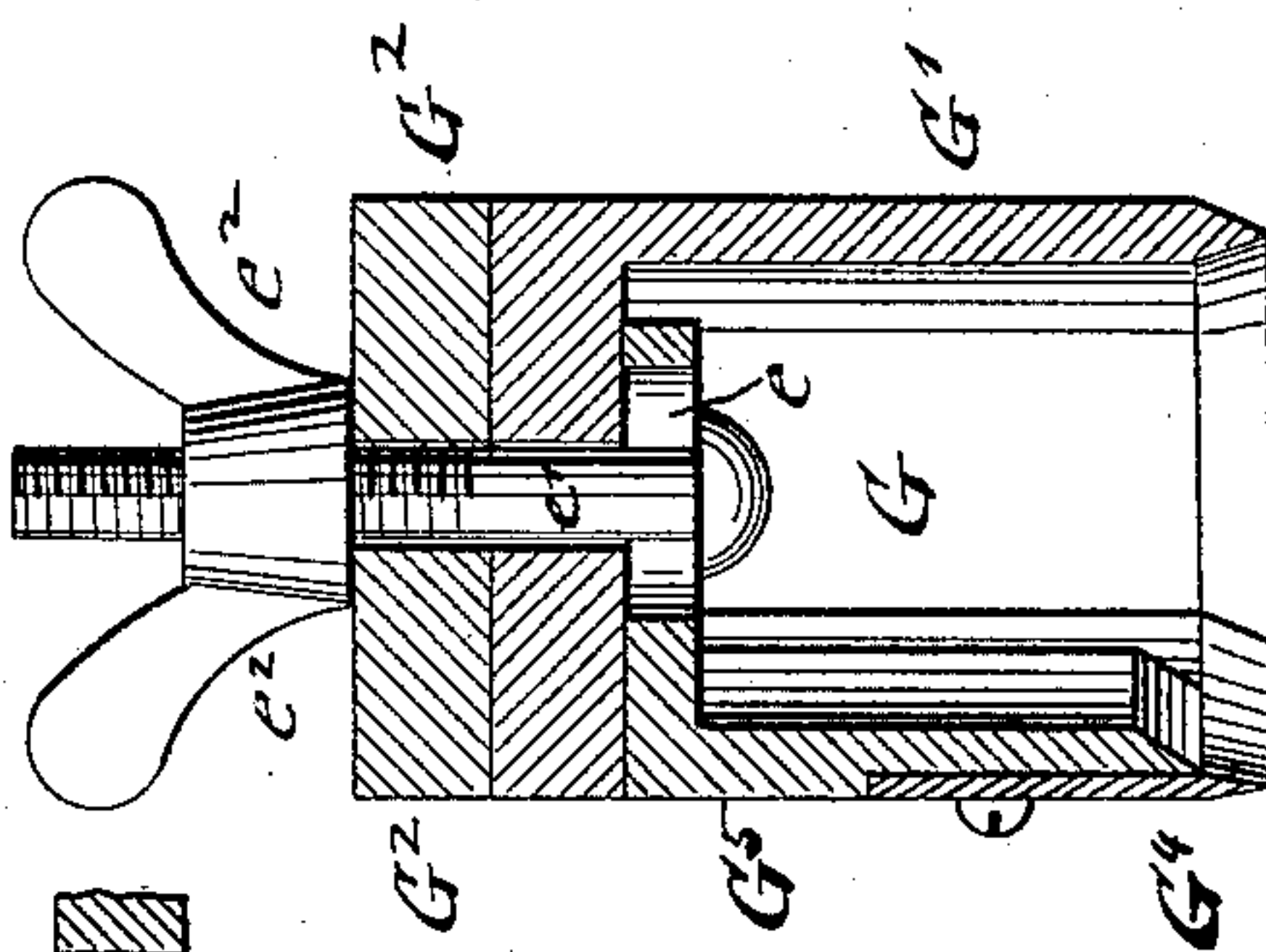
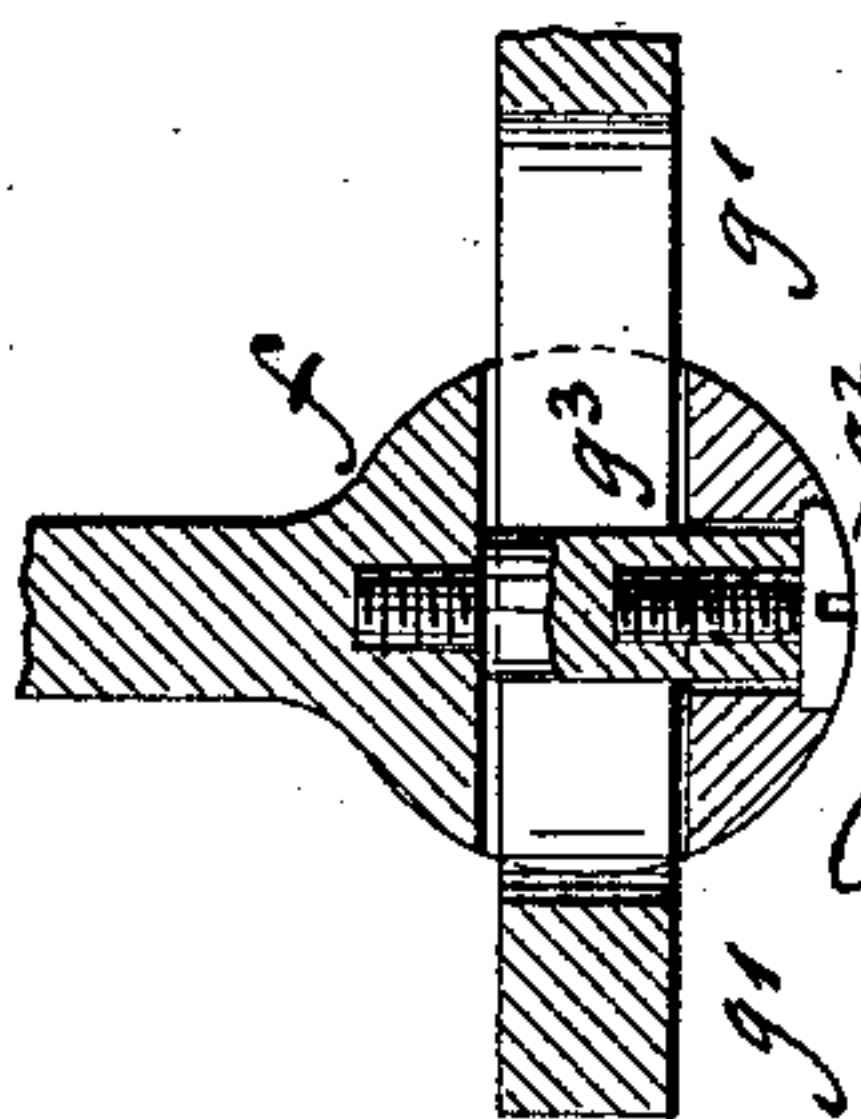


