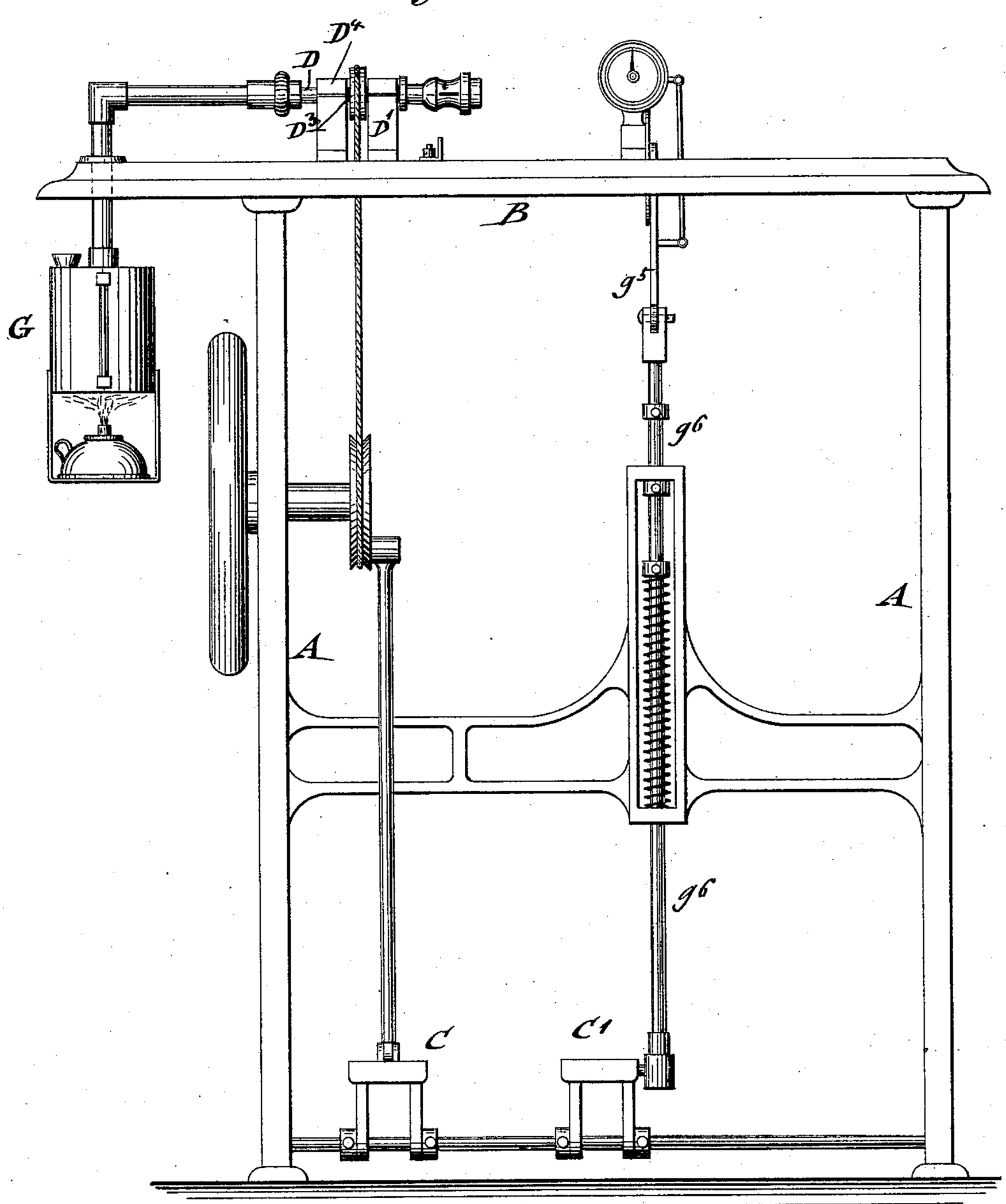
(No Model.) 3 Sheets—Sheet 1.

J. E. SCHMALZ.

MACHINE FOR FINISHING AND TRIMMING CIGARS.

No. 364,775. Patented June 14, 1887.

Fig: 1.



WITNESSES:

A. Schehl.

Martin Petry.

