Mar. 27, 1923.

1,450,114

H. REHAK

HYDRAULIC CAR JACK

Filed Nov. 10, 1922

Fig.1

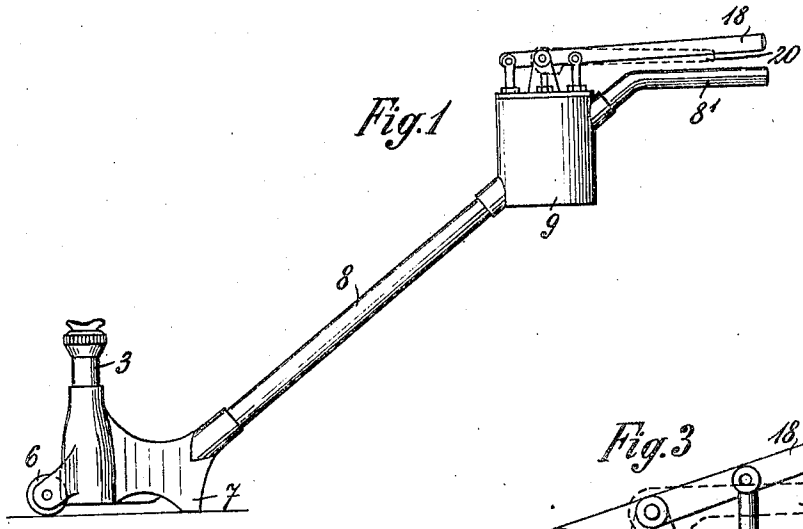


Fig.2

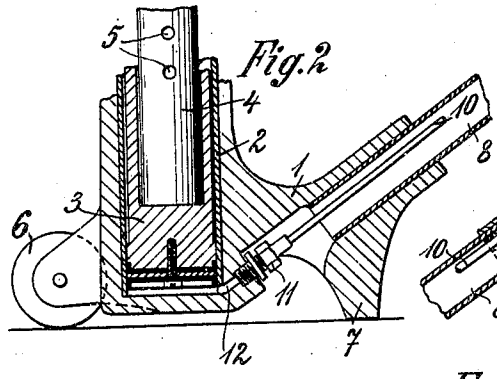


Fig.3

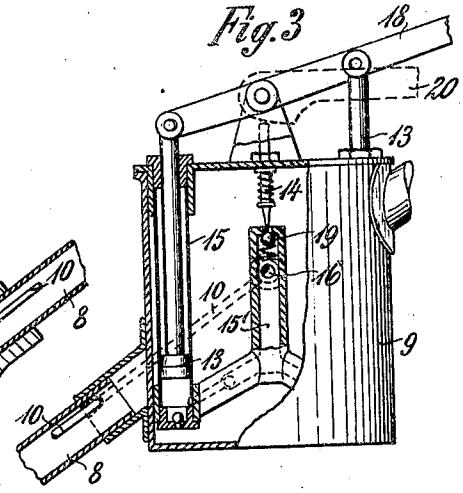
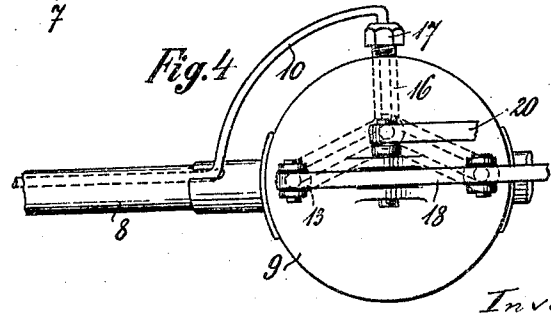


Fig.4



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UNITED STATES PATENT OFFICE.

HANS REHAK, OF VIENNA, AUSTRIA.

HYDRAULIC CAR JACK.

Application filed November 10, 1922. Serial No. 600,127.

To all whom it may concern:

Be it known that I, HANS REHAK, a citizen of the Austrian Republic, residing in Vienna, Austria, have invented certain new and useful Improvements in Hydraulic Car Jacks, of which the following is a specification.

This invention relates to hydraulic car jacks.

Hydraulic car jacks are already known in which the base receiving the lifting piston is provided with a hollow carrying rod or handle, directed upwards, and to the free end of which a water supply hose is attached.

This jack has not found ready adoption in practical working because, on the one hand, owing to the low pressure of the water supply it can only be used for lifting small loads, and only in premises fitted with water supply pipes, while on the other hand the water supply hose, and the discharge of the pressure medium direct into the open air, will impede the mechanic in his operations, apart from the fact that both workmen and workshop will be moistened and soiled by the discharged water.

These evils are effectively avoided in the car jack according to the present invention by providing the carrying rod or handle, near its free end, with a liquid receptacle containing the pressure and discharge arrangement for the operating liquid, which liquid passes to the lifting piston through a channel or duct arranged within the carrying rod, or in some other suitable manner.

The jack may be used equally well in workshops and on the road; it is exceedingly simple to operate at any time, as the pumping arrangement is always combined with the car jack and can be rapidly transported to any desired spot.

Drawings are appended illustrating one form of the invention in which:—

Fig. 1 is an elevation,

Fig. 2 shows the base of the jack in longitudinal section,

Fig. 3 is an elevation partly in section showing the pumping arrangement, and

Fig. 4 is a plan view of the pumping arrangement.

In the solid base 1 of the apparatus, a tube 2 is tightly inserted, in which slides a piston 3. The latter contains a displaceable sleeve or liner 4 which can be adjusted to various heights in relation to the piston 3 by means of pins which can be inserted in the holes 5.

The base 1 rests in front on two rollers and at the rear on a heel 7, thus securing a firm stand for the jack.

The handle 8, inclined upwards as shown, is inserted in a hollow lug cast on to the foot 1 and has attached to it, near its free end, the receptacle 9 for the pressure medium. The handle 8 is hollow and contains a tube 10, which is connected, by a screw cap 11 or the like, to the channel 12 of base 1, discharging beneath the piston 3, and serves as a channel for the pressure medium.

The two pump pistons 13 and the discharging arrangement 14 are arranged in the receptacle 9. From the two pump cylinders 15 the operating liquid is delivered into an upright tube 15′, from which a horizontal bored extension 16 leads through the wall of the receptacle 9 to the outside where it is provided with a screw-thread for joining it on to the supply pipe 10 by means of a swivel screw-cap 17.

Two pump pistons 13 are provided with and operated by the two-armed lever 18 which extends over the horizontal portion 8′ of the handle 8. In working the jack the rod 8′ at the handle is held in one hand while the lever 18 is moved up and down with the other hand. The discharging arrangement 14 comprising a pin acting on the discharging valve 19 is actuated by a thumb piece 20.

If desired the hollow handle 8 may itself be utilized as the channel for the operating liquid.

Claim:

A hydraulic jack comprising a base; a cylinder and cooperating piston in said base; a handle secured to said base; a liquid receptacle secured to the handle, said handle comprising means to form a communication between the cylinder and said receptacle; a two cylinder pump in said receptacle; a channel member secured to the base of each pump for leading the liquid to the handle; a discharging arrangement in said receptacle and associated with said channel member; and means for operating said pump and said discharging arrangement.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

HANS REHAK.

Witnesses:

CARL COUDINHORY,

RUDOLF MESTIAN.