No. 612,612. Patented Oct. 18, 1898.

G. H. LYNDS.

CISTERN CLEANER.

(Application filed May 11, 1898.)

(No Model.)

Fig-1-

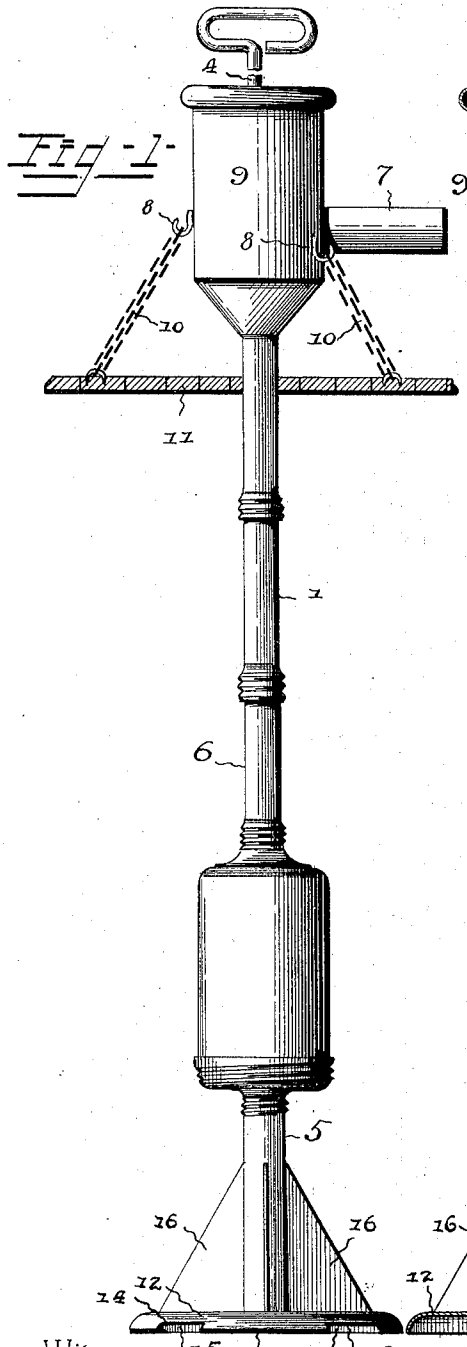


Fig-2-

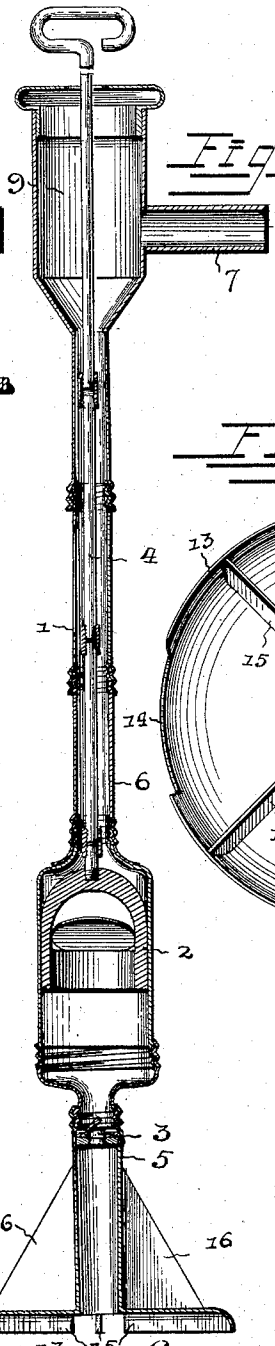
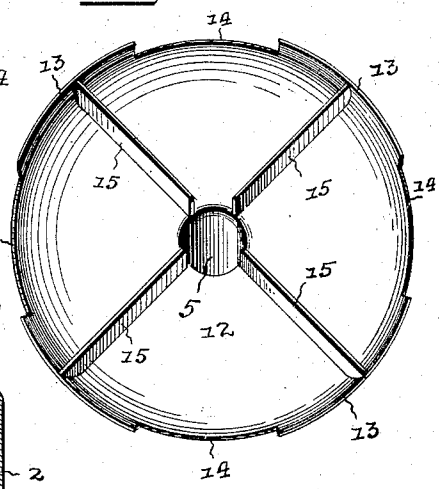


Fig-3-



Witnesses:-
C. J. Young.
U. B. Hillyard.

George H. Lynds, Inventor.-
By his Attorneys.
C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE H. LYNDS, OF GUTHRIE, OKLAHOMA TERRITORY.

CISTERN-CLEANER.

SPECIFICATION forming part of Letters Patent No. 612,612, dated October 18, 1898.

Application filed May 11, 1898. Serial No. 680,367. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. LYNDS, a citizen of the United States, residing at Guthrie, in the county of Logan and Territory of Oklahoma, have invented a new and useful Cistern-Cleaner, of which the following is a specification.