INVENTOR

John E. Schmalz

BY Goepel & Raegener

ATTORNEYS.

(No Model.) 3 Sheets—Sheet 2.

J. E. SCHMALZ.

MACHINE FOR FINISHING AND TRIMMING CIGARS.

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Fig: 2.

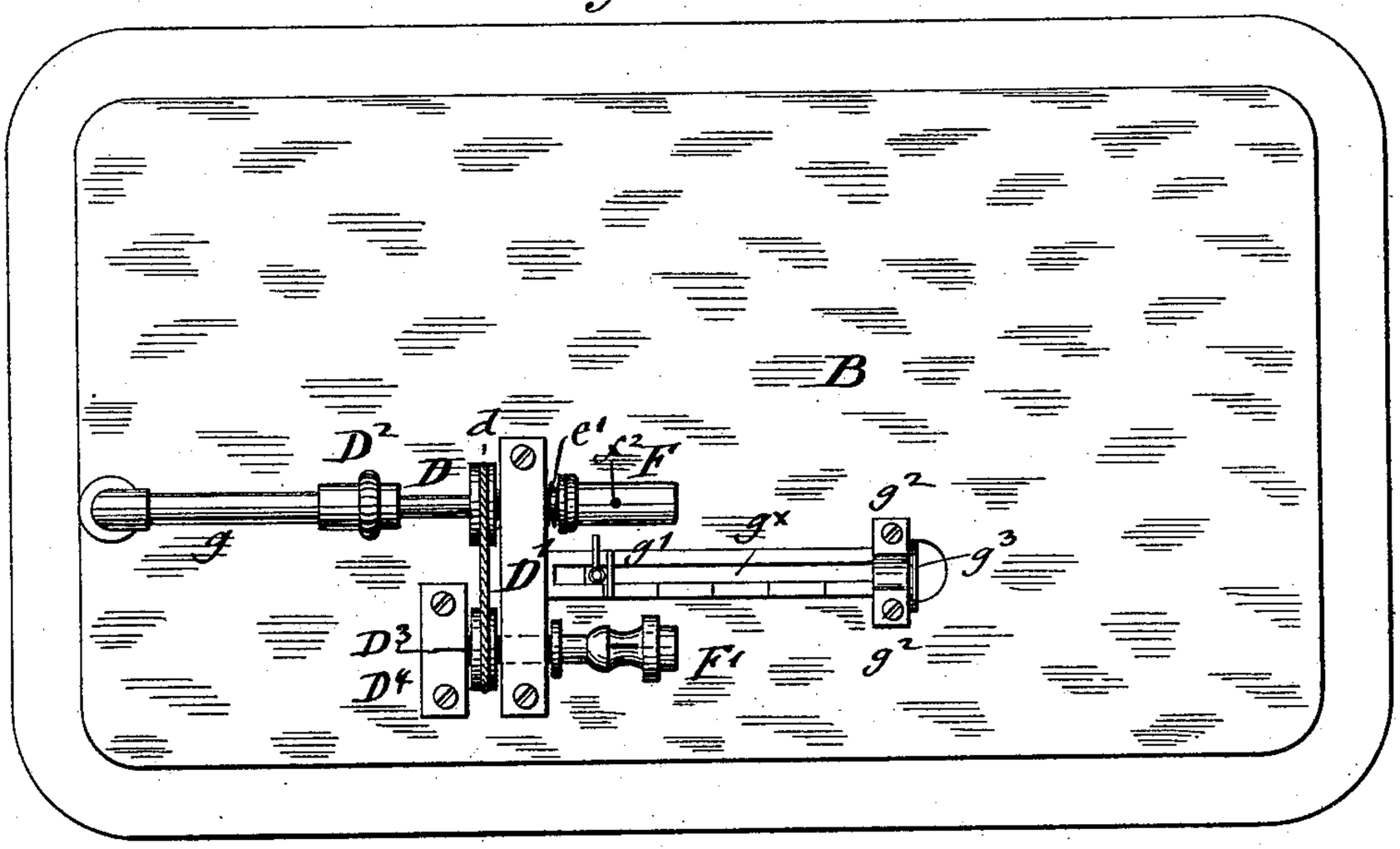


Fig: 3.

