

(No Model.)

F. RHIND.

OIL CUT-OFF FOR TELESCOPIC CHANDELIERS.

No. 563,413.

Patented July 7, 1896.

Fig. 1.

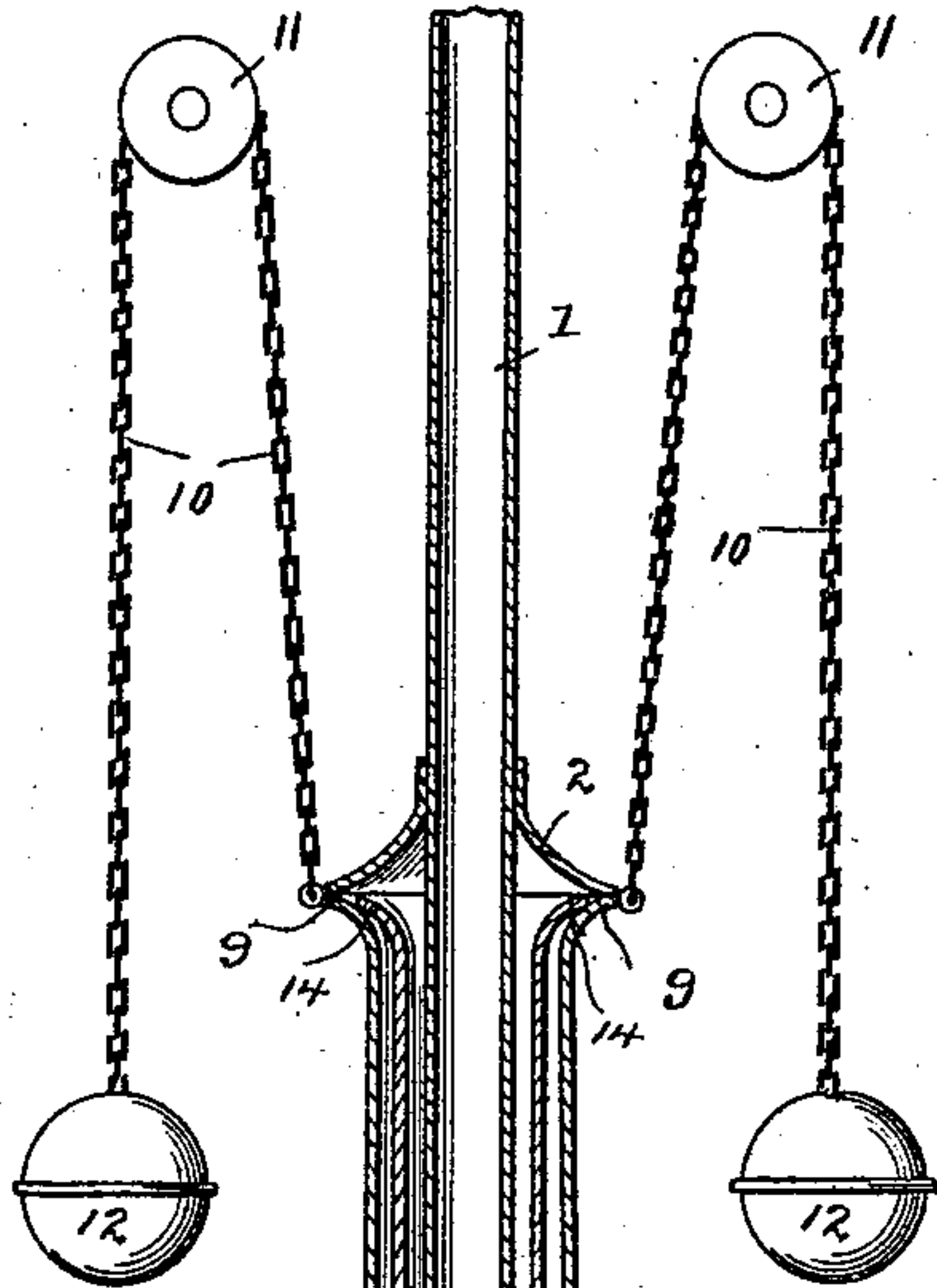


Fig. 2.

