

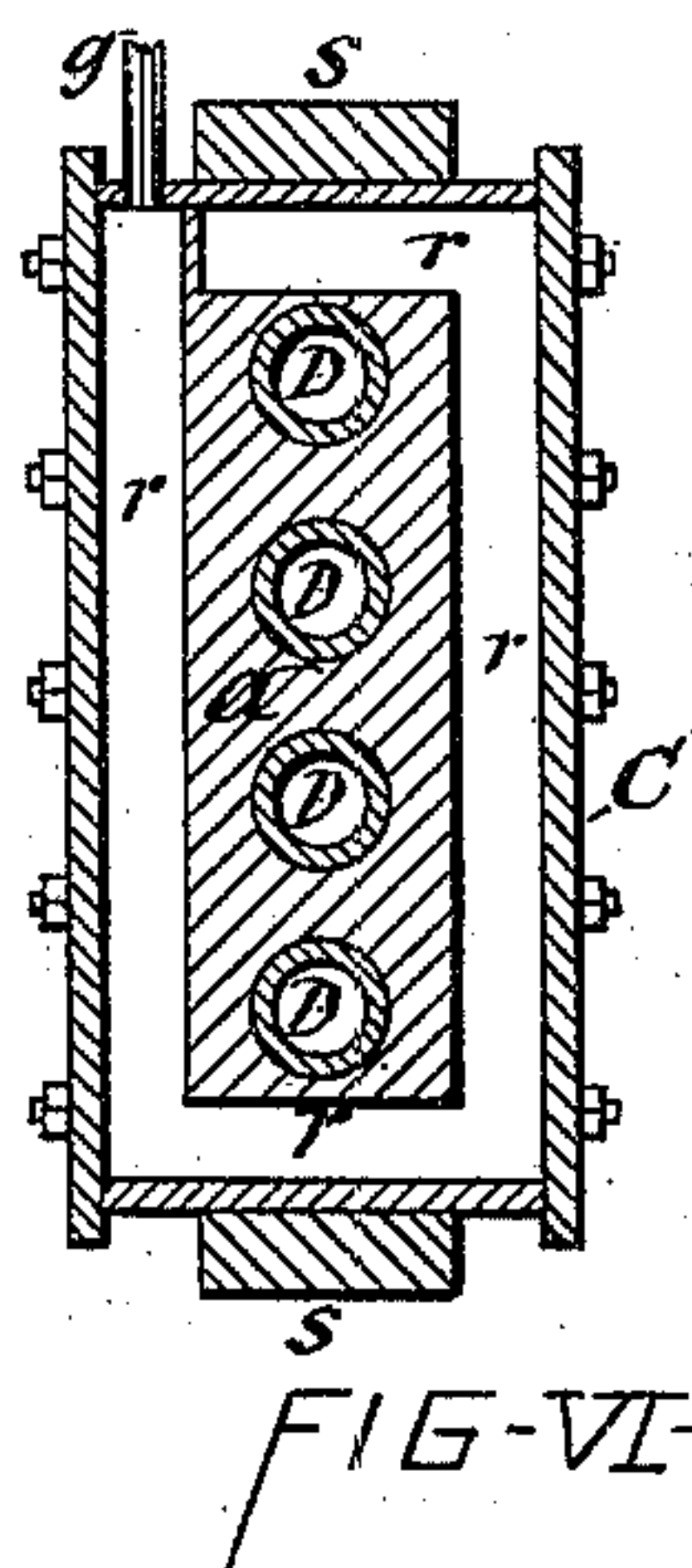
