

A. N. PARKHURST.

Pump.

No. 163,518.

Patented May 18, 1875.

Fig. 1.

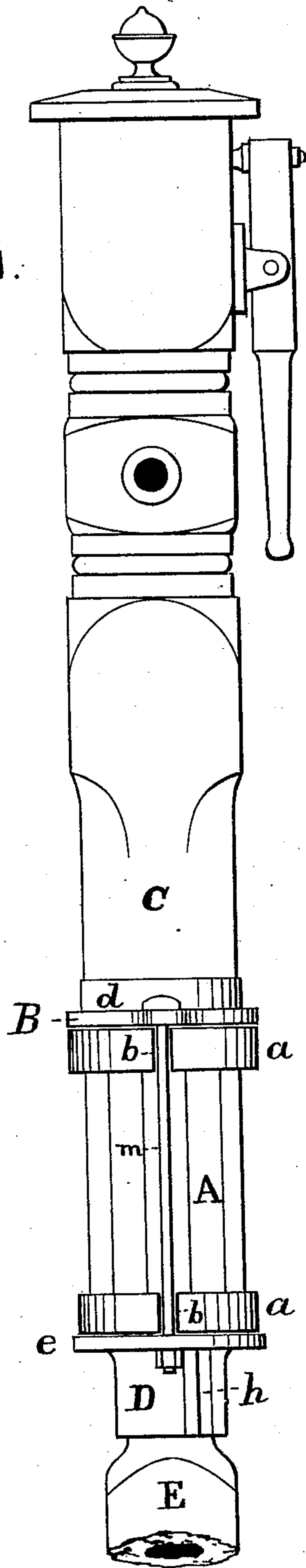


Fig. 3.

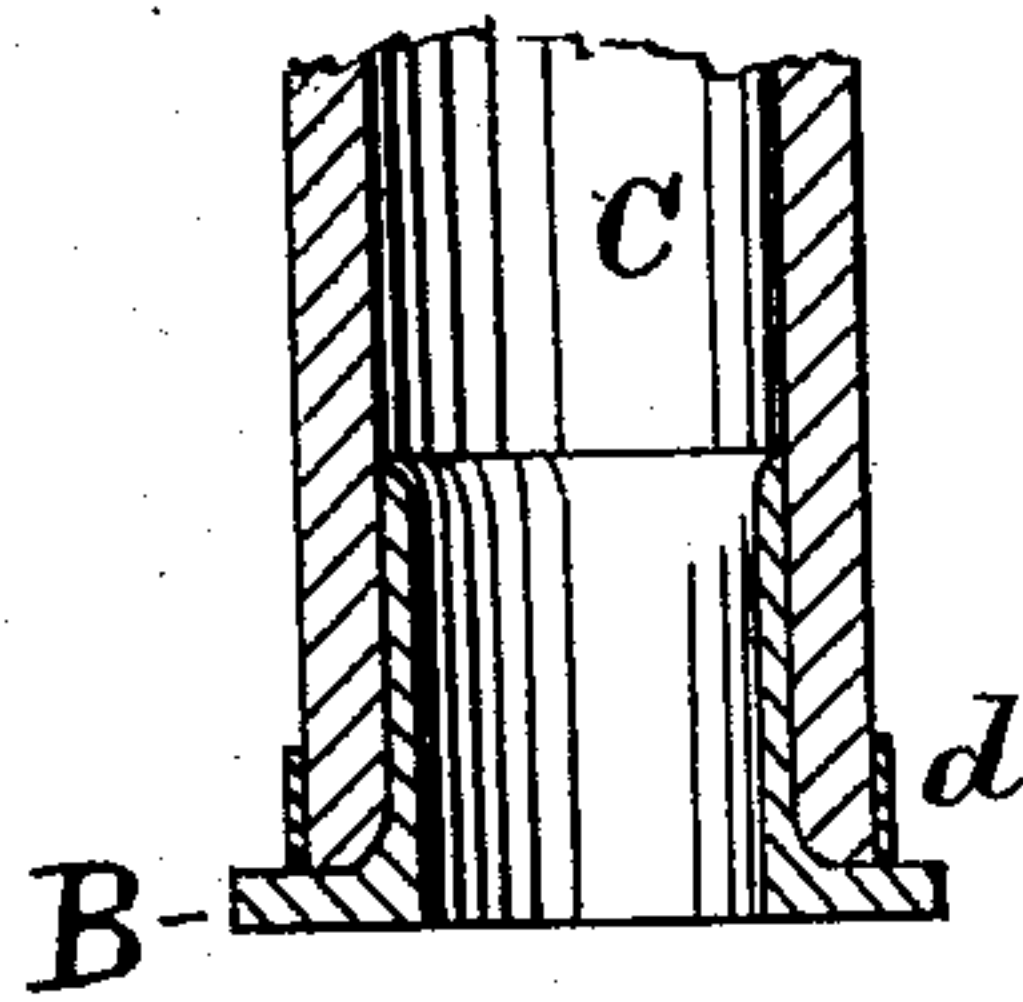


Fig. 2.

