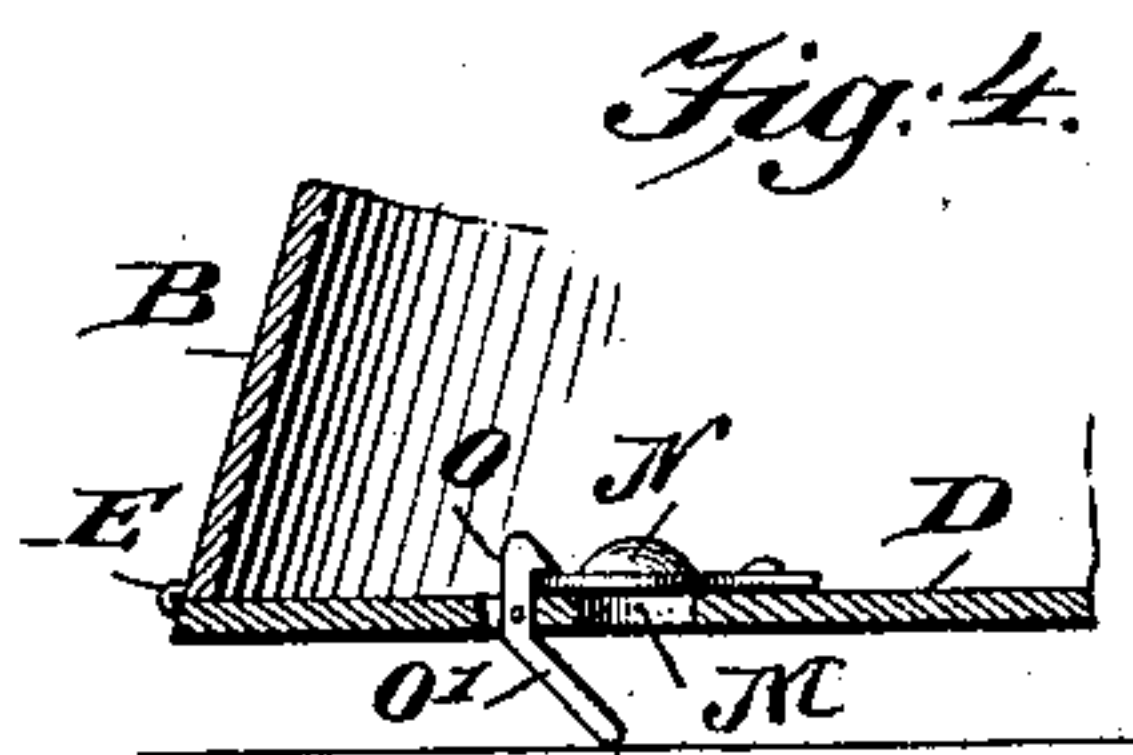
