

(No Model.)

2 Sheets—Sheet 1

C. B. HARRIS.  
INCANDESCENT GAS BURNER.

No. 435,628.

Patented Sept. 2, 1890.

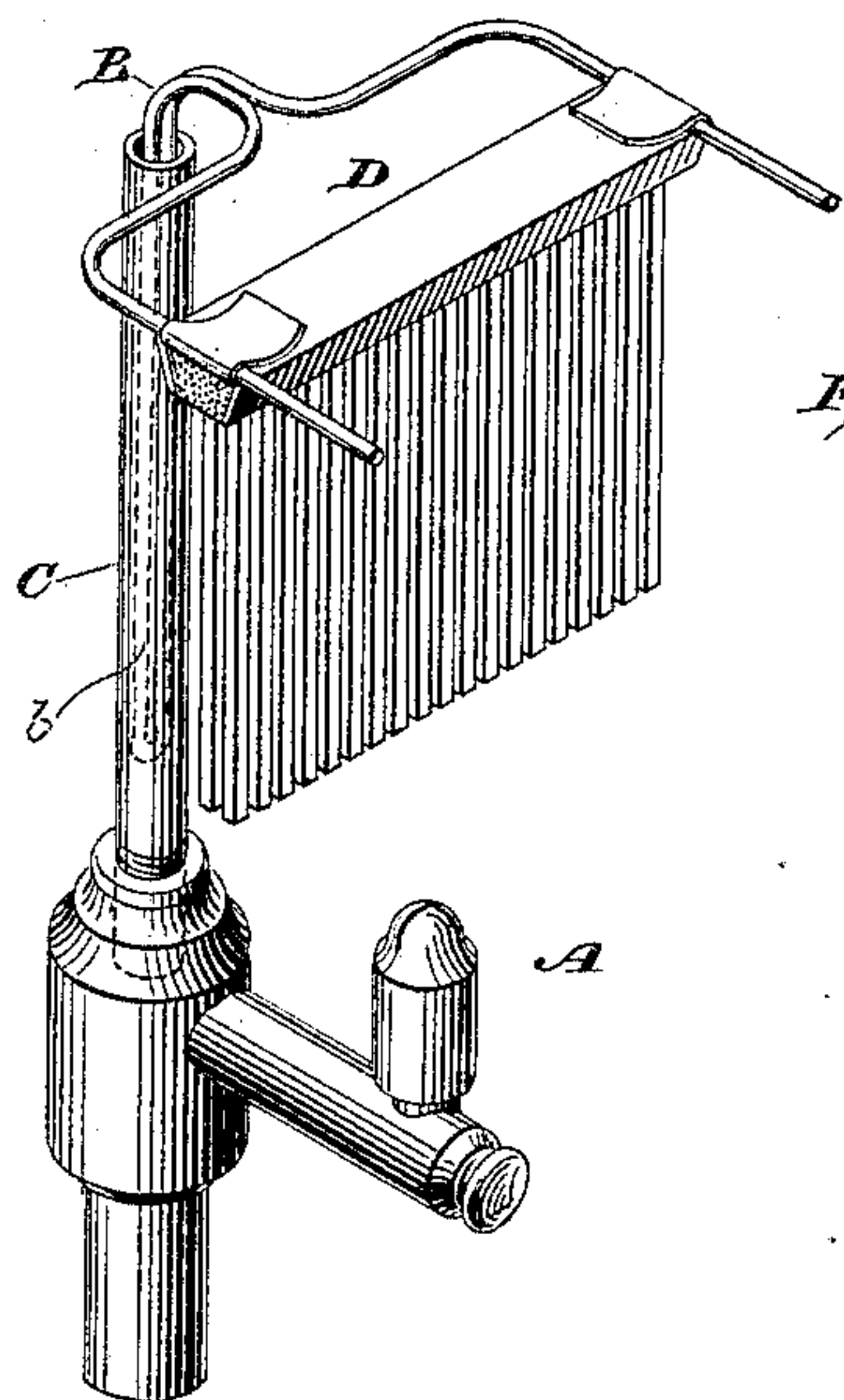


Fig. 1.