fig. 5^a.



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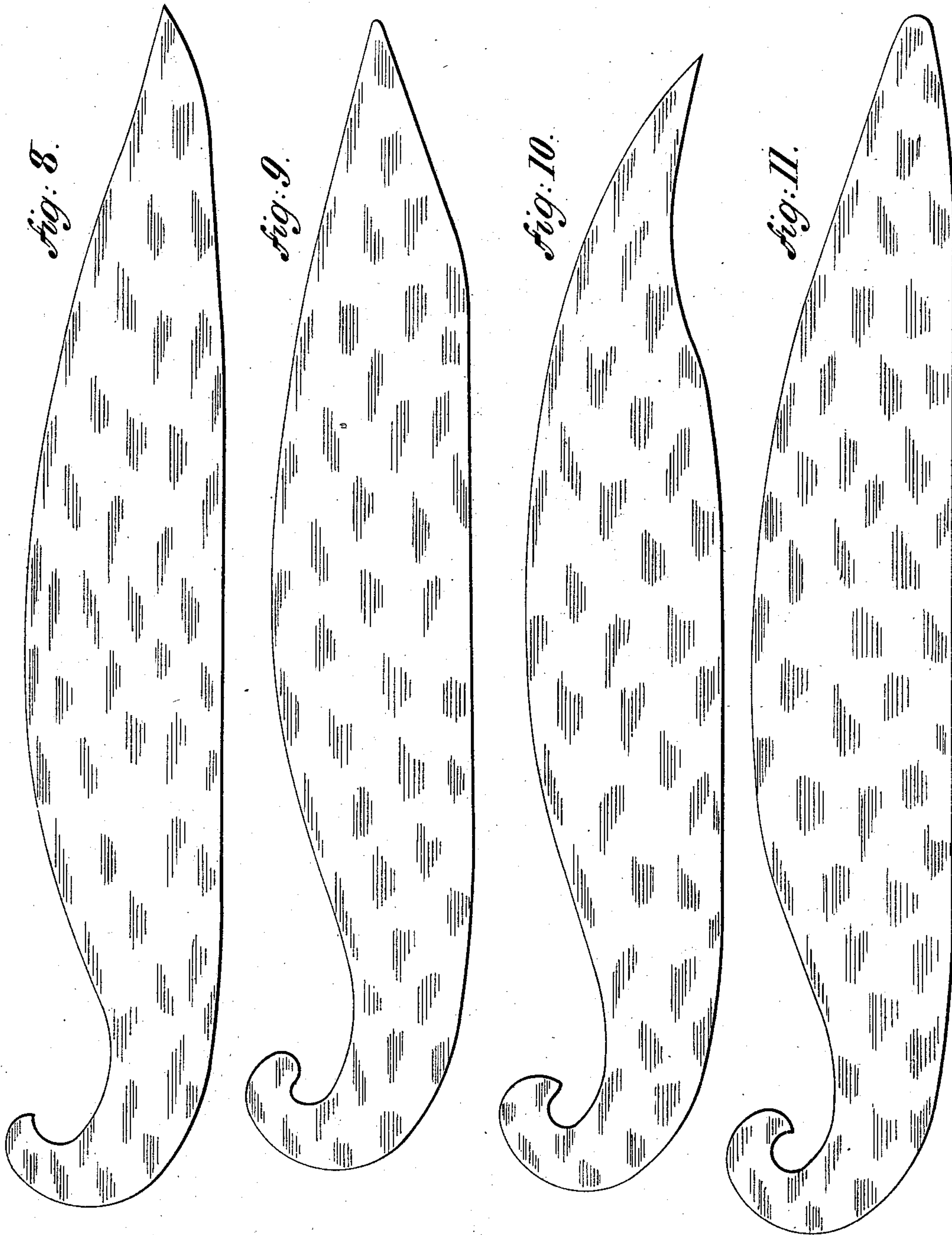
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4 Sheets—Sheet 4.

