Aug. 21, 1945. C. D. JOHNSON 2,383,061

JACK ATTACHMENT

Filed July 10, 1944

Fig. 1.

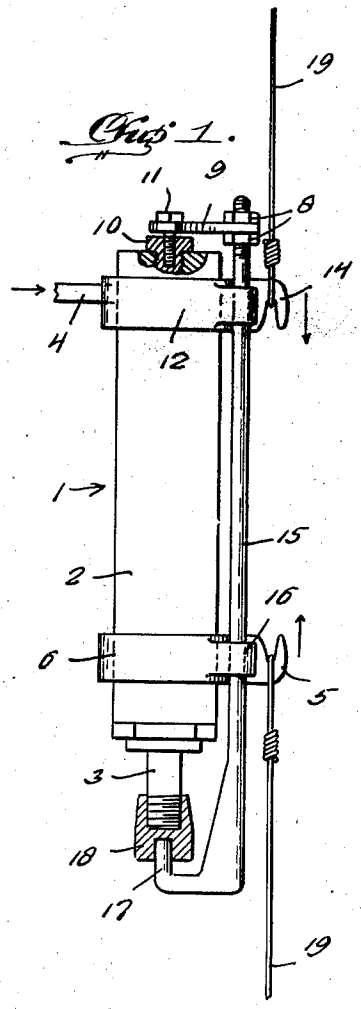


Fig. 2.

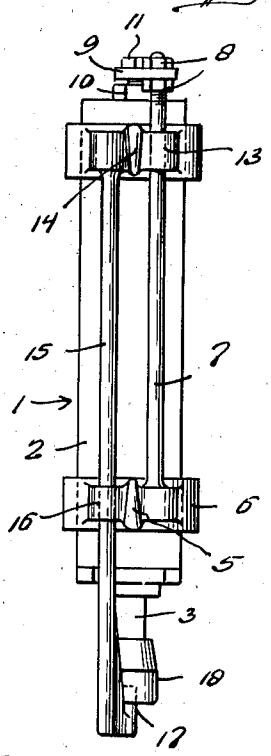
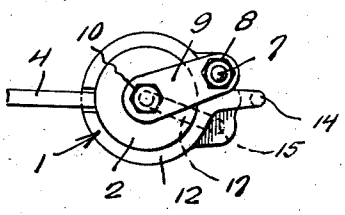


Fig. 3.



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JACK ATTACHMENT

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Application July 10, 1944, Serial No. 544,248

4 Claims. (Cl. 254—51)

The present invention relates generally to portable hydraulic jacks and has for its primary object to provide, in a manner as hereinafter set forth, an attachment of unique construction for jacks of this type whereby said jacks may be conveniently utilized for exerting a pulling force when it is needed as, for example, for tightening or stretching wire.

Another very important object of the invention is to provide a pulling attachment of the aforementioned character which is adapted to be expeditiously mounted on a hydraulic jack without the necessity of making material structural alterations therein.

Other objects of the invention are to provide a pulling attachment for hydraulic jacks, which attachment will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing, wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a view in side elevation, showing a pulling attachment constructed in accordance with the present invention mounted on a jack with portions in section.

Figure 2 is an elevational view, taken at right angles, to Figure 1.

Figure 3 is a plan view.

Referring now to the drawing in detail, it will be seen that reference character 1 designates generally a portable hydraulic jack. The jack 1 includes a barrel 2 in which a plunger 3 is operable, said plunger having fixed on its inner end a piston (not shown) which is fluid actuated in said barrel. A fluid line 4 is connected to one end portion of the barrel 2.

Mounted on one end portion of the barrel 2 is a stationary ring 6 having a hook 5 thereon. The stationary ring 6 is carried by a metallic rod 7 which parallels the barrel 2 and which projects beyond the other end thereof. Secured by nuts 8 on the end portion of the rod 7 which is remote from the ring 6 is a metallic arm 9. Threadedly mounted in the adjacent end of the jack 1 is a socketed plug 10. A screw 11 secures the arm 9 to the plug 10.

Also mounted on the barrel 2 and movable toward and away from the ring 6 is a slidable ring 12. The ring 12 has a notch or recess formed therein which accommodates the fluid line 4. The ring 12 is provided with an eye 13 which is slidable on the rod 7. A hook 14 is provided on the ring 12 in opposed relation to the hook 5.

The ring 12 is fixed on one end portion of a rod 15 which parallels the rod 7 and the barrel 2 and which extends adjacent the plunger 3. The rod 15 is slidable in an eye 16 on the ring 6. As best seen in Figure 1 of the drawing, the rod 15 terminates in a reversed end portion 17 having rotatably mounted thereon a head 18 which is threaded on the plunger 3 of the jack 1.

It is thought that the operation of the attachment will be readily apparent from a consideration of the foregoing. Briefly, with the plunger 3 of the jack 1 in retracted position the opposed hooks 5 and 14 are at their maximum distance from each other. If two lengths of wire, for example, as at 19, are to be drawn together, said wires are connected to the hooks 5 and 14. Fluid under pressure is then introduced into the barrel 2 in the usual manner for extending the jack 1. As the plunger 3 moves out of the barrel 2 the rod 15, sliding in the eye 16, moves the ring 12 longitudinally on said barrel, thus pulling the hook 14 toward the hook 5 for bringing the ends of the wires substantially together.

It is believed that the many advantages of a jack attachment constructed in accordance with the present invention will be readily understood and although a preferred embodiment of the device is as illustrated and described, it is to be understood that changes in the details of construction may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:

1. An attachment of the character described for jacks of the type including a barrel and a plunger operable therein, comprising parallel stationary and slidable rods, means for securing the stationary rods to the end of the barrel which is remote from the plunger, a ring on the stationary rod encircling the barrel, means slidably connecting the slidable rod to the ring, a ring on the slidable rod, the second-named ring slidably encircling the barrel, means slidably connecting the second-named ring to the stationary rod, means connecting the slidable rod to the plunger for actuation thereby, and opposed hooks on the rings.

2. An attachment of the character described for fluid actuated jacks of the type including a barrel and a plunger operable in the barrel, comprising stationary and slidable rings on the barrel, a rod fixed to the stationary ring and slid-

ably connected to the slidable ring, means connecting said rod to the barrel, a rod fixed on the slidable ring and slidably connected to the stationary ring, means connecting the second-named rod to the plunger for actuation thereby, and work attaching means on the rings.

3. In an attachment of the character described for fluid actuated jacks of the type including a barrel and a plunger operable therein, comprising a socketed head threadedly mounted on the plunger, stationary and movable rings mounted on the barrel, a rod having one end fixed to the stationary ring, means slidably connecting the movable ring to said rod, means connecting the other end of the rod to the end of the barrel which is remote from the plunger, a rod having one end fixed to the movable ring, means slidably connecting the second-named rod to the stationary ring, said second-named rod including a reversed end portion engaged in the socketed head for operatively connecting the plunger to said second-named rod, and opposed hooks on the rings.

4. A pulling attachment of the character described for hydraulic jacks of the type including a barrel and a plunger operable therein, comprising stationary and movable rings mounted on the barrel, a rod having one end fixed to the stationary ring, means slidably connecting said rod to the movable ring, a socketed plug threadedly mounted in one end portion of the barrel, an arm mounted on the other end portion of the rod, nuts threaded on said other end portion of the rod for securing the arm in position thereon, a screw securing the arm to the socketed plug for connecting said other end of the rod to the barrel, a rod slidable in the stationary ring and having one end connected to the movable ring, means operatively connecting the plunger to the other end of the second-named rod, and hooks on the rings for connecting wires thereto.

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