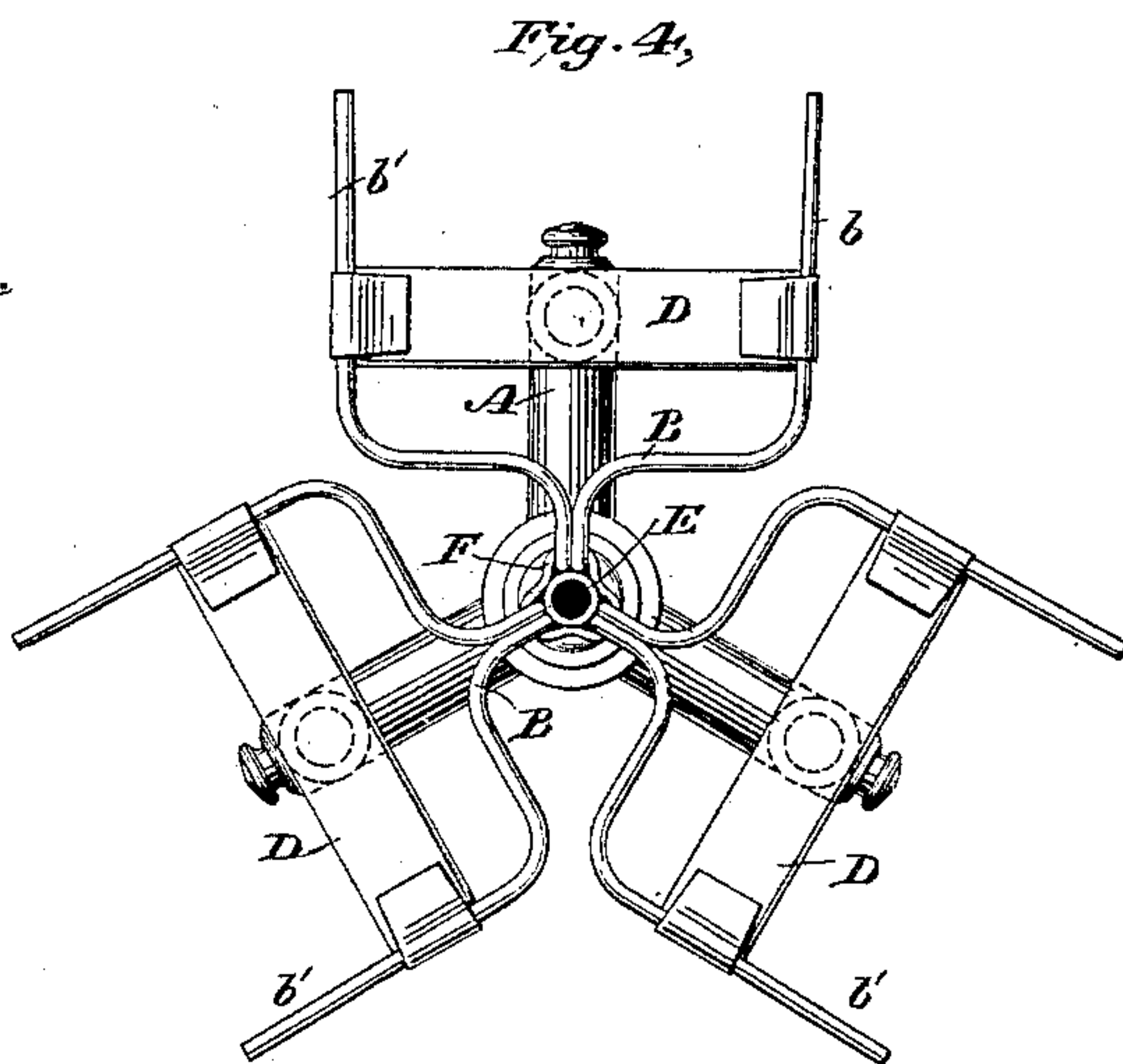


Fig. 4.

