

No. 674,317.

Patented May 14, 1901.

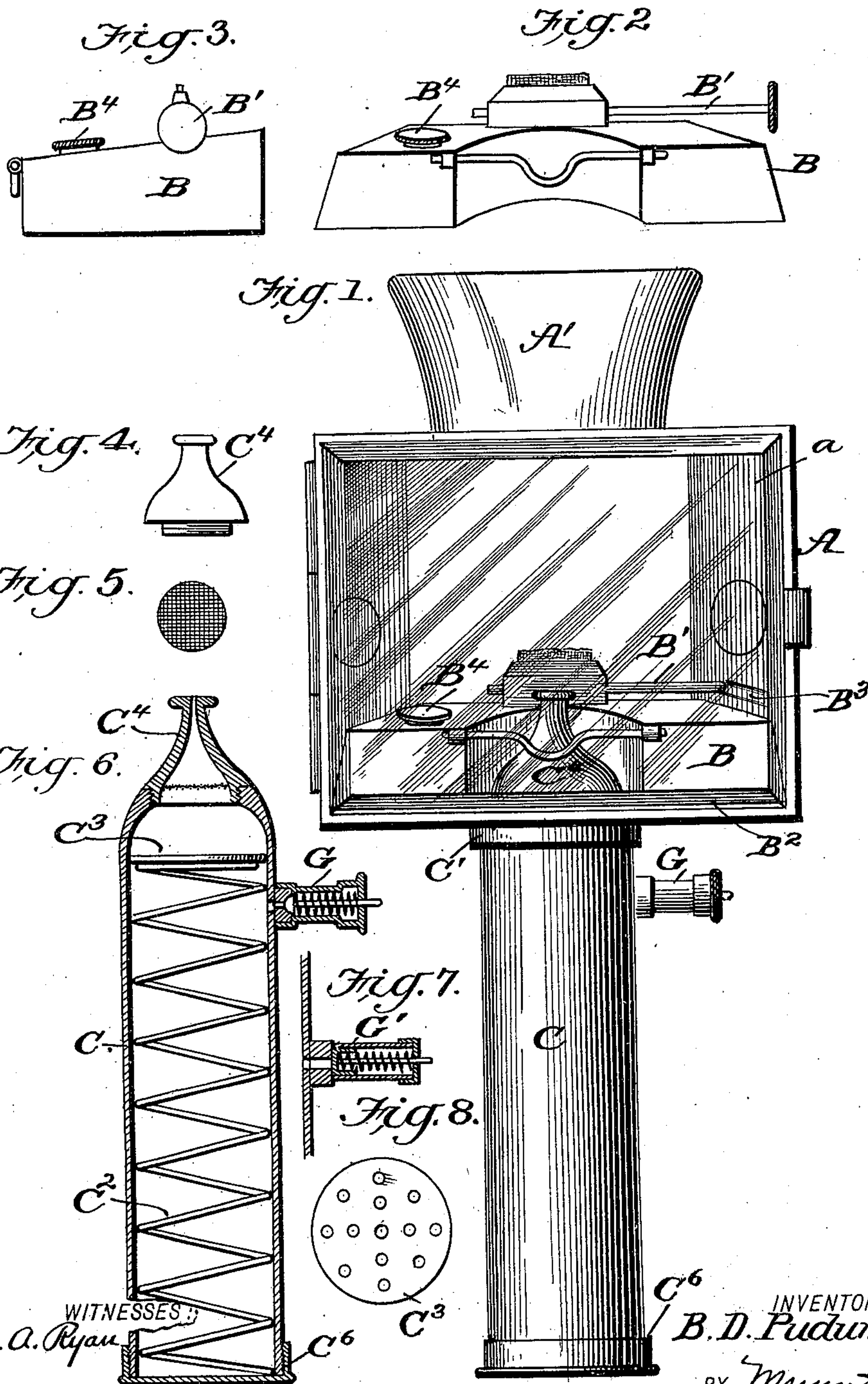
B. D. PUDUMJEE.

LAMP.

(Application filed Aug. 22, 1900.)

2 Sheets—Sheet 1.

(No Model.)



WITNESSES:  
Jos. A. Ryan

Perry B. Turpin

INVENTOR  
B. D. Pudumjee.  
BY Munn & Co.

ATTORNEYS

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Fig. 10.

