

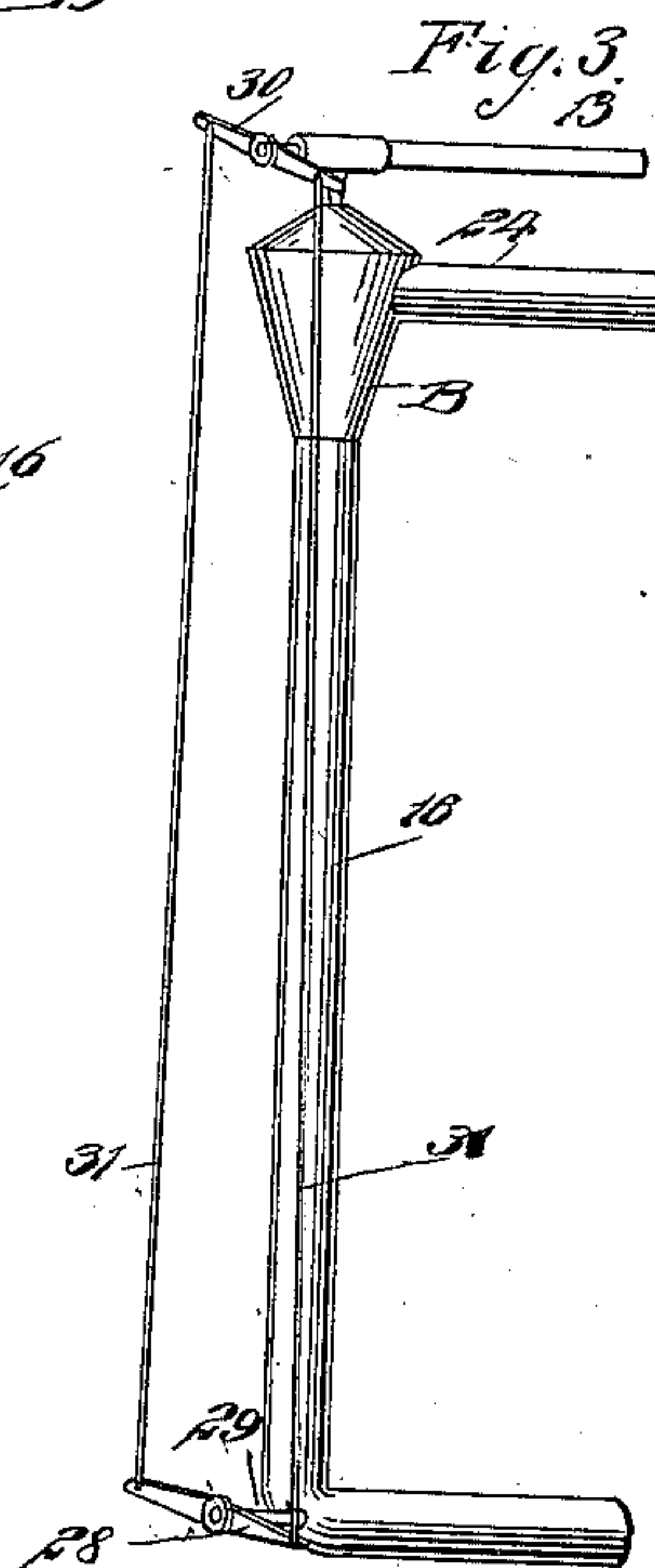
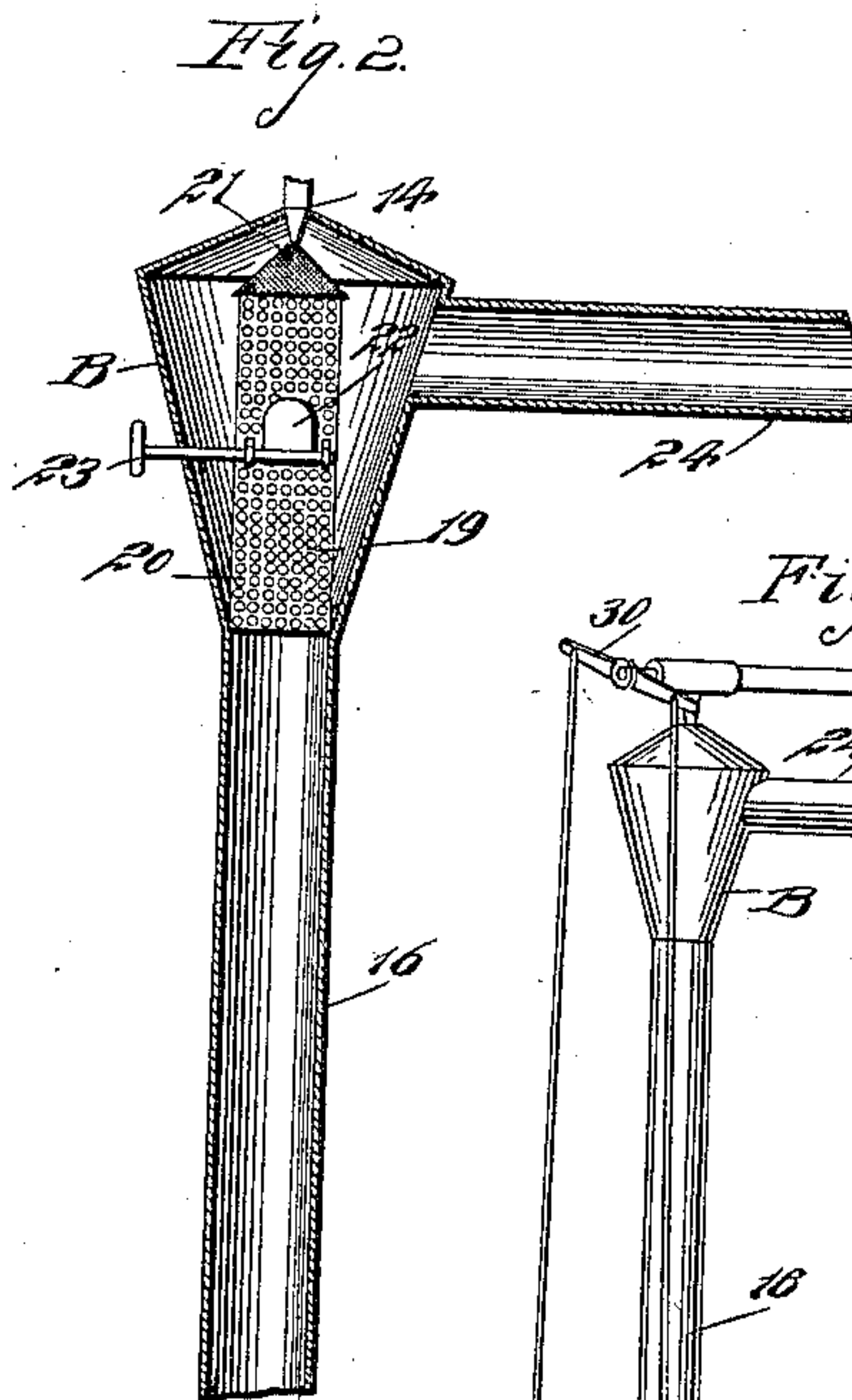
