

L. W. HOADLEY.
Oil-Well Packing.

No. 203,044.

Patented April 30, 1878.

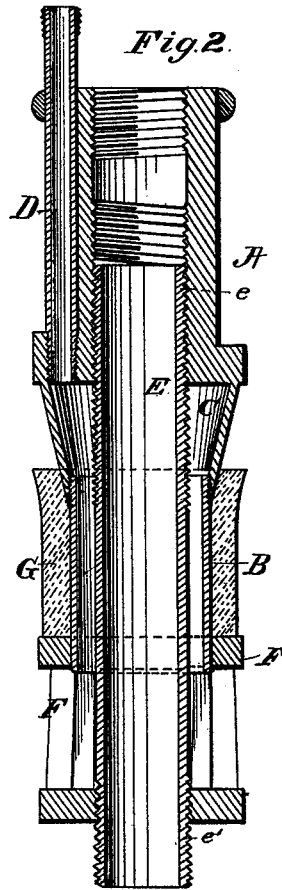
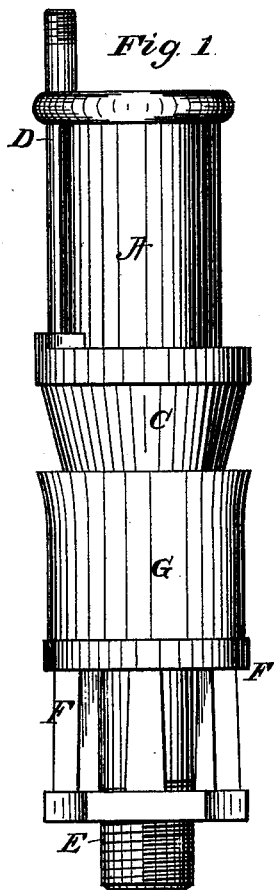
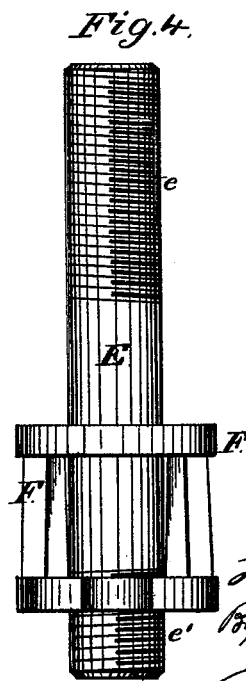
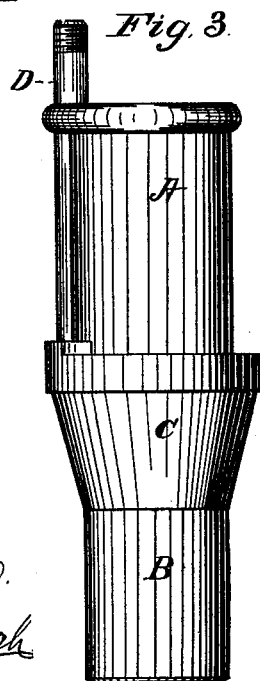
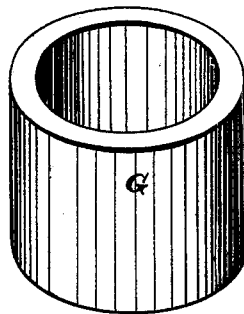


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

LAWRENCE W. HOADLEY, OF PEACHVILLE, PENNSYLVANIA, ASSIGNOR OF
TWO-THIRDS HIS RIGHT TO ISAAC N. HOADLEY, OF SAME PLACE.

IMPROVEMENT IN OIL-WELL PACKINGS.

Specification forming part of Letters Patent No. **203,044**, dated April 30, 1878; application filed
October 18, 1877.

To all whom it may concern:

Be it known that I, LAWRENCE WELLINGTON HOADLEY, of Peachville, in the county of Butler and State of Pennsylvania, have invented a certain new and Improved Water-Packer for Oil-Wells, of which the following is a specification:

The object of my invention is to produce a water-packer through which the gas evolved in oil-wells may be readily passed so as to be utilized without interfering either with the working of the oil-pump or with the packing device employed to exclude water from the lower part of the well. To this end I construct my water-packer with a chambered cone adapted to be screwed down within the rubber packing G, to expand the same, and with a side pipe, D, which, communicating with the interior chamber of the said cone, takes the gas to the exterior of the oil-tube, and conducts it to a point above the level which the water may reach.

In the accompanying drawing, Figure 1 is a side elevation of the parts of my packer connected in position to adapt them to form a section of a well-tube. Fig. 2 is a vertical section of the same. Fig. 3 is an elevation of the upper section of the packer, including the chambered cone, a short section of the gas-pipe, and the large tube, which, when in position, projects down within the gum packing-ring. Fig. 4 is an elevation of the interior tube E and the seat for the rubber packing-ring attached thereto. Fig. 5 is a perspective view of the rubber packing-ring G detached.

A B represent portions of the large tube, between which is a chambered cone, C, with the interior of which communicates a small gas-pipe, D, which is located on the exterior of the tube A, and in practice extends upward to a point above the level which will be reached by the water above the packing. E is an in-

ternal tube, threaded at each end, as shown at *e* and *e'*, and having rigidly attached to its exterior a skeleton frame, F, which forms a seat for the rubber packing-ring G.

The large tube B is screwed into the lower end of the cone. The upper end of the cone forms a collar, as represented, for the reception of the gas-pipe D on the interior of the connecting-pipe and cone A.

C is a female screw, which receives the top of the small pipe E. The large tube B extends down within the seat F when the cone is screwed down. The rubber ring G fits around the large tube B when the parts are in position, the small extremity of the cone just entering the upper end of the rubber ring. The device is then ready to be coupled to the tubing, of which it is to form a part, and to be inserted in the well. The packing is set out by anchoring the tubing on the bottom of the well and screwing down the pipe A from the top.

In operation the gas passes through the seat F, outside the tube E, into the large tube B, into the chamber of the cone C, and thus escapes through the pipe D above the water.

By my improved device I take the gas through the metallic cone C instead of conducting it through the packing, as heretofore done.

Having thus described my invention, the following is what I claim as new and desire to secure by Letters Patent:

1. The combination of the tubes A B E, seat F, rubber packing G, and cone C, as and for the purposes described.
2. The chambered cone C and gas-pipe D connected therewith, constructed and applied substantially as herein described.

LAWRENCE W. HOADLEY.

Witnesses:

T. M. MAGEE,
M. N. MILES.