J. E. SCHMALZ.
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No. 364,774.

Patented June 14, 1887.



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MACHINE FOR CUTTING CIGAR-WRAPPERS.

SPECIFICATION forming part of Letters Patent No. 364,774, dated June 14, 1887.

Application filed February 8, 1887. Serial No. 526,898. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. SCHMALZ, of the city, county, and State of New York, have invented certain new and useful Improvements in Machines for Cutting Cigar-Wrappers, of which the following is a specification.

This invention relates to improvements in the cigar-wrapper-cutting machines for which Letters Patent were granted to me, No. 247,118, under date of September 13, 1881, the improvements being designed with a view to facilitate the cutting out of the different sizes and shapes of the wrappers, and especially for facilitating the cutting of the wrappers from fine and tender leaves, in which it is necessary to start the cutting of the wrapper at the tip end, in contradistinction from my former patent, in which the cutting action commenced at the butt-end and terminated at the tip end.

For this purpose the invention consists, first, in a machine for cutting cigar-wrappers in which the cutter or knife is pivoted at both ends to spring-actuated slide-rods guided in fixed and slotted standards, so that the cutter can be lowered either at its tip end or at the butt-end, as desired, the slide-rods being actuated by independent treadles and intermediate spring-actuated connecting-rods.

The invention consists, secondly, of an improved construction of the hollow cutter in which the curved front blade is capable of adjustment toward the straight and stationary rear blade, so as to produce wrappers of different sizes and shapes.

In the accompanying drawings, Figure 1 represents a sectional front elevation of my improved machine for cutting cigar-wrappers, showing the cutter in its normal position. Fig. 2 is a vertical transverse section of the same on line *x x*, Fig. 1. Figs. 3 and 4 are front elevations showing the cutter at both ends of its stroke. Fig. 5 is a plan of the machine, partly in horizontal section, through the guide-standards. Fig. 5^a is a detail section showing the pivot-connection of the cutter. Fig. 6 is a bottom view of the cutter, drawn on a larger scale; Fig. 7, a vertical transverse section of the same on line *y y*, Fig. 6; and Figs. 8, 9, 10, and 11 show different shapes of the wrappers which can be cut by my improved cutting-machine.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the supporting-stand, and B the table, of my improved cigar-wrapper-cutting machine. On the table B are supported two upright transversely braced and slotted standards, C C, and between the same a block, D, that is covered at the top with a zinc plate, D'. In front of the block D is arranged a plate, E, on which the wrapper is first spread preparatory to being transferred to the block D.

In the slotted standards C C are guided double T-shaped cross-heads *f*, which are attached to the upper ends of guide-rods *f'*, that extend downward through the standards C C, and are connected at their lower threaded ends by socket-nuts *f*², having interior right and left hand threads, and with the threaded upper ends of spring-actuated connecting-rods *f*³, which are guided in eyes of the supporting-frame A, and pivoted at their lower ends to treadles F F, said treadles being pivoted to a transverse bottom rod, *f*⁴, of the frame A, as shown clearly in Fig. 1.

