

(No Model.)

W. B. ROBINS.  
Lamp.

No. 241,422.

Patented May 10, 1881.

Fig. 7.

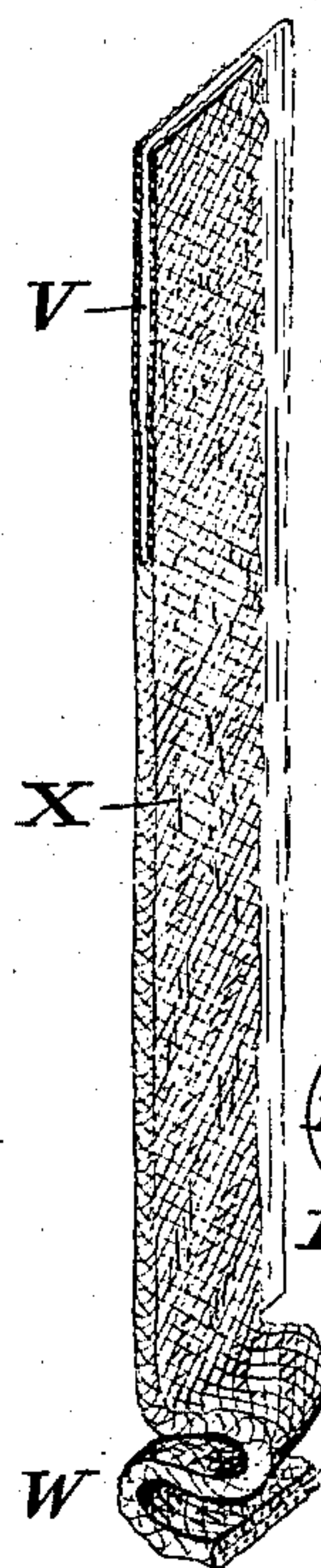


Fig. 1.

