

No. 854,793.

PATENTED MAY 28, 1907.

W. E. BOCK.
FIRE POLISHING MACHINE.
APPLICATION FILED JUNE 30, 1905

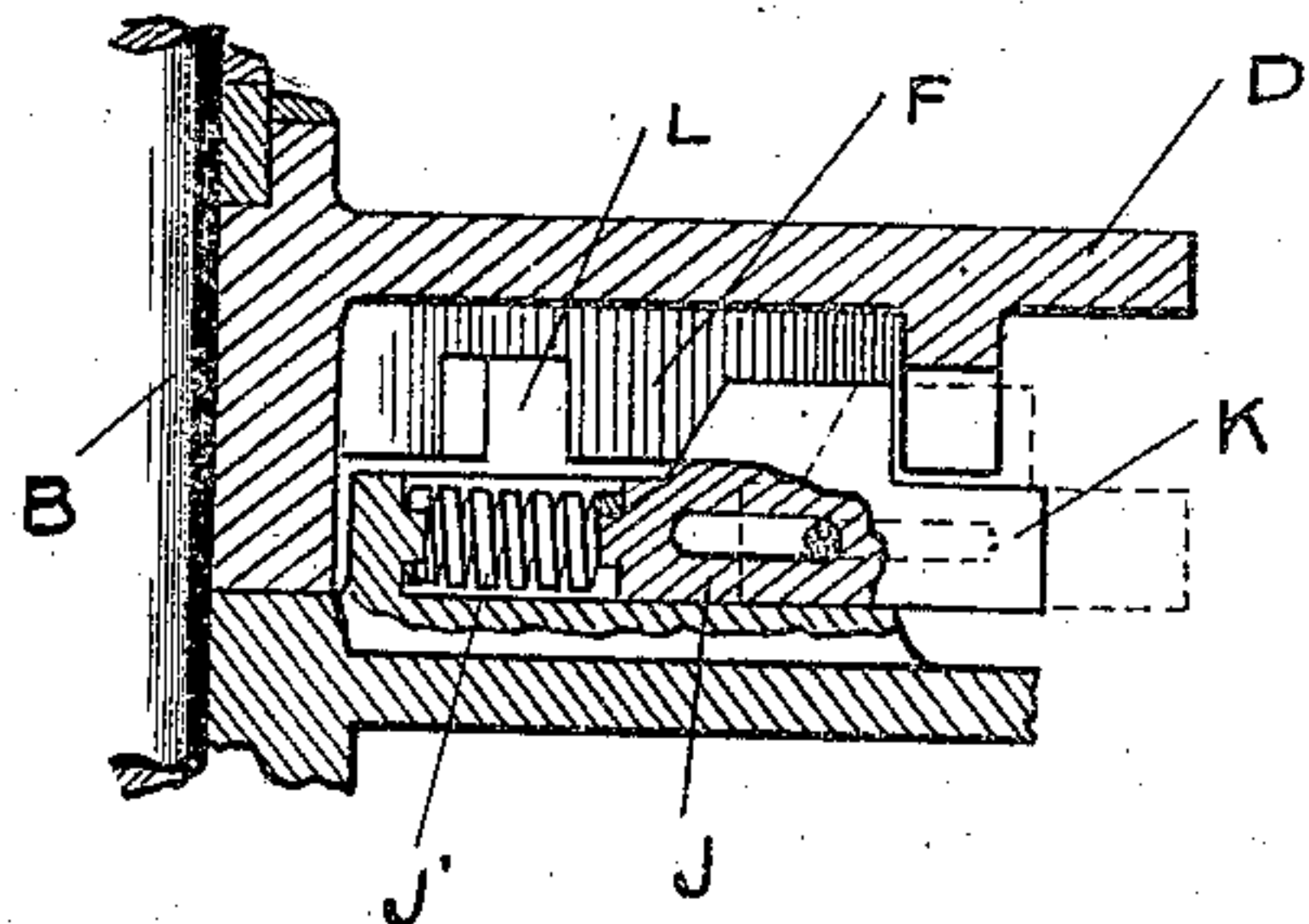


FIG. 4.

