

No. 655,954.

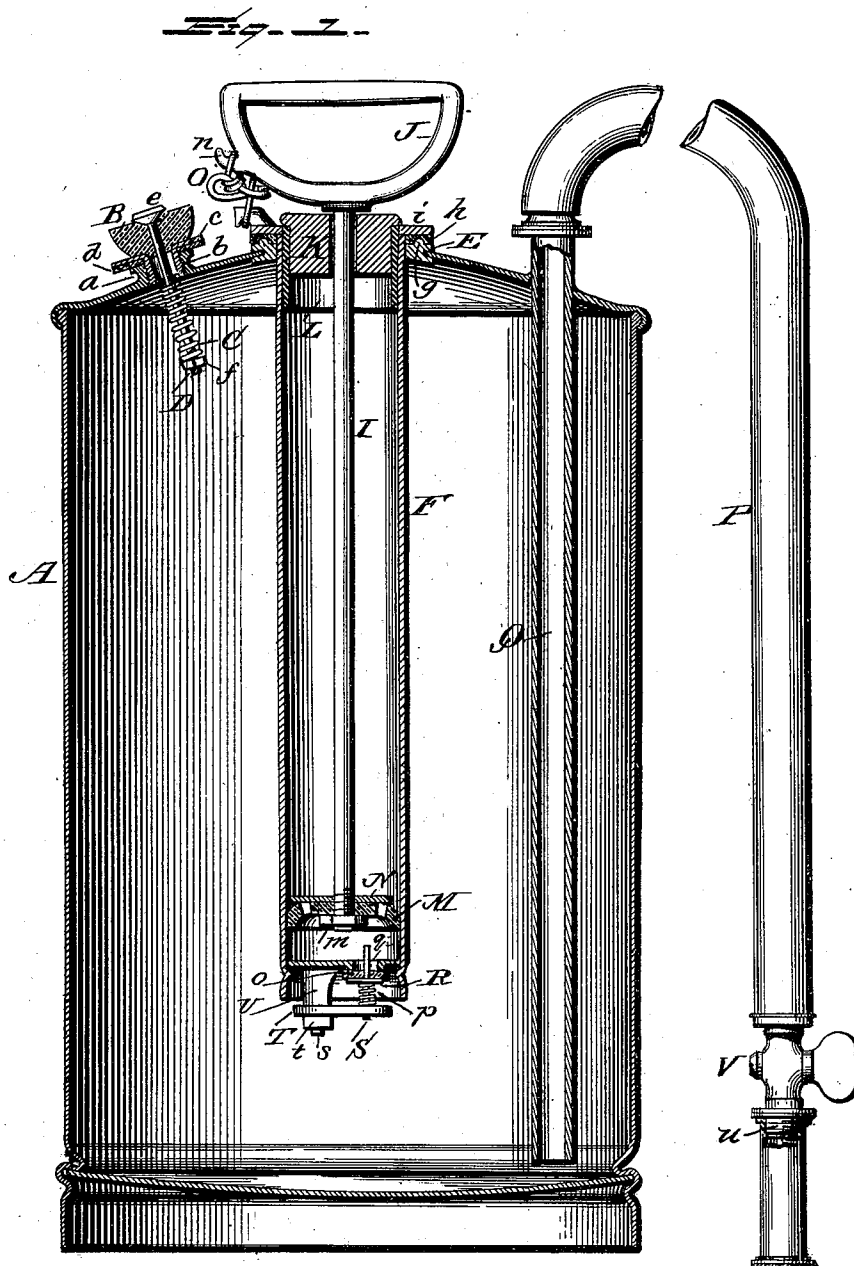
Patented Aug. 14, 1900.

M. B. BROOKS.  
SPRAYING APPARATUS OR DEVICE.

(Application filed May 8, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

*L. C. Hills*  
*M. R. Taylor*

INVENTOR:

*Mott B. Brooks,*  
BY *Chas. C. Fowler*  
Attorney

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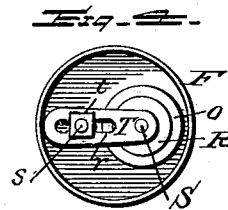
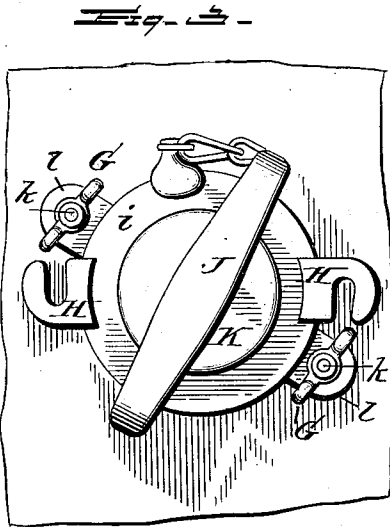
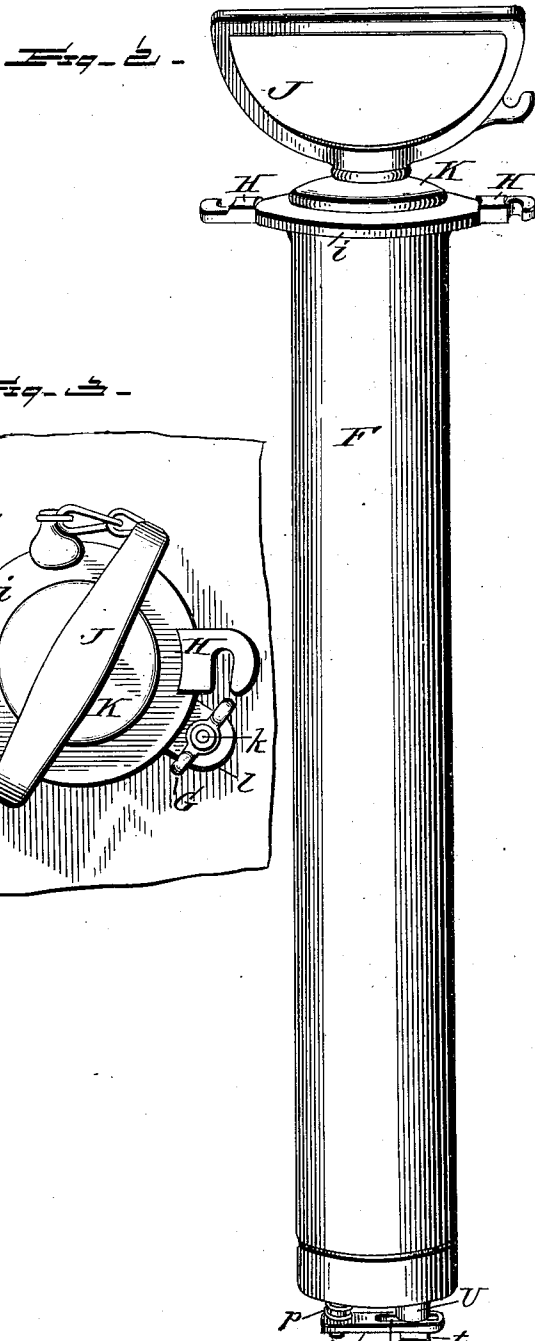
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# UNITED STATES PATENT OFFICE.

MOTT BILLINGS BROOKS, OF ROCHESTER, NEW YORK.

## SPRAYING APPARATUS OR DEVICE.

SPECIFICATION forming part of Letters Patent No. 655,954, dated August 14, 1900.

Application filed May 3, 1900. Serial No. 15,343. (No model.)

*To all whom it may concern:*

Be it known that I, MOTT BILLINGS BROOKS, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Spraying Apparatus or Devices; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a simple, strong, durable, and effective spraying apparatus or device that may be used with an especially-constructed tank or the spraying device applied to and used with an ordinary barrel or other like vessel that will contain the water or other liquid, as circumstances require.

The invention consists in a spraying apparatus or device constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a sectional elevation of the complete apparatus or device constructed in accordance with my invention, the rubber hose and spraying-nozzle being shown in elevation. Fig. 2 is a perspective view of the pump attachment disconnected from the tank; Fig. 3, a top plan view of a portion of the tank with the pump attachment applied thereto; Fig. 4, an under plan view of the lower end of the pump attachment.

In the accompanying drawings, A represents a suitable tank of any desirable size and capacity for holding the liquid used in spraying. The top of this tank has a screw-threaded neck *a*, with which engages a screw-threaded tubular nipple *b*, depending from a valve-seat *c*, a washer *d* being interposed between the screw-threaded neck and the valve-seat, as shown in Fig. 1 of the drawings.

A rubber or other elastic valve B is held down upon the seat *c* by means of a spiral spring C, which encircles a valve-stem D, said stem being headed, as shown at *e*, and upon its opposite end screw-threaded to receive a regulating-nut *f*, by which the tension of the spring may be regulated.

The above-described means enables me to provide a perfectly-operating safety-valve

for the top of the tank A to prevent bursting thereof by too great pressure against the sides of the tank when operating the apparatus or device by the action of the piston. This safety-valve may be removed and applied to any suitable vessel that is adapted for use in connection with the spraying attachment.

The top of the tank has a central opening around which is secured a collar E, with a circumferential rib *g* to receive an elastic packing-ring *h*, which is interposed between the collar and the flange *i* of the cylinder F, which cylinder and its connections constitute the pump attachment. The collar E has upwardly-projecting screw-threaded rods *k*, with which engage the thumb-nuts G, as shown in Fig. 3 of the drawings, these rods being preferably secured to lugs *l*, projecting from the collar and forming part thereof. The flange *i* of the cylinder F has slotted ears H, which engage with the rods *k*, and by screwing down the thumb-nuts G the flange will be drawn tightly against the packing-ring, thereby forming a perfectly-tight connection between the cylinder F and the tank A.