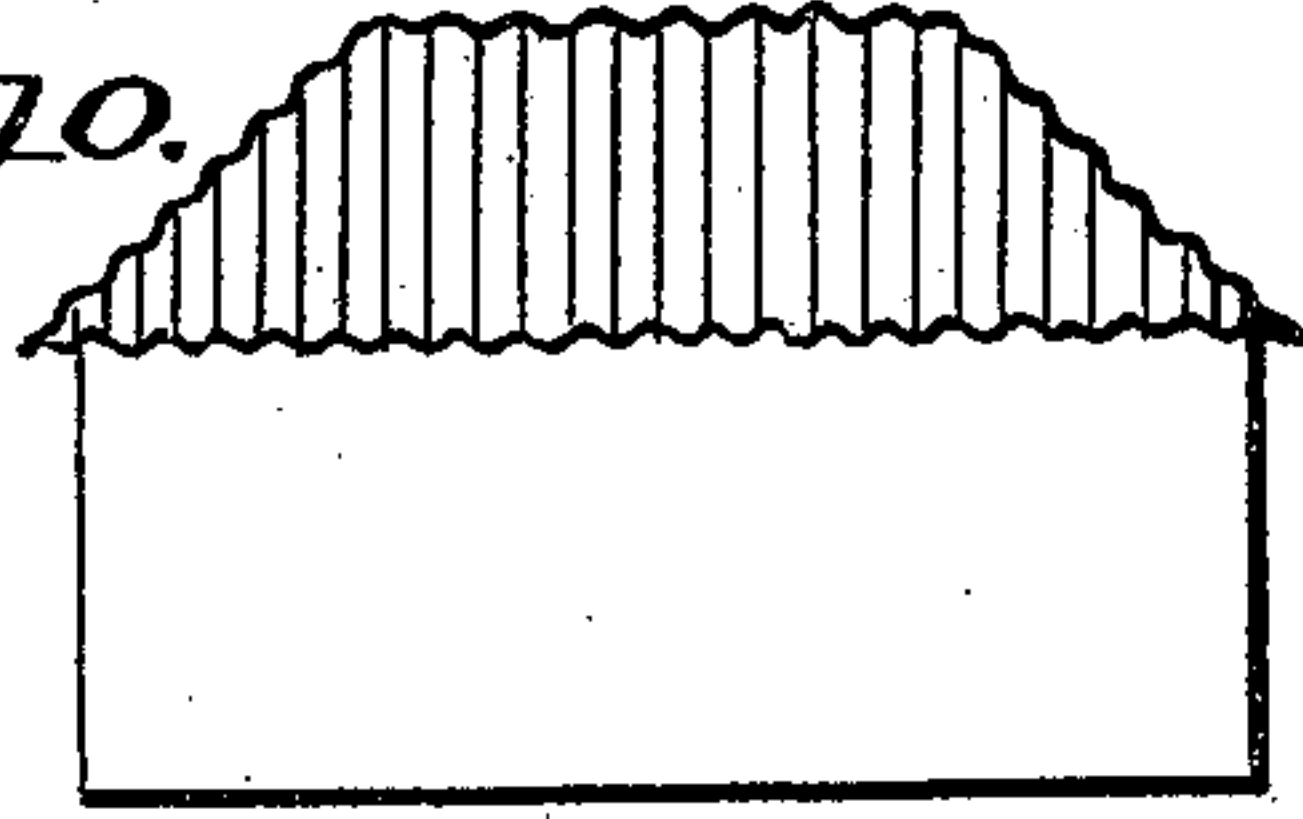


Fig. 9.