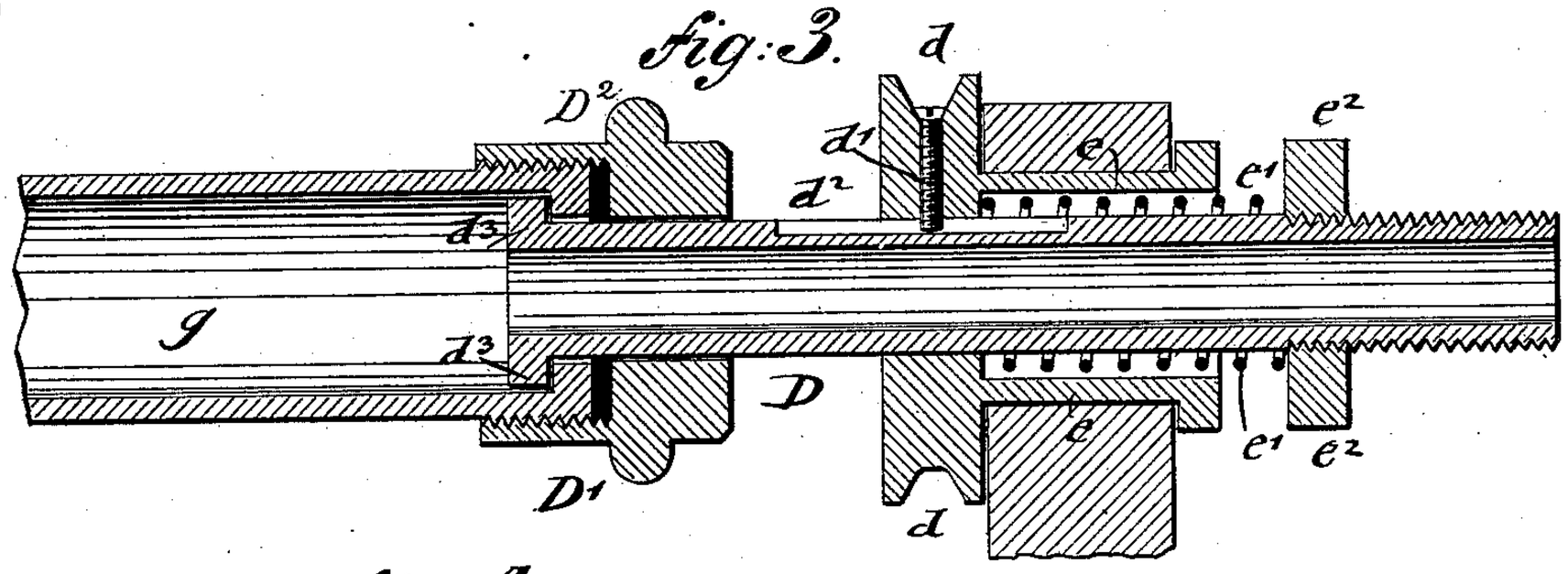
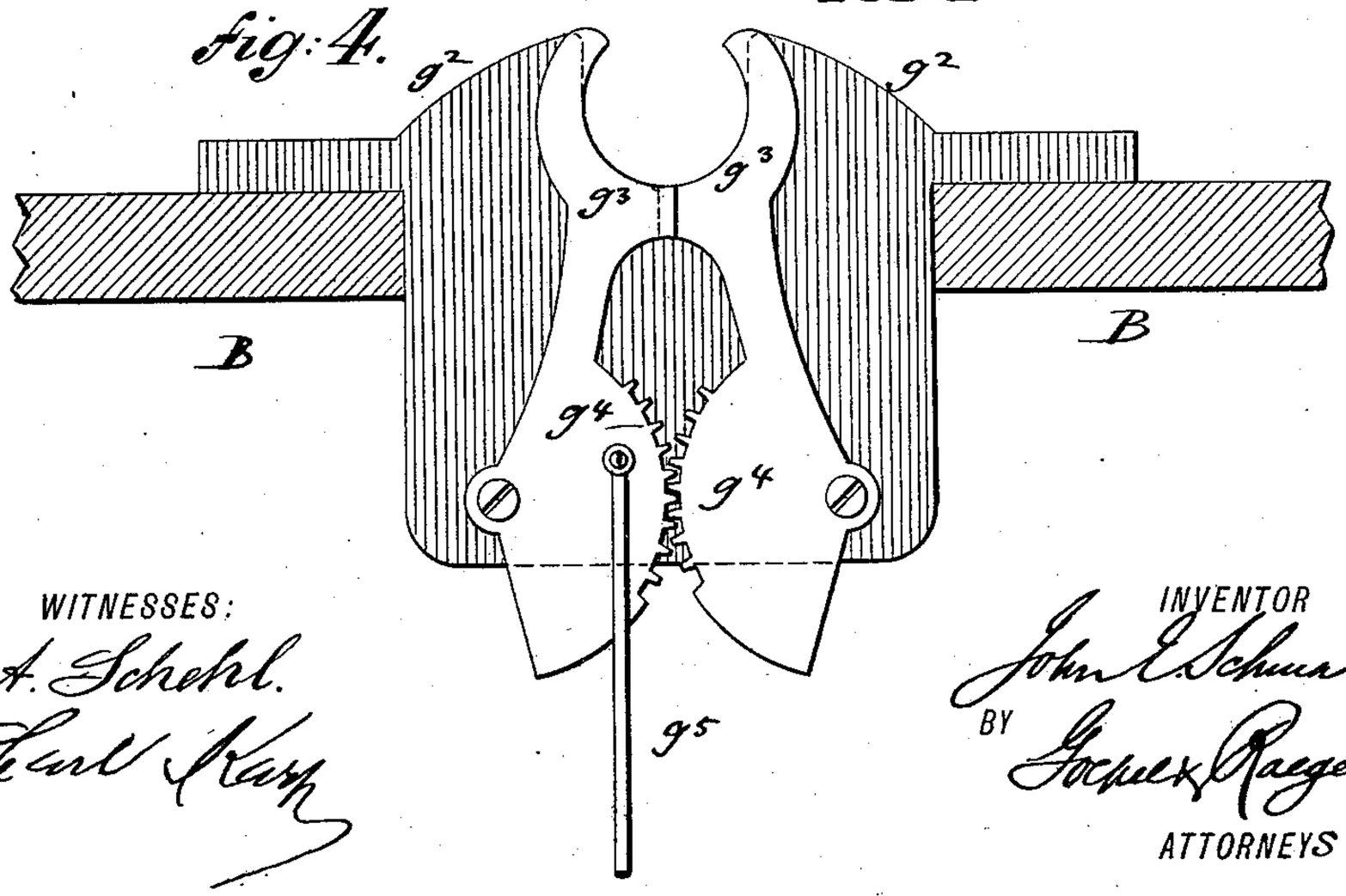