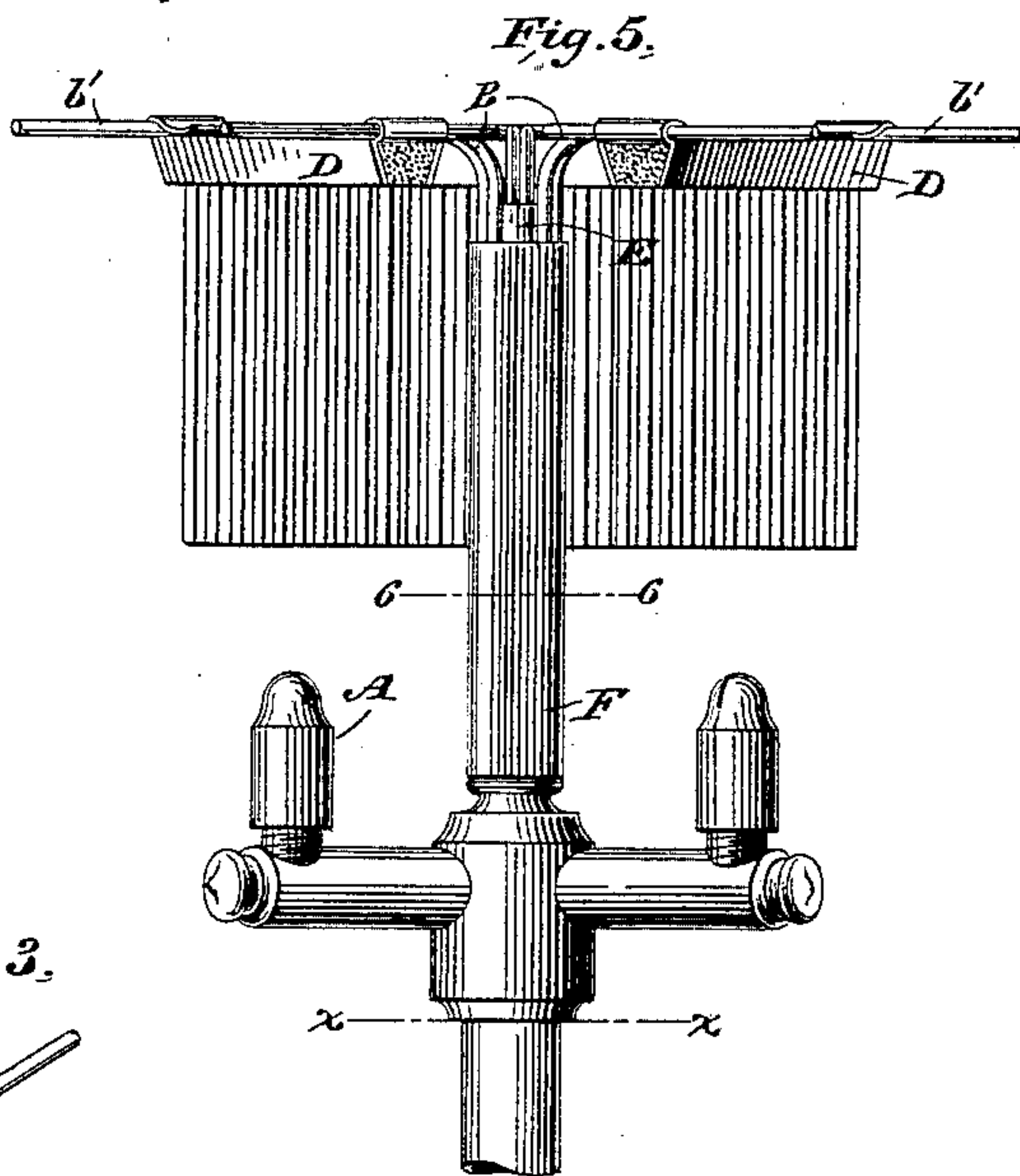


Fig. 5.