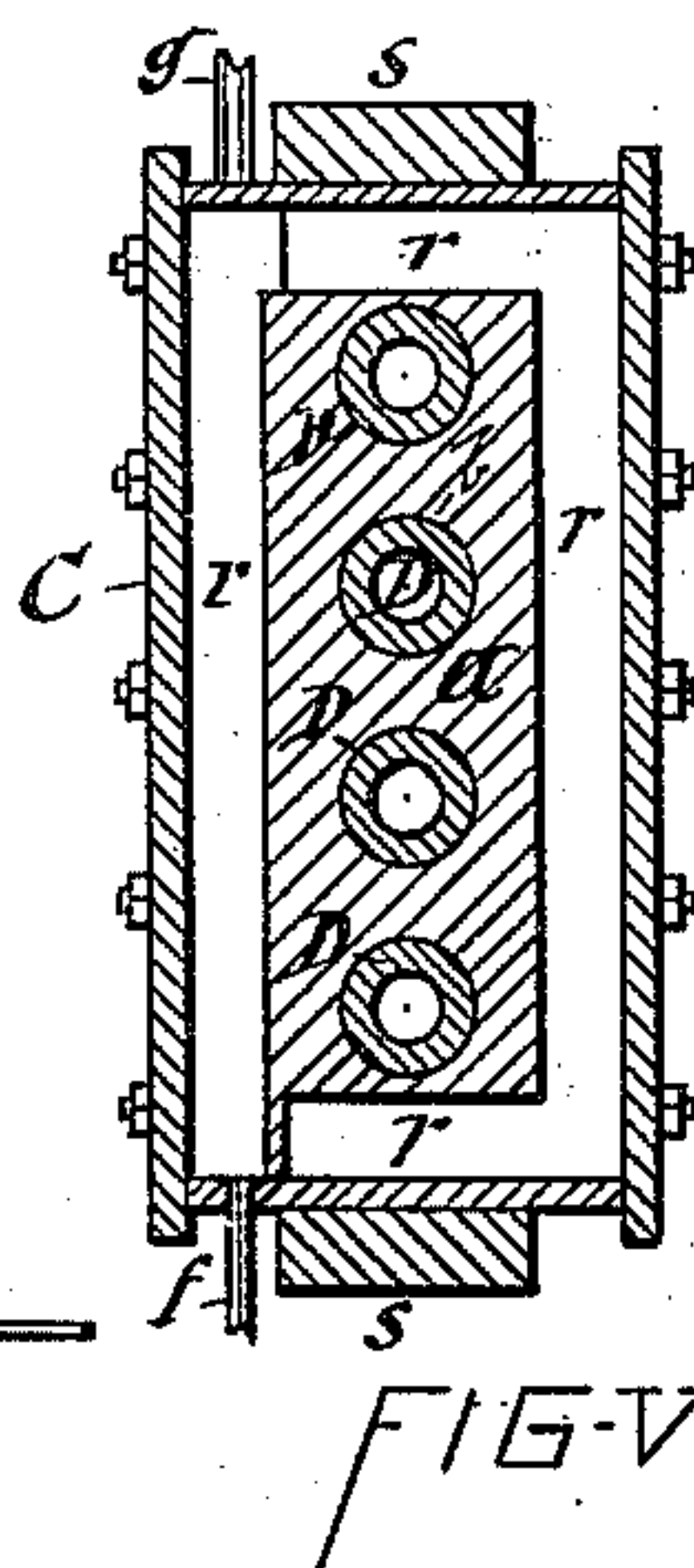
