No. 622,693.

Patented Apr. II, 1899.

Z. JACOMET.

PUMP.

(Application filed Nov. 30, 1897.)

(No Model.)

2 Sheets—Sheet 1.

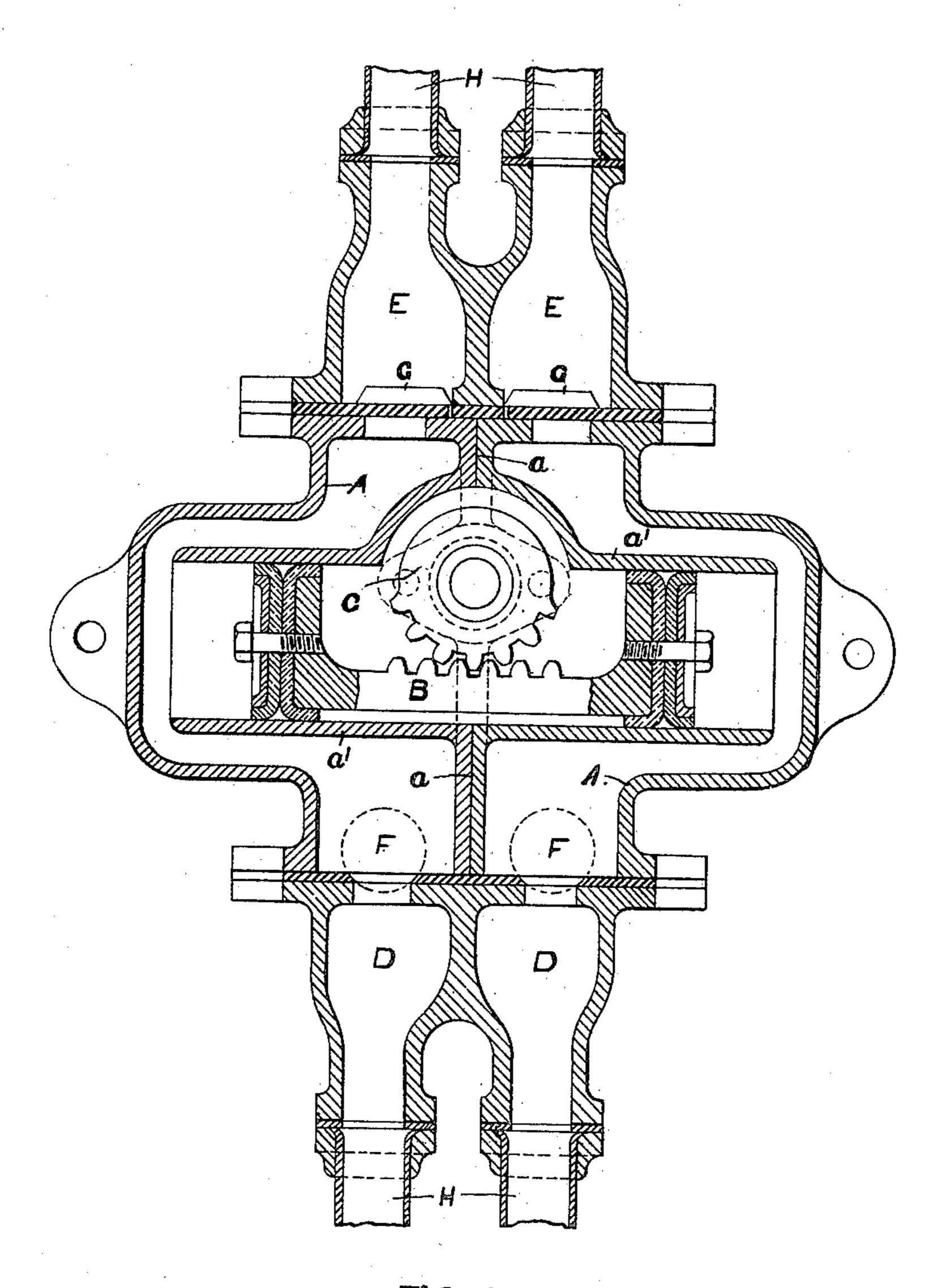


FIG.I.