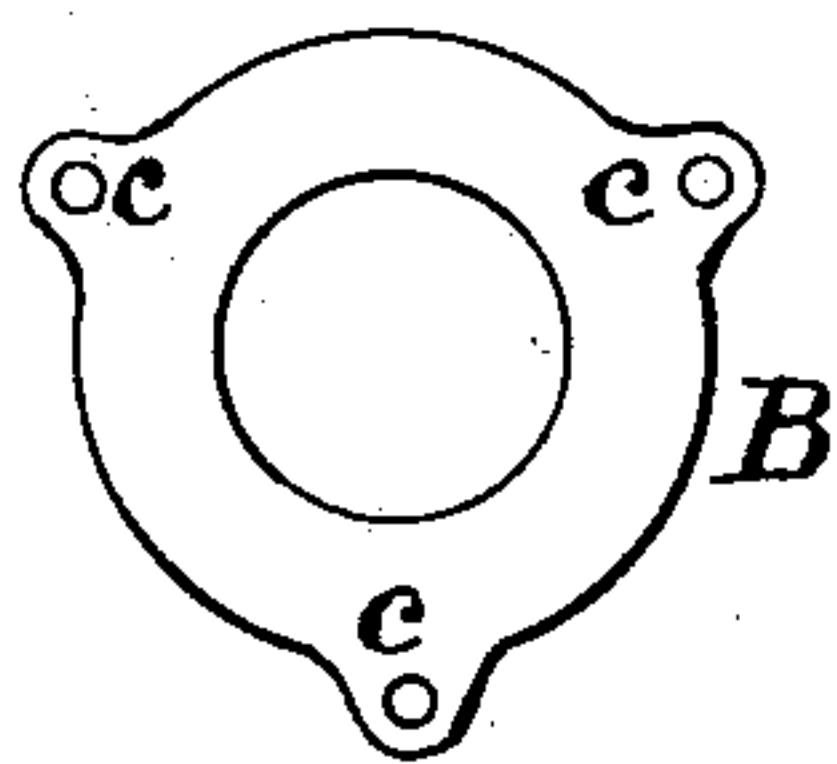
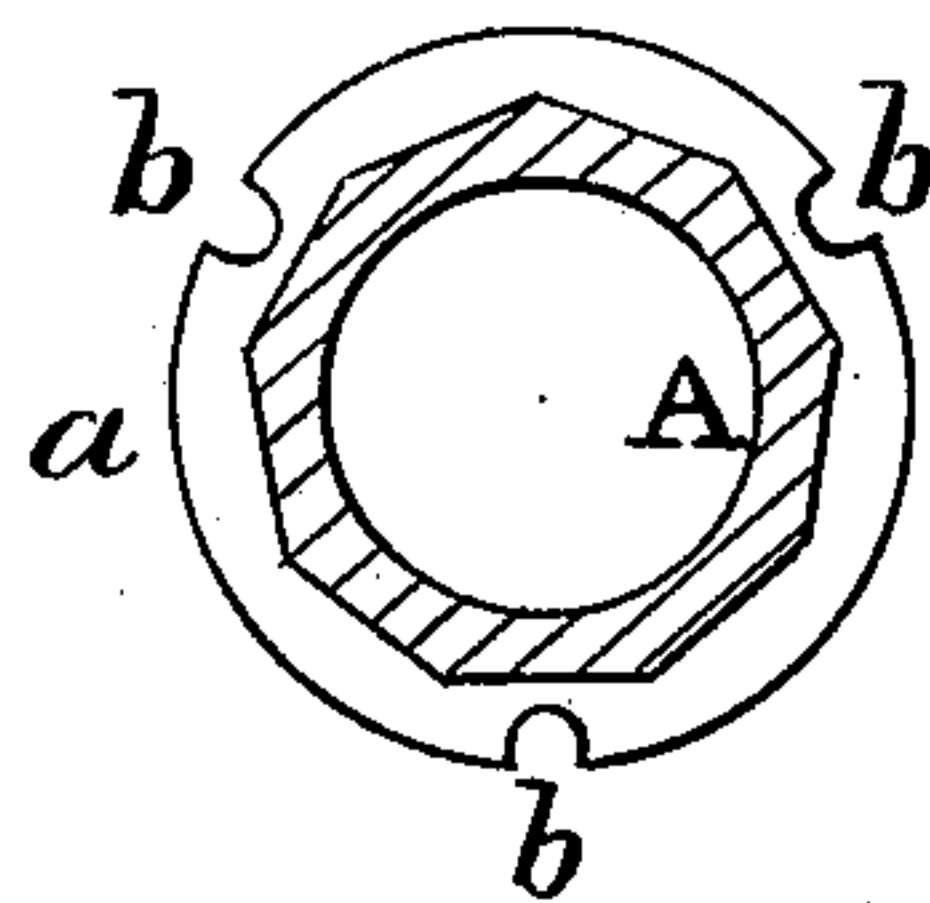


