

D. J. Pomeroy

Hydrant.

No. 98411.

Patented Dec. 28. 1869.

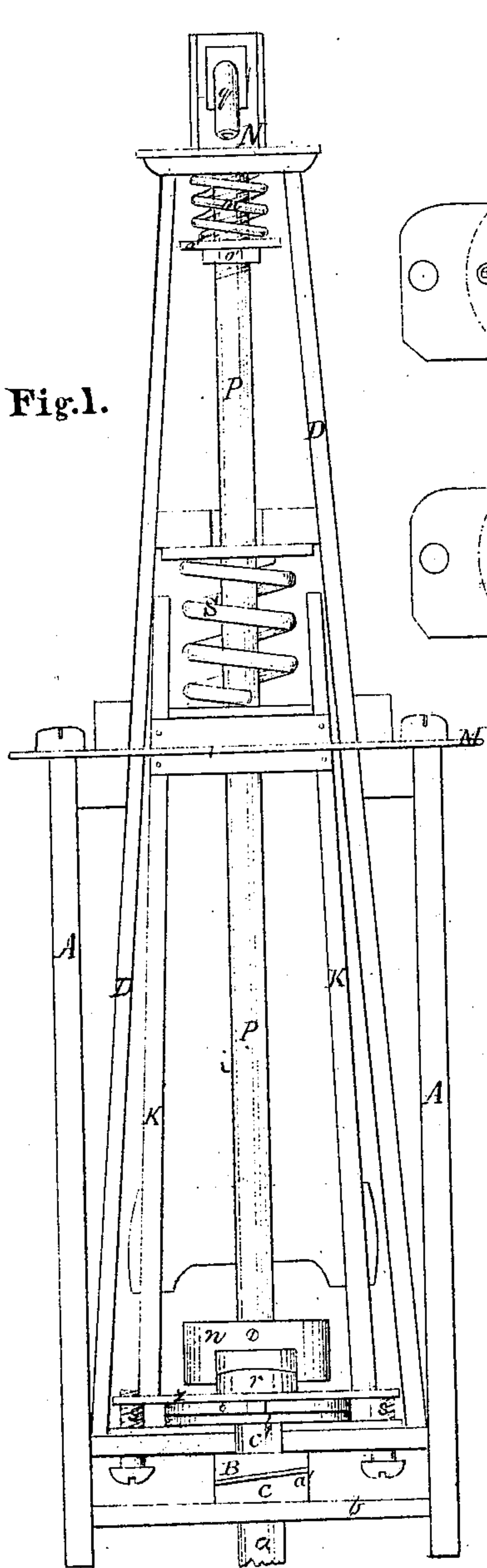


Fig. 1.

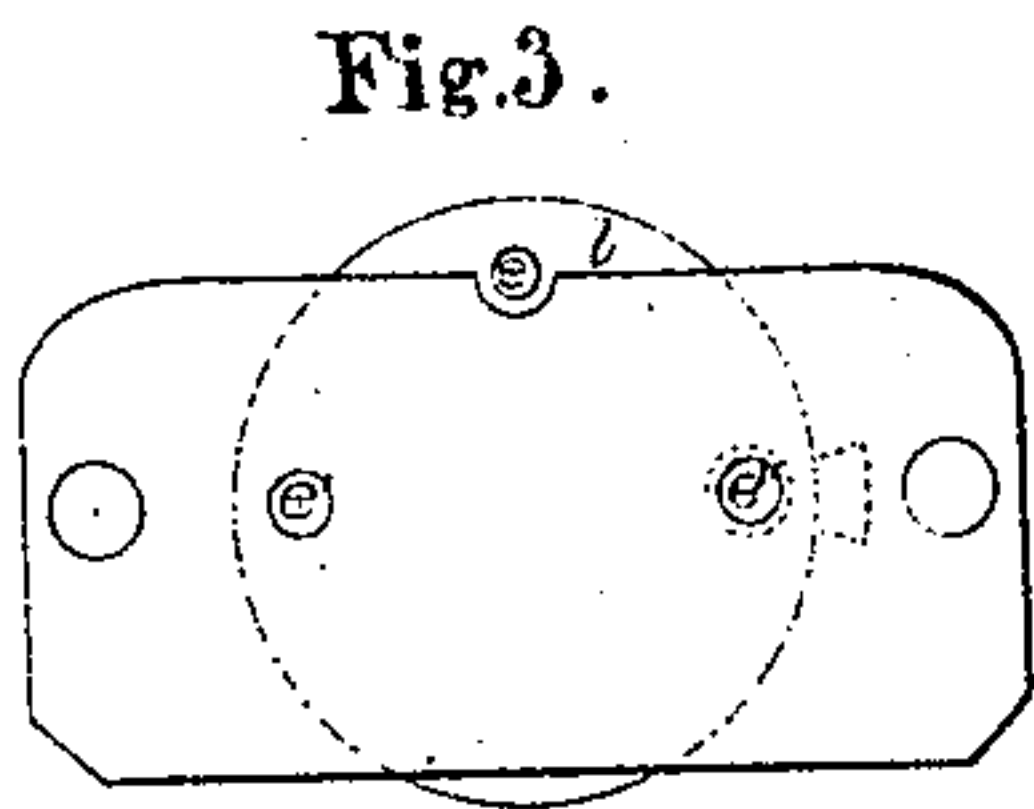


Fig. 3.