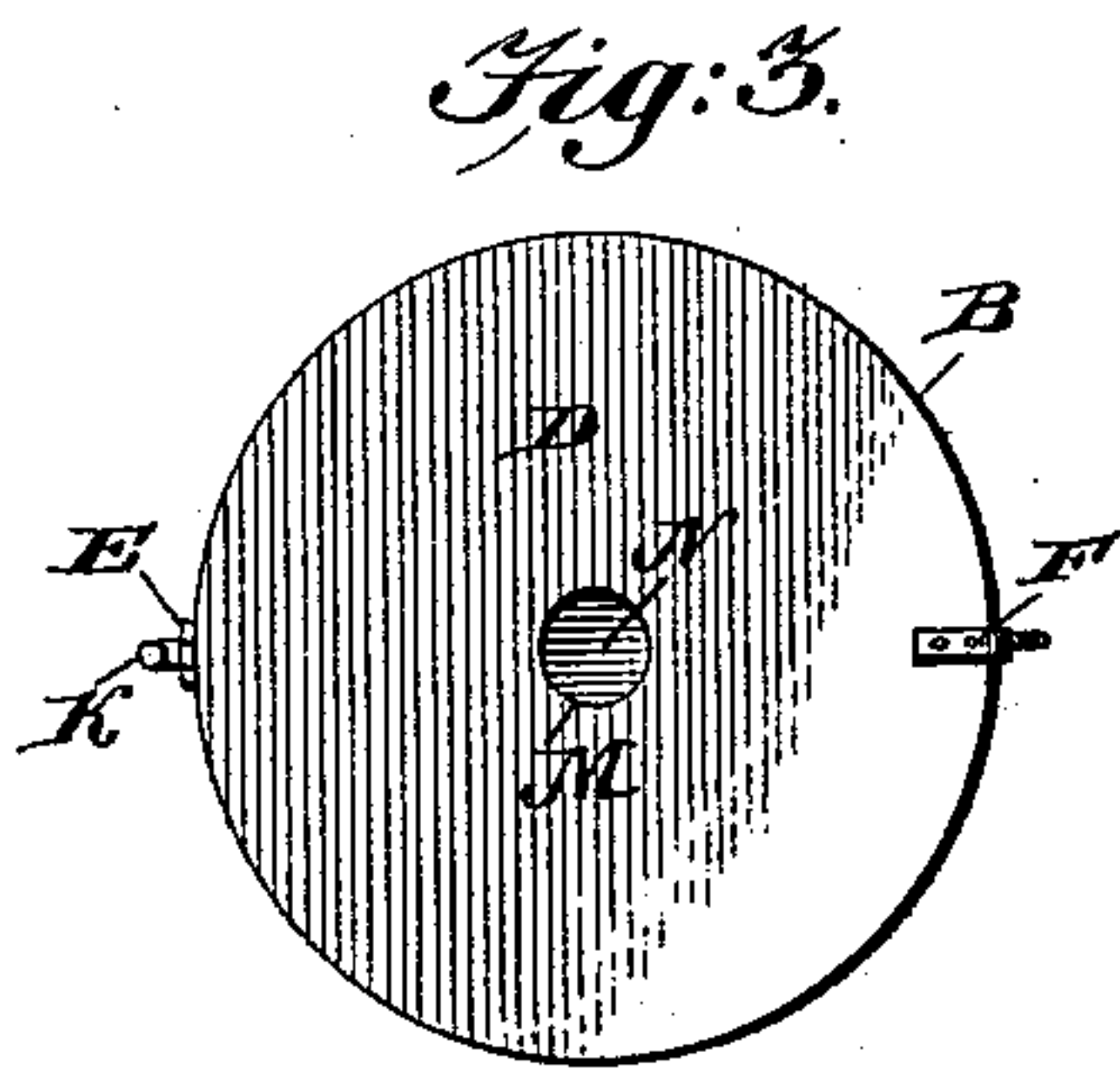
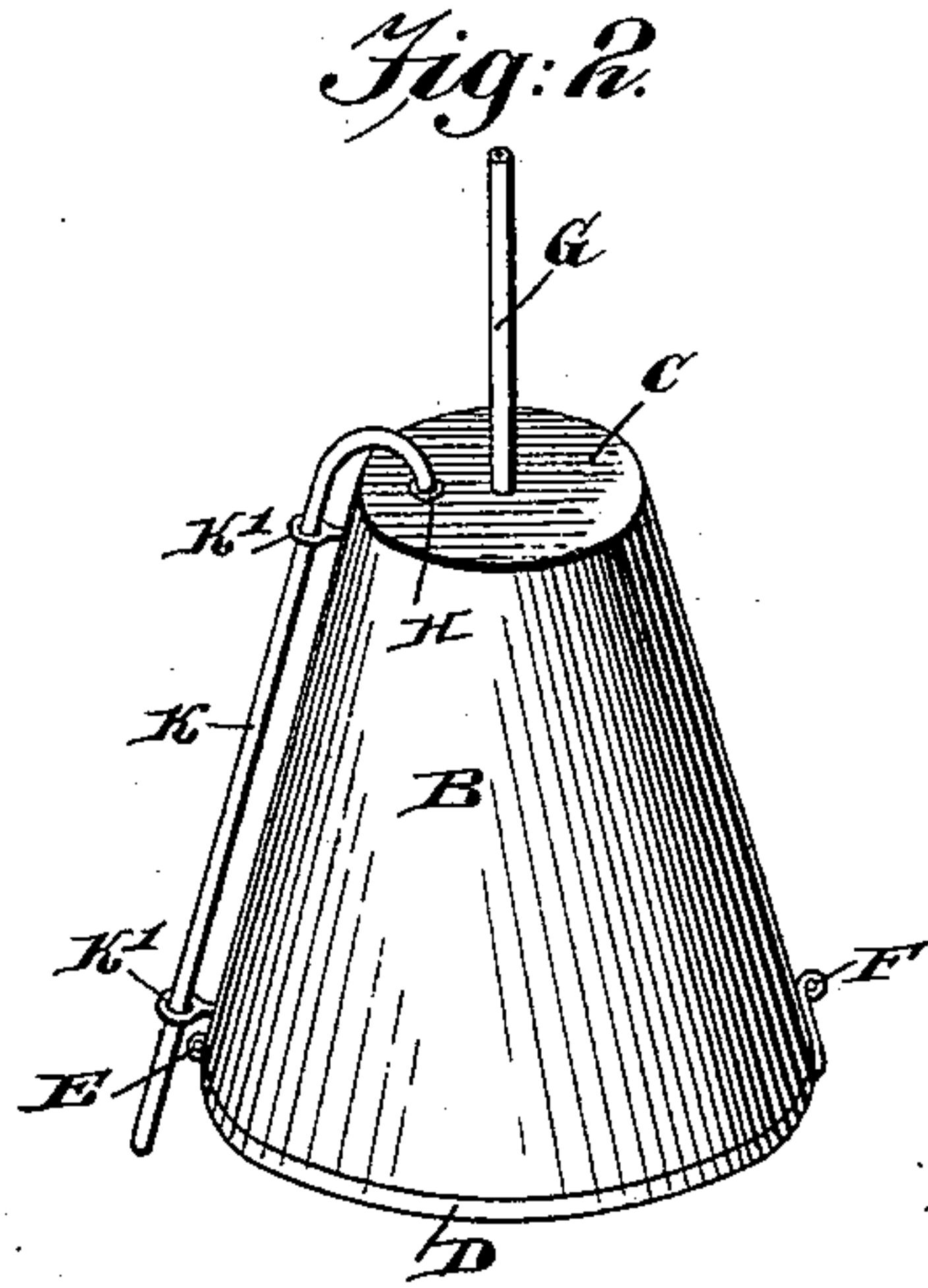