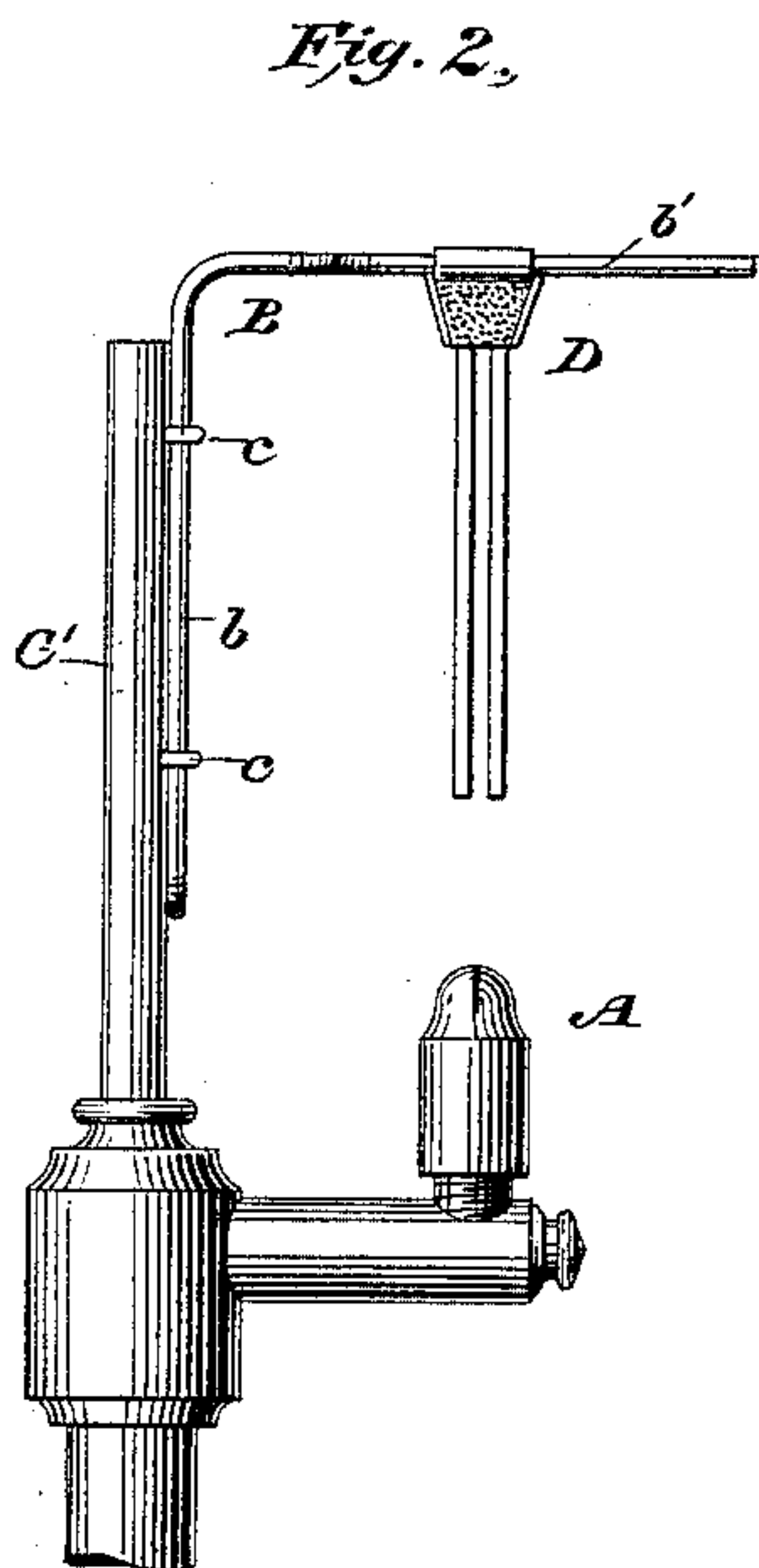


Fig. 2.