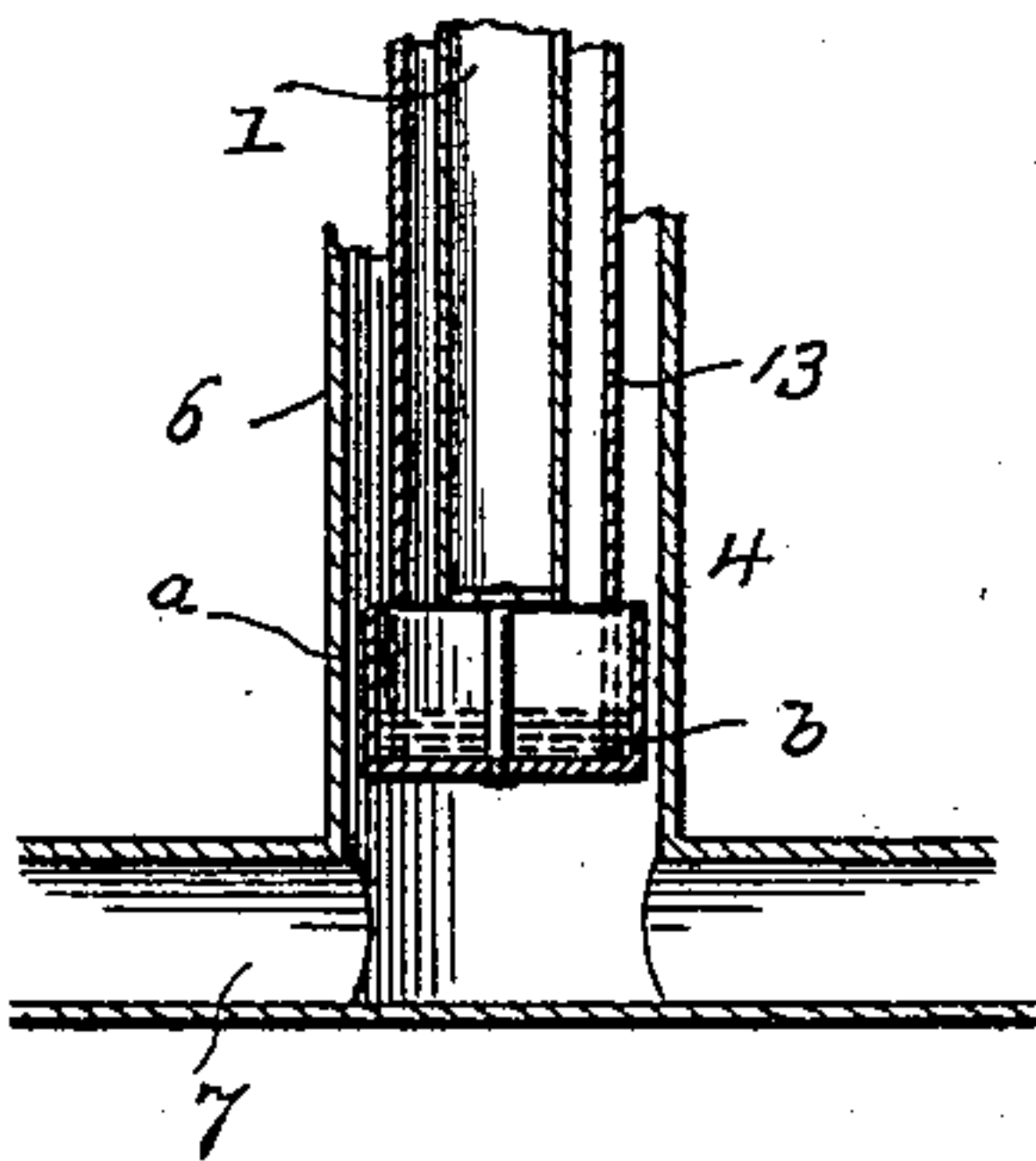


Fig. 3.