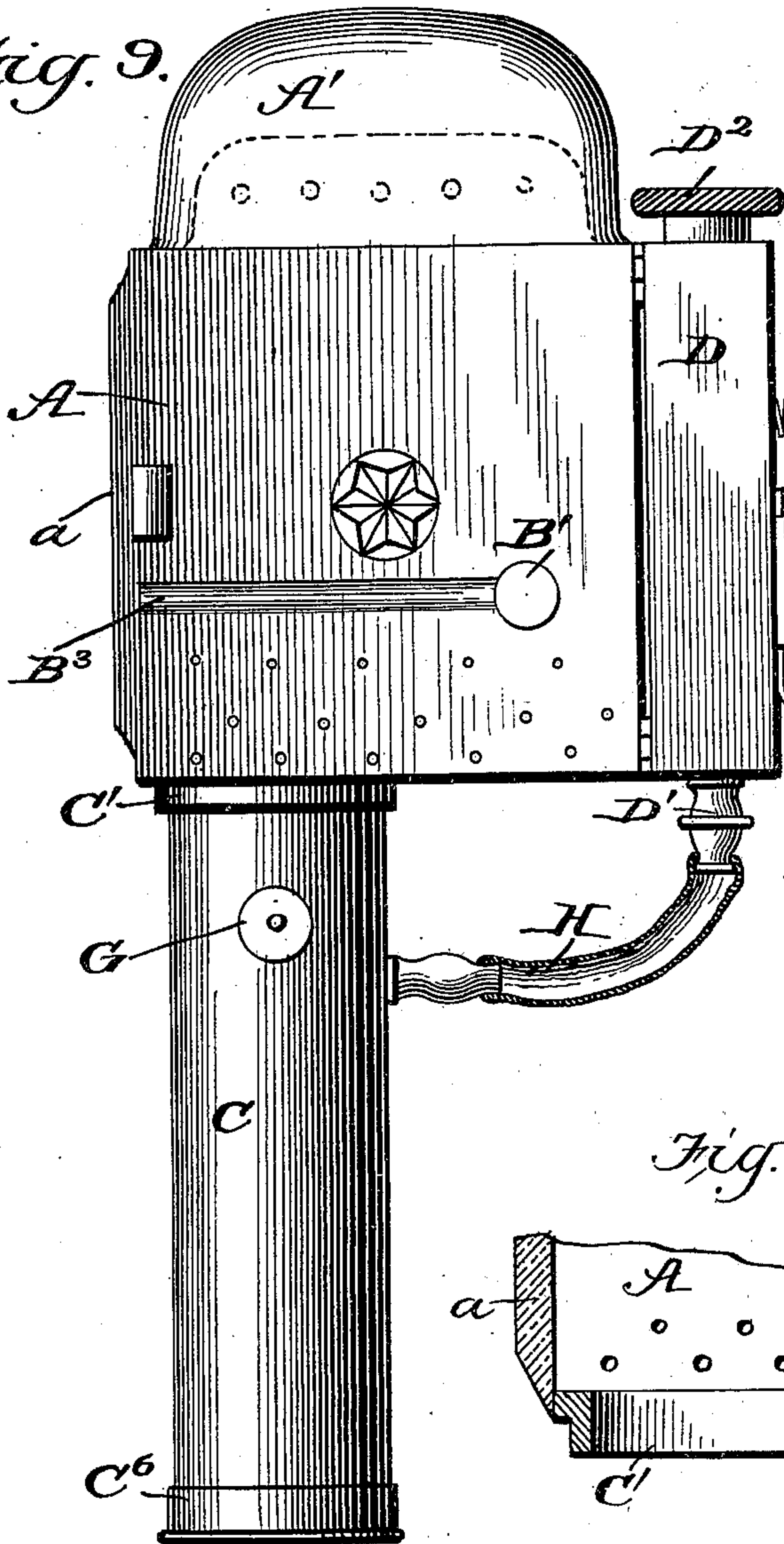


Fig. 11.