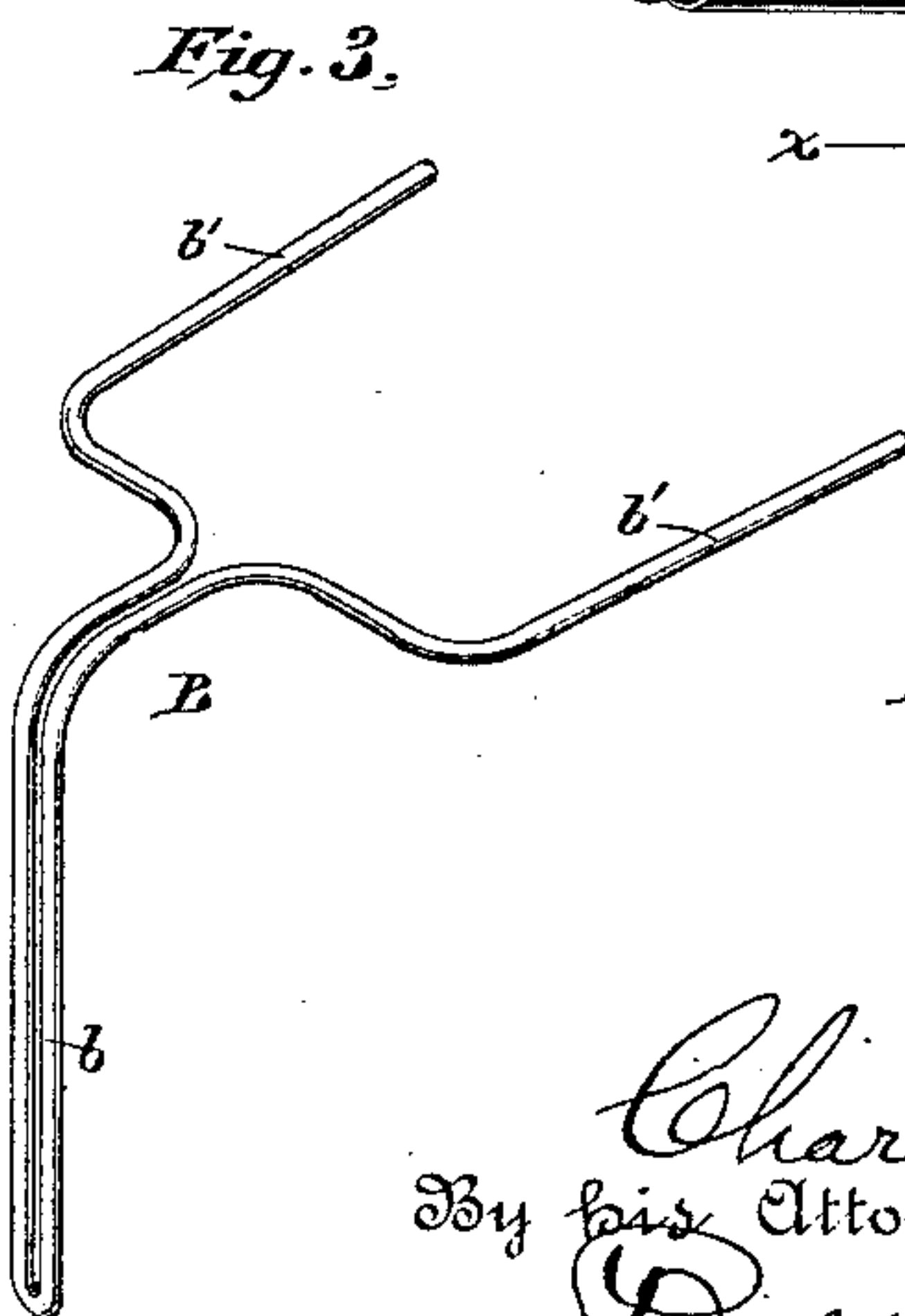


Fig. 3.

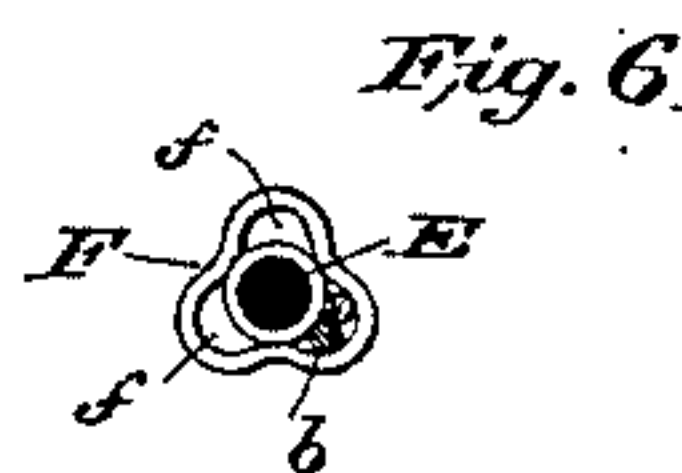


Fig. 6.

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Charles B. Harris  
By his Attorneys  
Baldwin, Davidson & Wright

