(No Model.)

L. G. CAREAGA Y SAENZ.

PUMP.

No. 305,997. Patented Sept. 30, 1884.

Fig. 1

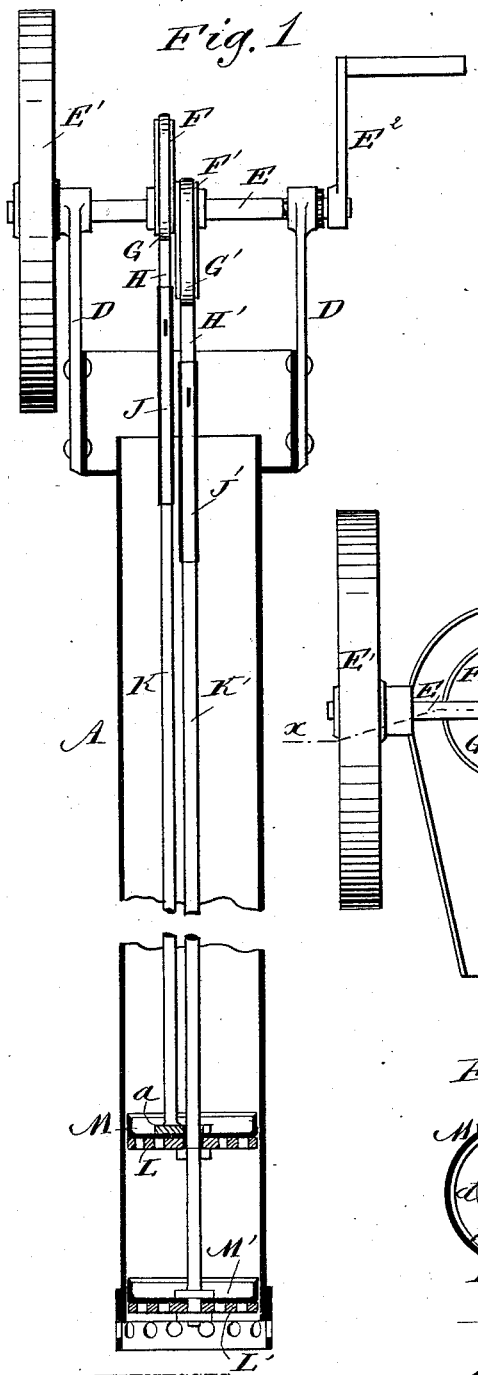

Fig. 2

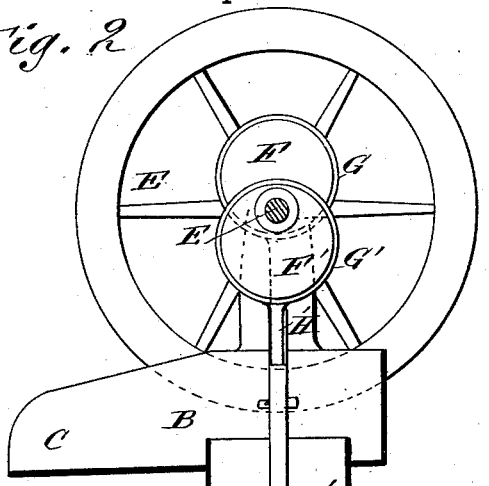

Fig. 3

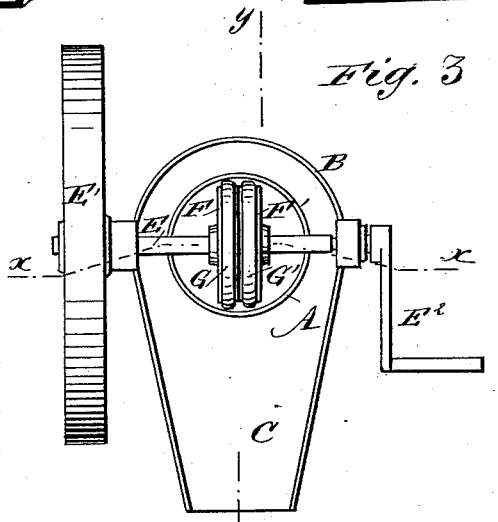

Fig. 4

Fig. 5

WITNESSES:

C. Neveux

E. Sedgwick

INVENTOR:

Luis G. Careaga y Saenz

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

LUIS G. CAREAGA Y SAENZ, OF PUEBLA, MEXICO.

