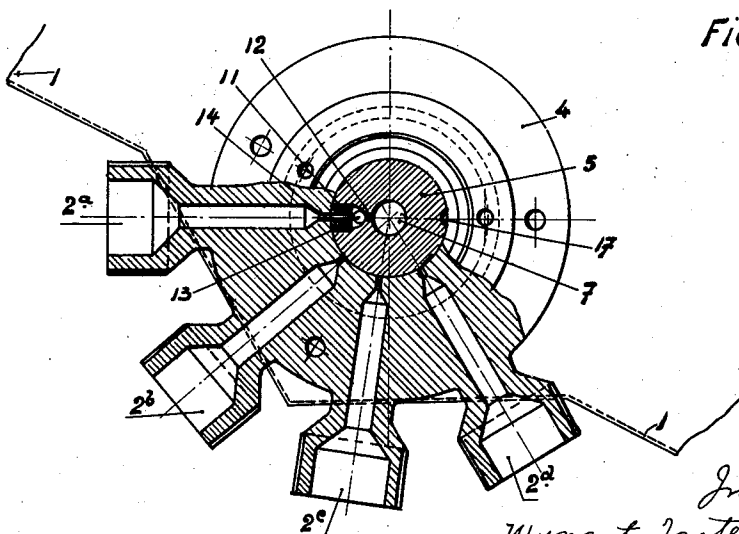
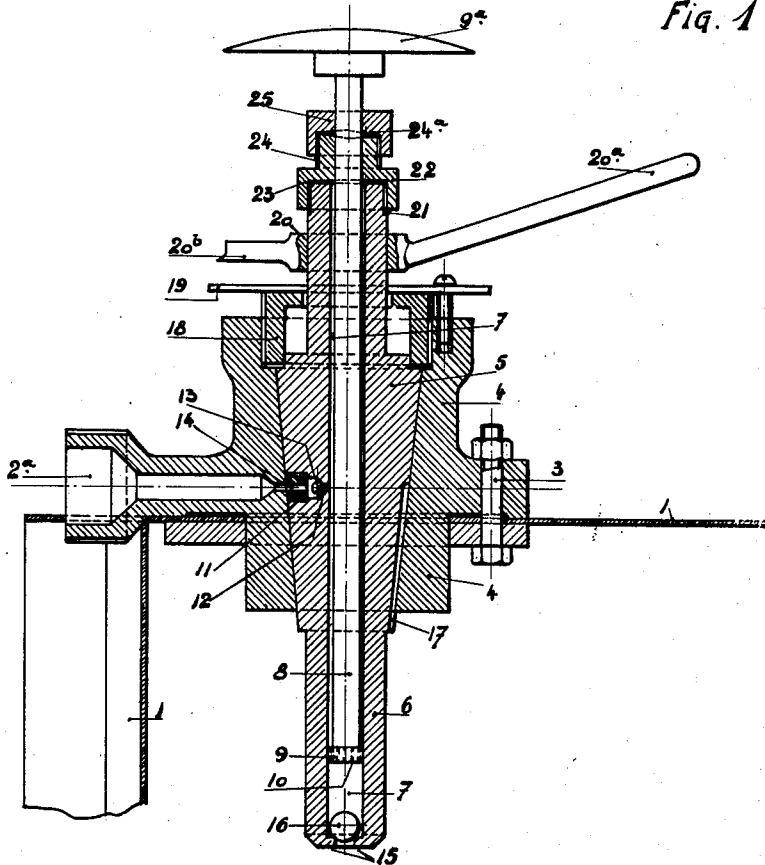


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W. TASTENHOYE
MULTIWAY LIQUID PRESSURE DISTRIBUTING PUMP WITH RETURN
OF THE LIQUID TO THE RESERVOIR AFTER USE
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MULTIWAY LIQUID-PRESSURE-DISTRIBUTING PUMP, WITH RETURN OF THE LIQUID TO THE RESERVOIR AFTER USE

Application filed September 10, 1928, Serial No. 305,101, and in Belgium August 8, 1928.

This invention relates to a liquid pressure distributing-pump which allows the direct compression in different directions, and the return of the liquid, after having used its compression, to the reservoir from which it had been pumped.