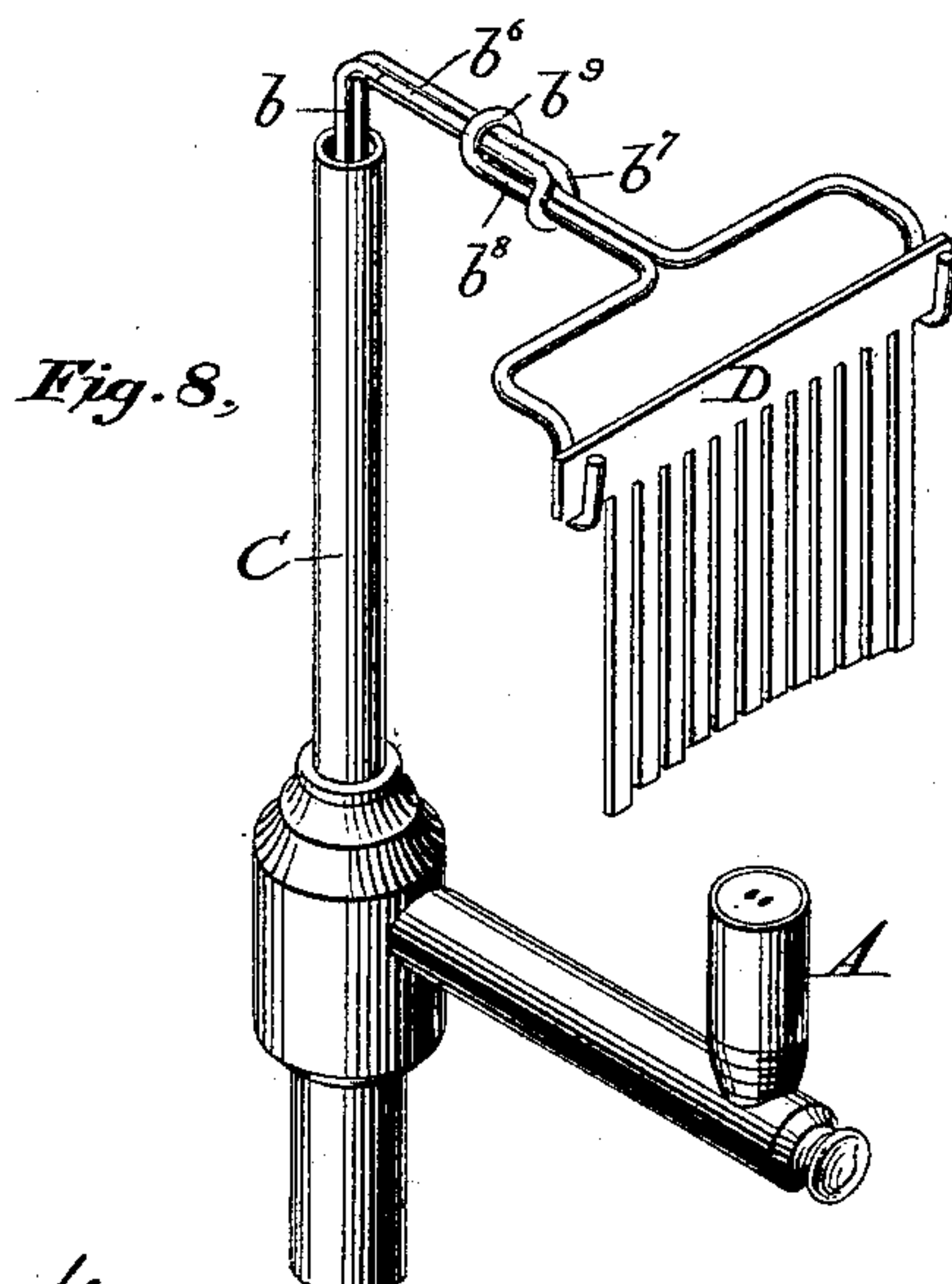
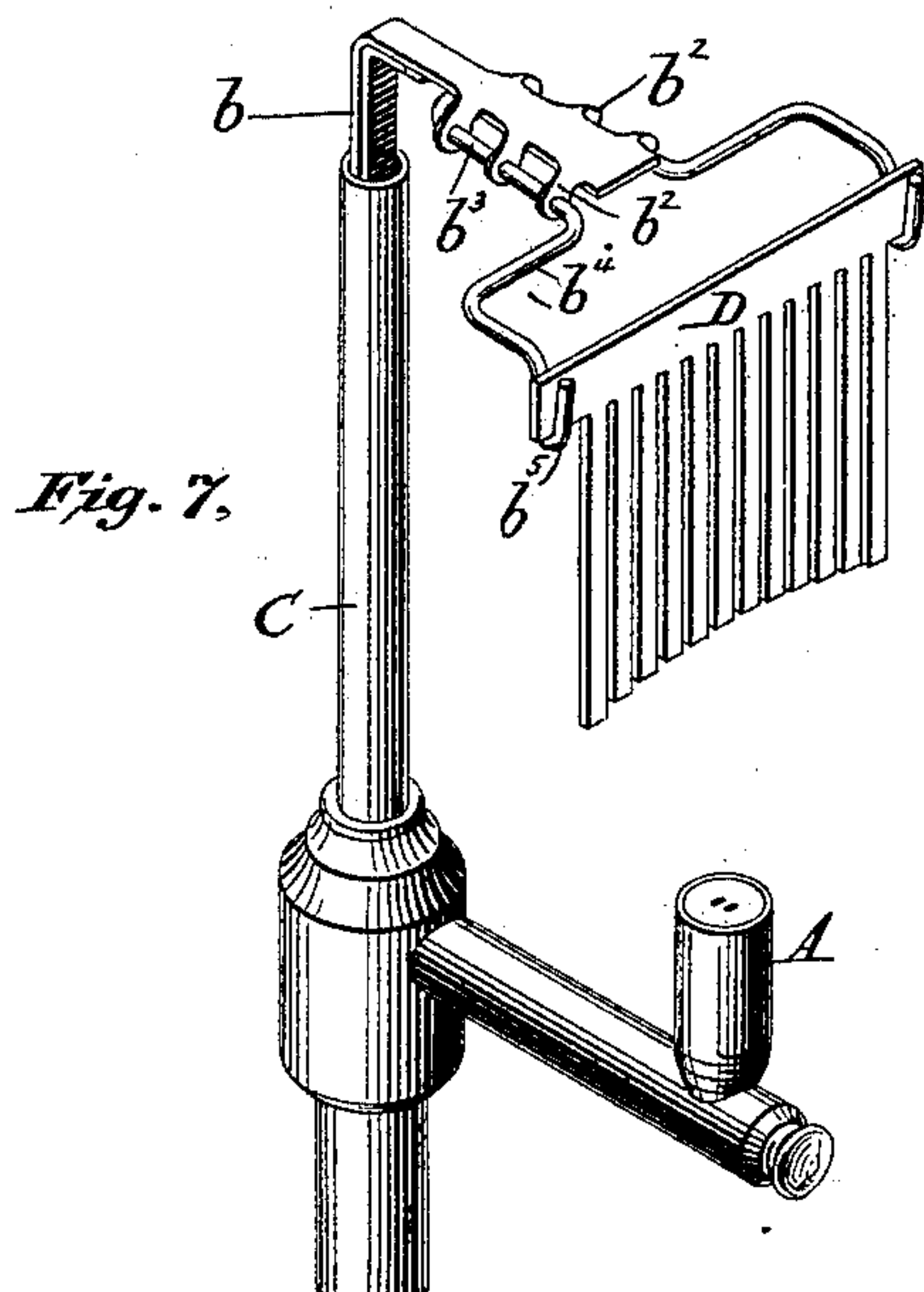
(No Model.)

