E. I. NOTTINGHAM.

POWER JACK,

APPLICATION FILED FEB. 18, 1919.

1,322,935. Patented Nov. 25, 1919.

FIG. 1.

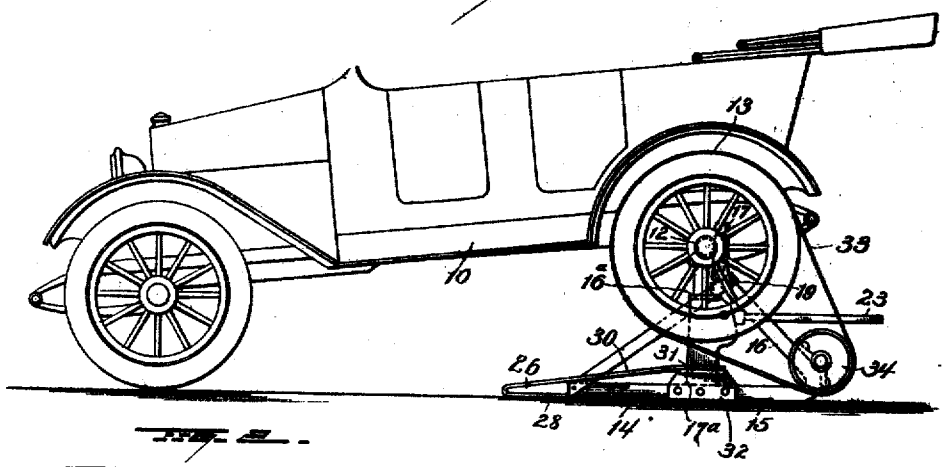


FIG. 2.

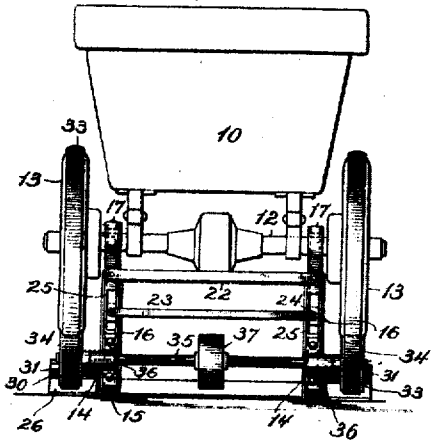


FIG. 3.

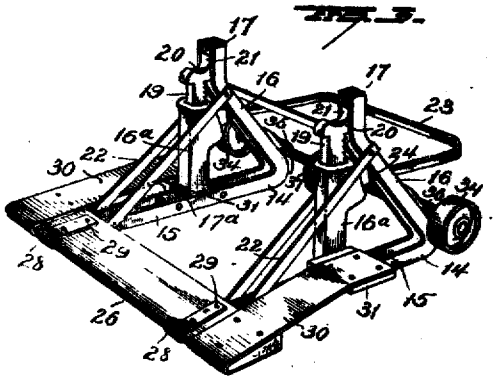


FIG. 4.

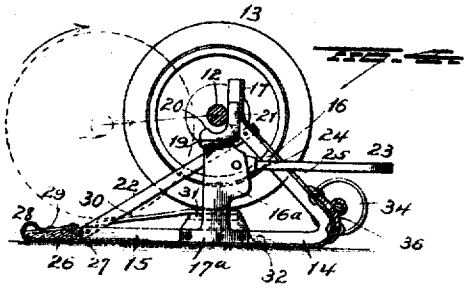
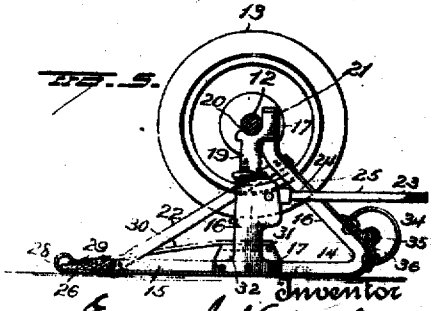


FIG. 5.