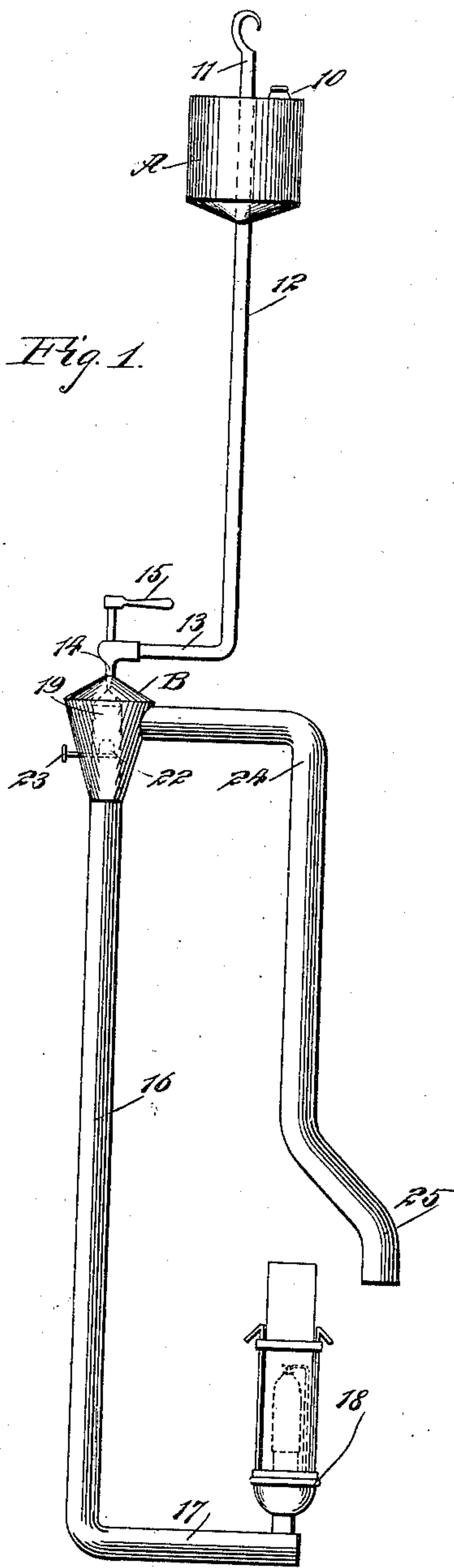
No. 652,054.