The cylinder F may be of any suitable construction and of any desirable size and is provided with a piston-rod I, with handle J at its upper end for operating it, said piston-rod extending up through a plug K, of wood or other suitable material, and having connected thereto a band L to tightly fit in the upper end of the cylinder F. The lower end of the band L forms a cup in which the packing M of the piston-head is compressed when entering the same, and therefore shall term it a "compressing-cup," as its important function is to compress the packing of the piston-head. When the piston is withdrawn from the cylinder for any purpose and is required to be replaced for use, the piston-rod is drawn up its full extent until the packing of the piston-head is within the open end of the band, or, in other words, the compressing-cup will retain the packing therein and enable the piston to be readily inserted in the end of the cylinder.

The piston-head may be of any suitable construction and the packing M formed with suitable perforations to form a communication in the cylinder above and below the piston-

head. The packing M has above it a metal disk N, and the two are held in position on the piston-rod I by means of a nut *m*, engaging the screw-threaded end of the rod, as shown in Fig. 1 of the drawings.

I do not wish to be understood as limiting my invention to the form of piston-head described, as any suitable and well-known form of piston-head may be substituted therefor as found best adapted to the purpose.

The flange *i* of the cylinder F has connected to it in any convenient and suitable manner one end of a flexible connection, such as a chain O, the opposite end of the chain adapted to temporarily engage with a hook *n* upon the handle J, so as to lock the piston and prevent it from being pulled too far out of the cylinder when it is desired to carry the apparatus or device by the handle J. The chain O is released from the hook *n* when it is desired to operate the piston, the piston shown as being locked in Figs. 1 and 3 of the drawings.

At the lower end of the cylinder F is a suitable valve-opening *g*, closed by a suitable disk valve R, rigidly secured to a stem S, said valve having a suitable elastic packing *o* to tightly close the opening when brought in contact therewith. This valve R is spring-actuated by means of a coiled spring *p*, encircling the valve-stem S and disposed between the valve R and the guide-arm T, the lower end of the stem passing loosely through the end of said arm. The guide-arm T has an elongated slot *r* and is connected to the stud U in the following manner: The stud is formed with a small screw-threaded stanchion *s* depending therefrom and which extends through the elongated slot *r*, and a suitable nut *t* engages the stanchion to firmly hold the guide-arm T thereto, as shown in Fig. 4 of the drawings. The elongated slot in the guide-arm and the means employed for connecting it to the stud enable the arm to be adjusted horizontally on the arc of a circle and lengthwise thereof, as circumstances require, to adapt it to the position of the valve-opening *n* after the end of the cylinder F has been secured in place.

The tank A is provided with a discharge-tube Q, extending down into the same and near the bottom thereof, the upper end of the tube extending above the top of the tank and provided with suitable means for attaching thereto a rubber hose P. To the free end of the hose P is suitably attached a faucet V of any preferred construction, said faucet having a screw-threaded neck *u* for securing thereto a reversible spraying-nozzle W.

The compound adjustment of the guide-

arm T will permit the arm to be brought in such a position as to enable the valve-stem S to extend through the hole in the end of the guide-arm without coming in contact therewith, thus avoiding any undue friction of the valve-stem.

The pump attachment, as shown in Fig. 2 of the drawings, comprising the cylinder, piston, and the several connections, may be applied to the bung-hole of any ordinary barrel or other vessel that will contain liquid.

In place of the handle J of the piston a suitable hand-lever may be employed, as I do not wish to be understood as confining myself to any special means of operating the piston, and any suitable valves may be substituted for those shown in connection with the tank and the cylinder, and any suitable nozzle may be used, as found most desirable.

Any changes in the form and proportions of the several parts, as well as many modifications in the details of constructions, may be resorted to without departing from the principle of my invention, and any changes that would come within ordinary mechanical skill and judgment may be made in my invention without in any manner affecting the essential features thereof.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A spraying apparatus or device consisting of a suitable tank or vessel, a suitable cylinder, a valve at the lower end thereof, a suitable piston adapted to work in the cylinder, said cylinder at its upper end having slotted ears for engaging with suitable rods or fastenings on the tank or vessel, substantially as and for the purpose described.

2. A spraying apparatus or device, consisting of a suitable tank or vessel, a discharge-tube extending down into the same, a spring-actuated safety-valve upon the top of the tank or vessel, a suitable cylinder extending down into the tank or vessel and removable therefrom, a spring-actuated valve at the lower end of the cylinder, a suitable piston adapted to work in the cylinder, and means for securing the cylinder to the tank or vessel, comprising slotted ears, screw-rods and thumb-nuts engaging therewith, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

MOTT BILLINGS BROOKS.

Witnesses:

M. H. PERRY,  
HUGH B. COOPER.