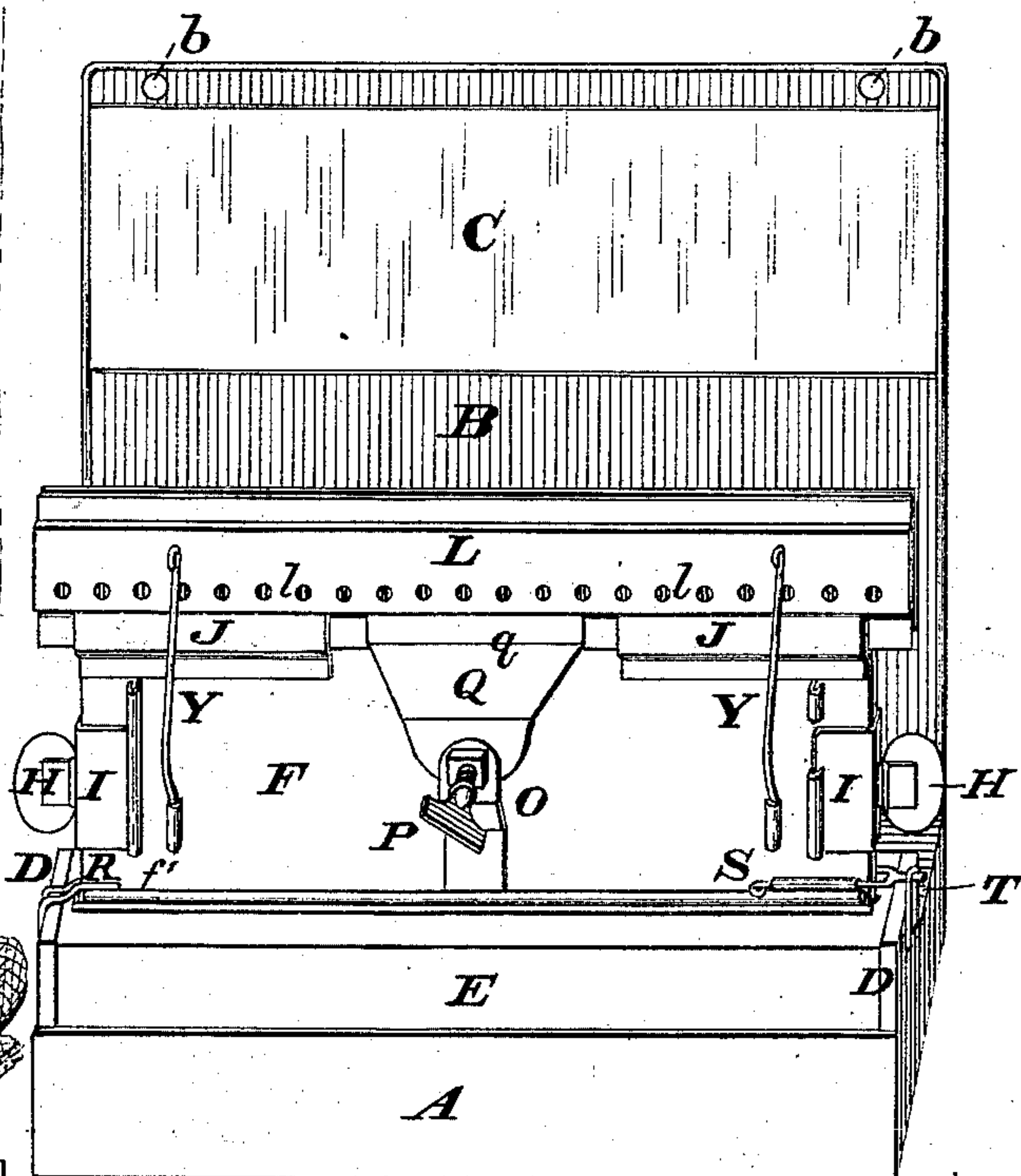


Fig. 2.

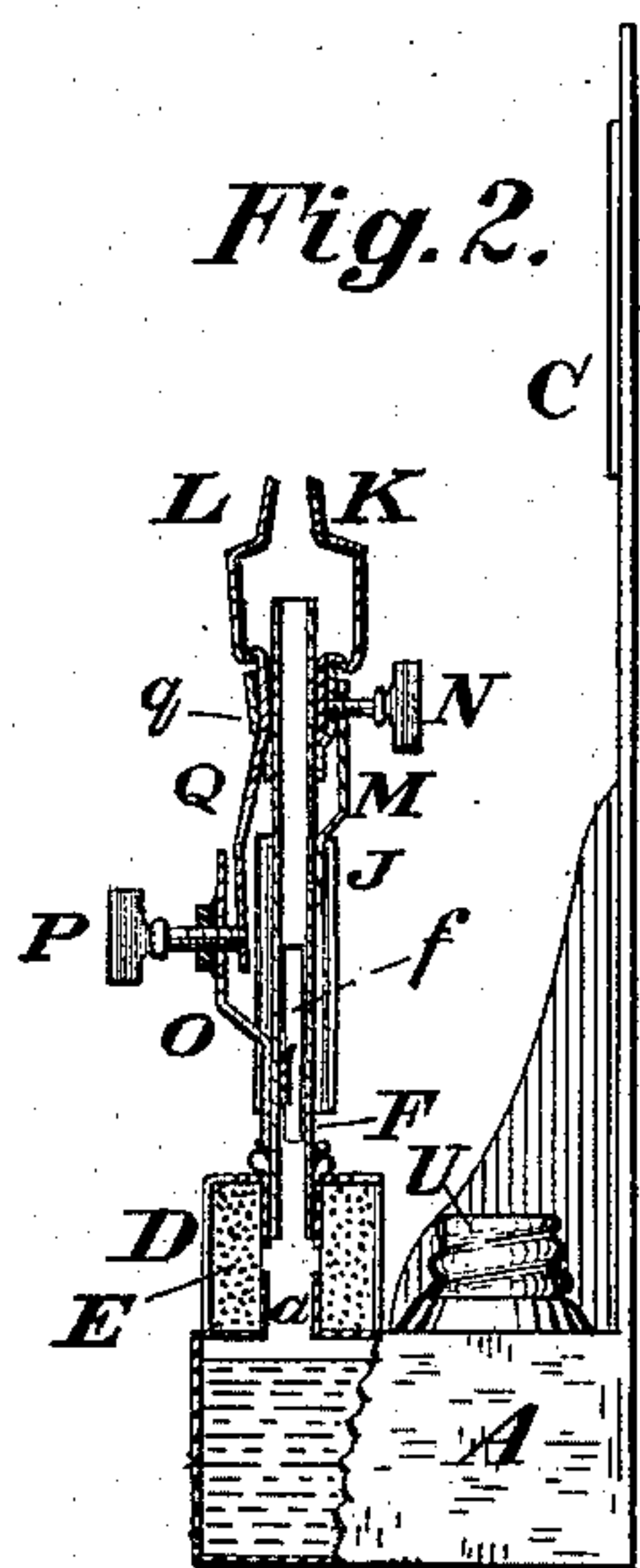


Fig. 4.