Patented June 19, 1900.

A. L. TABER.  
CARBURETING LAMP.

(Application filed Sept. 9, 1899.)

(No Model.)



WITNESSES:

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ARTHUR LORIN TABER, OF CORONA, CALIFORNIA.

## CARBURETING-LAMP.

SPECIFICATION forming part of Letters Patent No. 652,054, dated June 19, 1900.

Application filed September 9, 1899. Serial No. 729,975. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR LORIN TABER, of Corona, in the county of Riverside and State of California, have invented a new and useful Improvement in Carbureting-Lamps, of which the following is a full, clear, and exact description.

The objects of my invention are to provide a simple, economic, and effective apparatus for supplying inflammable vapor to a burner, and, further, to supply a steady flow of oil to the vaporizing-chamber and insure the generation of such vapor in said chamber through the instrumentality of drafts of air instead of through the direct application of heat, as heretofore.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improved carbureting-lamp, illustrating the application of a lamp thereto. Fig. 2 is an enlarged vertical section through the vaporizing-chamber and a portion of the draft-tube and a portion of the vapor or gas conducting tube, and Fig. 3 is a side elevation of a modified construction of the apparatus.

A represents a tank adapted to contain oil and provided with a tapering bottom and an inlet 10 at the top, suitably capped, together with a bracket 11, by means of which the said tank may be suspended from any desired support. A supply-tube 12 is introduced into the oil-tank A from the bottom, extending upward within said tank, and that portion of the supply tube or pipe within said tank is perforated, as shown in dotted lines in Fig. 1. The supply-pipe 12 extends downward a suitable distance from the oil-tank and terminates in a branch 13, which branch is connected with a nozzle 14, controlled by a valve 15, and said nozzle is so constructed that instead of the oil leaving the vessel in drops, as heretofore, it will pass from the nozzle in a steady but small stream, the volume of which is under the complete control of the valve 15.

A receptacle B is provided, which receptacle is tapering or conical in form, its lower portion being smaller than its upper portion, and the top of the casing or receptacle B is likewise of somewhat-conical shape, as shown in both Figs. 1 and 2. The interior of the receptacle B constitutes a vaporizing-chamber, and within this chamber a vaporizer 19 is located and properly supported. This vaporizer consists of a hollow cylinder having a number of apertures 20 made therein, and the bottom of the vaporizer is supported at the reduced end of the vaporizing-chamber, while the top of the vaporizer does not extend to the top of the receptacle B and is provided with a cap 21 of a fibrous material, which cap is of conical shape, and the nozzle 14 is passed through the top of the receptacle B and into the cap of the vaporizer at its apex, as is shown in Fig. 2. A large opening is made in one side of the vaporizer, and a damper 22 is provided for said opening capable of completely closing it, and said damper is provided with a stem that extends beyond one side of the receptacle B, terminating in a hand-wheel 23 or a handle of any description.