2 Sheets—Sheet 2.

C. B. HARRIS.  
INCANDESCENT GAS BURNER.

No. 435,628.

Patented Sept. 2, 1890.



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Geo. W. Dreck.  
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Inventor  
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# UNITED STATES PATENT OFFICE.

CHARLES B. HARRIS, OF NEW YORK, N. Y.

## INCANDESCENT GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 435,628, dated September 2, 1890.

Application filed April 16, 1890. Serial No. 348,159. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES B. HARRIS, a citizen of the United States, residing in the city of New York, State of New York, have invented certain new and useful Improvements in Incandescent Gas-Burners, of which the following is a specification.

The purpose of my invention is to provide a very cheap and simple support for the filament-head which shall afford no obstruction to the light at the ends of the head and which may be constructed to afford any desired vertical adjustment of the support and lateral adjustment of the head above the flame.

The invention may be carried out in a number of ways; but that which I show in the accompanying drawings is preferred by me because of its simplicity and practical advantages.

In the drawings, Figure 1 is a perspective view showing a single gas-burner with my improvement applied thereto; Fig. 2, a side view of the same; Fig. 3, a perspective view of the support of the filament-head; Fig. 4, a plan view of a multiple-burner fixture; Fig. 5, a side view of the same; Fig. 6, a cross-section on the line 6 6 of Fig. 5; and Figs. 7 and 8 are perspective views of burners equipped with my invention in slightly-different forms.