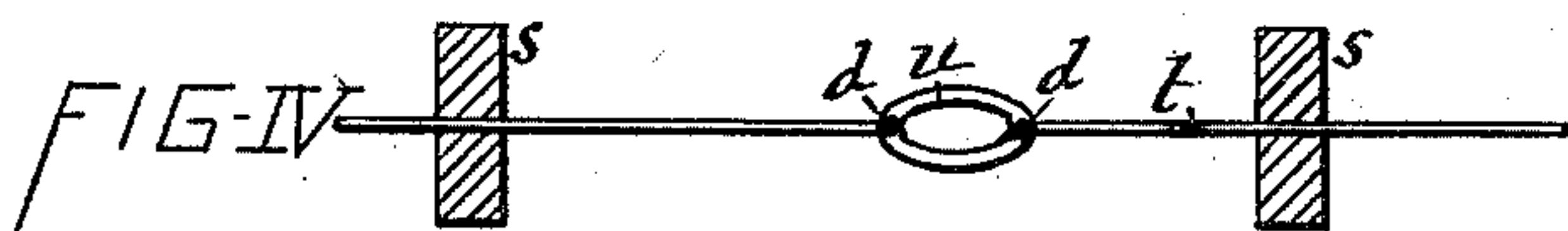
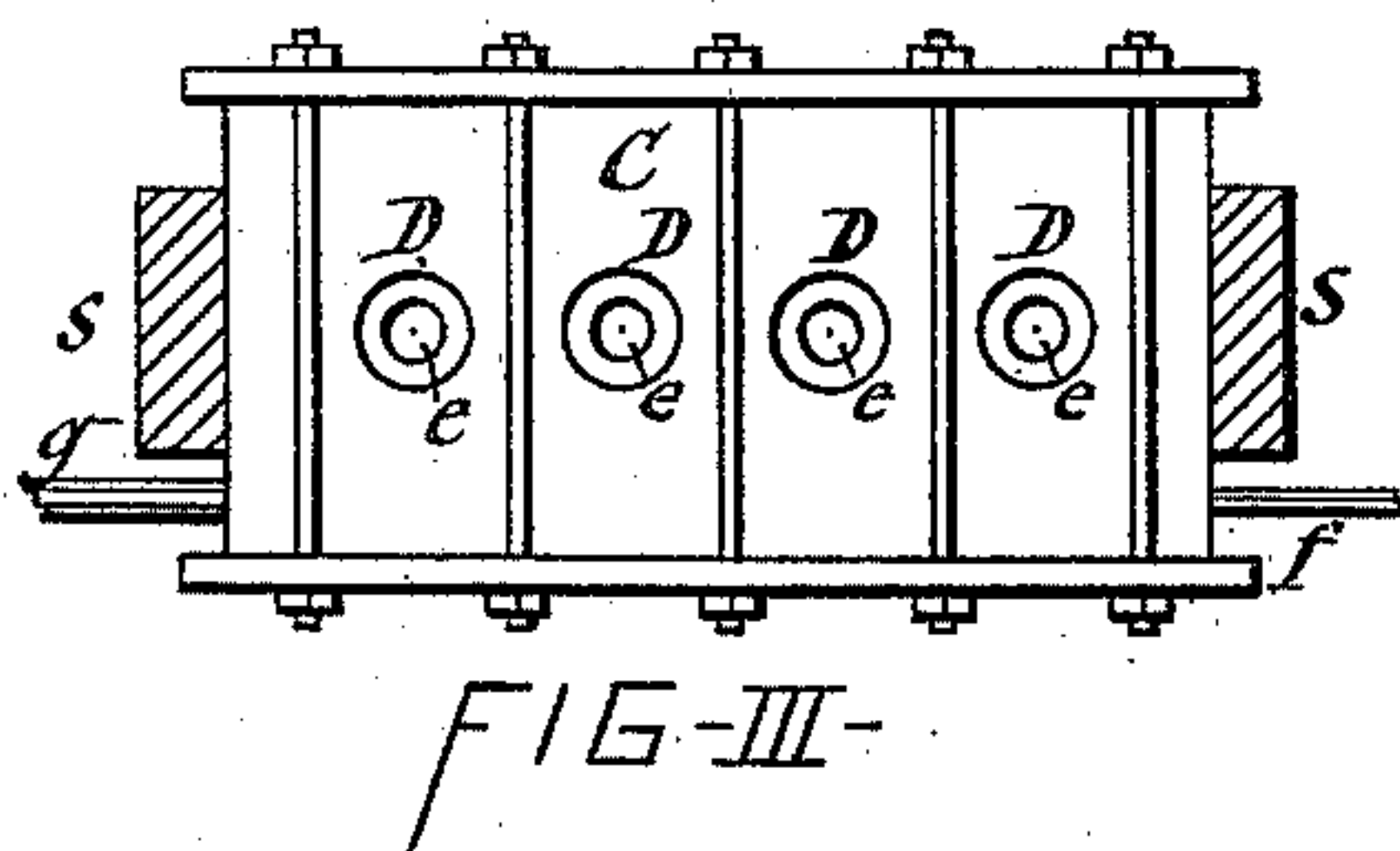
