

C. Bollinger, Cattle Pump.

N^o 33,375.

Patented Oct. 1, 1861.

Fig. 1

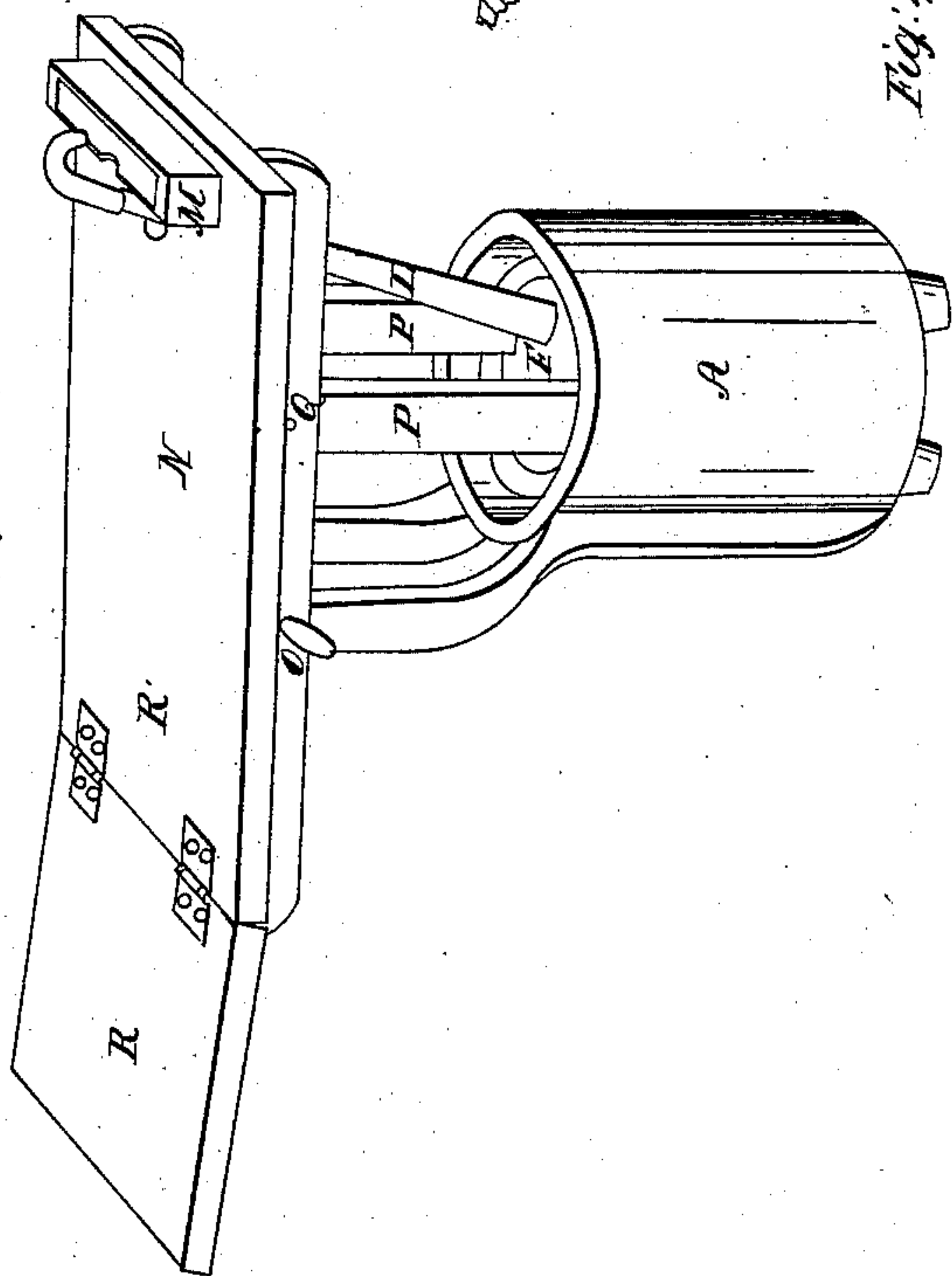


Fig. 2.