PUMP.

SPECIFICATION forming part of Letters Patent No. 305,997, dated September 30, 1884.

Application filed May 5, 1883. (No model.) Patented in Mexico November 28, 1882.

To all whom it may concern:

Be it known that I, LUIS G. CAREAGA Y SAENZ, of Puebla, Mexico, have invented a new and Improved Pump, of which the following is a full, clear, and exact description.

My invention is an improvement in double-piston pumps; and it consists in the construction and combination of parts, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of my improved pump on the line *x x*, Fig. 3. Fig. 2 is a cross-sectional elevation of the same on the line *y y*, Fig. 3. Fig. 3 is a plan view of the same. Fig. 4 is a sectional plan view of the barrel on the line *x' x'*, Fig. 2, parts being broken out. Fig. 5 is a sectional plan view of the barrel on the line *y' y'*, parts being broken out.

A barrel, A, is provided at its upper end with an overjutting reservoir or basin, B, having a spout, C, to the sides of which reservoir two standards, D D, are attached, in the upper ends of which a horizontal shaft, E, is journaled, which is provided at one end with a fly-wheel, E', and at the other end with a crank-handle, E^2. On the shaft E two circumferentially-grooved disks, F F', are mounted eccentrically and diametrically opposite—that is to say, one projects upward and the other downward from the shaft. Rings G G' surround the grooved peripheries of the disks F F', and are secured to rods H H', the lower ends of which are held in the upper ends of sleeves J J', attached to the upper ends of the pump-rods K K'. To the lower end of the pump-rod K' an apertured disk, L', fitting closely in the barrel, is held, and on the said disk L' a rubber or leather circular valve-plate, M', is held, which valve-plate is provided with an upwardly-projecting annular flange resting against the inner surface of the barrel. The lower end of the pump-rod K is attached to a segmental plate, *a*, which is secured on an apertured disk, L, fitting closely in the barrel, on which apertured disk L a circular flange-plate, M, of rubber or leather, is held, which circular valve-plate is provided with an upwardly-projecting annular flange. The plate *a* is held on the valve-plate M and the disk L by means of bolts *d*, passing through the plate *a*, the valve-plate M, and the disk L. The pump-rod K must necessarily be held eccentrically on the disk L, as the pump-rod K' passes through the middle of the disk L.

The operation is as follows: If the shaft E is rotated by means of the crank E^2, the apertured disks L and L' will be reciprocated vertically within the pump-barrel, and will be alternately moved toward and from each other. If they are moved toward each other, the water above the valve-plate M' will be forced through the aperture in the disk L, and will raise the valve-plate M and rise above the same, the water being prevented from passing back through the apertures in the disk L by the valve M, the flanges of which will be pressed closely against the sides of the barrel by the water. When the circular disks L L' are moved from each other, a vacuum will be produced between them, which is filled by the water which passes in through the lower disk, L', and raises the valve-plate M', the water being prevented from falling back by the valve M', which acts as a check-valve. At the same time the water above the valve M is raised to the top of the barrel and to the reservoir B, from which it flows through the spout C.

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

The combination, with the rigid piston-disk L and its rod K, which is arranged eccentrically, of the segmental metal plate *a*, attached to said disk and rod, and the flanged imperforate rubber plate M, placed between said disk and segmental plate, and left free, except the eccentrically-located portion covered by the latter, all as shown and described, for the purpose specified.

LUIS G. CAREAGA Y SAENZ.

Witnesses:

TSMAEL RIVERO,

ALFRIDO SEROUX.