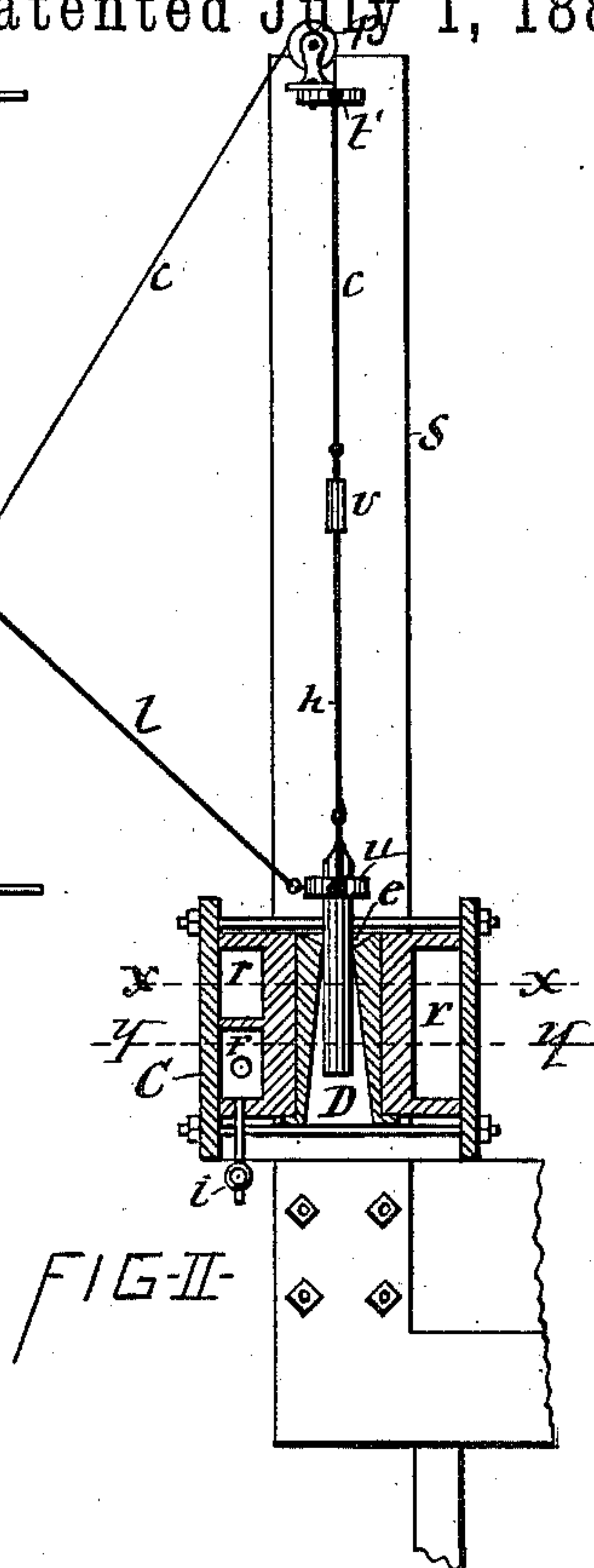