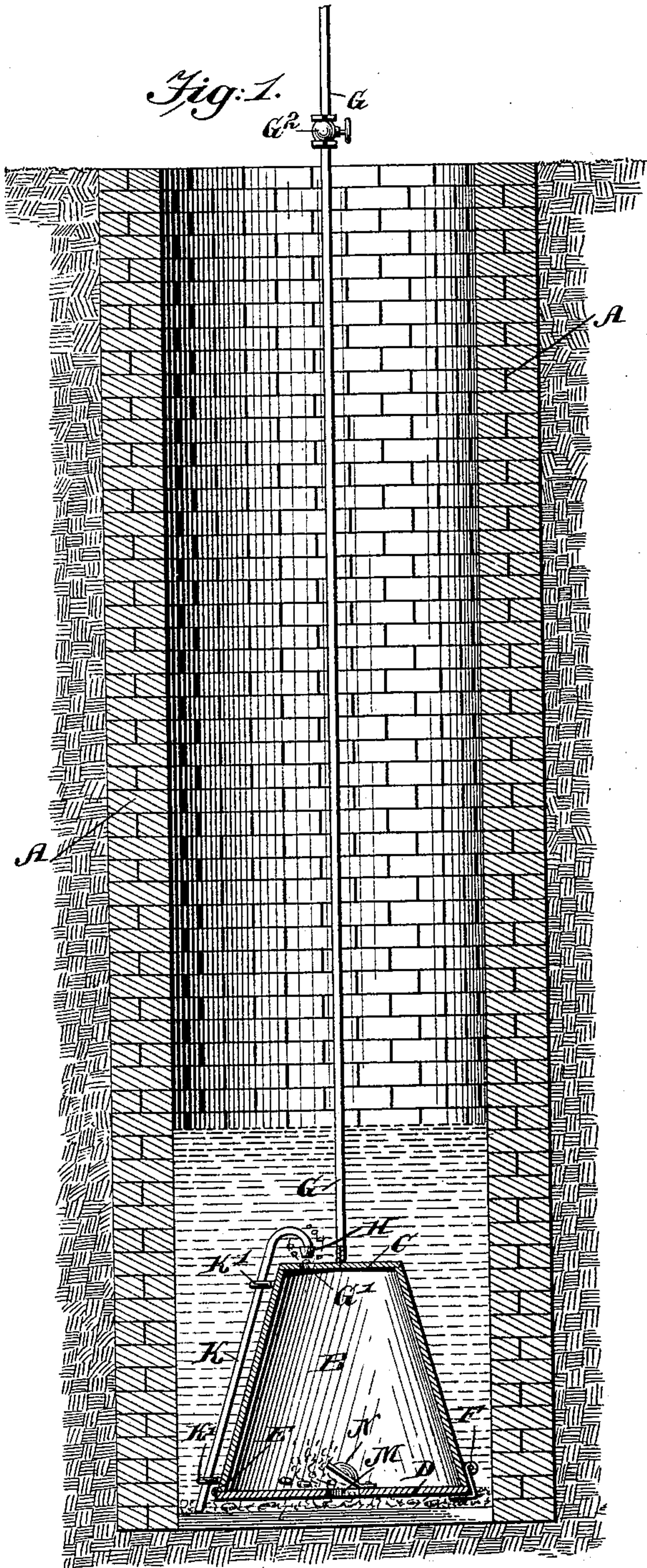