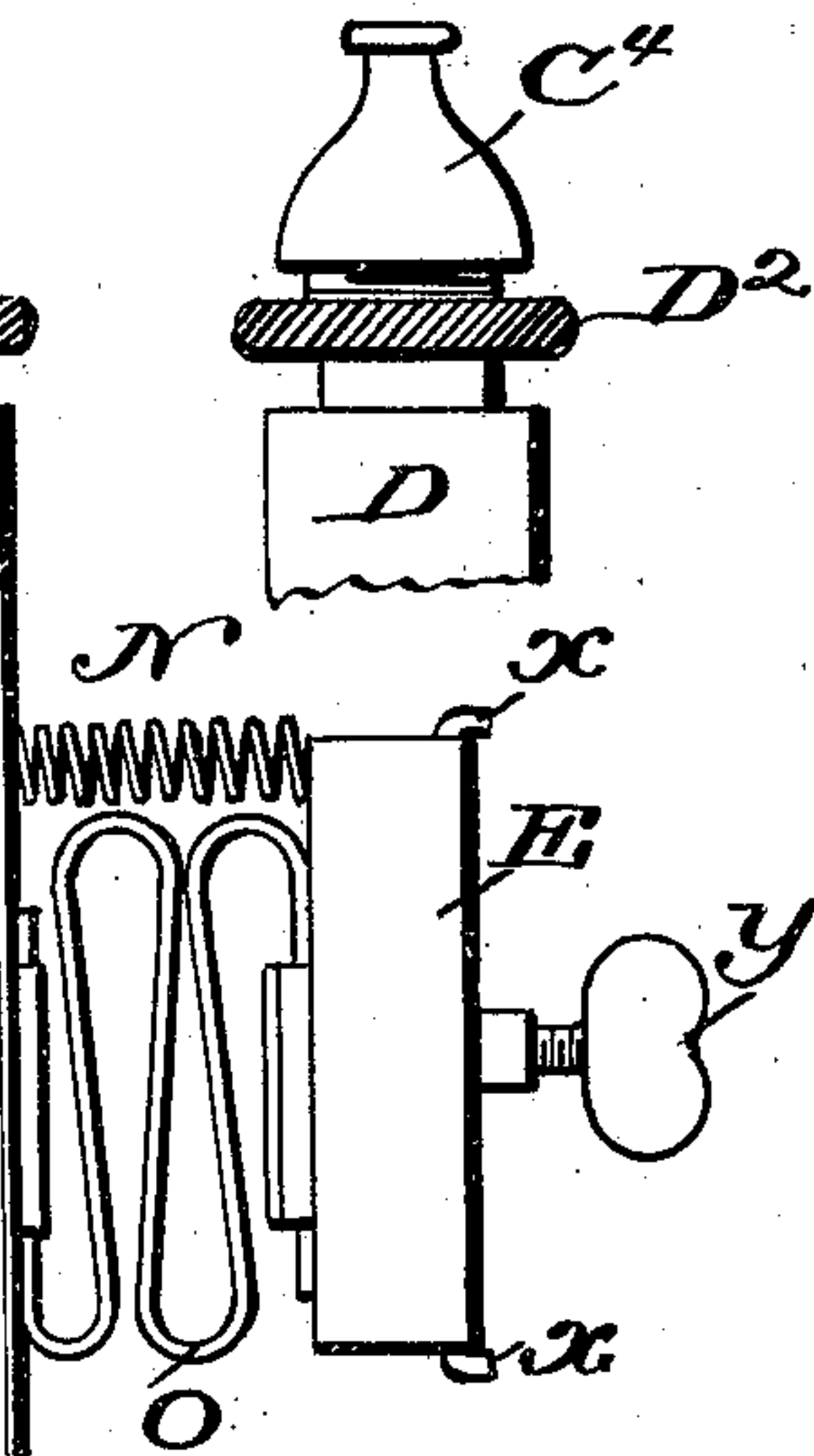


Fig. 12.