A vapor or gas conducting tube 16 is connected directly with the reduced lower end of the receptacle B, and this conducting-tube is preferably provided with a branch 17, with which branch a burner 18 of any desired type capable of burning vapor is attached, as shown in Fig. 1.

An air-supply pipe 24 is connected with the receptacle B near the top thereof, and said air-supply pipe extends downward in such a position as to be heated by the upward draft from said burner, and the terminal 25 of said air-supply pipe extends so as to draw the air-supply from below the top of the chimney of said burner or from out one side of the center line of said chimney of said burner, so that the air communicated to the vaporizer will be in a more or less heated condition and also pure or fresh, insuring the rapid conversion of oil into vapor and the proper amount of oxygen in said vapor to be supplied to said burner.

In the modified construction shown in Fig. 3 a lever or handle 28 is pivoted to a suitable support 29 at or near the base of the appara-



tus and is connected with a lever 30, attached to the valve of the vaporizing-chamber B by means of one or more rods or wires 31 or other suitable connections, whereby  
5 said valve may be turned on or off and regulated from at or near the base of the device.

In operation the oil is fed to the vaporizer at first in small quantities yet regularly, as stated, and the damper 22 is opened, so that as  
10 great a volume of air as is possible may meet the descending column of oil. As soon as a flame is obtained at the burner, said flame will heat said air-pipe, and the vaporization through the induced current of air will be au-  
15 tomatically and constantly carried on while a light is at said burner. The intensity of the flame is controlled by the amount of oil admitted to the vaporizer by the manipulation of the valve 15 or by means of the lever  
20 28 and the connections with the valve.

It will be noted that as the perforated metal vaporizer is suspended within a tubular casing part or all of the air-draft may be caused to pass through and around or outside of said  
25 vaporizer within said tubular casing without being caused to pass through the perforations in the vaporizer. Thus the vaporizer will not offer so much resistance to the air-draft as if such draft were caused to pass  
30 through the perforations in the vaporizer, and therefore a stronger draft of vapor is produced.

Having thus described my invention, I claim as new and desire to secure by Letters  
35 Patent—

1. In a carbureting-lamp, a casing, a pipe leading therefrom and arranged to receive a burner, an air-supply pipe connected to said casing, a vaporizer in said casing and formed  
40 with perforations and a large opening in ad-

dition to the perforations, and a damper for closing said large opening, as set forth.

2. In a carbureting-lamp, a casing, a vapor-pipe leading from the bottom thereof and arranged to receive a burner, an air-supply pipe  
45 connected to said casing at the side and arranged to convey thereto air heated by the burner, and a cylindrical perforated vaporizer in said casing, and having a large opening in its side in addition to its perforations,  
50 said cylinder having an open bottom fitting in the bottom of the casing and an open top, a cap of fibrous material over the top of said cylinder, and a damper on the side of the cylinder and adapted to open and close the large  
55 opening therein, as and for the purpose set forth.

3. A carbureting-lamp consisting of a receptacle of tapering form, a nozzle connected with a source of air-supply and arranged to  
60 feed oil in a continuous stream, a vaporizer located within said receptacle, consisting of an apertured cylinder having a large opening therein in addition to its perforations, and a damper arranged to control said opening, the  
65 upper portion of the said vaporizer being arranged to receive said nozzle, a vapor or gas conducting tube connected with the receptacle at a point below the vaporizer, and an air-supply pipe connected with said receptacle  
70 at a point near its upper end, the opposite end of the air-supply pipe being arranged to be heated by the heat from the burner connected with the vapor or gas supply conducting tube, as described.

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Witnesses:

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