(No Model.)

W. E. CONWAY & E. A. MURRAY.
CISTERN CLEANER.

No. 606,161.

Patented June 21, 1898.



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WILLIAM E. CONWAY AND EMERA A. MURRAY, OF MENOMONEE, WISCONSIN;
SAID MURRAY ASSIGNOR TO SAID CONWAY.

CISTERN-CLEANER.

SPECIFICATION forming part of Letters Patent No. 606,161, dated June 21, 1898.

Application filed September 1, 1897. Serial No. 650,302. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM E. CONWAY and EMERA A. MURRAY, residing at Menomonee, in the county of Dunn and State of Wisconsin, have invented a new and useful Cistern-Cleaner, of which the following is a specification.

This invention relates to improvements in cistern-cleaners, and has for its object to provide a device whereby the dirt, sediment, and other deleterious matter collected upon the bottom of a cistern may be removed without drawing the water entirely therefrom or wasting any considerable portion thereof.

Our improved device consists generally of a bell-shaped receptacle adapted to be hermetically closed and lowered to the bottom of a well. Upon reaching the bottom two valves will be automatically opened, and the receptacle will be filled with the water and sediment next to the bottom, after which the same is drawn to the top and emptied. The repetition of said operation will serve to effectually cleanse the well of its impure sediment.