fig: 4.



WITNESSES:

A. Schehl.

Carl Klein

INVENTOR

John E. Schmalz

BY Goepel & Raegener

ATTORNEYS.

(No Model.)

3 Sheets—Sheet 3.

J. E. SCHMALZ.

MACHINE FOR FINISHING AND TRIMMING CIGARS.

No. 364,775. Patented June 14, 1887.

Fig: 5.

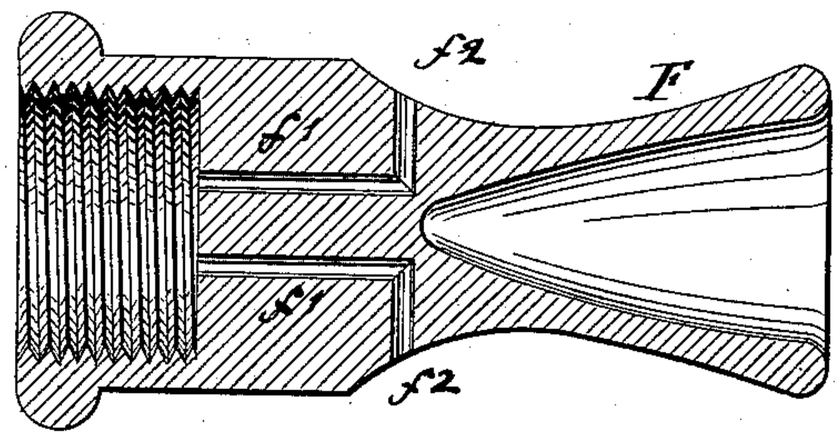


Fig: 6.

