(No Model.) 2 Sheets—Sheet 1.

H. K. COTTON.

PUMP.

No. 245,281. Patented Aug. 9, 1881.

Fig. 1.

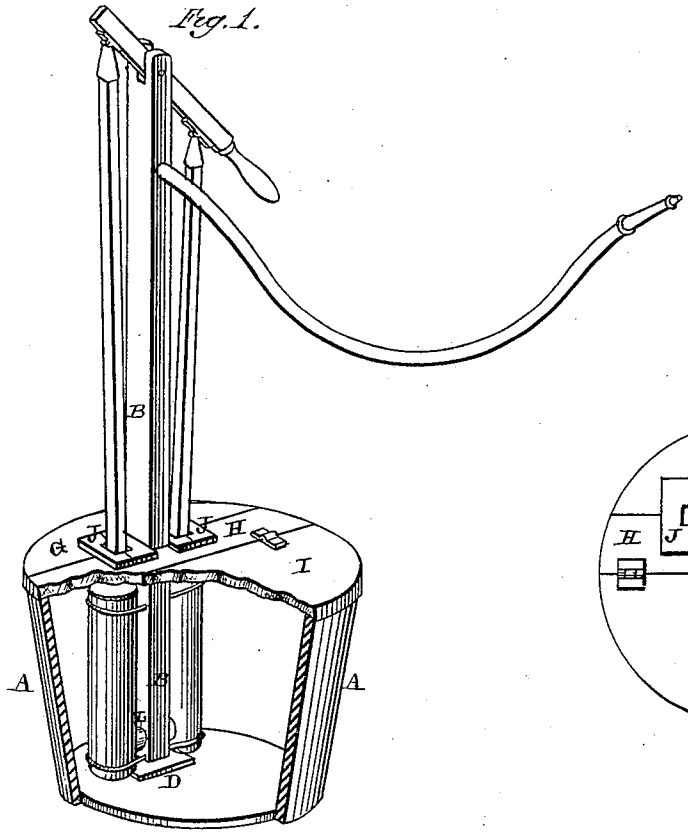
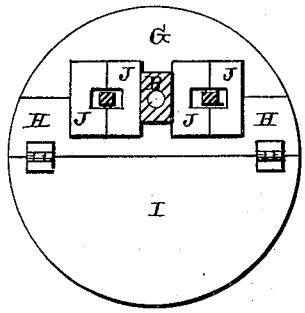


Fig. 3.



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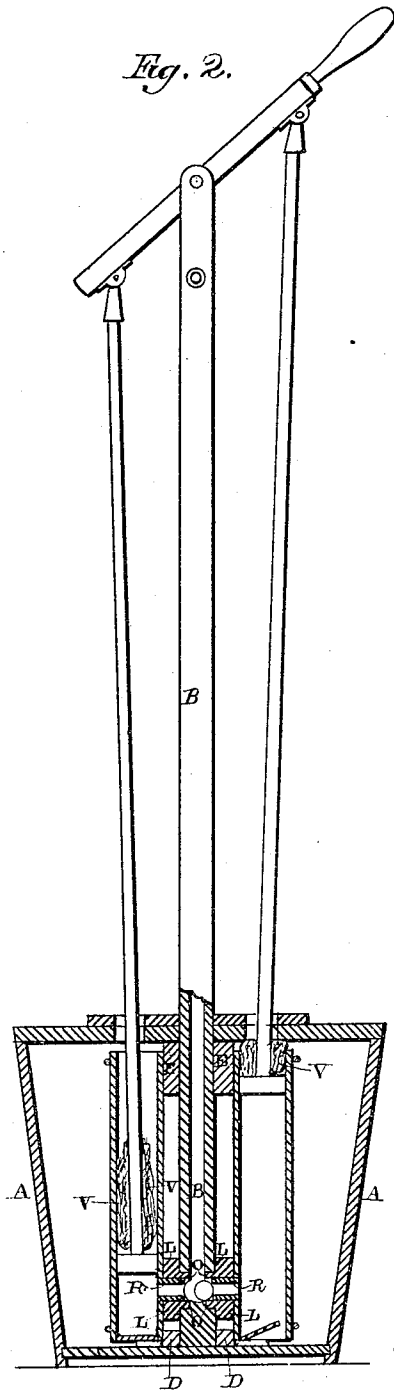
(No Model.) 2 Sheets—Sheet 2.

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PUMP.

No. 245,281. Patented Aug. 9, 1881.

Fig. 2.



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UNITED STATES PATENT OFFICE.

HOUSTON K. COTTON, OF MOUNT VERNON, OHIO.

PUMP.

SPECIFICATION forming part of Letters Patent No. 245,281, dated August 9, 1881.

Application filed June 13, 1881. (No model.)

