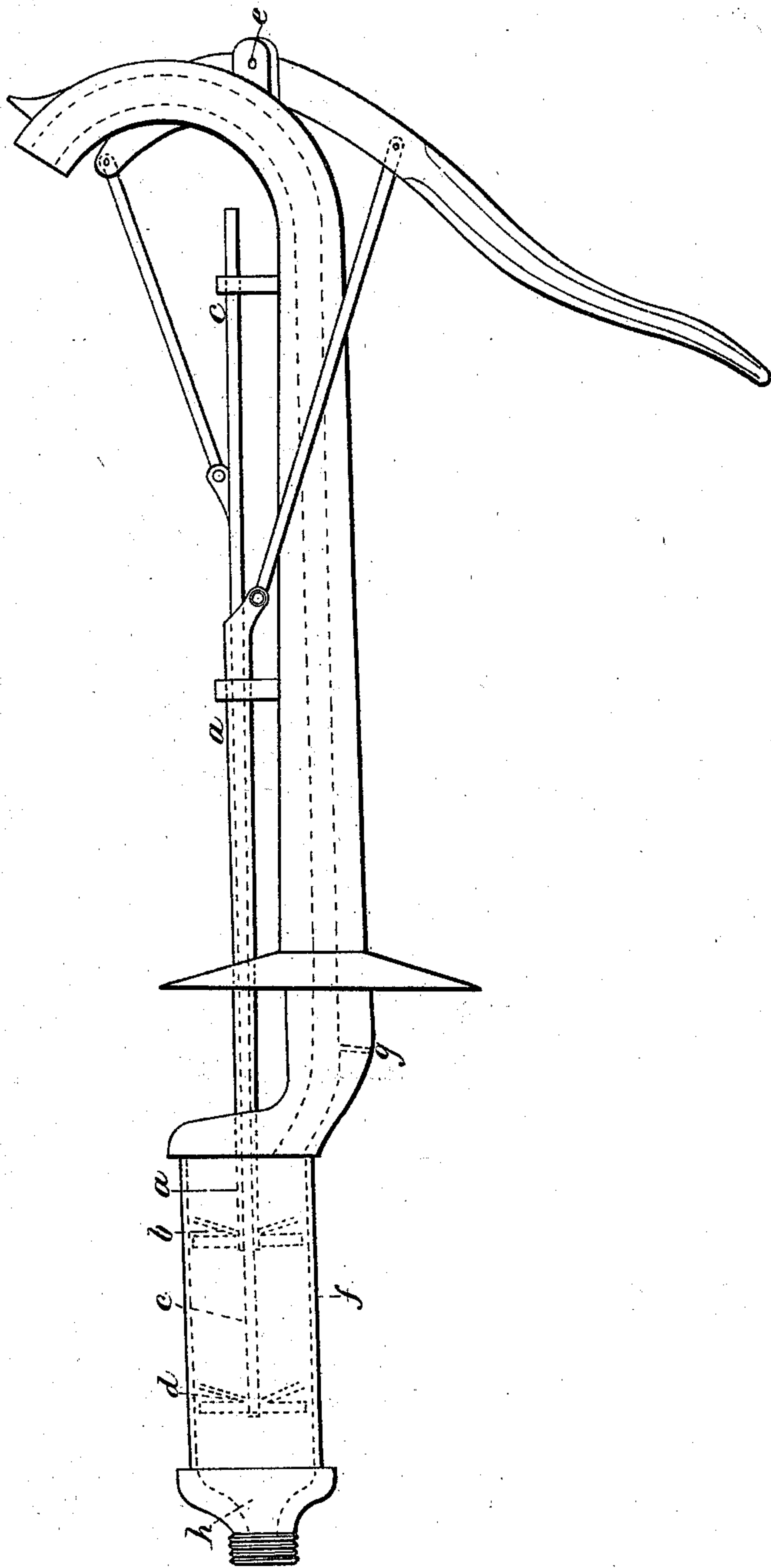


C. A. Cornell.

Pump.

N^o 95,088.

Patented Sept. 21, 1869.



Witnesses
J. L. Patmor
J. H. Cornell

Inventor
C. A. Cornell

United States Patent Office.

CHARLES A. COWELL, OF NEWARK, NEW JERSEY.

Letters Patent No. 95,088, dated September 21, 1869; antedated September 13, 1869.

IMPROVEMENT IN PUMPS.

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, CHARLES A. COWELL, of Newark, in the county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Double-Acting and Anti-Freezing Pumps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of these specifications.

a a represent a cylinder-rod.

Attached to the lower end of this rod is a valve, *b*, which plays up and down in the upper end of the cylinder *f*.

This rod and valve are so constructed as to allow another rod, *c c*, to pass up and down in the same without interfering with each other.

To this inner rod is attached, at the lower end, a valve, *d*, which plays up and down in the lower end of the cylinder *f*.

The handle is attached to the top of the pump at the journal *e*, and projects beyond, to the end of which is attached the pitman of the centre rod *c c*, while the pitman of the outer rod *a a* is attached to the long end of the handle, at an equal distance from the journal *e*.

As the handle is lifted, the rod *c c* passes downward, plunging the valve *d*, and at the same time lifts the rod *a a* and valve *b*.

As the handle is lowered, the rod *a a* passes downward, plunging the valve *b*, while the rod *c c* and valve *d* are lifted at the same time. The valves *b* and *d* acting in unison, as one plunges, the other acts as a stop and lifting-valve, so that at every motion of the handle one valve is plunged and the other is lifted.

The cylinder *f* is located below the platform, and between this cylinder and the platform is a small exhaust *g*, where the remaining water is allowed to pass out of the top of the pump, so that the water may not be subjected to the action of the weather, either hot or cold.

The connection is formed between the pump and water by means of a pipe attached to the lower end of the cylinder.

This pump may be used with or without a local stop-valve in the bottom of the cylinder at *h*.

What I claim, is—

The arrangement of the hollow shaft *a* and its valve *b*, interior working-rod *c*, and its valve *d*, with the cylinder *f*, stock *A*, with exhaust *g*, and lever, with pitmen on each side of the fulcrum *e*, for alternately operating the rods *a c*, all substantially as herein set forth.

CHARLES A. COWELL.

Witnesses:

JOHN J. COWELL,
JOHN L. PATMOR.