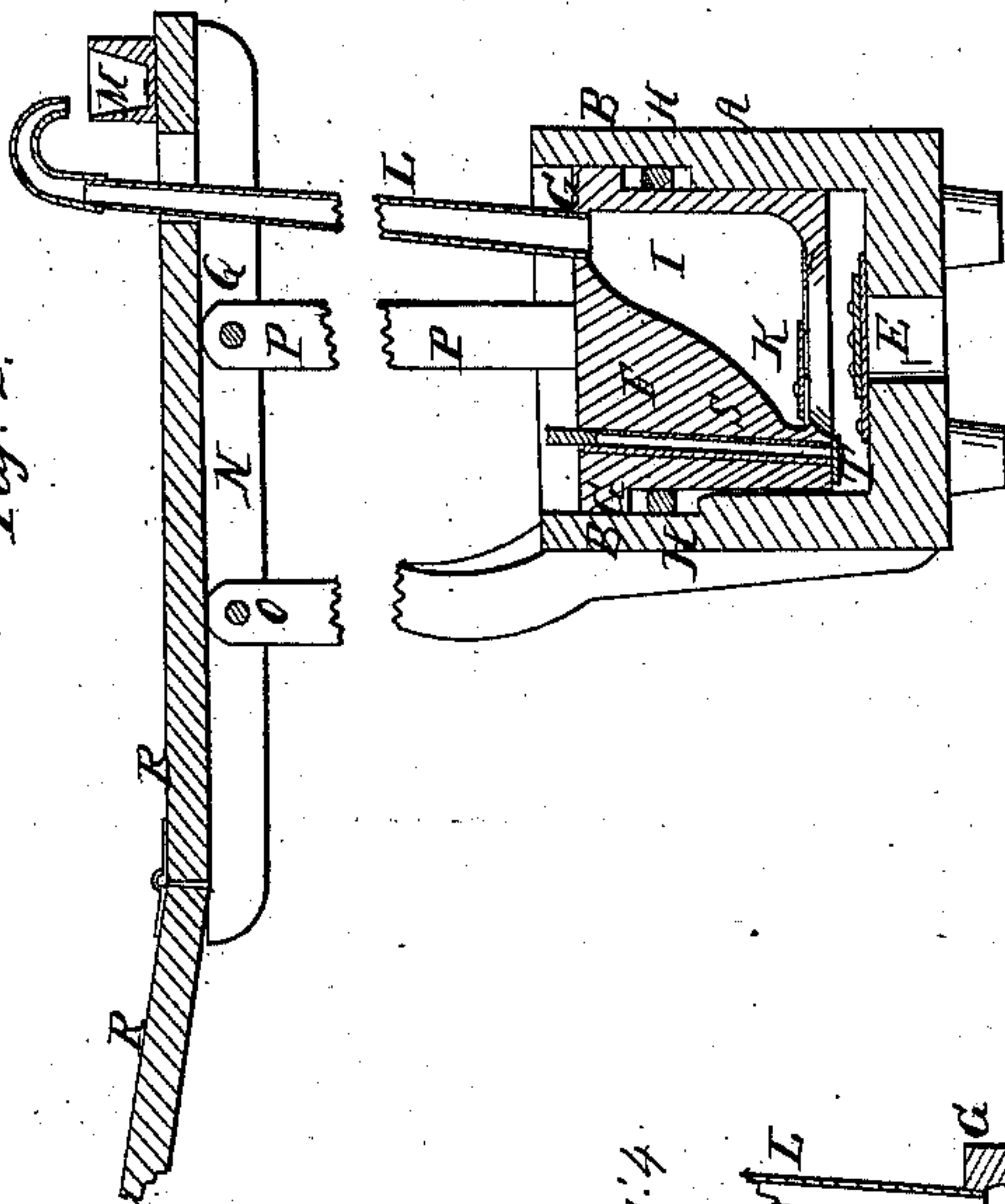


Fig. 4