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No. 622,693.

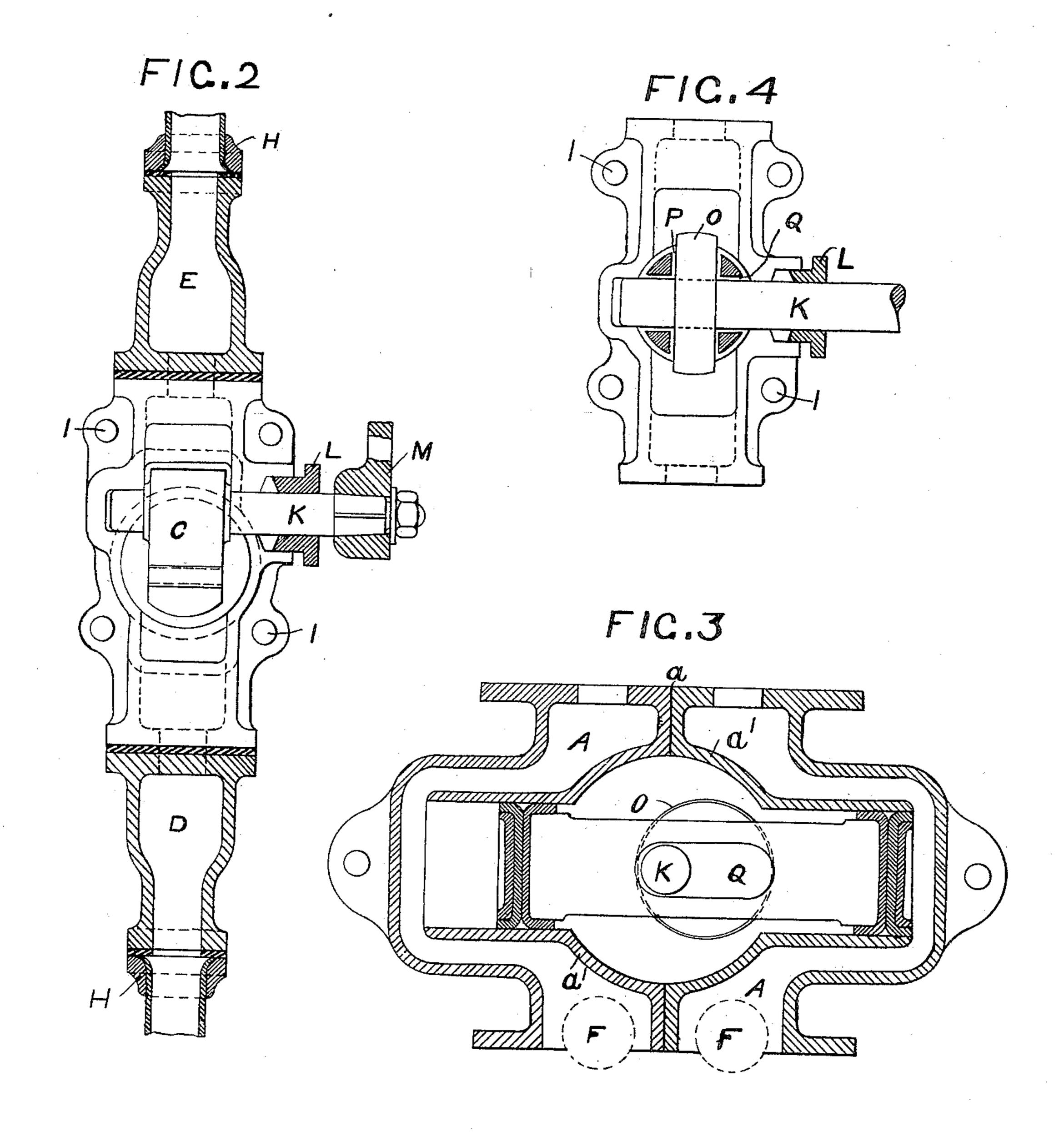
Patented Apr. II, 1899.