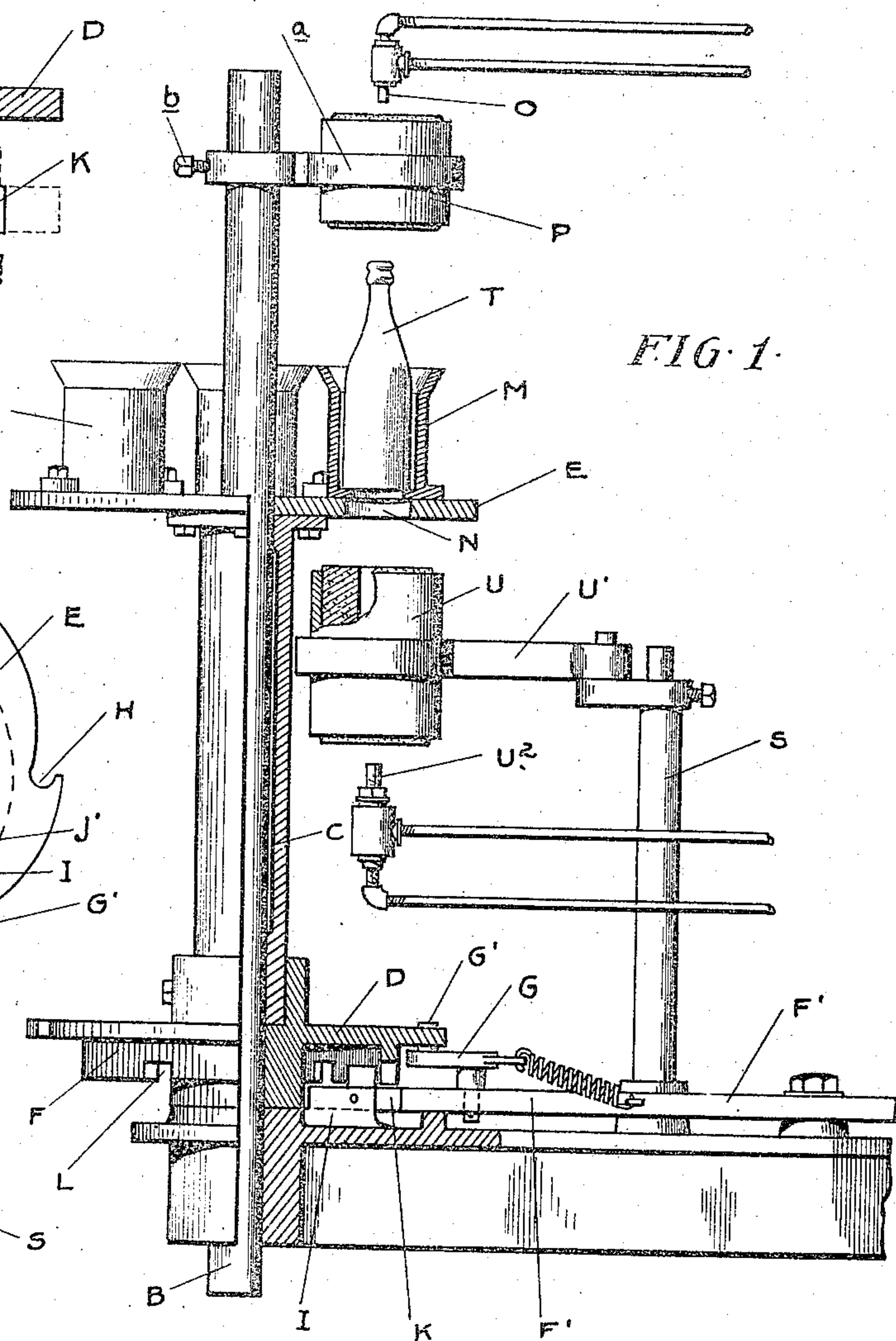


FIG. 1.