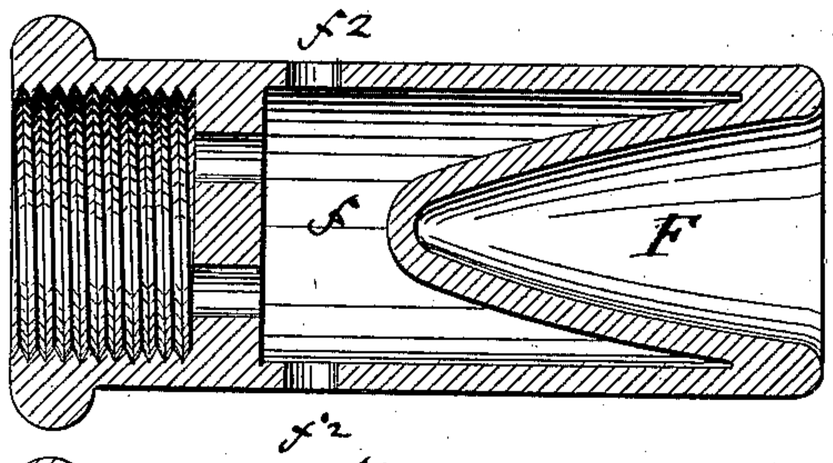


Fig: 7.

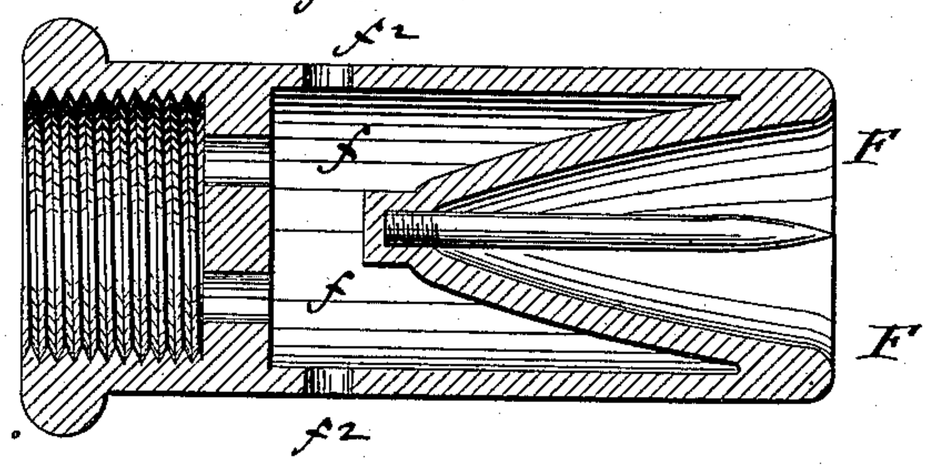


Fig: 8.