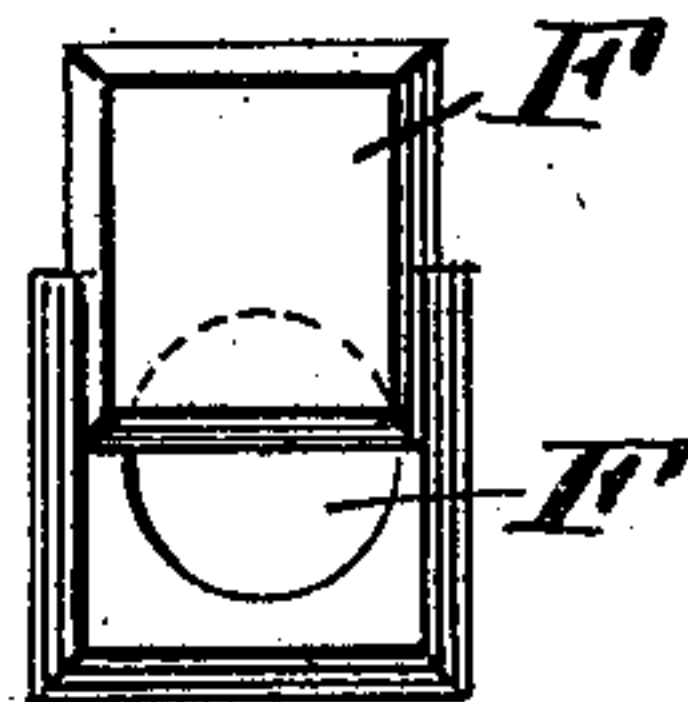
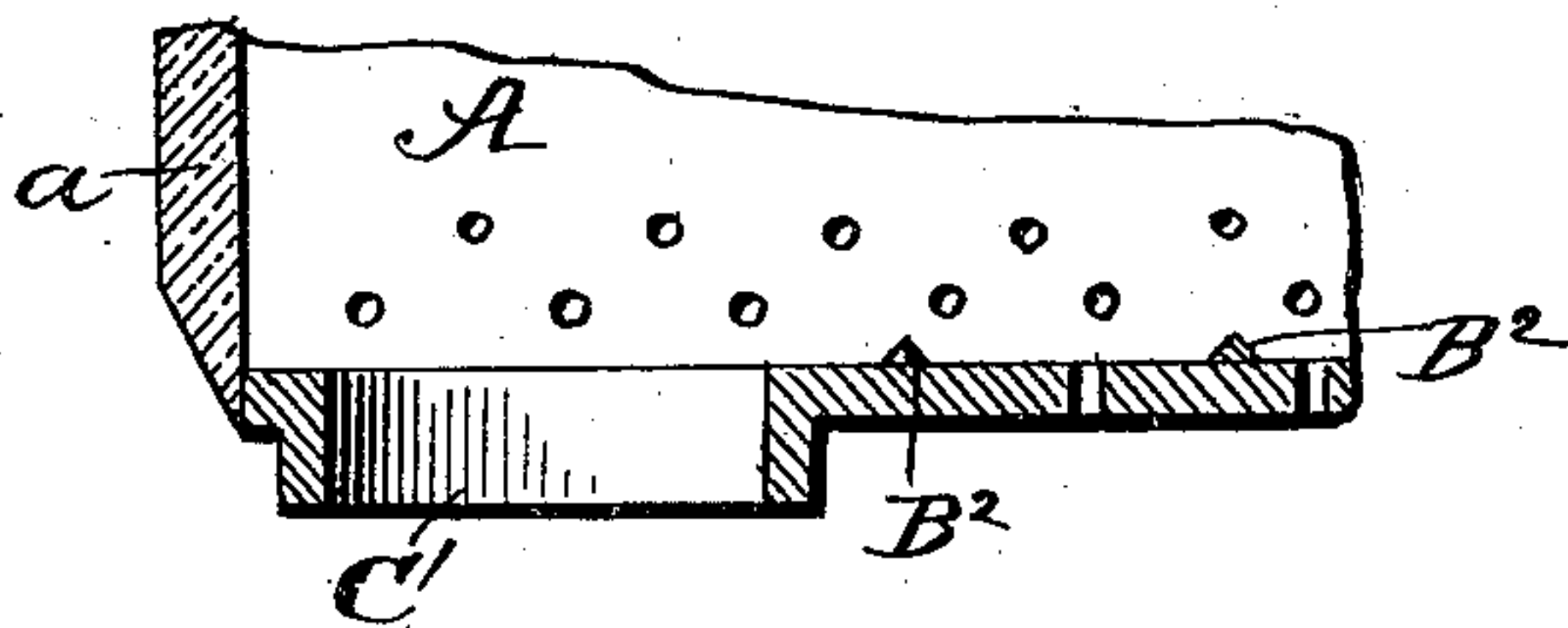


Fig. 13.



WITNESSES:

Jos. A. Ryan  
Perry B. Furpen

INVENTOR

B. D. Pudumjee.

BY *Munn & Co.*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

BOMONJEE DORABJEE PUDUMJEE, OF BOMBAY, INDIA.

## LAMP.

SPECIFICATION forming part of Letters Patent No. 674,317, dated May 14, 1901.

Application filed August 22, 1900. Serial No. 27,745. (No model.)

*To all whom it may concern:*

Be it known that I, BOMONJEE DORABJEE PUDUMJEE, residing at Charni road, Bombay, India, have invented a new and useful Lamp, named "The Triplex Lamp," for Carriages, Cycles, and other Vehicles, which lamp is fully set forth in the following specification, reference being had to the accompanying drawings.

My invention is in the nature of a triplex lamp or lantern which can be used with an oil-light alone or with such light combined with either an acetylene-light or a candle-light, or the acetylene-light or candle-light can be used alone; and the invention consists in certain novel constructions and combinations of parts, as will be described and claimed.