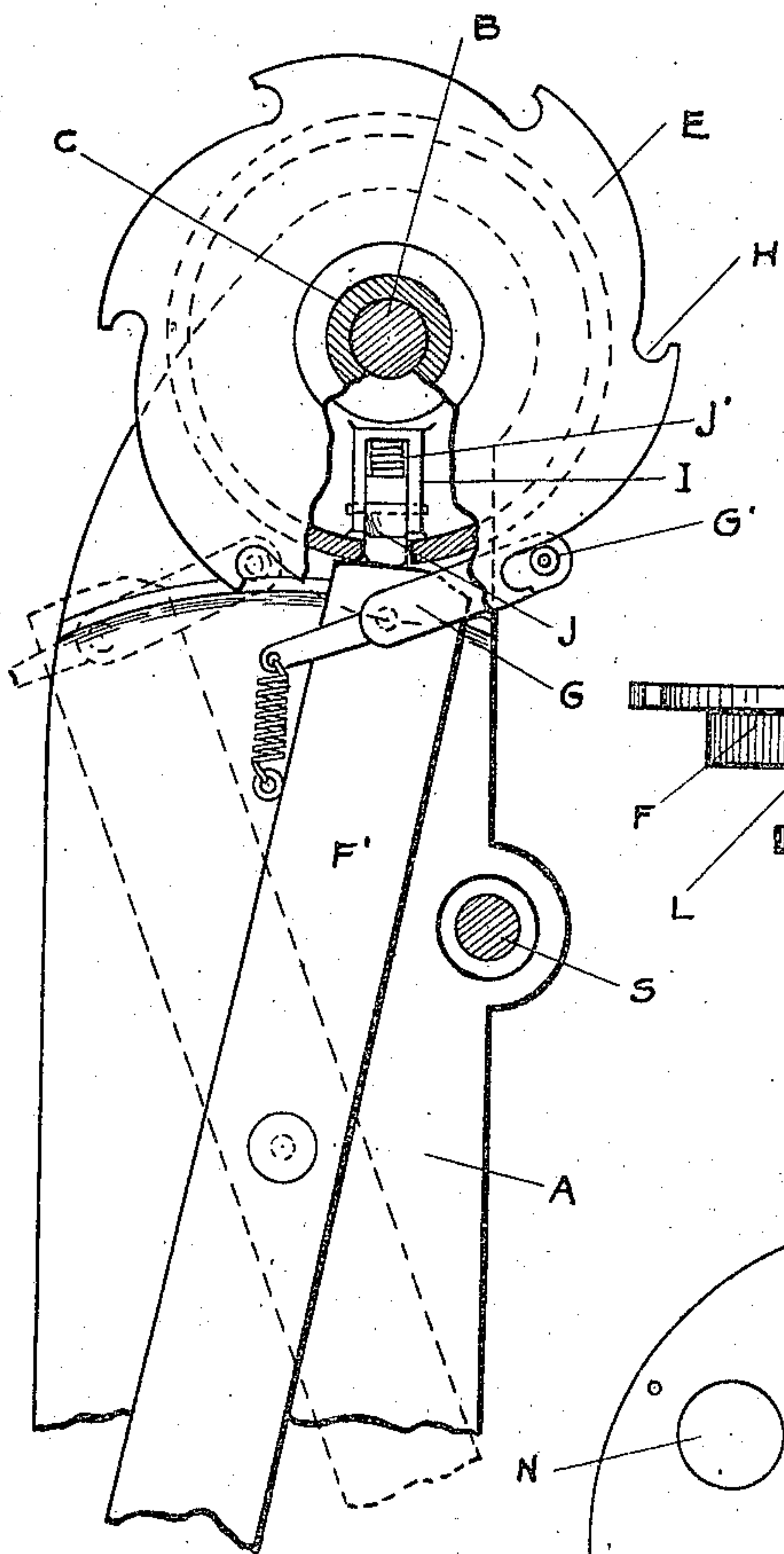


FIG. 2.