This distributing-pump, with multiple ways and return, is especially constructed for operating the stationary jacks fixed under automobiles (for instance according to the U. S. A. Patent No. 1,577,385 of the same inventor), but may however be used for all other purposes.

In order to have the invention better understood, we will now describe an embodiment of the same, illustrated in the accompanying drawings, merely as an explicative, but in no way limitative example.

In said drawings

Fig. 1 is a central vertical section of the device and

Fig. 2 is a horizontal section of same at the level of the compression nozzles.

In a tank or reservoir 1, of suitable size, leaving free the compression nozzles 2^a, 2^b, 2^c, 2^d, is fastened, for instance by means of bolts 3, a body 4 in the form of a four ways cock-body, in the conical bore of which rotates a conical plug 5, prolongating in a cylindrical part 6, which reaches to the bottom of the reservoir.

The plug 5, and its cylindrical prolongation 6 are bored centrally in their whole length, as in 7, thus constituting the cylinder for a pump plunger 8, having on its top a handle 9^a. This plunger 8, is almost as long as said plug 5 with its prolongation 6, and terminates at its lower end in an upset bead 9 provided at its periphery with small vertical notches 10, permitting the passage of the liquid to be compressed (oil, in the present case) between the plunger 8 and the bore 7, so that said plunger 8 will act in compression during the whole of its downward stroke.

At the height of the axis of the compression nozzles 2^a, 2^b, 2^c, 2^d, the cock plug 5 is provided with a radial chamber 11, communicating with the central bore 7 of said plug 5, through a narrower canal 12, against which rests a ball 13, acting as a valve and held in the

chamber 11, by means of a hollow nipple 14, acting as a stop, but leaving a sufficient play to the ball 13.

The lower end of the prolongation 6 of plug 5 terminates in a valve-seat 15, upon which rests a steel ball 16. On the side diametrically opposite the axis of chamber 11, is milled in the outer surface of plug 5, from its bottom up to a little above the level of chamber 11, a vertical groove 17, which by a partial rotation of said plug 5, opens a return communication between one of the compression nozzles 2^a, 2^b, 2^c, 2^d and the reservoir 1.

Through the cylindrical upper part of plug 5, which is fastened in the internally threaded bore of body 4, by means of a threaded sleeve with internal flange bearing on its top a dial plate 19, passes a key 20, one end 20^a of which forms the handle, and the other end 20^b, forms an index to dial-plate 19. The upper end of this part of the plug is threaded in 21, to receive a tapped cap 22, containing a leather washer 23, and ending in a stuffing cup 23, in which packing 24, is pressed by a gland 25, to make the plunger tight.

It will be seen that, by operating the key 20^a of plug 5 so as to bring its index 20, and thereby the chamber 11 in the position corresponding to one of the compression nozzles, (for example 2^a) and by moving the plunger 8 by its handle 9, the oil will be sucked from the reservoir, 1, into the bore 7 and then compressed by the downward stroke of the plunger through the chamber 11 into nozzle 2^a, and thence, to the point of utilization of the pressure, (for instance in one of the jacks of the car).

As soon as this pressure has made its work,—(in the described case when the jack has to be restored to its normal position for lowering the car)—it will be sufficient to bring, by means of the key 20^a, the groove 17 of the plug in front of the bore of said nozzle 2^a, in order that the oil may return directly into the reservoir 1.

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

A multi-way liquid pressure distributing

pump comprising a body having a conical bore extending thereacross and a plurality of radial ducts leading from said bore and arranged in a common plane, a conical valve plug seated in said bore and having an extension at each end and also provided with a bore extending from end to end, the said plug being further provided with a valved passage arranged in the common plane of the said ducts and adapted to be put in communication with any of said ducts and also with a groove diametrically opposite said valved passage open at its lower end and adapted at its upper end to communicate with any of the first named ducts, and said plug being further provided at its lower end with an inwardly opening valve, a pump plunger in the bore of said plug and of such length as to extend above said plug, said plunger being of somewhat less diameter than the bore of the plug so that said plunger forces liquid to one of said ducts during its entire downward stroke and a stuffing box for said plunger and arranged on the upper extension of said valve plug.

In testimony that he claims the foregoing as his invention, he has signed his name.

WYNANT TASTENHOYE.

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