To all whom it may concern:

Be it known that I, HOUSTON K. COTTON, of Mount Vernon, in the county of Knox and State of Ohio, have invented certain new and useful Improvements in Pumps; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in pumps which are intended especially for washing windows, carriages, and buggies, and for sprinkling lawns; and it consists, first, in placing a block of wood having a pipe or projection formed upon one side to extend into the side of the lower end of the stock, in between the stock and the cylinder, and then passing a metal pipe from the cylinder through this block into the stock, whereby all leakage is prevented at that point where the cylinder is connected to the stock; second, in fastening a rag to the top of the plunger-rod, just above the plunger, in the open mouth of the cylinder, and placing any suitable means above the top of the cylinder for the purpose of preventing the rag from coming out of the cylinder, whereby all splashing is prevented while the pump is in operation; third, in a cover which is divided into three separate and distinct parts for securing the pump in position in a bucket or other pail, all of which will be more fully described hereinafter.

Figure 1 is a perspective of my invention, a portion of the bucket being cut away, so as to show the lower part of the pump. Fig. 2 is a front elevation of my invention, partly in section. Fig. 3 is a horizontal section through the pump, just above the cover of the bucket.

A represents a bucket, tub, or pail of any size, shape, or description desired, and into which the water is to be poured.

The pump used consists of the two cylinders, the stock, the plunger-rods, lever, and a tube provided with either a sprinkler or any suitable nozzle. I do not, however, limit myself to the form of pump here shown, in connection with the means of attaching the pump to a bucket, for pumps of different constructions can be used just as well as the one here shown.

The lower end of the stock B rests solidly upon the bottom of the bucket, while the two cylinders are raised far enough above it to allow the water to be freely drawn into them as the plungers are reciprocated by the handle. The lower end of the stock is secured firmly in position by means of the two blocks D, which are fastened to the bottom of the pail or bucket, and which serve no other purpose than to prevent the lower end of the pump from moving sidewise.

Secured to opposite sides of the stock are the two blocks E, which serve the double purpose of having the tops of the cylinders secured to them and of forming a rest upon which the cover of the bucket bears. Through this block are passed suitable wires, and then the wires have their outer ends fastened securely together after they have been wrapped around the sides of the cylinder, by being twisted or by means of any other device which may be preferred.

The cover of the bucket, which rests upon the two blocks, and which is secured to the top of the bucket by means of suitable nails or other fastenings, is formed of three separate and distinct pieces, G H I, the parts G and H having suitable holes cut in their edges for the stock and the plunger-rods to pass through, and these two parts are nailed or otherwise permanently fastened to the top of the bucket, as shown. The third piece, I, is hinged to the piece H, and is made to open, so as to allow the water to be freely poured into the bucket. This part also serves as a rest for the foot, so as to hold the whole machine perfectly rigid while the lever is being operated with one hand and the tube held with the other. Upon the top of these two pieces G H are secured the two blocks J, which run at right angles thereto, and which have just enough of an opening made through their inner edges to allow the plunger-rods to work freely through them. These blocks also serve, to a certain extent, to prevent the water from splashing through the cover while the pump is in operation.

One great source of trouble where metallic cylinders have been used in connection with wooden stocks has been that the parts would soon work loose and then leak to such an extent as to very seriously impair the operation of the pump. In order to prevent this leakage, I place between each cylinder and the lower

end of the stock a block or valve-seat, L, which blocks have the pipes or projections O extending from their sides into the lower end of the stock, there being just room enough left between the two for a ball-valve to play freely back and forth between them. Secured to each cylinder is a pipe, R, which passes through the block and the pipe which forms a part of it, and thus a double joint is formed between the cylinder and the stock. As the cylinder is clamped very tightly against the outer side of the block, and as the block swells as soon as it becomes thoroughly wet, it will readily be seen that this block will swell to such an extent us to tighten itself in such a manner that all leakage is prevented. Another great trouble in using double-headed cylinders in pumps for this purpose has been that the water would splash from the top of the cylinders in such a manner as to render the pump utterly unfit for use, especially in houses where they are being used for cleaning windows. In order to overcome this difficulty I attach to each one of the plunger-rods, just above the plunger, a rag, V, which is just large enough to be drawn easily down into the top of the cylinder. The cover of the bucket, being placed just above the top of the cylinder, does not allow this rag to be forced out of the cylinder as the plunger makes its upstroke, and hence, after the rag has once been drawn down into the top of the cylinder it is always retained there, though it follows the movement of the piston up and down very freely. This rag, coming just under the cover of the bucket, serves to prevent all splashing of the water as perfectly as can be done without closing the top of the cylinder and packing the plunger-rod where it passes through.

Having thus described my invention, I claim—

1. The combination of a bucket, A, the cover G H I, pump B, and blocks E, the pump being secured in position between the two parts G H of the cover and held in position at its lower end by the block D, substantially as shown.

2. The combination of the pump-stock and the cylinders with the block L, having the projection O, and the pipe R, which passes through the block, substantially as set forth.

3. The combination of a bucket, pail, or tub, a pump, and the blocks secured to the side of the stock, and which serve the double purpose of securing the cylinders in place and of a rest for the cover of the bucket, substantially as set forth.

4. The combination of an open-topped cylinder, the plunger, the plunger-rod, a rag or other similar substance secured to the plunger-rod, and a means placed beneath the top of the cylinder to prevent the rag from being drawn out, substantially as specified.

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

H. K. COTTON.

Witnesses:
W. W. MORTIMER,
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