In the drawings, Figure 1 is a front elevation of my lamp or lantern. Fig. 2 is a front view, and Fig. 3 a side view, of the oil-can. Fig. 4 is a detail view of the burner-tip. Fig. 5 is a detail view of the gauze disk. Fig. 6 is a detail longitudinal section of the tube. Fig. 7 shows a modified form of safety-valve. Fig. 8 is a detail view of the follower-disk. Fig. 9 is a side view of the lamp or lantern. Fig. 10 shows a different form of ventilator. Fig. 11 is a detail view showing the burner-tip applied to the filling-cap of the water-reservoir. Fig. 12 is a detail view illustrating the slide for closing the match-opening, and Fig. 13 is a detail partial cross-sectional view of the bottom of the lamp-body.

The principal parts of the lamp are, first, the box or main body A of the lamp, which is provided with a chimney or ventilator like A' in Fig. 1 or A<sup>2</sup> in Fig. 10; second, an oil-can B, with a burner; third, a cylindrical receptacle C, for holding a candle or calcium carbide; fourth, a water-reservoir D at the back of the lamp, and, fifth, a lamp-holder E, attached to the back of the water-reservoir.

This lamp may be made of brass, copper, aluminium, steel, or any other metal.

The box or main body A of the lamp in which the flame is produced and from which light radiates consists of three vertical sides and a top and a bottom. It has a broad front tapering into a narrow back. To the front is hinged a glass cover *a*, which can be opened

and shut. The box A is constructed with a tapering body, with a view to obtaining as wide a range of illumination as possible. The three vertical sides of the box have polished surfaces for reflecting light or can be fitted with ordinary removable reflectors. The top of the box A is fitted with a chimney or ventilator, which may be either like the one shown by A', Fig. 1, or like that shown in Fig. 10. The bottom of the box, as well as the vertical sides, is perforated into a number of holes for the necessary draft. On one side of the box there is a circular opening F, covered with a slide of red glass F', to admit of a match to ignite the lamp. The box or main body contains an oil-can B, fitted with a burner. The oil-can has a gap or round recess in the front, corresponding with an opening in the bottom of the box, through which is inserted a cylindrical receptacle C for holding a wax candle or calcium carbide. This receptacle is held in its position by a flange C', fixed outside to the bottom of the box, to which the receptacle can be screwed on or off.

The oil-can is fitted with a semicircular burner containing a flat wick, which can be raised or lowered by means of a horizontal shaft B', having a button at the end which projects out through one of the vertical sides of the lamp. The burner of the oil-can has its place toward the back of the box, the oil-can having a higher elevation at the back than at the front. The sides of the oil-can slope from the top to the bottom, so as not to block the draft caused by the perforations in the sides of the box, and the oil-can is raised from the bottom of the box by a ridge B<sup>2</sup> with the same object. One of the vertical sides of the box is slotted to fit the horizontal shaft B' of the burner to allow of the withdrawal of the oil-can from the body of the lamp. The slot is covered with a grooved slide B<sup>3</sup>. The oil-can has an opening at the top which is covered with a screw-stopper B<sup>4</sup>, through which opening the oil-can can be filled with oil.

The cylindrical receptacle C is suitable for holding calcium carbide or a wax candle. It contains a spring C<sup>2</sup> to push the candle up as it gets consumed. The spring is fitted with a round perforated follower-plate C<sup>3</sup> for greater safety against explosion when calcium carbide