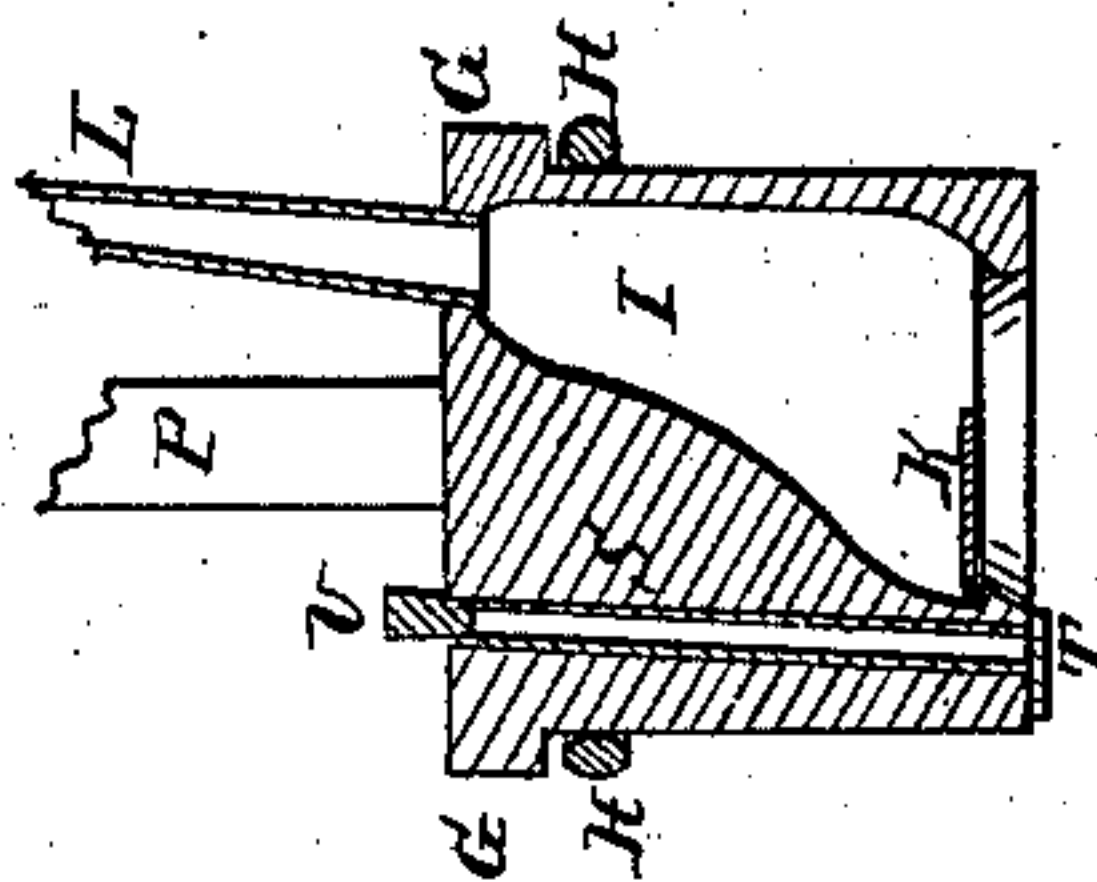


Fig. 5.