This invention relates to cistern-cleaners, and is designed to provide apparatus for the purpose which will be light, capable of being taken apart and arranged in a compact form for storing or carrying from one place to another, and which will be easy of operation and perform the required work in a rapid and effective manner.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is an elevation of a cistern-cleaner constructed in accordance with this invention. Fig. 2 is a vertical central section thereof. Fig. 3 is a perspective view of the suction-cup inverted.

Corresponding and like parts are referred to in the following description and indicated in the views of the drawings by the same reference characters.

The pump 1 is of ordinary construction, comprising a valved plunger 2 and a foot-valve 3, the pump-rod 4 having connection with the plunger and provided at its upper end with a suitable handle to be grasped when operating the cleaner. The pump-barrel is of much larger diameter than the suction-pipe 5 or the discharge-pipe 6, whereby upon lifting the plunger the water will be drawn rapidly and violently into the suction-pipe and carry with it sediment and foreign matter which may have accumulated upon the bottom of the cistern, well, or reservoir to be cleaned.

The pipes 5 and 6 are of substantially the same diameter, which is considerably less than the diameter of the pump-barrel, and the ends of the latter are reduced to provide for the connection therewith of the suction and discharge pipes. The discharge-pipe is composed of sections which are connected by a screw-thread joint, thereby admitting of the pipe being lengthened or shortened, according to the depth of the cistern, well, or reservoir to be cleansed. The pump-rod is likewise composed of sections detachably connected, so as to admit of it being lengthened and shortened for the same purpose as the discharge-pipe. The uppermost section of the discharge-pipe is enlarged, approximating the diameter of the pump-barrel, and is provided with a spout 7 for the escape of the water and foreign matter. Hooks 8 are applied to the lower portion of the enlarged part 9 of the discharge-pipe and receive chains 10, by means of which the cleaner is attached to the platform 11 or cover of the cistern or well.

The suction-cup is applied to the lower end of the suction-pipe and consists of a plate 12, of circular outline, having a depending flange 13 at its outer end formed at intervals with notches 14 for the ingress of water, sediment, and the like when the apparatus is in active operation. Radial flanges 15 are applied to the lower side of the plate 12 and correspond in depth to the height of the flange or depending rim 13. These radial flanges are secured at their upper edges to the lower side of the plate and at their outer ends to the rim or flange 13 and terminate at their inner ends in line with the central opening of the cup or plate which is in register with the suction-pipe. The flanges 15 and 13 support the plate 12 at a distance from the bottom of the cistern or well and act as braces and provide scrapers to detach and loosen any foreign matter which may have hardened upon the bottom of the cistern. When moving the cleaner around from one place to another upon the bottom of the cistern, the flanges 13 and 15 will serve to break up, detach, and loosen sediment and foreign matter, so that upon operating the pump such foreign matter will be readily removed with the stream of water passing through the apparatus. The flanges 15 are disposed so as to come opposite the portions of the rim 13 between the notches 14, thereby dividing the cup into a series of compart-

ments, the notches 14 constituting inlets thereto and all the compartments opening into a central compartment in direct communication with the suction-pipe.

The pump-barrel, pipes 5 and 6, and the suction-cup will be constructed of heavy tin, copper, or other sheet material suitable for the purpose, so as to be light, strong, and durable. Braces 16 may be interposed between the plate 12 and the lower end of the suction-pipe, so as to strengthen the suction-cup and the joint formed between the parts 5 and 12.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a cistern-cleaner, the combination with the pump, and suction and discharge pipes, of a suction-cup applied to the lower end of the suction-pipe and comprising a series of compartments having individual inlets, and a compartment common to the series of compartments and in communication with the suction-pipe, substantially as set forth.

2. In a cistern-cleaner, the combination with the pump, of a suction-cup having connection with the pump and consisting of a plate having a depending rim or flange provided at intervals with notches, and a series of flanges subdividing the cup and having connection at their outer ends with the depending flange or rim and at their upper edges with the plate, and having their inner ends terminating short of the center, whereby the compartments formed by said flanges are in communication with the suction-pipe, substantially as set forth.

3. In a cistern-cleaner, the combination with the pump, of a suction-cup having connection with the pump and consisting of a plate having a depending rim or flange formed at intervals with notches, and radial flanges of a depth about equal to the height of the depending rim or flange and secured at their upper edges to the plate and at their outer ends to the depending rim or flange, and arranged to come between the notches formed in the said depending rim, substantially as set forth.

4. In a cistern-cleaner, the combination of suction and discharge pipes of about like diameter, the discharge-pipe having its upper end enlarged and provided with a discharge-spout, a suction-cup applied to the lower end of the suction-pipe, a pump of considerably larger diameter than the suction and discharge pipes and having the latter connected with the ends thereof, and means for attaching the cleaner to the platform of the cistern, well or the like to be operated upon, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE H. LYNDS.

Witnesses:

A. A. HUMPHREY,

C. A. BINSON.