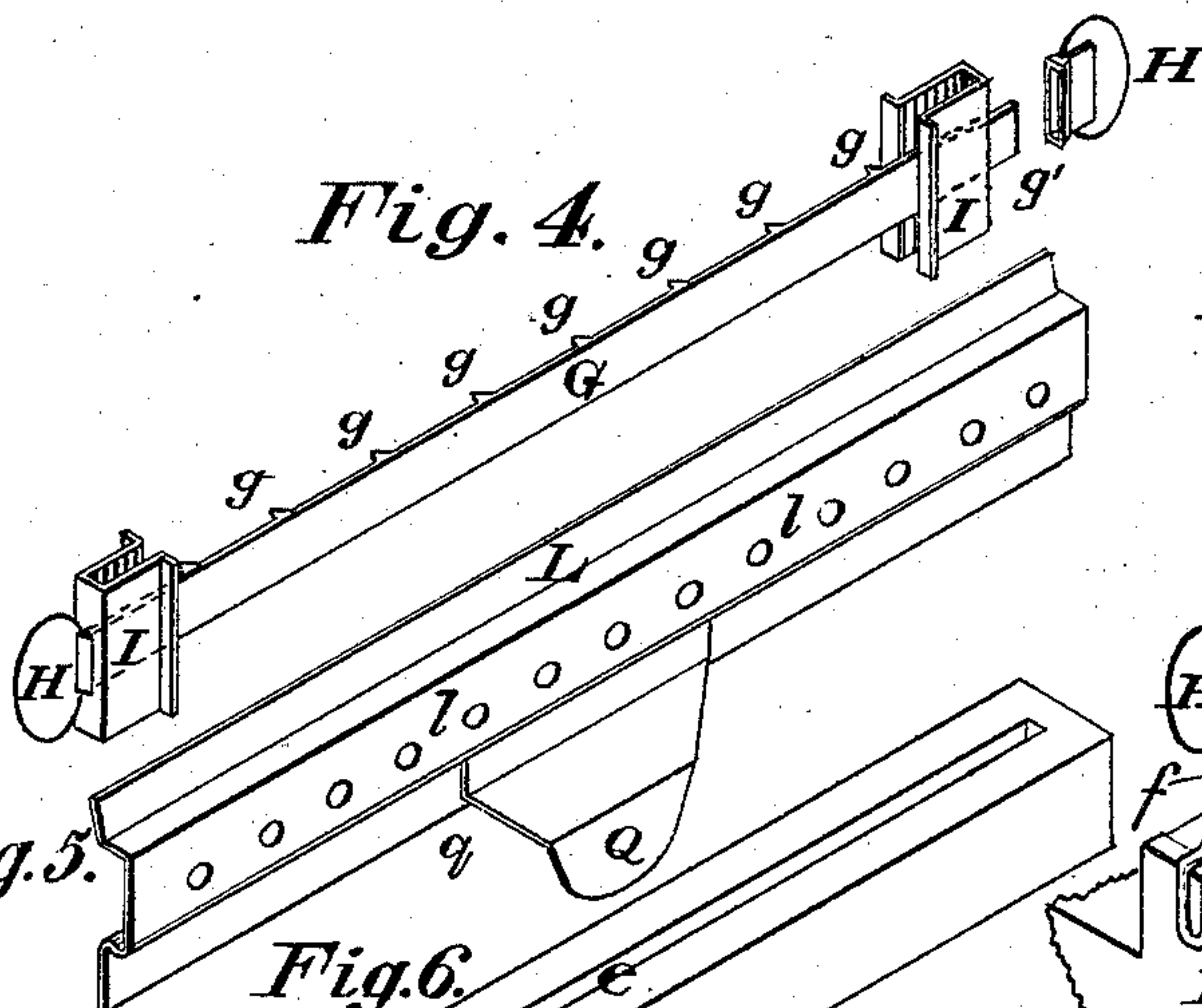


Fig. 3.