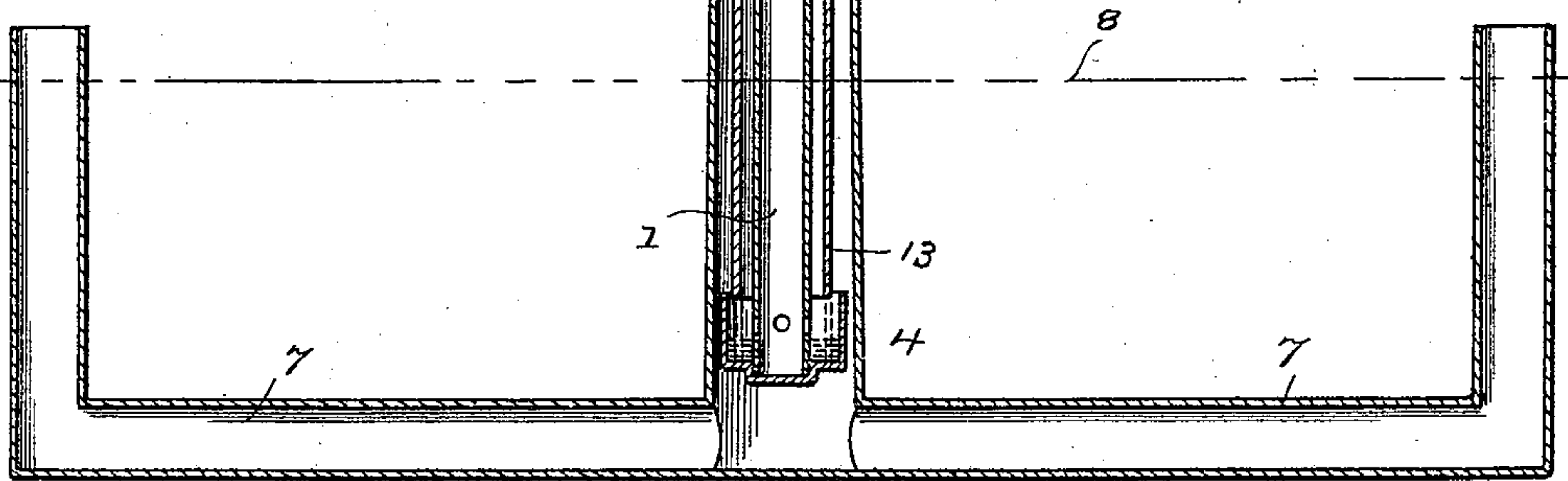
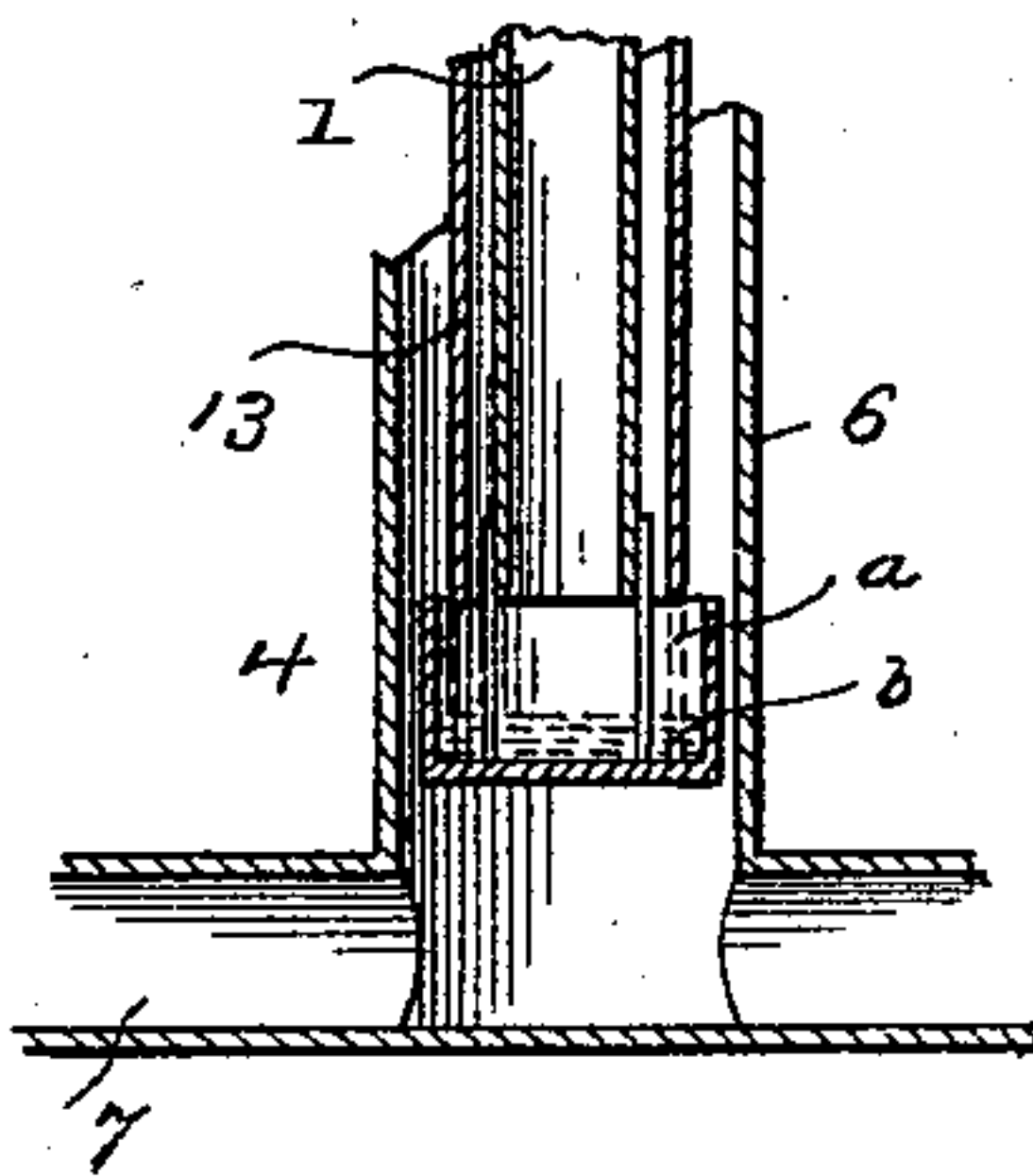