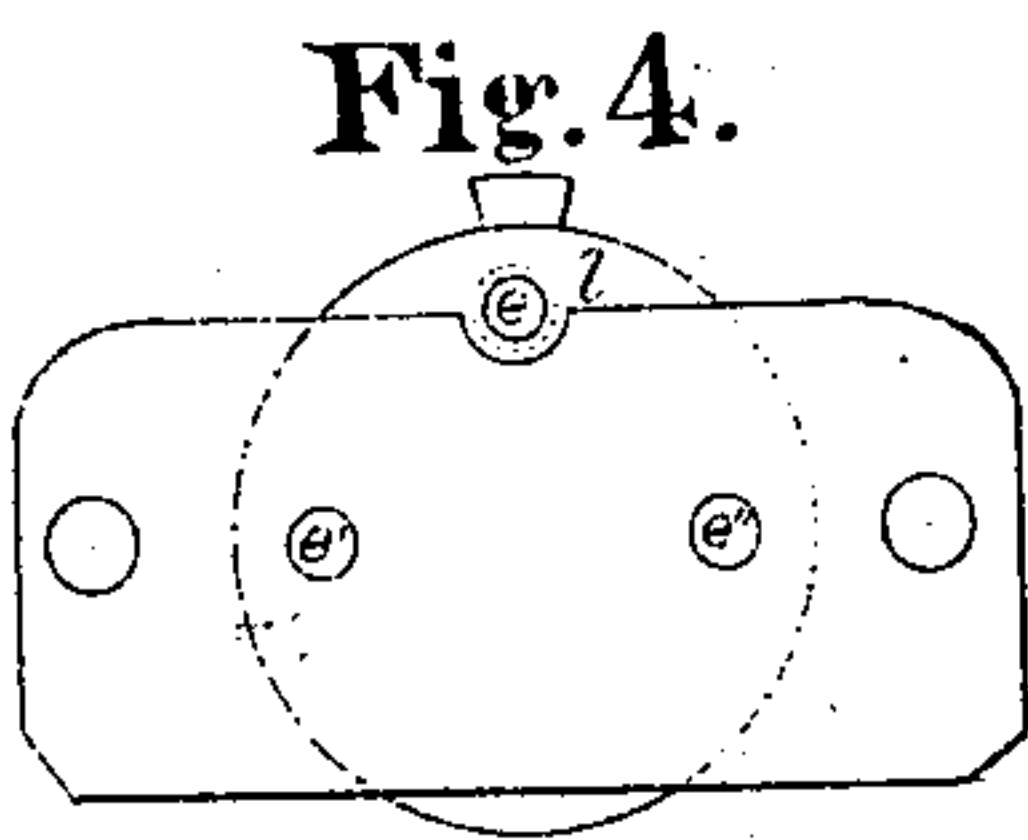


Fig. 4.

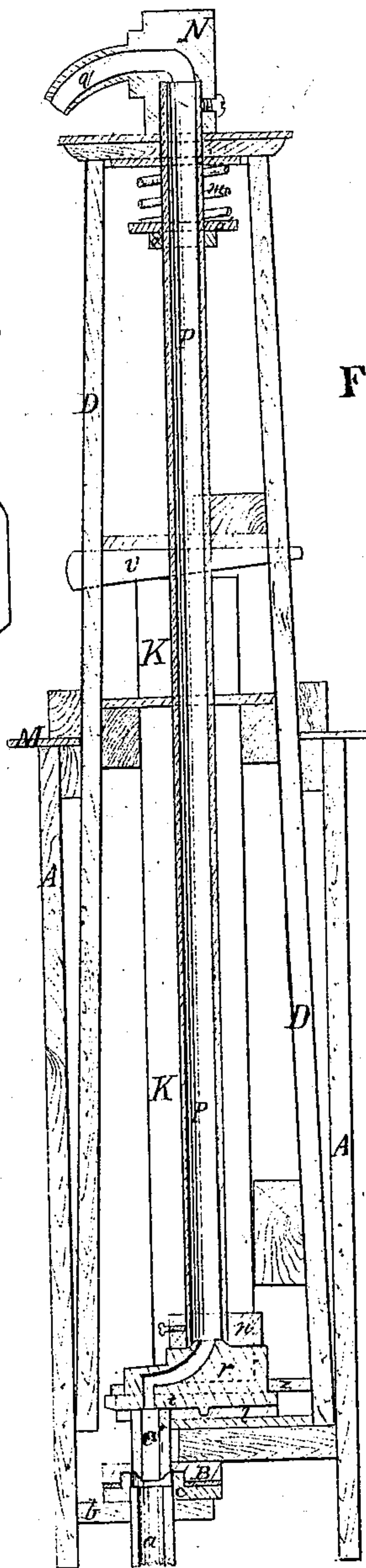


Fig. 2.