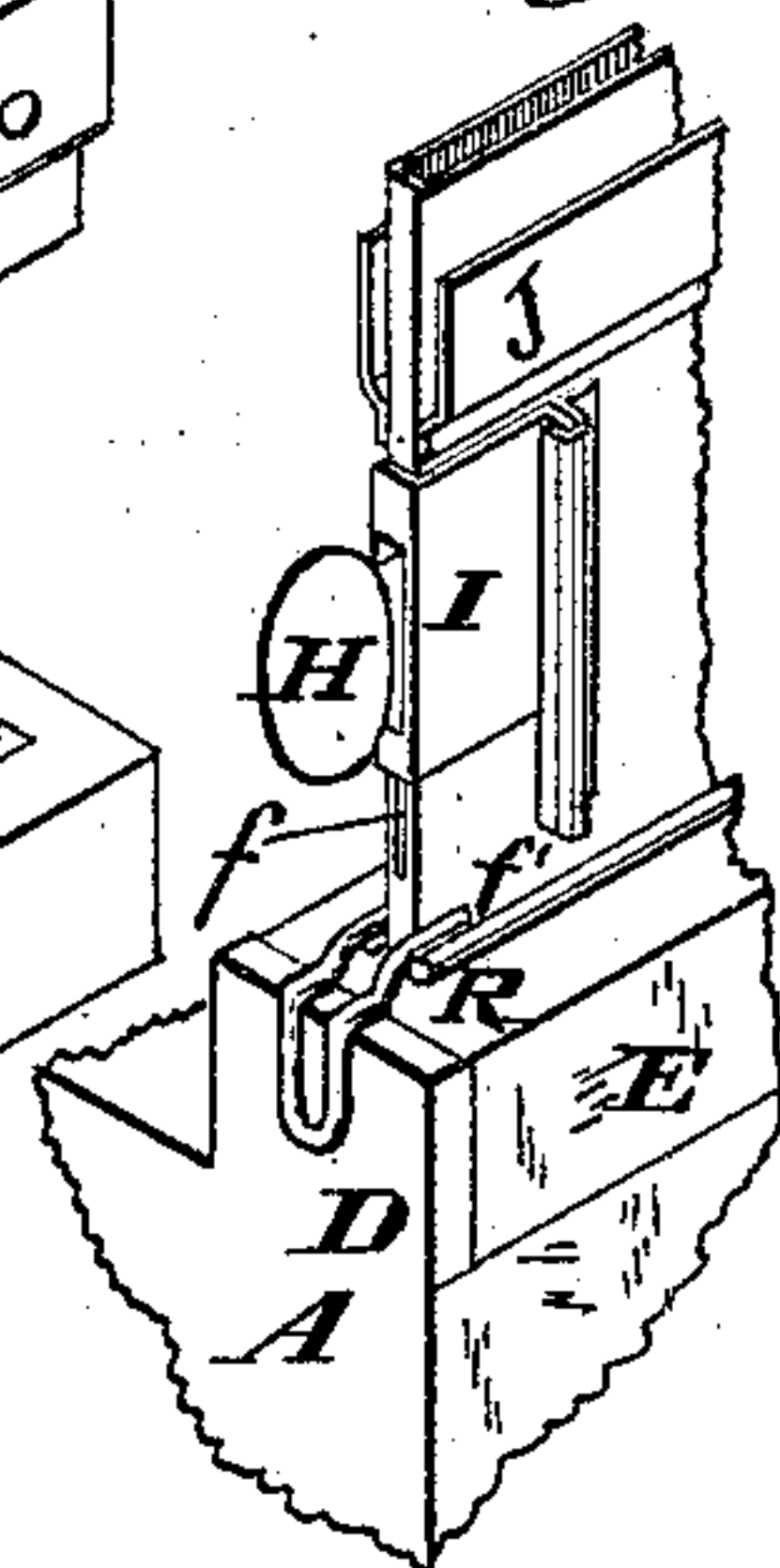