Fig. 4.

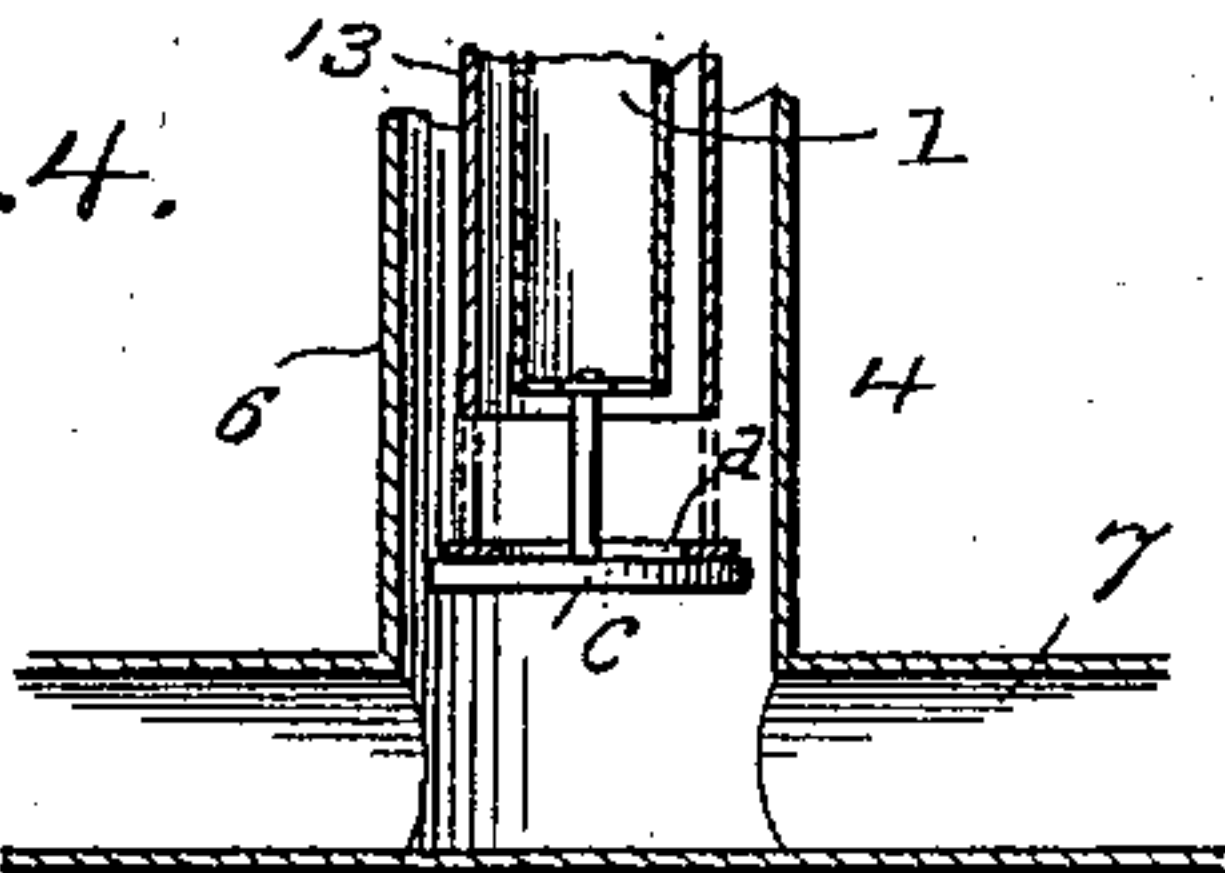