In all the views, A represents an ordinary gas-burner, which may be mounted upon or constitute a part of any suitable or ordinary gas bracket or chandelier. The filament or pencil head support B is preferably formed of wire, substantially in the manner indicated more especially in Fig. 3. The wire is bent upon itself so as to form a vertical portion *b*, and at the upper ends the wires are bent at right angles and then diverge, being bent outwardly and extended horizontally, or substantially so, so as to project over the gas-burner. The part *b* will naturally have more or less elasticity, and it may be seated in a vertical socket-pipe C, as shown in Fig. 1, or be passed through eyes *c c* upon the exterior of a post C', as shown in Fig. 2, and in either instance it will be held frictionally at any point to which it may be adjusted. The filament-head D is mounted upon the horizontal portions *b'* of the support. The ends *b'* may pass through eyes or under lips formed upon the filament-head or be connected therewith in

any desirable manner, but preferably so as to permit of a horizontal movement of the head thereupon. In the various figures at the ends of the heads lips are provided which are turned backwardly and downwardly to embrace the portions *b'* of the support.

In Figs. 4 and 5 I have shown a multiple-burner fixture. This fixture may be supported from below, as indicated at the bottom of Fig. 5, or it may be cut off upon the line *x x* and be a pendent fixture. In that event it would be suspended by a prolongation of the pipe E, which of course would then supply gas to the burner. In either event the part E, whether it is a post or a pipe, is surrounded by a corrugated sleeve F, the corrugations *f* of which afford sockets for the reception of the vertical part *b* of the holder or support. The arrangement is practically the same as shown in Figs. 1 and 2, the corrugated sleeve F being properly set upon the central core pipe or post E. When the parts *b* of the holders are inserted therein, the horizontal parts *b'* will be properly held over the burners, and the heads thereupon may be adjusted horizontally, as already described.

In Fig. 7 the part *b* is shown as made of a flat strip of metal, two portions of which are bent at right angles at the top, where one portion terminates. The other part is extended horizontally, and is formed with ears *b<sup>2</sup>* on each side, having apertures therein. A looped wire *b<sup>3</sup>* passes through these apertures and is bent outwardly at *b<sup>4</sup>*, its ends being formed with hooks *b<sup>5</sup>*, in which the filament-head may hang. In this figure, as well as in Fig. 8, the pendent filaments or pencils are all made in one piece with the head that is hung in the loops *b<sup>5</sup>*. Such heads and pendants may be made as described in my patent No. 409,607, dated August 20, 1889.

In Fig. 8 the vertical part *b* of the support is formed by the free ends of the wire, which, after being bent, as indicated at *b<sup>6</sup>*, at right angles at the top, is turned down at the end to form an eye or loop *b<sup>7</sup>*, through which slide wires *b<sup>8</sup>*, having an eye or loop *b<sup>9</sup>*, that embraces the wires *b<sup>6</sup>*. The ends of the wires *b<sup>8</sup>* are bent outwardly and hooked, as in Fig. 7, and in the hooks the filament-head is suspended.

By means of the construction shown in



Figs. 7 and 8 obviously any adjustment vertically or laterally may readily be obtained.

Of course the specific details of construction may be varied in many ways. Those  
5 shown are of the utmost simplicity, are cheap and durable, afford both vertical and horizontal adjustment where desired, and are not at all liable to get out of order.

I claim as my invention—

10 1. The combination, substantially as set forth, with a burner, of a vertical socket, a support, as B, having a portion *b*, composed of parallel wires vertically adjustable in said socket and held frictionally therein by the  
15 elasticity of said wires, which causes them to bear against the walls of the socket, and a horizontal portion having diverging ends, as *b'*, projecting over the burner, and the filament-head carried upon said ends and horizontally adjustable with reference to the ver-  
20 tical part of the support.

2. The combination, with the burner and socket, of the support B, consisting of two portions permanently connected together—  
25 first, a vertical part bent at right angles at the

top to form a short horizontal arm, and, second, a short horizontal portion sliding upon the horizontal part or arm of the first portion and having diverging horizontal arms for supporting a filament-head, substantially  
30 as shown and described.

3. The combination, substantially as set forth, with multiple burners, of a corrugated sleeve F and holders, as B, vertically adjustable in the corrugations to support the fila-  
35 ment-heads above the burners.

4. The combination, substantially as set forth, of multiple radiating burners, a centrally-located post, as E, a surrounding corrugated sleeve, as F, supports B, vertically  
40 adjustable in the corrugations, and horizontally-adjustable filament-heads D, carried by said supports.

In testimony whereof I have hereunto subscribed my name.

CHARLES B. HARRIS.

Witnesses:

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