Fig. 4.



Witnesses :

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **163,518**, dated May 18, 1875; application filed April 17, 1875.

To all whom it may concern:

Be it known that I, A. N. PARKHURST, of Logansport, in the county of Cass and State of Indiana, have invented certain new and useful Improvements in Pumps; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a front view of my improved pump. Fig. 2 is a view of collar detached from the tubing of the pump; Fig. 3, a sectional view, showing the collar as driven into the end of the tubing; and Fig. 4, a sectional view of the baked-clay cylinder or chamber.

Like letters in all the figures of the drawings indicate like parts.

This invention is designed to be an improvement on that patented by me November 2, 1869. In that the cylinder has flanged ends provided with bolt-holes, and the lower end thereof is united, by bolts and screw-nuts, to a flanged collar driven over the end of the lower tubing, and the upper end is secured, by bolts and screw-nuts, to angular notched clamps having claws and screw-holes for attaching them to the upper tubing. Suitable packing is used between the joints to make the tubing water-tight.

I have found by experience that this form of constructing and attaching the cylinder to the tubing of the pump is decidedly objectionable, because the strain, being upon the cylinder, causes the bolt-holes to break out, and the clamps to become detached from the tubing, thus causing the pump to leak, and rendering it necessary to provide a new chamber before the pump can be used again.

The object of my invention, therefore, is to obviate these defects; and it consists in constructing the flanged ends of the cylinder with notches or slots, and dispensing with the clamps, and substituting therefor a collar having lugs provided with bolt-holes, which collar is driven into the end of the upper tubing, the lower flanged collar being driven over the end of the lower tubing the same as before, substantially, with the exception of its having

ribs on the sides to strengthen it. The said cylinder is united to the said collars by three long bolts, instead of three short ones, at each end of the cylinder, as heretofore, thus causing the strain to come upon the collars and bolts.

A is the cylinder, which is made of stone-baked clay, glazed or vitrified in the interior, and having flanges *a a* on the ends thereof. Each flange is provided with three or more notches, *b*. B is a collar, having lugs provided with bolt-holes *c*, which is driven into the end of the upper tubing C, a band, *d*, being first placed around the tubing to prevent its splitting. D is a collar, having flange *e*, which is driven over the end of the lower tubing E, and as considerable force is required to accomplish it, in order to make the collar securely tight on the tubing, the sides of the collar are provided with ribs *h*, so as to strengthen it, and thus avoid all liability of its bursting. The flange of the collar forms a support for the cylinder, and is provided with three or more bolt-holes, to correspond with those in the lugs of the collar above. Thus, to unite the cylinder to the upper and lower ends of the tubing, packing of rubber or other suitable material is placed between the collars and the ends of the cylinder, and long bolts *m*, having heads, are introduced through the bolt-holes in the lugs of the upper collar, and passed down through the notches in the flanges of the cylinder, and thence through the bolt-holes in the flange of the lower collar, where they are secured by screw-nuts, which are made to draw the whole firmly together, so as to prevent any leakage.

It will thus be seen that the strain will be brought directly upon the collars and bolts, and hence save the bolt-holes from breaking out of the flange of the cylinder, and the clamps from pulling off from the tubing, and greatly strengthening the connection of the cylinder with the tubing, and also enabling it to be burned more straight, and with better and more even ends, and thereby effecting a saving in cost of construction.

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

The combination of the baked-clay cylinder

A, having flanges *a a*, provided with notches *b*, long bolts *m*, collar B, having lugs provided with bolt-holes *c*, upper tubing C, flanged collar D, having ribs *h*, and lower tubing E, constructed substantially as and for the purpose set forth.

In testimony that I claim the foregoing as

my own invention I affix my signature in presence of two witnesses.

ALINUS N. PARKHURST.

Witnesses:

S. T. McCONNELL,
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