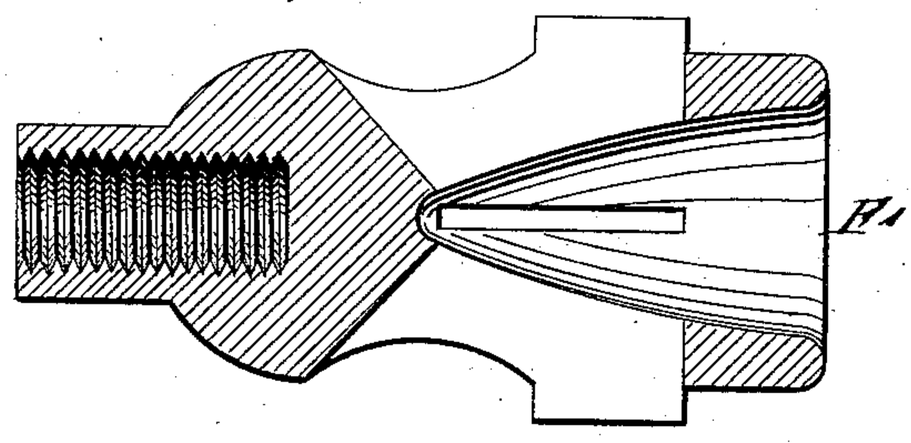
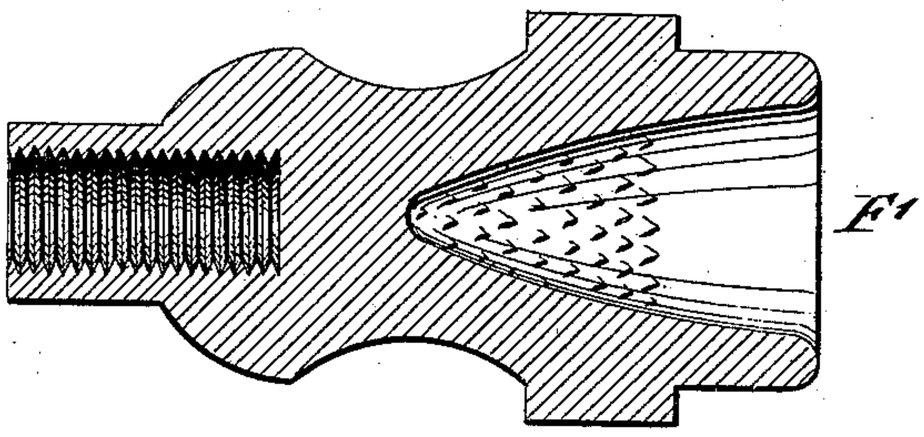


Fig: 9.



WITNESSES:

A. Schehl.

Martin Petry.

INVENTOR

John E. Schmalz

BY Goepel & Raegener

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN E. SCHMALZ, OF NEW YORK, N. Y.

MACHINE FOR FINISHING AND TRIMMING CIGARS.

SPECIFICATION forming part of Letters Patent No. 364,775, dated June 14, 1887.

Application filed February 8, 1887. Serial No. 226,899. (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 Finishing and Trimming Cigars, of which the following is a specification.

This invention relates to an improved machine for finishing and trimming cigars after the wrapper has been placed on the bunches, by smoothing and polishing the tip and trimming the butt to proper length and the invention consists of a machine for finishing and trimming cigars, which comprises a hollow longitudinally-reciprocating and spring-cushioned mandrel, a thimble attached to one end of said mandrel, means for rotating said mandrel, a stationary pipe connected with the opposite end of the mandrel, and a generator of heat connected to said pipe, said thimble being provided with a cavity for the steam or other heating medium, and with openings for the outlet of the same, as will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Fig. 1 represents a side elevation of my improved machine for finishing and trimming cigars. Fig. 2, a plan of the same; Fig. 3, a vertical longitudinal section, on a larger scale, of the hollow spring-cushioned mandrel that carries the tip-polishing thimble. Fig. 4 is a detail side elevation of the butt-trimming knives. Figs. 5, 6, and 7 are vertical longitudinal sections of different forms of polishing-thimbles used in my machine; and Figs. 8 and 9 are vertical longitudinal sections of the smoothing-thimbles by which the tip end of the bunch is smoothed before applying the wrapper.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the supporting-frame of my improved machine for finishing and trimming cigars, and B the table of the same. At the lower end of the supporting-frame are arranged two treadles, C C′, the treadle C serving to impart, by an intermediate pitman, rotary motion to a crank-shaft having a fly-wheel, and from the same by a belt and pulley transmit rotary motion to a hollow mandrel, D, which is supported in bearings of a raised block, D′, supported on the table B. The motion-transmitting pulley *d* is applied in such a manner to the hollow mandrel D that the latter rotates with the pulley, but is permitted to slide by a longitudinal groove, d^2, along an inwardly-projecting pin, *d′*, of the pulley *d*, as shown in Fig. 3. A sleeve, *e*, of somewhat larger diameter than the hollow mandrel D, extends from one side of the pulley *d*, and serves as a housing for a spiral spring, *e′*, that is interposed between said sleeve and a collar, e^2, at the outer threaded end of the mandrel D. To the threaded end of the mandrel is attached the interiorly-threaded rear end of the shank of a thimble, F, the interior front end of which corresponds to the shape of the tip of the cigars to be finished. The thimble F is provided either with a cavity, *f*, as shown in Figs. 6 and 7, or simply with channels *f′*, as shown in Fig. 5, by which the thimble communicates with the hollow mandrel, so that steam or other heating medium can be supplied from a small generator or steam-boiler, G, that is supported below the table A, to the cavity or holes of the thimble. For this purpose the opposite end of the mandrel D is provided with a collar, d^3, and connected by a stuffing-box, D^2, with a steam-pipe, *g*, which passes through the table B to the generator G, that may be heated by an alcohol-lamp or otherwise. The steam heats the thimble so that the inner surface of the same exerts a polishing action on the tip of the cigar when the same is inserted into the thimble, whereby a finished appearance is imparted to the cigar. If it be desired to arrange in the tip end of a cigar a longitudinal draft-hole, a thimble provided with a perforating-pin, as shown in Fig. 7, is used. The steam supplied to the thimble escapes through lateral openings f^2 of the thimble-surrounding cavity to the atmosphere.

