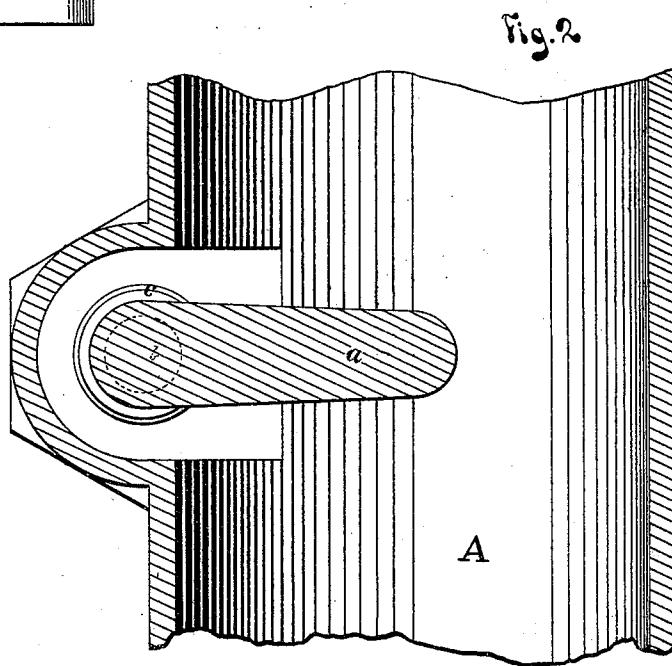
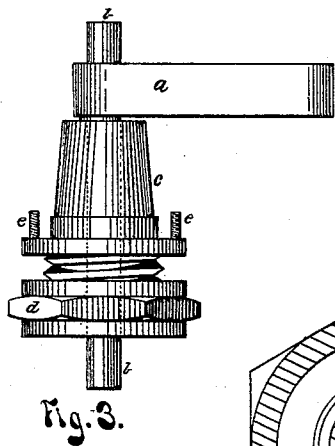
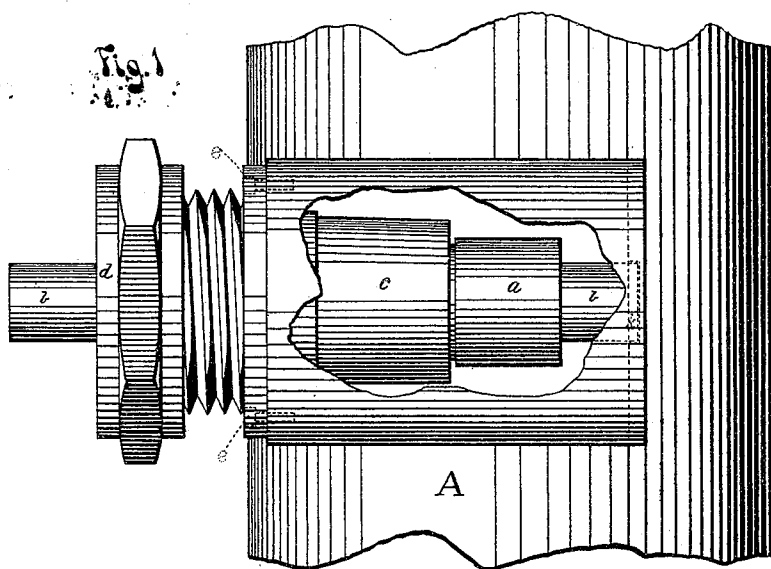


J. W. DOUGLAS-
Construction of Pump Gearing.

No. 151,364.

Patented May 26, 1874.



WITNESSES

Chas. B. Smith
R. M. Hule

By

Jos. W. Douglas INVENTOR

Per C. Gale

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSEPH W. DOUGLAS, OF MIDDLETOWN, CONNECTICUT, ASSIGNOR TO
W. & B. DOUGLAS, OF SAME PLACE.

IMPROVEMENT IN THE CONSTRUCTION OF PUMP-GEARING.

Specification forming part of Letters Patent No. **151,364**, dated May 26, 1874; application filed
April 8, 1874.

To all whom it may concern:

Be it known that I, J. W. DOUGLAS, of Middletown, county of Middlesex and State of Connecticut, have invented a new and Improved Construction of Pump-Gearing, of which the following is a full and sufficient description, reference being had to the annexed drawings making part of this description.

In the drawings, Figure 1 represents an elevation of the pump-cylinder, partly in section, in the upper part, where the gearing is located, exclusive of the piston-rod and brake. Fig. 2 is a sectional elevation, showing the gearing-chamber and parts of the gearing. Fig. 3 is an elevation of the gearing separate from the cylinder, (the piston and brake not shown, but it shows lever-arm, pin, and rings in place or together.)

A represents the pump cylinder or barrel *a*, the lever-arm, one end of which is connected with and works the piston-rod, while the opposite end unites with the shaft or pin *b*, the whole forming together a single metallic casting. The arm *a*, projecting from the middle part of the pin or shaft *b*, terminates at or over the end of the upper part of the piston-rod, which is in the line of the axis of the cylinder. Now, following the line of the lever-arm from the top of the piston-rod horizontally to the side of the pump-cylinder, where the cylinder is so excavated as to give room to receive the gearing in its chamber, through

which the pin passes from one side of the cylinder to the other, one end being received into the small hole *k* at one side of the gearing-chamber, while the opposite end of the pin passes through and projects outside of the pump-cylinder, and its end is fitted to receive the end of the brake. Letter *c* represents a ring-piece or gland, which is slipped over the projecting end of the pin or shaft and brought against and screwed to the side of the cylinder by the screws *e e*. A second ring or gland, *d*, is also slipped on the pin outside of the former, and screwed or otherwise fastened to said former ring, and thereby completing the several parts of the gearing.

To use the devices claimed, detach the brake from the projecting end of the shaft, and detach the outer ring or gland; then unscrew the ring *c* from the cylinder and detach the lever-arm *a* from the piston-rod. Now withdraw the pin *b* from the small hole *k* in the cylinder side, and the gearing is then removed from the cylinder. Reverse this last operation, and the gearing is ready for working.

What I claim as my invention is—

The combination of gearing *a b c d* with an outside fastening, *e e*, as set forth.

JOS. W. DOUGLAS.

Witnesses:

F. B. COMSTOCK, Jr.,
E. W. N. STARR.