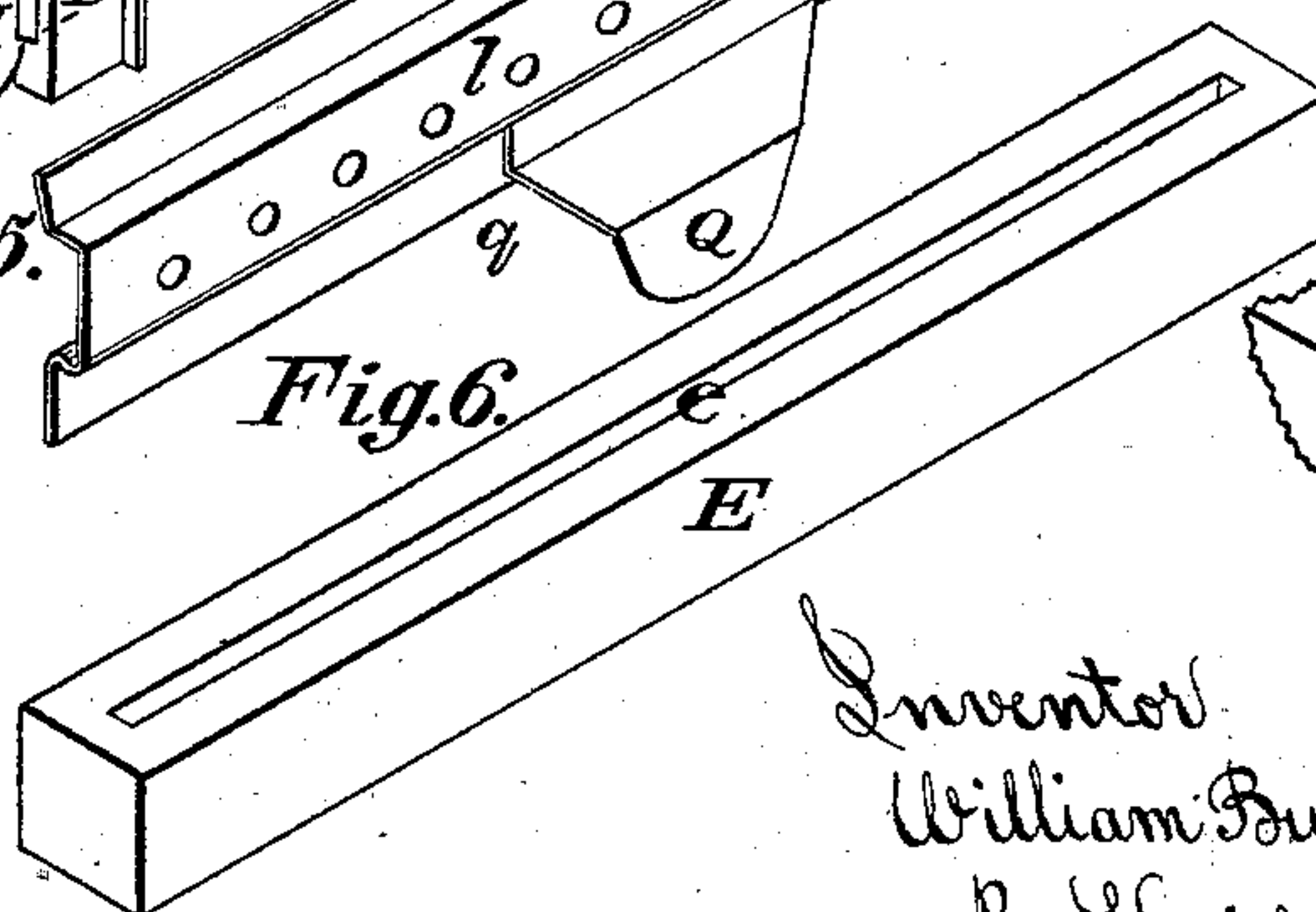