Between the cross heads *f* of the slotted standards C C and the contracted bottom portions of the same that extend below the table B are interposed spiral springs that serve to support the cross-heads in their normally-raised position, and return them into this position whenever they have been lowered by depressing the treadles F. To forward-extend pivots of the cross-heads *f f* is applied the cutter G by means of a round eye, *g*, at one end and a slotted or elongated eye, *g'*, at the other end, which latter permits the setting of the cutter G in an inclined position toward the block D by a sliding motion imparted to the slotted eye *g'* on the pivot of its cross-head *f* whenever the cutter G is changed from its normal horizontal position (shown in Fig. 1) to an inclined position by the action of the treadles, as shown in Figs. 3 and 4. The eyes *g g'* of the cutter G are retained on the pivoted ends of the cross-heads *f f* by washers *g*² and screws *g*³, as shown in Figs. 1, 2, and 5^a. One of the cross-heads *f* is further connected with a registering device, R, and by a belt or cord having a weight at the lower end with a pulley on one end of a short transmitting-shaft,

the opposite end of which carries a bevel-wheel that meshes with a second bevel-gear on a vertical shaft, which carries at its upper end a fan, as shown in Fig. 2. The fan-shaft turns in bearings of the table and is rotated by the operation of the cutter, the fan serving to agitate the air and to keep off the flies.

The ventilating-fan is specially useful in the summer season and in warm climates, but forms, like the registering device, no part of the present invention.

The cutter G is made in the form of the cigar-wrapper to be cut from the leaf, and is made in the form of a hollow or open-bottomed shell or body, as shown clearly in Figs. 2 and 6. The block D is made of elongated shape and rounded off at the ends, so as to conform to the shape of the cutter and the wrapper to be cut thereon. After the leaf has been carefully spread and smoothed on the front plate, E, it is transferred to the face of the block D and carefully spread over the same, and held in position on the same for insuring the cutting out of a perfect wrapper. The lower or cutting edge of the cutter G is continuously curved or convex, and provided with a stationary rear blade, G', which is nearly straight, and secured by an angular portion to the top plate, G², of the cutter. The tip end, G³, of the cutter G is made hook-shaped, and also attached rigidly to the top plate of the cutter. The front blade, G⁴, is curved and attached to an adjustable angle-plate, G⁵, that is provided with a slot, e, at its middle portion, so as to be adjustable and held by a headed screw-bolt, e', and thumb-nut e² to the top plate, G², of the cutter, as shown clearly in Figs. 6 and 7.

The front cutting-blade, G⁴, is extended beyond the angle-plate G⁵, over the tip-block and attached thereto, while its butt-end is also extended beyond the angle-plate G⁵ toward the stationary rear cutting-plate, with which it contacts at the end, so as to "give" sufficiently and follow the adjustment of the middle portion of the blade G⁴, as produced by the adjustable angle-plate D'. By the adjustment of the front blade, G⁴, toward the rear blade, G', different widths of cigar-wrappers can be cut by the same cutter as required. For different shapes of wrappers, as shown in Figs. 5 to 11, as required by the different styles of cigars, cutters of different shapes are used, which are constructed in the manner described, each cutter being capable of cutting wrappers of different widths.

The operation of the machine is about the same as that of the machine described in my prior patent referred to, but with this difference: that the cutter in the present machine

can be lowered either end first at the tip or butt end, according as the cutting action is to commence at the tip or butt end of the wrapper. For cutting wrappers from fine and thin leaves the cutter is lowered first at the tip end by depressing first the left-hand treadle, as shown in Fig. 3, after which the right-hand treadle is depressed and the cutter lowered at the butt-end, as shown in Fig. 4, so as to complete the cutting of the wrapper at the middle portion and butt-end. Simultaneously therewith the left-hand treadle is released and the tip end returned to its normal position. The blades of the cutter produce a draw-cut that commences at the tip end and terminates at the butt-end of the wrapper, whereby a perfect wrapper is produced. When the cutting operation is completed, the right-hand treadle is released and the butt-end of the cutter returned into its normal raised position. The wrapper is then removed from the block D and the machine is ready for the next cutting action.

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

1. The combination of upright slotted standards, spring actuated cross-heads guided in said standards, a cutter or knife having a continuously curved or convex cutting-edge conforming to the shape of the wrapper to be produced, said cutter having a round eye at one end and a slotted eye at the opposite end by which the cutter is pivoted to said cross-heads, a treadle mechanism connected to each cross-head for depressing either end of the cutter, and a block arranged below said cutter, substantially as set forth.

2. In a cigar-wrapping machine, an open-bottomed cutter having a stationary rear blade, a stationary hook-shaped tip end, an adjustable front blade attached at one end to the stationary tip end, and means for adjusting said front blade relatively to the stationary rear blade, substantially as set forth.

3. In a cigar-wrapper-cutting machine, an open-bottomed shell-shaped cutter having a stationary rear blade, a hook-shaped tip end, a front blade attached at one end to the stationary tip end and at its middle or belly portion to an adjustable angle-plate beyond which the butt-end of the blade extends, and means for adjusting said angle-plate on the top plate of the cutter, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOHN E. SCHMALZ.

Witnesses:

PAUL GOEPEL,
SIDNEY MANN.