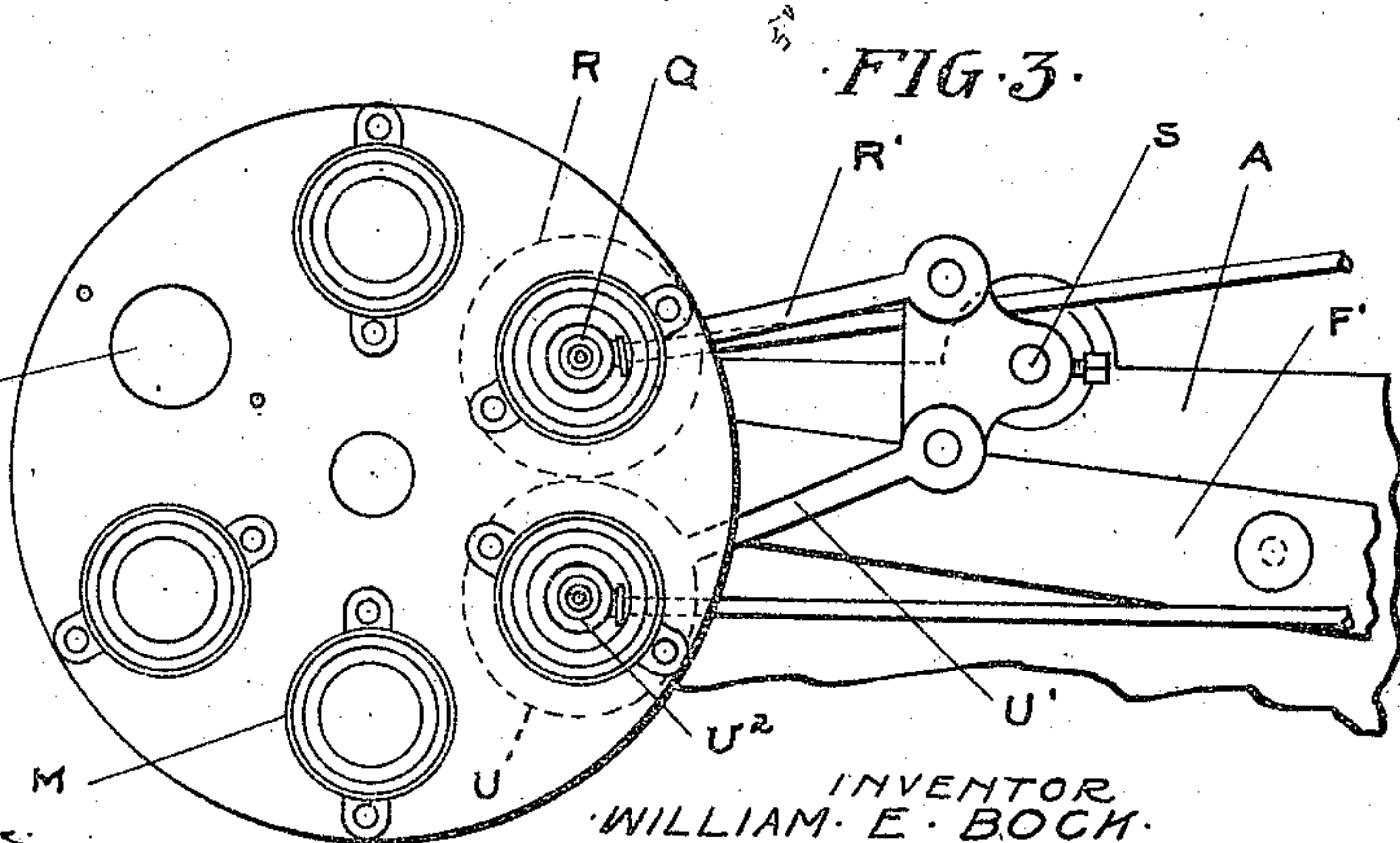


FIG. 3.

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FIRE-POLISHING MACHINE.

No. 854,793.

Specification of Letters Patent.

Patented May 28, 1907.

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To all whom it may concern.

Be it known that I, WILLIAM EMIL BOCK, residing at Toledo, in the county of Lucas and State of Ohio, a citizen of the United States, have invented certain new and useful Improvements in Fire-Finishing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to new and useful improvements in fire-finishing machines, and consists particularly in the construction of a machine embodying a traveling ware holder with a furnace or burner above and below, so that both ends of the article may be fire-finished simultaneously, and in such a device with a double burner below and a single burner above, and further in the construction, arrangement and combination of the various parts, as more fully hereinafter described.

In the drawings, Figure 1 is a side elevation of my improved machine, partly in section; Fig. 2 is a horizontal section showing the base and the ratchet wheel in plan, the ratchet wheel being broken away to illustrate the lock; Fig. 3 is a top plan view of the machine; Fig. 4 is a vertical section through the ratchet wheel and the base to illustrate the construction of lock.