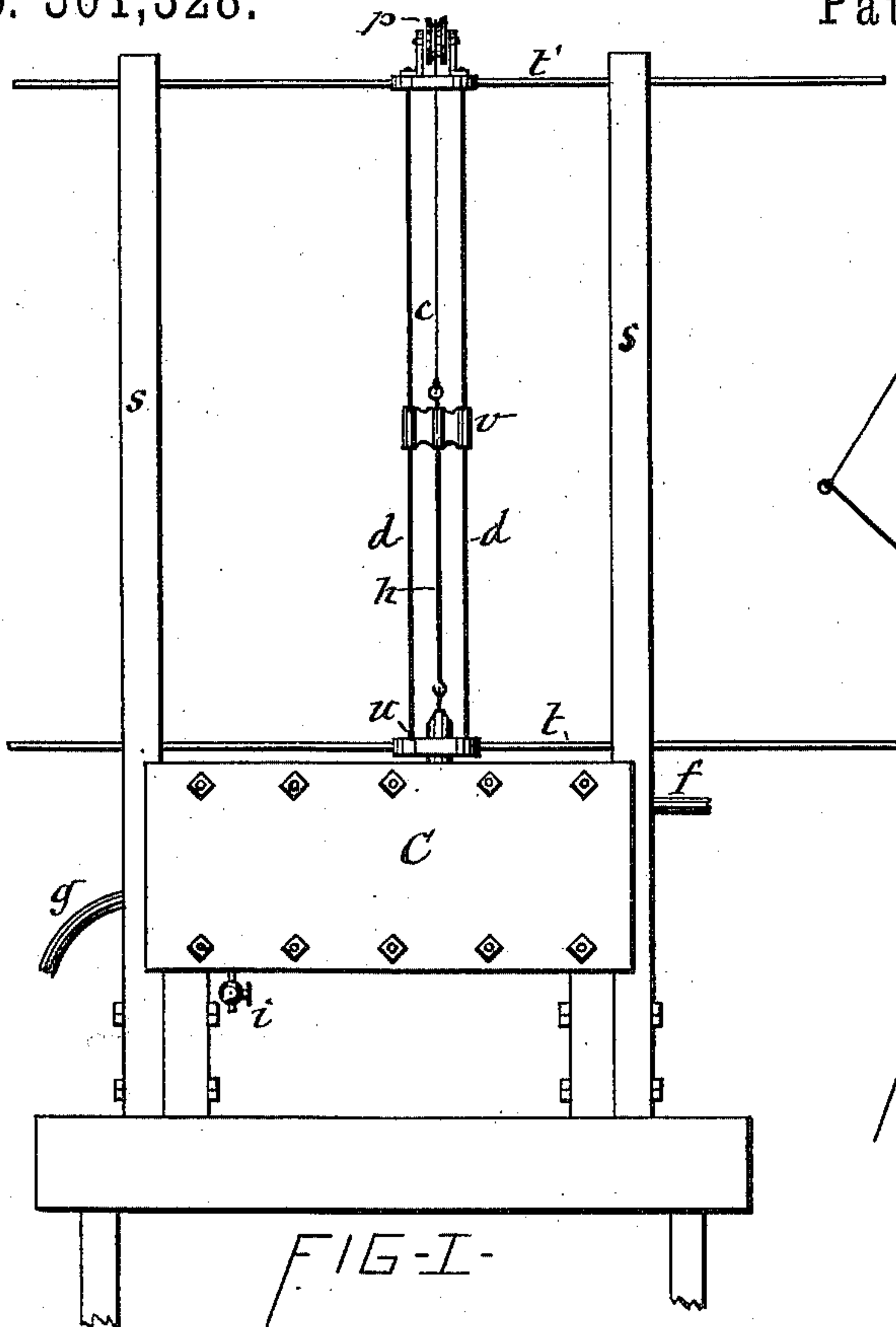
(No Model.)