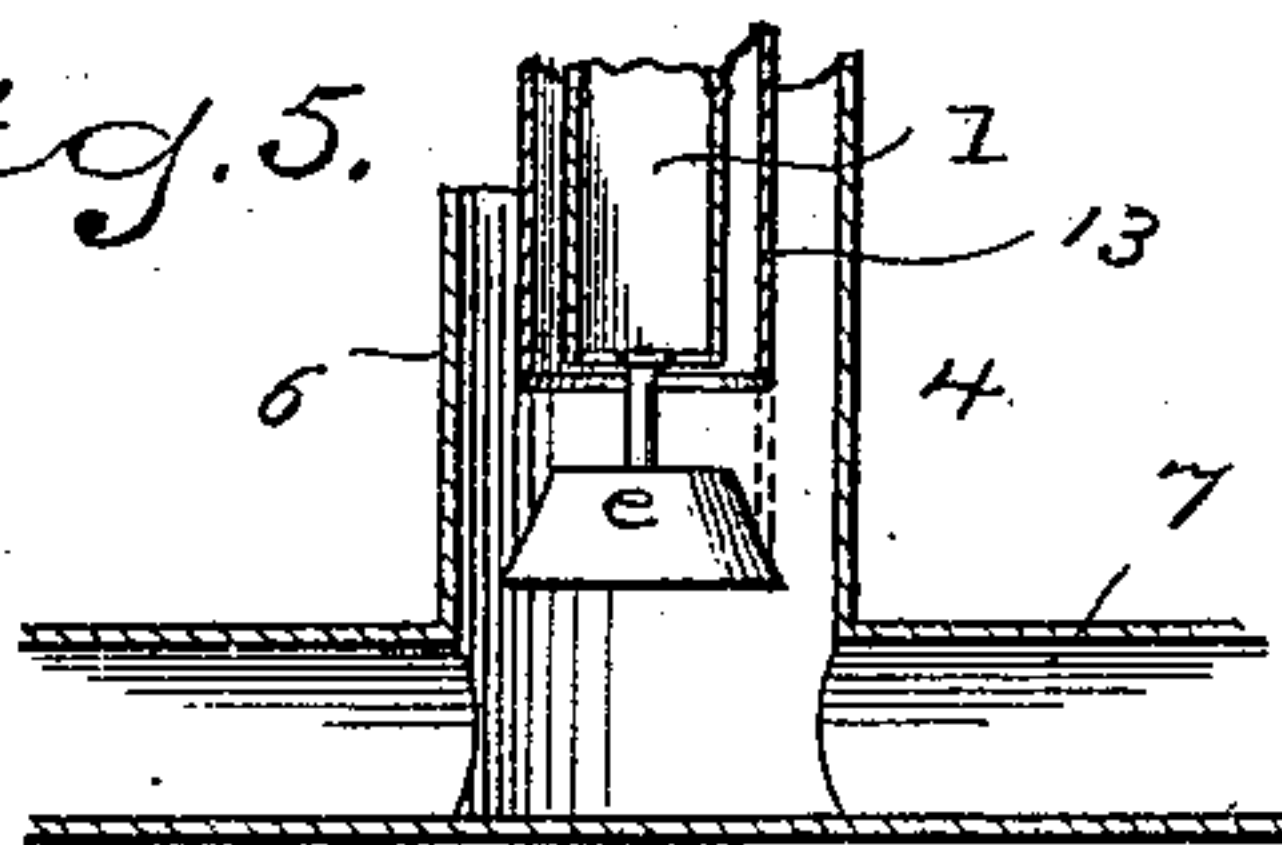