In the drawings herewith, forming a part of this specification, in which like parts are indicated by similar letters of reference, Figure 1 is a vertical section of a cistern, showing the operation of our improved cleaner. Fig. 2 is a perspective view of the cleaner. Fig. 3 is a bottom plan view of the cleaner. Fig. 4 is a detail sectional view showing the means for securing the lower valve.

Referring to the drawings by letters, A is a cistern. B is a conical receptacle the diameter of the lower portion of which is somewhat less than the inner diameter of the cistern. Said receptacle is provided with a top portion C and a bottom D, hinged at E and provided upon the opposite side with a spring-latch F. The said bottom D is adapted to rest against the bottom edge of the receptacle, so as to close the same hermetically. The said bottom portion D is provided centrally with an opening M, adapted to be closed by a valve N, pivoted upon the inner surface of D in any suitable manner.

The top C is provided centrally with a vertical pipe G, projected upwardly therefrom. In lieu of a pipe a chain or rope may be substituted. I also provide in said cover an ap-

erture G', located adjacent to the edge thereof, said aperture being preferably conical and adapted to be closed by means of a drop-valve H, secured to the curved end of a sliding rod K, said rod being confined by its passage through keepers or eyes K', projected horizontally from the inclined surface of the receptacle B. Said rod K projects downwardly somewhat below the bottom D of the receptacle, so that the valve H will be lifted from its seat when the lower end of the rod is in contact with the bottom of the cistern.

In Fig. 4 we have shown means for securing the valve N while the receptacle B is being lowered. This is effected by means of a catch O, having an inclined releasing-arm O', which releases the said valve when said arm O' is brought into contact with the bottom of the cistern. The valve N instead of being hinged may be a gravity-valve confined slidably within a vertical guide-frame, having a lifting-bar projected downwardly through said aperture M.

The operation of our device is as follows: The receptacle B is first hermetically closed by forcing downwardly the valve H and the valve N closed and held on its seat by means of the catch O. The receptacle is then by means of the rod G, lowered to the bottom of the cistern, upon contact with which the valve H is opened by reason of its stem K and the valve N by reason of the depending end of the catch O coming in contact with the said bottom to disengage it from said valve, upon which the confined air in receptacle B will rush out through the small aperture G', which will serve to create an indraft through aperture M, the latter being considerably larger than G'. The sediment upon the bottom will flow into the receptacle along with the water. The receptacle is then drawn out and the contents discharged by opening the hinged bottom D. The operation is then repeated until the contents of the receptacle indicate that the cistern has been cleaned. The receptacle B is preferably constructed of iron or other metal, so that it will readily sink. If of wood, it should be weighted.

The handle-pipe G opens into the top of the receptacle B and is provided with a valve G², so that if the mud in the bottom of the cistern

is too deep to permit the rod K to strike the bottom to open the aperture G' the valve G² may be opened and the same end accomplished.

5 Having thus described our invention, what we claim as new, and desire to secure by means of Letters Patent, is—

1. A well or cistern cleaner comprising a bucket hermetically sealed at its top and bot-
10 tom, means for lowering the same to the bottom of the cistern and raising it therefrom, a hinged bottom for said receptacle, an opening in the said bottom, a valve adapted to close the said opening, a catch adapted to
15 engage the said valve to close the same and provided with a depending lug extending below the bucket, a valve provided in the top of said bucket carried by a sliding stem adapted to extend below the bottom of the
20 bucket, substantially as described.

2. A well or cistern cleaner comprising a

hermetically-sealed receptacle, a pipe connected with the top of said receptacle extending to the top of the cistern, a valve provided in the said pipe, an opening provided in the
25 bottom of said receptacle, a valve for closing said opening, a catch for holding the said valve in a closed position carrying a depending projection for releasing said valve when coming in contact with the bottom of the cistern, an opening provided in the top of said
30 receptacle, and a valve adapted to keep said opening normally closed, having a stem mounted on the receptacle and projecting below the bottom thereof for opening the said
35 valve when coming in contact with the bottom of the well, substantially as described.

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