F. BAUMER.

METHOD OF AND MEANS FOR FINISHING WAX CANDLES.

No. 301,328.

Patented July 1, 1884.

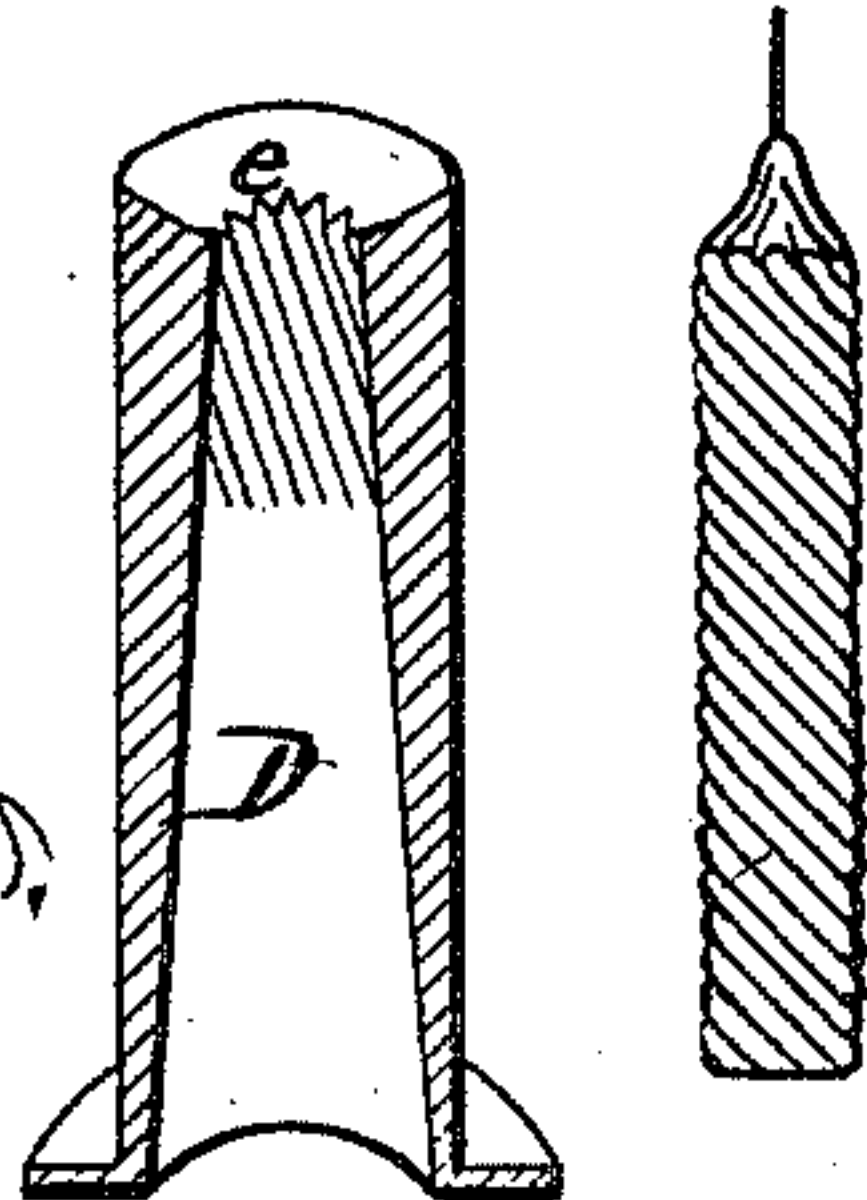


WITNESSES

*Er. Bendixson*

*Wm. C. Raymond*

FIG-VII-



INVENTOR

*Francis Baumer*

*per H. L. Lasse & Co.*

*his Atty.*

FIG-VIII-



# UNITED STATES PATENT OFFICE.

FRANCIS BAUMER, OF SYRACUSE, NEW YORK.

## METHOD OF AND MEANS FOR FINISHING WAX CANDLES.

SPECIFICATION forming part of Letters Patent No. 301,328, dated July 1, 1884.

Application filed April 5, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS BAUMER, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Method of and Means for Finishing Wax Candles, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention has more particularly reference to the manufacture of candles composed either wholly or partly of wax or analogous material, and which are not formed in molds, but generally produced by the so-called "dipping" process. Candles of this class, when  
15 manufactured for the trade, are generally finished or trimmed as near as possible to uniform size by rolling them between two smooth surfaces; but this operation requires considerable time and skilled labor, and often fails to produce the desired effect.

The object of my invention is to accomplish the finishing or trimming of the aforesaid class of candles in a more expeditious, less expensive, and more perfect manner; and to that end my invention consists in the method and means of forcing the candles longitudinally through the eye of a die, as hereinafter fully described, and specifically set forth in the  
30 claims.

In the accompanying drawings, Figure I is a front elevation of an apparatus designed for carrying out my invention. Fig. II is a vertical transverse section of the same. Fig. III is a top view of the candle-finishing dies and their heater. Fig. IV is a detached plan view of the lower supporting-bar of the guide-rods of the apparatus. Figs. V and VI are horizontal transverse sections, respectively, on  
40 lines *x x* and *y y*, Fig. II. Fig. VII is an enlarged vertical transverse section of a candle-finishing die designed to produce a spirally ribbed or corrugated candle, and Fig. VIII is a view of a candle finished by such a die.