Fig. 5.



WITNESSES

H. A. Lamb,
Lucille V. Baylies.

INVENTOR

Frank Rhind
By A. M. Wooster
Atty.

UNITED STATES PATENT OFFICE.

FRANK RHIND, OF BRIDGEPORT, CONNECTICUT.

OIL CUT-OFF FOR TELESCOPIC CHANDELIERS.

SPECIFICATION forming part of Letters Patent No. 563,413, dated July 7, 1896.

Application filed September 10, 1895. Serial No. 562,090. (No model.)

To all whom it may concern:

Be it known that I, FRANK RHIND, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Oil Cut-Offs for Telescopic Chandeliers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to telescopic oil-burning chandeliers, and has for its object to provide a simple, inexpensive, and reliable device for cutting off the supply of oil and thereby preventing overflowing when the chandelier is lowered for any purpose, as for lighting or trimming.

With this end in view I have devised the simple and novel oil cut-off, of which the following description, in connection with the accompanying drawings, is a specification, numbers and letters being used to designate the several parts.

Figure 1 is a section of so much of an oil-burning telescopic chandelier as is necessary to illustrate the principle and operation of my novel cut-off, and Figs. 2, 3, 4, and 5 are views illustrating other specific constructions embodying the principle of my invention, the normal position of the parts being shown in full lines in all the views and the operative position of the cut-off tube being shown in dotted lines.

1 denotes a stationary oil-supply pipe, which has rigidly secured thereto a flange 2 and carries at its lower end a sealing device which I have indicated by 4. The special construction of this sealing device is not of the essence of my invention.

In Figs. 1, 2, and 3 I have shown a sealing device consisting of a cup *a*, secured in any suitable manner to the lower end of the supply-pipe, which is, of course, open at its lower end. This cup is partially filled with a liquid of greater specific gravity than oil, for example, mercury or glycerin, which is indicated by *b*, the said figures showing different modes in which I have attached the cup to the supply-pipe. In Fig. 4 I have illustrated a form in which the sealing device consists of a plate *c*, suspended from the lower end of

the supply-pipe, said plate being provided on its upper side with a pad *d*, which may be formed of any suitable plastic compound. In Fig. 5 I have illustrated a form in which the sealing device consists of a tapering block *e*, suspended from the lower end of the supply-pipe.