is used in the receptacle and for supporting the candle when the latter is used as an illuminant. The receptacle C has a removable nipple or tip C<sup>4</sup> at the top, which can be  
 5 screwed on air-tight by means of a thin rubber washer. The nipple C<sup>4</sup> has a fine aperture facing a circular piece of wire-gauze C<sup>5</sup>, fitted in the inside of the nipple. The nipple projects out into the box through the flange  
 10 C' at the bottom of the box. The receptacle is provided with an air-tight cap C<sup>6</sup> at the bottom of the receptacle, which can be screwed off and on when necessary. When a candle is to be burned in the receptacle, the nipple  
 15 C<sup>4</sup> should be removed to allow the wick of the candle to burn. Then screw off the cap C<sup>6</sup>, insert the candle through the bottom, push the spring in behind the candle, and screw on the cap C<sup>6</sup> tightly. The cap contains a rub-  
 20 ber washer to make it air-tight. When calcium carbide is required to be used instead of a candle, replace the nipple and fill about two-thirds of the receptacle with calcium carbide, with the spring C<sup>2</sup> remaining in the recep-  
 25 tacle, and then screw tight the cap C<sup>6</sup>. The receptacle is provided with a safety-valve G, Fig. 6, or G', Fig. 7, which opens under abnormal pressure of gas. The safety-valve may be like one shown in Fig. 6 or like that  
 30 shown in Fig. 7. Sufficient quantity of water is allowed to run into the receptacle C through a rubber tube H, as shown in Fig. 9, connecting the receptacle C with the water-reservoir D. The rubber tube will serve also  
 35 as an additional valve. Should the safety-valve ever fail accidentally to work, it is possible the rubber tube may get blown off under very high pressure of gas. The water-reser-  
 40 voir is provided with a tap D', to which one of the ends of the rubber tube H is attached. The tap controls the flow of water into the receptacle. The reservoir is filled with water through an opening at the top, which is covered by a removable screw-stopper D<sup>2</sup>, with  
 45 an aperture in the center. When the nipple C<sup>4</sup> of the receptacle C is required to be put aside when a candle is to be burned in the receptacle, the nipple may be screwed onto the stopper D<sup>2</sup>, as shown in Fig. 11.  
 50 To the back of the water-reservoir a lamp-holder E, Fig. 9, is fixed for attaching the lamp to a carriage, cycle, or other vehicle. It consists of two springs N and O and a screw-clamp consisting of plate X and screw Y. The  
 55 springs absorb jolts, and thus prevent them from being communicated to the lamp. The clamp is adjustable and can be fastened to any ordinary lamp-bracket by means of the plate X.  
 60 The advantages of this lamp may be described categorically as follows: First, it is capable of burning oil; second, it is capable of burning wax candles; third, it is capable of burning acetylene gas; fourth, it has a novel  
 65 shape so designed as to throw bright light over a wide range in front of the lamp; fifth, it can be taken to pieces for cleaning pur-

poses, and, sixth, it can give simultaneously two lights—viz., oil and acetylene or oil and candle.

The utility of the lamp consists in its capability of being used according to the fancy, convenience, or immediate requirements of the user. It is simple in construction and easy of manipulation. It does away with the  
 75 necessity of keeping three separate lamps for the three combustibles—viz., oil, acetylene gas, and wax candles—it being threefold in character, and hence commendable for cheapness and portability.

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

1. The lamp or lantern herein described comprising the body having perforated bot-  
 85 tom and sides and having such sides converging rearwardly and provided in its bottom with an opening and upon said bottom with a rib, the tube depending from the body and communicating with the opening in the bot-  
 90 tom thereof, the water-receptacle connected with said body, means for establishing communication between the water-receptacle and said tube, and the lamp resting on the rib of the bottom and having in its front a recess  
 95 registering with the opening in said bottom and having its sides sloped to permit the circulation of the air substantially as set forth.

2. A lamp or lantern provided with an oil-burner and with means by which either a  
 100 candle or an acetylene-burner may be operated simultaneously with the oil-burner substantially as set forth.

3. A lamp or lantern comprising a body having a compartment for the oil-can and such oil-  
 105 can fitted therein; and provided with a depending tube communicating with the said compartment said tube being adapted to receive either a candle or calcium carbide substantially as set forth.

4. A lamp or lantern comprising the body having its bottom and sides perforated and provided on said bottom with a rib or pro-  
 110 jection and the oil-can seated on said rib and having its sides inclined inwardly toward its top substantially as described.

5. The combination of the lantern-body having the opening in its bottom and the depend-  
 115 ing tube communicating therewith, and the oil-can having a burner and fitted in said body and having in its front side a recess registering with the opening in the bottom of the body substantially as set forth.

6. A lamp or lantern comprising the body having in its bottom an opening near its front  
 120 edge, the oil-can within said body in rear of said opening, and the tube communicating at its upper end with the opening in the body of the lamp and provided with the safety-valve substantially as set forth.

7. The combination substantially as described of the lamp-body, the depending tube open at its upper end communicating at its  
 125 upper end with the interior of said body and



adapted at such end to receive a burner-tip and extended longitudinally in alinement with such open upper end, the removable cap for the lower end of said tube, the spring and  
5 perforated follower-plate in said tube adapted to operate upon either a candle or calcium carbid, the water-receptacle and means for connecting the water-receptacle with the tube all substantially as set forth.

BOMONJEE DORABJEE PUDUNJEE.

Witnesses:

WILLIAM T. FEE,  
CLARENCE E. FEE.