Aug. 25, 1925. 1,551,481

W. F. HABERGOH

AUTOMOBILE JACK

Filed July 12, 1922 2 Sheets-Sheet 1

Fig. 1.

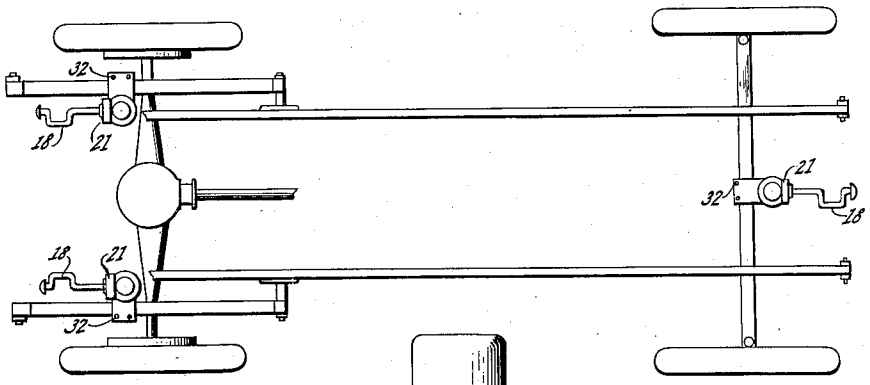
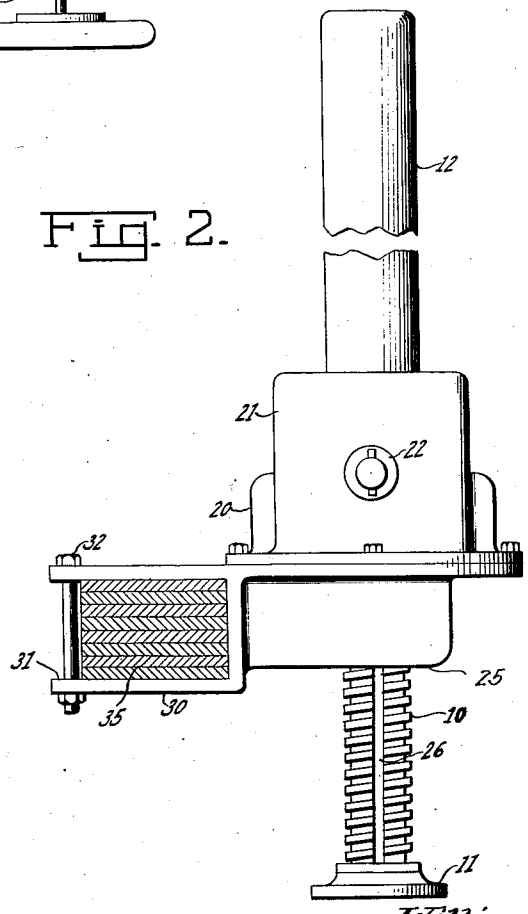


Fig. 2.



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Fig. 3.