Fig. 5.

Fig. 6.



Attest.

Percy Knight  
*[Signature]*

Inventor  
William Burnet Robins  
Percy Knight Bros. Attys.



# UNITED STATES PATENT OFFICE.

WILLIAM B. ROBINS, OF CINCINNATI, OHIO.

## LAMP.

SPECIFICATION forming part of Letters Patent No. 241,422, dated May 10, 1881.

Application filed February 21, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM BURNET ROBINS, of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

My invention in its complete form is designed to comprise the following features, to wit: A removable wickway-section which is thermally insulated at its lower edge from that portion of the wickway that communicates with the fount, and whose upper edge is provided with removable burner-plates, of which one plate is adjustable toward and from the other, so as to enable the narrowing or widening of the wickway at will of the user—a peculiarly constructed and arranged wick-elevating device.

In the accompanying drawings, Figure 1 is a perspective view of a lamp embodying my improvements. Fig. 2 is a partly-sectioned end elevation of the same. Fig. 3 is a perspective view of a portion of the lamp. Fig. 4 represents my wick-elevator detached. Fig. 5 represents my adjustable burner-plate detached. Fig. 6 represents the non-conducting section of my wickway. Fig. 7 represents, to a larger scale, a portion of my composite wick.

I have selected to illustrate my invention a form of my lamp adapted to hang against a wall or column.

A is a rectangular vessel, constituting both the fount and the base of the lamp, its dimension from right to left being considerably greater than that from front to rear. The back wall of said fount is prolonged upward to constitute a wall-plate, B. Attached to the front of said plate may be a mirror, C, of metal or of glass. Orifices *b* in said plate enable the lamp to be hung to hooks inserted in the wall. The end walls of the fount are, near the front portion thereof, prolonged upward, to constitute cheeks D, which hold a rectangular slab, E, of wood, cork, papier-maché, porcelain, or other refractory non-conductor of heat. The said slab has a central vertical slot, *e*, whose lower portion is occupied by a neck, *a*, that rises from the fount-top. This neck constitutes the lower member of my wickway.

The middle member or section of my wickway consists of a flat tube, F, whose foot fits and occupies the upper part of the slot *e*, descending

so far into it as preferably to fall somewhat short of touching the neck *a*. The slab E being a slow conductor of heat, and the tubes F and *a* being out of actual contact, it is not possible for the heat of the flame to penetrate to the fount-space. The middle wick-section, F, is slotted (*f*) at its ends, to receive a plate or blade, G, whose upper edge is armed with inturned spurs or serrations *g*. Shanks *g'*, that extend through the said slots *f*, receive handles H, by means of which the blade G is elevated either equally along its whole length or more at one or other end, as the condition of the flame may require. Each handle H has a sheath, I, which serves to cover the slot *f* at its respective end of the wick-tube F. Each side of the wick-tube F has one or more sockets, J, for the lower edges of the respective rear and front burner-plates, K and L. Each burner-plate has preferably a lower vertical portion or foot, which occupies the socket, and is thence bent outward, upward, inward, and finally upward with a slight inward inclination, as indicated in Figs. 2 and 5.

Extending from the respective rear and front walls of the wick-tube F are screw-threaded lugs, of which one lug, M, receives a set-screw, N, which, by pressing against the foot of the rear burner-plate, K, holds it firmly to any desired altitude.

Located at a somewhat lower elevation on the front wall of the wick-tube is a similar lug, O, whose set-screw P bears against the lower extremity of a bent lever, Q, that, projecting downward from the front burner-plate, L, fulcrums at *q* against the tube-wall.

Springs Y, attached to the tube-wall, press against the front of the front burner-plate, L, and tend to force and hold the said plate's upper edge against that of the rear burner-plate. This inward tendency of the plate L is counteracted and controlled through the instrumentality of the screw P. Each burner-plate is perforated, as at *l*, for admission of draft-air.

All that portion of the wick-holder which is above the slotted slab E is preferably removable, and when in position for use is secured at one end by a fork, R, that, extending rigidly from one of the slab-cheeks, embraces the wick-tube F and engages over a lug, *f'*, thereon. The wick tube having been inserted in



said fork is secured at its other end by a sliding bolt, S, that engages in an eye or staple, T, upon the other slab-cheek.

U represents a customary screw-capped feed-neck.

The wick employed with this lamp has preferably the following construction: My wick is stiffened to enable its accurate adjustment in the wickway, and accurate trimming by means of a core or foundation, V, of card-board in its upper portion, designed for burning, while its lower (feeding) portion, folding down into the oil-fount, is left limp, as shown at W, without possessing any such stiffening center part. The exterior portions or wick proper, X X, are preferably of canton flannel, whose nap side is turned toward the board and caused to adhere thereto by first coating the board freely with flour paste or other cement impermeable and insoluble in burning-fluids. In a wick thus constructed the oil mounts in two separate planes to the burning edge, whereat the card-board, (which soon becomes charred by the close contact of the flame,) unites the three laminae in one efficiently burning wick-edge.