To the hollow mandrel D may also be applied, in place of the polishing-thimbles, one of the smoothing-thimbles F′, as shown in Figs. 8 and 9, which thimbles are provided with cutting or rasping devices and serve to smooth the tip end of the bunch before the wrapper is applied to the same, so as to remove projecting portions and impart a smoother and more regular form to the same. When the smoothing-thimbles are used the heating of the steam has to be interrupted.

In place of screwing the smoothing-thim-

bles F′ to the mandrel D, a separate shaft, D³, can be used for the same, which is supported in bearings of the supporting-block D′ of the mandrel D, and in an auxiliary block, D⁴, arranged to one side of the same, as shown in Fig. 2, said shaft receiving motion by a belt and pulley from the mandrel D, so that either a smoothing-thimble, F′, or a polishing-thimble, F, may be used, as required, without interrupting the generation of steam.

Near the polishing-thimble F is arranged on the table B a depressed groove, $g^{\times}$, an adjustable gage, g', at the end of said groove, a grooved block, g^2, and oscillating trimming-knives g^3, which latter are pivoted to a downwardly-extending flange of the block g^2, as shown in Fig. 4. The pivoted knives g^3 mesh with each other by toothed sections g^4. To one of the pivoted knives is applied a pivoted connecting-rod, g^5, which forms the connection with a vertically-guided and spring-actuated rod, g^6, operated by the second treadle, C′. By depressing this treadle the cutting-knives are operated so as to trim the butt-end of the cigar placed in the groove $g^{\times}$. Simultaneously with the cutting-knives a registering device, H, may be operated so as to count the number of cigars finished.

I do not make any claim to the cigar-trimming device, as such is well known, and it is simply arranged for the sake of convenience on the table of the polishing-machine.

The essential feature of this invention consists in the smoothing and polishing thimbles by which the shape of the tip end of the cigar is improved, as the wrapper is smoothly placed around the tip end of the bunch and the tip of the cigar polished, so that a more finished appearance is imparted to the cigars.

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

1. A machine for finishing tip ends of cigars, consisting of a hollow longitudinally-reciprocating and spring-cushioned mandrel, a thimble attached to one end of said mandrel, means for rotating said mandrel, a stationary pipe connected to the opposite end of the mandrel, and a steam-generator connected to said pipe, substantially as set forth.

2. The combination of a hollow longitudinally-reciprocating and spring-cushioned mandrel having a collar at the rear end, a thimble attached to the front end of the mandrel, means for rotating said mandrel, a stationary pipe having a collar and a stuffing-box for the rear end of the mandrel, and a steam-generator connected to the stationary pipe, substantially as set forth.

3. The combination of a hollow longitudinally-reciprocating and spring-cushioned mandrel, means for rotating said mandrel, a thimble applied to one end of said mandrel and provided with a cavity and outlet-openings for said cavity, a stationary pipe connected to the other end of said mandrel, and a steam-generator connected to said stationary pipe, substantially as set forth.

4. A polishing-thimble provided with a cavity for the steam or other heating medium, and openings for the outlet of the heating medium, 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.