## Z. JACOMET. PUMP.

(Application filed Nov. 30, 1897.)

(No Model.)

2 Sheets—Sheet 2.



Inventor Lacharie Jacomete by Allau & Auxande Attorney

## United States Patent Office.

ZACHARIE JACOMET, OF MARSEILLES, FRANCE, ASSIGNOR TO JACOB STEIN, OF LONDON, ENGLAND.

## PUMP.

SPECIFICATION forming part of Letters Patent No. 622,693, dated April 11, 1899.

Application filed November 30, 1897. Serial No. 660, 292. (No model.)

To all whom it may concern:

Be it known that I, ZACHARIE JACOMET, residing at Marseilles, France, have invented Improvements in Pumps, of which the follow-

5 ing is a specification.

This invention relates to pumps, and has for its object the construction and arrangement of a pump adapted to handle two different liquids at the same time, keeping them wholly ro independent of each other.

In order that this invention may be the better understood, I will now proceed to describe it in relation to the drawings hereunto annexed, reference being had to the letters 15 marked thereon.

Like letters refer to like parts in the vari-

ous figures.

Figure 1 is a side sectional elevation of a pump according to my invention operated 20 by a rack-and-pinion gear. Fig. 2 is a partsectional end elevation of the same. Fig. 3 is a sectional side elevation of the pump-casing, showing the plungers operated by an eccentric. Fig. 4 is a side end elevation of the 25 pump-casing at the central joint, showing the

gland and plunger in section.

To carry my invention into effect, I form the pump-casing A in two similar parts, which are jointed together at a and which contain 30 the pump-barrels a'. The pump-casing A has arranged at its lower part a casting D, which forms the suction-orifices and supports the valve-seats for the valves F. At the upper part of the casing A is arranged the casting E, which forms the delivery-orifices and the delivery valve-box for the valves G. By arranging the valves and their seats in this way they can be readily renewed or changed for those of a different material should it be de-40 sired to use the pump with liquid that corrodes or has a chemical action on the valves and their seats then in the pump.

The castings D and E having each a division-plate and two orifices, the pump is adapt-45 ed to pump two different liquids at the same

time independently.

I arrange a shaft or axle K through the side of the pump-casing, which I support in jour-

nals and around which I place a gland L at that portion where the shaft passes through 50 the casing. On the outside end of the shaft I fix a lever M, and upon the portion of the shaft within the casing I provide some means for giving the plungers a reciprocating motion. In Figs. 1 and 2 these means consist 55 of a segmental pinion C, the teeth of which gear into a rack B, formed on the connectingstem of the two plungers. When the lever M is rocked through an arc, the plungers are moved backward and forward.

As shown in Figs. 3 and 4, the movement of the plungers is effected by an eccentric O, fixedly mounted on the shaft K, and which is located in a transverse slot P in the stem of the plungers, the shaft passing through 65 another transverse slot Q, normal to the slot P, of sufficient length to allow of the full reciprocation of the plungers.

A handle or pulley can be attached to the shaft, so that the pump can be operated by 70

hand or by power.

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

In a pump, in combination, a pump-casing 75 made in duplicate halves, means for detachably attaching said halves by a central joint, a pump-barrel supported in each half of the casing, the barrels being coaxial to one another, passages leading from the back end 80 of each barrel to the respective valves, a double plunger working in the said barrels, means for centrally operating said plunger, and castings D, E, each having a divisionplate and two orifices, one on each side of said 85 plate, whereby said pump can handle two different liquids at the same time, keeping them wholly independent of each other, substantially as described.

In testimony whereof I have signed my 90 name to this specification in the presence of two subscribing witnesses.

ZACHARIE JACOMET.

Witnesses:

Z. ALETTO, M. H. KLEINBERGER.