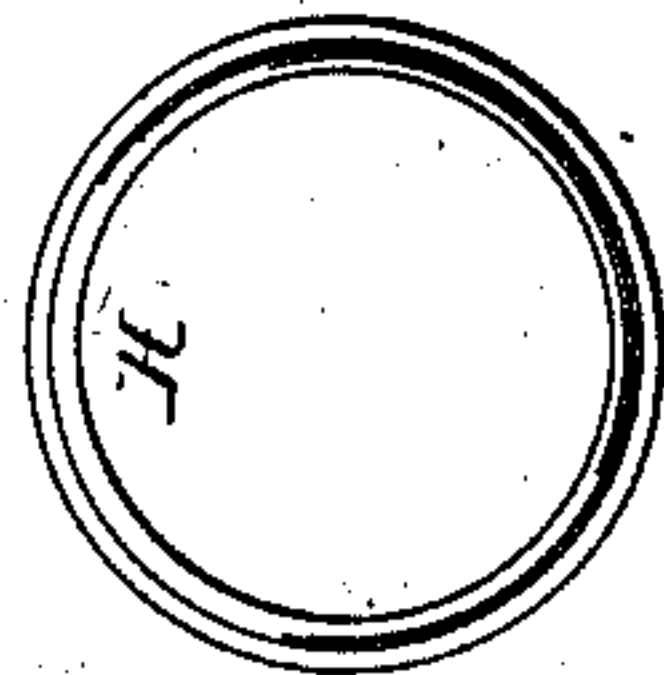
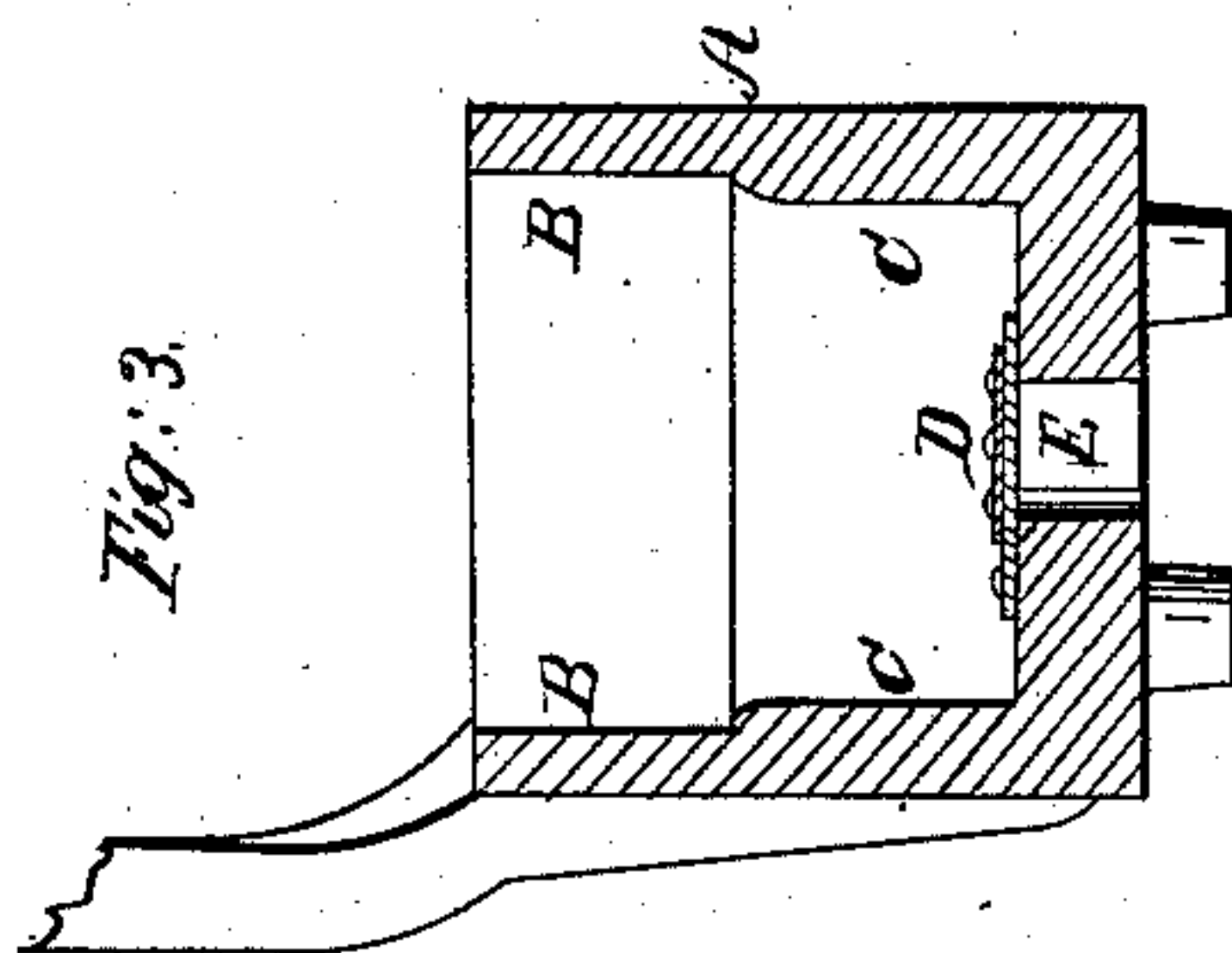