45 Similar letters of reference indicate corresponding parts.

C represents a steam-chest formed with a central core, *a*, around which is extended a steam-passage, *r*, the steam being admitted thereto by a pipe, *f*, and may be emitted either  
50 through a pipe, *g*, or in a condensed state

through a stop-cock, *i*. The core *a* is provided with vertical channels *b b*, in which are fitted the dies *D D*, having an eye, *e*, of the size and form required of the candle when finished. 55 Said eye may be either smooth, to produce a smooth surface on the candle, or ribbed or fluted, to produce a corresponding ribbed or corrugated surface on the candle, and by making the ribs of the die oblique, as shown in 60 Fig. VII of the drawings, a spirally ribbed or corrugated candle, similar to that shown in Fig. III, is produced.

The candles to be finished are forced or drawn through the dies by the following instrumentalities: Through the upper and lower ends of standards *s s*, at opposite ends of the steam-chest *C*, are extended horizontal bars *t t'*, adapted to be shifted endwise, for the purpose hereinafter explained. To the said bars 70 are attached vertical guide-rods *d d*, on which slides a cross-head, *v*, from which depends a hook, *h*. On the upper cross-bar, *t'*, is mounted a pulley, *p*, over which passes a cord, *c*, one end of which is connected with the cross-head *v*, and the opposite end is attached to a lever, *l*, hinged to the lower cross-bar, *t*, as shown in Fig. II of the drawings. The latter cross-bar is provided with an eye, *u*, for the passage through it of the hook *h*. 80

The operation of the apparatus is as follows: Steam being admitted to the steam-chest *C* to heat the dies *D*, the cross-bars *t t'* are shifted to bring the hook *h* over the eye *e* of one of the dies *D*. Then, by slackening the cord *c*, the 85 hook is lowered and allowed to pass through the die sufficiently to allow the operator to hang a candle by its wick onto the hook *h*, protruding at the bottom of the steam-chest. Then, by drawing on the cord *c*, the attached 90 candle is drawn through the heated die, and in passing through the eye *e* the exterior of the candle receives the impression thereof, and it is thus either smoothed or corrugated according to the form of the die, and at the same 95 time all undue enlargements of the candle are compressed and the displaced wax caused to fill any deficiencies in the circumference of other portions of the candle, thereby rendering the candle of a uniform diameter. When 100 one of the dies *D* becomes cooled by the contact of the candles forced through it, the cross-



bars *t t'* are shifted to carry the hook over another die, and the process of finishing the candles continued in the manner aforesaid.

Having described my invention, what I claim as new is—

1. The method of trimming or finishing the exterior of candles by forcing the same longitudinally through the eye of a die, substantially as described.
- 10 2. As a means for finishing the exterior of candles, a die having an eye through which to force the candles longitudinally, said eye being of the requisite diameter to reduce undue enlargements of the candles operated on, substantially as set forth.
- 15 3. A candle-finishing apparatus comprising a die having an eye through which to force the candles longitudinally, and a heater surrounding said die, substantially as set forth.
- 20 4. A candle-finishing apparatus consisting of a steam-chest, and a die or dies extended through said chest, and having an eye through which to force the candles, substantially as specified.

5. The die *D*, provided with the eye *e*, in combination with the steam-chest *C*, provided with the core *a* and channels *b* in said core, substantially as and for the purpose described and shown.

6. In combination with the dies *D D*, the standards *s s*, bars *t t'*, movably connected to said standards, guide-rods *d d*, supported on said rods, the pulley *p*, mounted on the guide-rod *t'*, the cord *c*, run over said pulley, and the hook *h*, connected to the cord, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 25th day of March, 1884.

FRANCIS BAUMER. [L. s.]

Witnesses:

C. H. DUELL,  
F. H. GIBBS.