No. 638,853. Patented Dec. 12, 1899.

A. G. SNYDER.

ROTARY PUMP.

(Application filed Aug. 10, 1899.)

(No Model.)

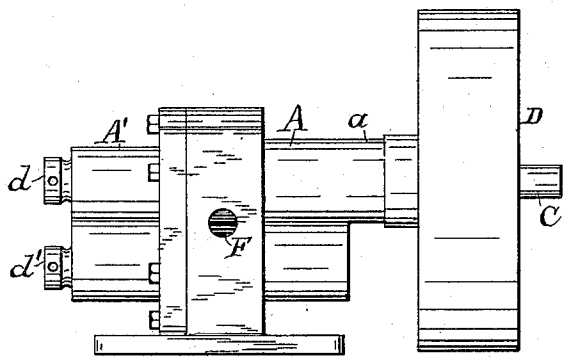


Fig. 1.

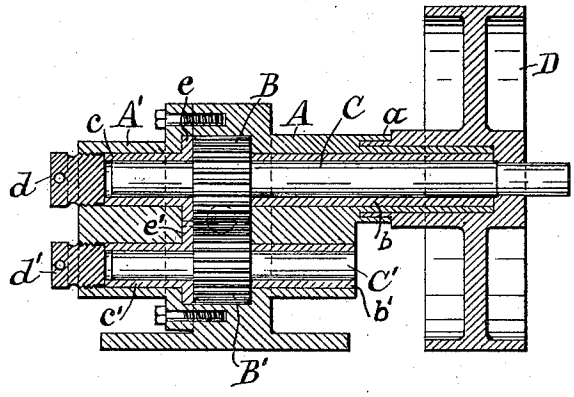


Fig. 2.

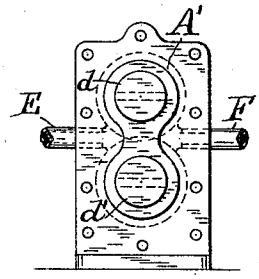


Fig. 3.

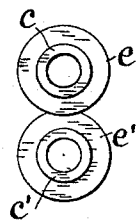


Fig. 4.

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UNITED STATES PATENT OFFICE.

AUGUSTUS G. SNYDER, OF ILION, NEW YORK.

ROTARY PUMP.

SPECIFICATION forming part of Letters Patent No. 638,853, dated December 12, 1899.

Application filed August 10, 1899. Serial No. 726,743. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS G. SNYDER, of Ilion, in the county of Herkimer, in the State of New York, have invented new and useful Improvements in Rotary Pumps, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to rotary pumps, and more particularly rotary pumps for forcing oil at a considerable pressure when drilling gun-barrels to lubricate the drills and force out chips.

The object of my invention is to provide simple and efficient means for maintaining close joints between the ends of the revolving pistons and the ends of the casing, or, in other words, to construct such oil-pump with simple and accurate adjustable means to take up wear between the parts. This process occupied considerable time, aside from the cost of the new parts, and was objectionable.

My invention consists in the combination, in a pump, with a revolving piston, its shaft, and the casing inclosing the same, of a tube on one end of the shaft, having a flange on one end extending to the periphery of the piston and between the end thereof and the inner end of the casing, and means to move the said tube toward the piston; and my invention consists in certain other combinations of parts hereinafter described, and specifically set forth in the claims.

In the drawings hereto annexed and forming a part of this specification, Figure 1 is a side elevation of my improved rotary oil-pump. Fig. 2 is a vertical longitudinal sectional view of the pump, with the pistons and their shafts in elevation. Fig. 3 is an end view of the casing; and Fig. 4 shows an end view of the adjustable tubes, with their flanges, removed from the pump.

Referring specifically to the drawings, A is the casing of the pump, which incloses the cog-wheels or interlocking pistons and their shafts, A′ being the removable end of the casing.

B and B′ are the interlocking revoluble pistons or cog-wheels, and C and C′ are their respective shafts, extending parallel with each other, and D is a pulley on one end of the upper shaft, through which the pump is driven.

An extension *a* of the casing A projects longitudinally within the hub of the pulley to support the same and to provide a close joint. Tubes *b* and *b′* inclose the shafts C and C′ to the right of the pistons and serve as bearings, which may be replaced by others when worn.

The above specific description thus far describes the rotary oil-pump now in use.

My improvement resides in the parts to the left of the pistons. The tubes *c* and *c′*, forming the bearings for the left-hand ends of the shafts, are provided with integral flanges *e e′* on their inner ends, which flanges extend to the peripheries of the pistons and are between the ends of the pistons and the inner wall of the removable part A′ of the casing. The said tubes extend somewhat beyond the ends of the shafts and are adapted to slide thereon. Screw-threaded plugs *d d′* in the end of the casing bear upon the ends of the tubes and serve to move them inward or toward the pistons when they become loose by wear. A slight rotation of these plugs is sufficient to make the joints tight.

As clearly indicated in Fig. 4, one of the flanges is preferably recessed to receive the periphery of the other, that the tubes may come sufficiently near together. In Fig. 3 the inlet and outlet pipes E and F are shown projecting from opposite sides of the casing.

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

1. In a rotary pump, the combination with a revolving piston and its shaft and the casing inclosing the said parts, of a tube on the shaft having a flange between the end of the piston and the inner side of the casing, and a threaded plug entering the casing, and bearing upon the end of the tube, as and for the purpose set forth.

2. In a rotary pump, the combination with a pair of interlocking revolving pistons, shafts

for the pistons, a casing inclosing said parts, of tubes forming bearing for one end of each shaft, said tubes having flanges extending to the peripheries of the pistons and between the latter and the inner side walls of the casing, and threaded plugs entering the casing and bearing with their inner ends upon the ends of the tubes to move the same on the said shafts toward the pistons substantially as, and for the purpose set forth.

In testimony whereof I have hereunto signed my name.

AUGUSTUS G. SNYDER. [L. S.]

Witnesses:
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