A represents the base, upon which is the post or standard B. Journaled about this standard is the sleeve C, to the lower end of which is secured the ratchet wheel D, and to the upper end of which is secured the table E. The under side of the ratchet wheel is the notched flange F. Pivoted on the base is the rocking lever F', at the end of which is the pivoted spring-actuated pawl G having a roller wrist G' adapted to engage the notches H of the ratchet wheel. Beneath the ratchet wheel is a guide I, in which is slidably secured the bolt J, normally held outward by the tension of the spring J'. This bolt has an actuating extension K below the notched flange, which is adapted to be struck by the end of the lever F' to unlock it, when in the position shown in full lines in Fig. 2, and which when the lever is drawn out of the path of the extension K will permit the spring J' to first press the bolt against the inner edge of the flange and when the wheel is turned so that one of the notches I is opposite the bolt will be projected therein and lock the ratchet wheel and the table until the lever is again

reciprocated back to the position shown in full lines in Fig. 2. This lever F' may be rocked upon its pivot by any suitable means, not shown.

The table E is provided with a series of holders, M, arranged concentrically thereon, and the table is provided with an aperture N beneath each holder. Above the table is a nozzle O, adapted to be supplied with air and gas and forming a burner, the flame from which is directed through the brick-lined sleeve P downward upon the article in the holder beneath. This nozzle and brick lined sleeve form in effect what is known in the glass art as a glory-hole burner. The sleeve P is supported by a suitable bracket a, which is secured by clamping bolts b upon the post B at any desired point.

Below the table is another nozzle Q, and brick-lined sleeves R, supported upon the brackets R', which in turn is supported on the post S projecting upwardly from the base.

I have shown the device as supplied with a bottle T, which is to be fire-finished at both ends.

In the manufacture of bottles in connection with such a machine as the Owens bottle machine there is a mark produced on the bottom of the bottle by the cut-off operating across the bottom of the blank mold and gathering the glass, and it is desirable therefore to fire-finish the bottom, particularly in the middle portion thereof, and also to fire-finish the top:

The table is moved so that one of the holders M is between the two sleeves P and R and thus the burners will direct the flames through these sleeves upon the top and bottom of the bottle, the bottom being exposed to the flames at the aperture N.

Each bottle is subjected to the action of the fire-finishing furnace at both ends during the time that the table stands still between the intermittent rotary movement imparted thereto by the lever F' and its pawl G, and at each stopping point the table is held locked by the bolts as before described.

Inasmuch as it is desirable to fire-finish the bottle for a longer period of time on the bottom than at the top, I preferably provide a second sleeve U, supported on the bracket U' from the post S, and provided with nozzle U² so that either before the bottom reaches the point where the fire-finishing takes place for

the top the bottom will be partially fire-finished, or it may be after the bottom has left the point where it is acted on by the upper burner. In this way the fire-finishing operation is given a double period of time for the bottom as compared to the top. If necessary, more of these burners may be applied, so that the bottle may be fire-finished at two or three of the stopping points if desired.

10 What I claim is:—

1. A fire-finishing machine comprising a base, an intermittently rotating apertured table thereon, holders at the apertures, furnaces or burners above and below the table at a stopping point of the holders, and a second furnace or burner at an adjacent stopping point below the table.

2. In a fire-finishing machine, the combination of a base, a post thereon, a sleeve journaled about the post, a ware-carrier table at

the top of the sleeve, a ratchet wheel at the base, a lock for the ratchet wheel, means for actuating the ratchet wheel, and for locking the parts between movements, and for withdrawing the lock before each actuation. 25

3. In a fire-finishing machine the combination of a base, a post thereon, a sleeve journaled about the post, a ware-carrier table at the top of the sleeve, a ratchet wheel at the base, a lock for the table, a rocking lever, a spring pawl on the lever adapted to engage the ratchet wheel, and means for unlocking the wheel by the lever at each operation, and locking it between operations. 30

In testimony whereof I affix my signature in presence of two witnesses. 35

WILLIAM EMIL BOCK.

Witnesses:

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