Inventor

Edwin I. Nottingham

C. L. Parker

Attorney

UNITED STATES PATENT OFFICE.

EDWIN I. NOTTINGHAM, OF WASHINGTON, DISTRICT OF COLUMBIA.

POWER-JACK.

1,322,935. Specification of Letters Patent. Patented Nov. 25, 1919.

Application filed February 16, 1919. Serial No. 277,805.

To all whom it may concern:

Be it known that I, EDWIN I. NOTTINGHAM, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Power-Jacks, of which the following is a specification.

My invention relates to a power attachment jack apparatus for use in connection with automobiles, whereby power may be transmitted from the rear wheel or wheels thereof.

An important object of the invention is to provide apparatus of the above mentioned character, so constructed that the rear wheels of the automobile may be backed upon inclined tracks, and the rear axle positioned over the lift bars of jacks included in the apparatus, subsequently to which the rear wheels of the automobile are suitably elevated by the jacks.

Another object of the invention is to provide means whereby the lift bars of the jacks are properly protected by the frame of the apparatus.

A further object of the invention is to provide apparatus of the above mentioned character, which is simple in construction, strong, durable and convenient to operate.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a side elevation of apparatus embodying my invention,

Fig. 2 is an end elevation of the same,

Fig. 3 is a perspective view of the jack apparatus,

Fig. 4 is a central vertical longitudinal sectional view through the same, showing the lift bar lowered, and,

Fig. 5 is a similar view with the lift bar elevated.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 10 designates the body of an automobile having a rear axle 12, carrying rear wheels 13.

My power attachment jack apparatus comprises a pair of longitudinal side members 14, each of which is formed of a channel-iron or channel-bar, bent for providing a horizontal base 15, from the rear end of which extends an upwardly and forwardly projecting or inclined portion 16, provided at its top end with a vertical portion 17.

Arranged within each of the side frames 14 is a jack of any well known or preferred construction including a standard 16^a, having a foot 17^a arranged within the horizontal base 15 and secured therein by bolts or the like. The jack further embodies a reciprocatory lift member 19 having slidable contact with the standard, and this lift member is provided with a head having a recess 20, receiving the rear axle 12, and a lateral extension 21, slidably mounted within the upper portion or extension 17, to be guided thereby, as shown.

A diagonal brace 22 surrounds the upper portion of the standard 16^a, and extends about the portion 16, and is bolted thereto. This diagonal brace is also bolted to the forward end of the base 15.

The two jacks are preferably simultaneously operated by means of a U-shaped handle or lever 23, having ends 24, adapted for insertion within the socket handles of the jacks. The jacks may be of the usual construction and the swinging movement of the handle or lever 23 is employed to raise or lower the lift bars 19. The ends 24 of the handle 23 project through longitudinal openings or slots 25, formed in the inclined portion 16.

The numeral 26 designates a forward transverse inclined or tapered member, which may preferably be in the form of a wooden plank or board, while any other suitable material may be used. This transverse member is arranged upon the forward ends of the bases 15, within recesses 27 provided therein, and the forward ends of the bottom walls of the bases 15 are continued in the form of strips 28, which are bent to assume positions upon the top of the transverse member 26, to which they are secured by screws or bolts 29, or the like.

The transverse member 26 projects laterally and outwardly beyond the bases 15, for a substantial distance, and the forward ends of inclined tracks 30 are secured thereto, and preferably bent around the same, as shown.

The rear ends of these tracks are arranged upon and secured to brackets 31, having inner flanges 32, which are bolted to the bases of the standards 16, preferably by means of the bolts 17.

The rear ends of the tracks 30 are horizontal, so that the rear wheels of the automobile will not tend to roll therefrom.