Witnesses.
E. W. Anderson
L. L. Kane.

Inventor.
D. J. Pomeroy,
Chipman, Hosmer & Co.,
Attorneys.

United States Patent Office.

D. I. PRUNER, OF BELLEFONTE, PENNSYLVANIA.

Letters Patent No. 98,411, dated December 28, 1869.

IMPROVEMENT IN HYDRANTS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, D. I. PRUNER, of Bellefonte, in the county of Centre, and State of Pennsylvania, have invented a new and valuable Improvement in Hydrants; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1, of the drawings, is a representation of my invention, with the front portions of the casings removed.

Figure 2 is a vertical cross-section of the same.

My invention relates to hydrants, and consists, mainly, in the construction and novel arrangement of devices, whereby a hydrant is rendered non-freezing, and the parts below ground arranged in a case, so that they can be drawn up for repairs, without excavation.

The letter A of the drawings designates the outer case, or pit-lining, of wood.

This is a rectangular box, open at the top, which is let down into the earth, until the edges of its top are flush with the surface. It is partly open at the bottom, for drainage.

The supply-pipe *a*, from the ground, passes up through the shelf *b*, arranged across the bottom of the case A, and is secured into an opening in the cap *c*.

The cap *c* has a circular lip around the mouth of the opening, and a slanting shoulder, *a'*.

When the hydrant is pushed down into its place, the plate B, attached to the lower end of the pipe *c'*, meets the upper slanting face of the cap *c*, and receives into a circular depression, in its own lower slanting surface, the lip of the cap *c*, thus forming a secure joint.

A disk, of leather, may be used around the lip of the cap *c*, as packing, if desired.

Attached to the bottom of the hydrant-case D is the lower plate *l* of the cut-off—a plane, circular disk, with three openings, *e*, *e'*, and *e''*, one of which, *e*, communicates with the pipe *c'*. The other two openings, *e'* and *e''*, are for drainage.

z is a metal plate, having a circular opening, somewhat smaller in diameter than the upper disk *t* of the cut-off, so that it presses upon the upper surface of its rim, when clamped by the screws *s s*, or other devices, hereafter described.

The meeting-surfaces of the disks *l* and *t* are ground and polished perfectly smooth, so that when they are pressed together, no water can ooze between them.

The upper plate *t* is kept in position by two small projections attached to the lower surface of the clamping-plate *z*, and by the curved front wall of the shoulder or elbow *r*.

The water, entering by the opening in the disk *t*, is conveyed through the elbow *r*, passes up through the pipe *p*, and out at the spout *q*.

Keyed to the lower end of the pipe *p* are the jaws *n*, which embrace the sides of the elbow *r*.

The pipe *p* and jaws *n* thus act as a wrench, by which the disk *t* is turned, to let the water on, or cut it off.

A small spring, *m*, coiled around the pipe *p*, near the top of the hydrant, is used to keep the jaws *n* down, and the disks *l* and *t* are somewhat closed by it.

The pressure of the spring *m* is regulated by the nut *o'*, working against the plate *a'*.

K K are struts, the feet of which rest on the plate *z*, and, being pressed down by the spring S, wedges *v v*, or both, operate principally in keeping the disks *l* and *t* closely together.

M represents a metal plate, secured firmly to the hydrant-case, by attaching cleats above and below it.

This plate is so situated, that when the hydrant is let down into the outer case A, far enough to bring the plate B in position on the cap *c*, it will be flush with and cover the top of the case A, and may be secured thereto with screws in such a manner as to cause a pressure on the joint at B, and thereby render it water-tight.

When the hydrant is turned off, all the water in the pipe *p* and elbow *r* escapes through one of the side vents *e' e''*. Therefore, there can be no freezing above the cut-off.

By the use of a coiled spring, attached under the shoulder of the spout-head N, and secured to the top plate of the hydrant, the water may be cut off automatically.

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

1. The combination and arrangement of a pit-lining, A, and a removable hydrant, constructed with metal shoulder M, and attached to the supply-pipe by the slanting joint-plates B and *c*, as specified.

2. In combination with a pit-lining, A, the removable hydrant, herein described, having slanting joint B, pipes *p* and *c'*, cut-off disks *l* and *t*, shoulder *r*, jaws *n*, springs S and *m*, struts K, and plates M and *z*, constructed and arranged to operate as specified.

3. In combination with a pit-lining, A, the removable hydrant, herein described, having slanting joint B, pipes *p* and *c'*, cut-off disks *l* and *t*, shoulder *r*, jaws *n*, wedges *v v*, adjustable spring *m*, struts K, and plates M and *z*, as specified.

4. In combination with the cut-off plate *t*, with elbow *r*, the plate *l* having three apertures, viz, an inlet, *e*, and outlets *e'* and *e''*, constructed and arranged to operate as specified.

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

D. I. PRUNER.

Witnesses:

D. D. KANE,

E. W. ANDERSON.