

T. Draper. Oil Pump Valves.

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Fig. 1.

PATENTED JUL 11 1871

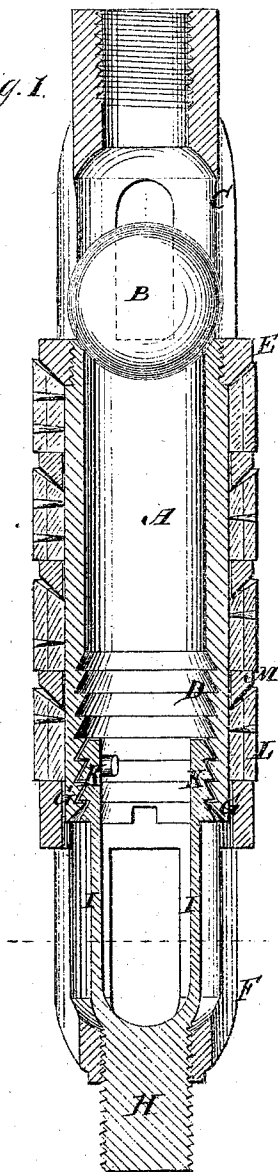
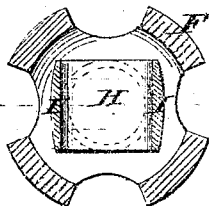


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

TROUSON DRAPER, OF PETROLIA, CANADA.

IMPROVEMENT IN OIL-PUMP VALVES.

Specification forming part of Letters Patent No. 116,820, dated July 11, 1871.

To all whom it may concern:

Be it known that I, TROUSON DRAPER, of Petrolia, in the Province of Ontario and Dominion of Canada, have invented a new and Improved Oil-Pump Valve; 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 make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in oil-pump valves; and it consists in an arrangement for tightening the leather packing-rings upon the exterior of the valve-cylinder without removing the valve from the well.

Figure 1 is a sectional elevation of a valve with my improvements applied, and Fig. 2 is a horizontal section taken on the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

The hollow cylinder A, ball-valve B, and the top C are all the same as they are ordinarily constructed, except the annular grooves D in the interior of the lower end of the cylinder and the lower edge of the top C, which is beveled, as indicated at E. The lower part F of the valve-stock is fitted to slide on the lower end of the cylinder at G, and it is held thereon by the screw-bolt H, having the springing prongs I on the upper end extending up into the cylinder, and engaging therewith by the notched ends K hooking into the grooves D, as shown. L represents leather packing-rings, made of two plies pegged together with wooden pegs, fitted on the exterior

of the cylinder between the top of part F and the lower end of C, with metal rings M between them, and having the upper edges beveled so as to be higher at the outer sides than at the inner ones, while the rings are beveled on the lower edges in the reverse, so that when the leather and metal rings are forced together the leather rings will be wedged outward by the metal rings; and this may be done at any time it may be required by letting the valve down upon the standing valve and applying pressure upon the top of the rod sufficient to cause the cylinder to slip down upon the notched ends of the springs I of bolt H, one or more notches, the said notches and the grooves D being so shaped as to favor this movement, while securely holding the said bolt from going back again after being pressed upward, as clearly shown in the drawing.

It will be seen that by this plan the packing-rings may be adjusted readily from time to time, for packing the valve in the tube to regulate the suction, without removing the valve.

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

The adjustment of the leather packing-rings for expanding them by means of the metal rings, the vertically-adjustable part F of the stock, the bolt H, notched springs I, and the grooved barrel A, all arranged and operating substantially as specified.

TROUSON DRAPER.

Witnesses:

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