The numeral 33 designates belts, adapted to engage the rear wheels 33 of the automobile, and pulleys 34, rigidly secured to a transverse shaft 35. This transverse shaft is journaled through bearings 36 secured to the inclined portions 16, and a pulley 37 is rigidly secured to the shaft 35, to receive a belt thereon, which extends to the apparatus to be driven.

In the operation of the apparatus, the lift bars 19 are in the lowered position, as indicated in Fig. 4, and the automobile is backed so that the rear wheels 18 travel upwardly upon the inclined tracks 30. Extensions 17 are arranged to contact with the axle 12, and serve as stops, thereby taking all strains from the longitudinal movement of the car from the lift bars 19. The side frames are particularly constructed and braced to withstand the strains and shocks due to this longitudinal movement of the car and the stopping of the same. When the axle 18 is arranged above the lift bars 19, as indicated in Fig. 4, the lever 23 is swung upwardly and downwardly, whereby the lift bars 19, are elevated as indicated in Fig. 5, the wheels 13 being then spaced from the upper end of the track 30, the pulleys 33 are then placed upon the rear wheels and upon the pulleys 34. These rear wheels are driven in the usual manner and the shaft 35 is rotated, which rotation may be imparted to the apparatus to be driven by a belt placed upon the pulley 37.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, what I claim is:

1. In a power jack for use with automobiles a frame, jacks connected with the frame, inclined tracks connected with the frame and having their rear ends disposed near the jacks, means to prevent the wheels of the automobile from overrunning said rear ends comprising, vertical guides adapted to slidably receive a portion of the heads of the jacks and extend thereabove, means for operating the jacks, and power distributing apparatus connected with the frame and driven by the automobile.

2. In a power jack for use with automobiles, a frame embodying a pair of spaced members forming a base, a jack secured to each of said members and provided with a reciprocatory lift member, the rear ends of said spaced members extending forwardly and upwardly over said members and being provided with a vertical portion slidably receiving a portion of the reciprocatory lift member of the associated jack and extending thereabove, inclined tracks associated with the frame and having their rear ends disposed adjacent the jacks and power distributing apparatus connected with the frame and driven by the automobile.

3. In a power jack for use with automobiles, a frame embodying a pair of spaced members forming a base, a transverse member connecting the forward ends of said members, a jack secured to each of said members and provided with a reciprocatory lift member, the rear ends of said spaced members extending forwardly and upwardly over said members and being provided with a vertical portion slidably receiving a portion of the reciprocatory lift member of the associated jack and extending thereabove, brackets secured to said spaced members adjacent said jacks, inclined tracks associated with the frame and having their rear ends disposed adjacent the jacks and secured to said brackets and their front ends secured to said transverse member, and power distributing apparatus connected with the frame and driven by the automobile.

4. In a power jack for automobiles, a frame embodying a pair of spaced horizontal channel iron side members, a jack associated with each of said side members and having its base disposed intermediate the flanges thereof and secured thereto, a transverse member connecting the front ends of said side members, the rear ends of said side members extending forwardly and upwardly over said side members and being provided with a vertical portion slidably receiving the heads of said jacks, inclined tracks having their front ends secured to said transverse member and their rear ends disposed adjacent said jacks, and power distributing apparatus connected with said frame and driven by the automobile.

5. In a power jack for automobiles, a frame embodying a pair of spaced horizontal channel iron side members, a jack associated with each of said side members and having its base disposed intermediate the flanges thereof, a transverse member connecting the front ends of said side members, the rear ends of said side members extending forwardly and upwardly over said side members and being provided at their upper ends with a vertical portion slidably receiving intermediate the flanges thereof

the heads of said jacks, brackets mounted on said side members, securing means for said brackets extending through said brackets the base of said jacks and the flanges of said side members, inclined tracks having their front ends secured to said transverse member and their rear ends disposed adjacent said jacks and secured to said brackets and power distributing apparatus connected with said frame and driven by the automobile.

In testimony whereof I affix my signature.

EDWIN I. NOTTINGHAM.