6 denotes the main tube of the chandelier, and 7 branches leading therefrom.

I have not shown either a tank or burner-reservoirs, as specifically they form no portion of my present invention.

The dotted line 8 indicates the normal oil-line at the tank and at the burner-reservoirs. It will be noticed in Fig. 1 that the sealing device is quite a distance below the oil-line.

The top of tube 6 is provided with a flange 9, which in practice is made ornamental and which is adapted to engage flange 2 on the oil-supply pipe, the latter serving as a stop to limit the upward movement of the chandelier.

10 denotes chains which pass over pulleys 11, one end of each chain being attached to flange 9, the other end carrying a weight 12. These weights serve as a counterbalance for the chandelier and control its movements in raising or lowering.

13 denotes the cut-off tube, which is normally held out of operative position by the main tube in any suitable manner. I have shown the cut-off tube as provided at its upper end with a flange 14, which in the normal or raised position of the chandelier rests upon flange 9 on the main tube by which it is supported, as clearly shown in the drawings. This cut-off tube is suspended loosely, the oil-supply pipe lying within the cut-off tube and the cut-off tube lying within the main tube of the chandelier. The exact diameter of these parts is not of the essence of my invention. It is essential, however, that the sealing device be of less diameter than the main tube, so that oil will pass freely from the supply-pipe to the main tube and the branches, and also that the cut-off tube be of less diameter than the sealing device, so as to secure a perfect cut-off, and also that the cut-off tube be of greater diameter than the oil-supply pipe, so as to leave space for a column of oil to rise to the normal level between the oil-supply pipe and the cut-off tube

when the latter is at its operative position, as indicated by the dotted lines.

The operation of my novel cut-off will be readily understood from the drawings, in which the parts are shown in full lines in the normal position. The oil passes freely down supply-pipe 1 and out into the main tube 6 of the chandelier, and thence to the branches in which it will rise to the normal level. Suppose now that it is desired to lower the chandelier for lighting or trimming. The chandelier is simply pulled down against the power of the weights. As the chandelier is lowered, flange 9 on the main tube moves away from flange 2. The cut-off tube, as already stated, is supported only by the main tube. As soon, therefore, as the main tube moves downward away from flange 2 the cut-off tube will move downward with it until the bottom of the cut-off tube engages the sealing device, which cuts off the flow of oil. If the seal consists of a fluid, the cut-off tube will, of course, drop down until it rests upon the bottom of the cup. After the engagement of the cut-off tube with the sealing device the chandelier may be moved downward still farther, but will not affect the oil cut-off, which will have been effected by the engagement of the cut-off tube with the sealing device. As soon as the cut off takes place oil will rise between the oil-supply pipe and the cut-off tube until it reaches the normal oil-level. There cannot, under any circumstances, be any pressure of oil in the branches and at the burner-reservoirs when the chandelier is lowered, for the reason that the pres-

sure of the oil supply will be counterbalanced by the column of oil between the oil-supply pipe and the cut-off tube. As soon as the chandelier is raised to its normal position again the parts will resume the normal position, (shown in full lines in the drawings,) the seal will be relieved, and oil will pass freely into the main tube and the branches, it being understood, of course, that the main tube in its upward movement will engage the cut-off tube and will carry it up, thus breaking the seal.

Having thus described my invention, I claim—

In a telescopic oil-chandelier the combination with a stationary oil-supply pipe open at its lower end and a sealing device carried by said supply-pipe, of a main chandelier-tube and a cut-off tube which is directly supported by the main tube when in the raised position and is adapted to engage the sealing device when the main tube is lowered, so that in the raised position oil from the supply-pipe will pass into the main tube and branches and in the lowered position the passage of oil to the main tube and branches will be cut off and the pressure of the oil supply will be counterbalanced by a column of oil between the supply-pipe and the cut-off tube.

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

FRANK RHIND.

Witnesses:

A. M. WOOSTER,
S. V. RICHARDSON.