The perforate and chambered form of the burner-plates K L, together with their discontinuity from the wick-tube or central member of the wickway F, and it, from the lowest member, a, in the manner explained, affords a perfect safeguard against the communication of heat to the fount.

My described means for regulating the width of the burner-slot or upper wickway enables the ascent of the burning-fluid to be so regulated as to obtain the desired luminous effect and freedom from smoke.

While these burner-plates may be stamped or otherwise formed of sheet metal, I prefer to make them of rigid cast-iron or other cast metal.

In place of shaping the burner-plates convergently for forming flameway in conjunction with the described flameway-regulator, the two plates may be brought up about a quarter of an inch vertically above the line of air-holes, so as to stand about three-eighths of an inch apart, from end to end, and be surmounted by a properly-slotted tip of fire-clay or other refractory material.

My improvements may be employed in pendant and in table and other forms of lamps.

The sliding sheaths or covers I, besides giving a neat finish to the lamp, serve to prevent evaporation and loss of the burning-fluid and ignition of vapor that would escape from the slots, if not so covered, in consequence of the flame running down the lines of escaping vapor from the burner-flame to the slots. The sheaths also aid in holding up the wick at any desired level to which it has been adjusted by the blade G.

Of various forms of devices for regulating the movable member of my burner-slot one includes an enveloping-shell for the wickway,

having two set set-screws, one located near each end thereof; but inasmuch as such a form is comprised in the subject-matter of another application for patent by me, no explicit description of it is needed in this.

The above-described preferred form of my wick-elevating device may be modified in various ways. For example, a clamp adapted to grasp the wick on both sides, and having rods or handles projecting through the end slots, may be substituted for the serrated bar; or there may be employed for this purpose (where a soft and thick wick is used) a skewer or pin, which, being inserted at one end slot, is made to penetrate the wick and to pass out at the other slot, thus transfixing the wick and enabling its elevation or depression. Such a skewer will have a suitable knob, which may be of glass or other non-conducting material, on each end of it, one knob being permanent and the other removable, so as to enable the easy manipulation and the expeditious insertion or withdrawal of the pin. One or more of these expedients may be made by me the subject of specific claims in other applications.

Several manifest advantages accompany my exposed and separable insulating-slab. For example, it permits the parts to be readily taken apart for repair, cleansing, or inspection. It enables the insulating portion to be made of polished wood, of porcelain, of papier-maché, or other material, the contrast of which, with the metallic portions of the lamp, forms a pleasing and attractive feature.

For very broad and flat wicks, such as I employ, the separability of the upper wick-section is of important use, by enabling a newly-inserted wick to be stretched from both ends, and by such action to be spread out evenly within the wick-tube. It also facilitates the proper insertion of the lower portion of the wick through the slot of the non-conducting slab into the fount, which having been thus accomplished the upper wick-tube can be then joined and locked in its place.

The right is reserved to make my herein-described construction of wick the subject of an independent application for patent.

I claim as new and of my invention—

1. The non-conducting slotted slab E, which receives in its lower part the neck a of fount A, and in its upper part the foot of the separable wickway-section F, as and for the purpose set forth.

2. The two-handled serrated wick elevating and adjusting blade G, occupying slots f in wickway-section F, substantially as set forth.

3. The combination of slotted section F and the sheaths I of wick-elevator G.

4. The combination, with the wickway F, of the two half-tips or burner-plates, of which one plate, K, is stationary, and the other plate, L, is adjustable toward and from said plate K, by means and in the manner substantially as set forth.

5. In combination with the wickway F, the



two separable burner-plates K L, which occupy sockets J on the wickway, and of which one plate, K, is held rigidly by set-screw N, and the other plate, L, is adjustable toward and from the first by set-screw P, that bears against a bent-lever projection, Q, from the said plate L, in the manner set forth.

5 6. A broad and flat wick-holding tube having vertical slots f in its opposite vertical edges,

for the projections or handles of the wick-elevating device, substantially as set forth.

In testimony of which invention I hereunto set my hand.

WILLIAM BURNET ROBINS.

Attest:

GEO. H. KNIGHT,  
SAML. S. CARPENTER.