Fig. 3.



Witnesses;

J. Brainerd

W. H. Burridge

Inventor;

Cornelius Bollinger

UNITED STATES PATENT OFFICE.

CORNELIUS BOLLINGER, OF GLEN ROCK, PENNSYLVANIA.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. 33,375, dated October 1, 1861.

To all whom it may concern:

Be it known that I, CORNELIUS BOLLINGER, of Glen Rock, in the county of York and State of Pennsylvania, have invented a new and useful Improvement in Pumps; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification.

Like letters refer to like parts.

Figure 1 is a perspective view. Fig. 2 is a vertical section, and Figs. 3, 4, and 5 are detached sectional views.

A is a cylinder, which may be made of wood or cast metal and turned out smooth upon the inside. The diameter may be six or eight inches, more or less, according to the desired size of the pump. The height is about equal to the diameter. The upper portion B is larger than the lower portion and forms the seat for the packing. The lower part C serves as a guide to the plunger.

In the bottom of the cylinder is placed the valve D, opening upward. A suction-pipe may be secured to the opening E, extending to the water, when the pumps are used in deep wells; but usually the cylinder A is placed below the surface of the water.

F is the plunger, the lower end of which fits loosely into the chamber C, the exterior of said plunger being turned straight and smooth to the projection or rim G around the top. This rim G fits loosely into the chamber B.

The packing H consists of a ring of india-rubber, the body of which is cylindrical, as seen in Fig. 5. The diameter of the inside of the ring, Fig. 5, is just equal to the diameter of the plunger, and the outside fits tightly into the cylinder at B B. The packing H is therefore confined between the contraction C and the flange or rim G, and can never while at work get out of place. Its position when the plunger is down is seen in Fig. 2.

The plunger has a cavity I, at the bottom of which is situated the valve K, opening upward. At the top of the cavity a pipe L leads to the trough M above the ground. N is a platform upon which the cattle tread in going to the trough M to drink. This platform has a hinge-fulcrum, as seen at O.

P P are rods which extend from the platform to the plunger, to which they are firmly secured. The upper ends are pivoted to the platform at Q, and when the animal seeking water walks upon the platform over the bridge R the weight at R R' raises the plunger and fills the space C C with water; but after passing the fulcrum O the plunger is depressed, the valve D closes, and the water flows through the valve K, up the pipe L, and into the trough M.

S is an opening through the plunger, with a valve T at the bottom, which is used to admit the water below the plunger in situations where it collects above the cylinder. When not thus used, the upper end of the opening is stopped with a plug, as seen at U, Fig. 4.

This pump is intended for general use for families and can be operated by the means above described or otherwise.

What I claim as my improvement, and desire to secure by Letters Patent, is—

1. The bridge R, platform N, and plunger F, in combination with the pipe L, cavity I, and valve K, when arranged and operated as set forth.

2. The elastic-ring packing H, in combination with the flange or rim G and contraction C in the cylinder A, when these parts are arranged in relation to the stationary fulcrum O in the platform N, as and for the purpose specified.

CORNELIUS BOLLINGER.

Witnesses:

J. BRAINERD,

W. H. BURRIDGE.