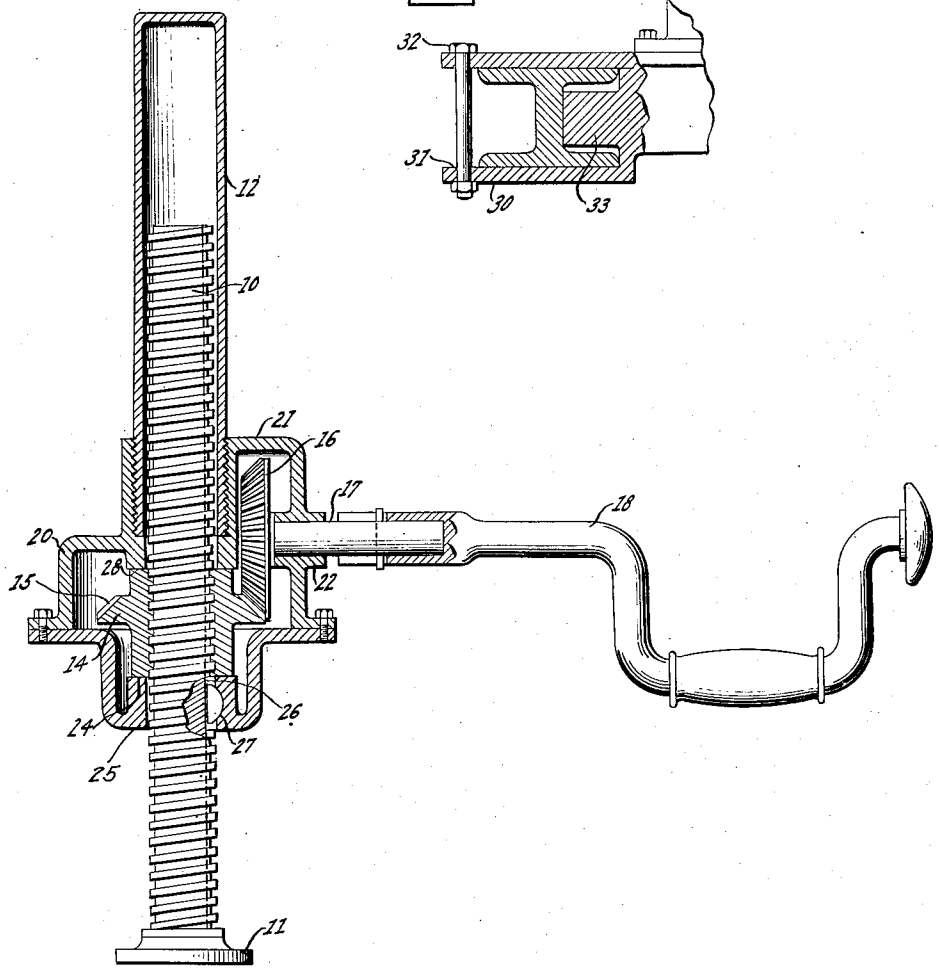


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM F. HABERGOH, OF SHEBOYGAN, WISCONSIN.

AUTOMOBILE JACK.

Application filed July 12, 1922. Serial No. 574,538.

To all whom it may concern:

Be it known that I, WILLIAM F. HABERGOH, a citizen of the United States, residing at Sheboygan, in the county of Sheboygan and State of Wisconsin, have invented new and useful Improvements in Automobile Jacks, of which the following is a specification.

The object of this invention is to provide a jack, or plurality of jacks, which may be permanently carried by a motor car, and which will be instantly available for use, when required.

A further object is to provide a jack with particular means for effecting substantially permanent connection with some element or elements, of the car, said jack including a screw, gearing associated therewith, and a housing for the gearing, the housing also constituting a clamp for engaging an axle or other element of the vehicle to be lifted.

A still further object is to provide in connection with the usual screw, an internally threaded element carrying gear teeth, a pinion meshing with the teeth, and a housing for the operative elements, said housing being formed with a box-like member, open at one side, and adapted to engage the axle of the vehicle, or some other element thereof, and to be secured by bolts or the like, forming a substantially permanent connection, but permitting of removal when actually required.

With the foregoing and other objects in view, the invention consists in the novel construction and arrangement of elements described and claimed, it being understood that modifications may be made within the scope of the claim without departing from the spirit of the invention.

In the drawings, Figure 1 is a top plan view of a chassis showing the position of the jacks; Figure 2 is a side elevation of one of the rear jacks; Figure 3 is a view in vertical section; Figure 4 is a vertical section of the clamp to be used on a front jack, and applied to the front axle.

The main screw is designated 10, being mounted in the usual manner on a base plate 11. A tubular element 12 surrounds the screw, or a portion thereof and prevents the accumulation of foreign material on the exterior surface.

An internally threaded element 14 constitutes a nut for the screw, and is provided with gear teeth, as shown at 15, these teeth being adapted for engagement by the pinion 16 on shaft 17, rotated by the detachable crank element 18.

An important feature of the construction is the combined housing and clamp, including the portion 20 which incloses element 14, and further including the portion 21 which incloses the pinion 16.

A bearing 22 is provided for shaft 17, and the upper portion of the housing is apertured for the accommodation of the main screw 10, and the threaded element 14 is mounted directly above the plate portion 24 of the housing.

The lower portion 25 is also apertured for the accommodation of the screw 10, and the latter is provided with a longitudinal rib or key 26 cooperating with the cutaway portions 27 of the housing, permitting vertical movement but preventing the rotation of the screw during the lifting operation. This operation last named is of course effected by the rotation of the element 14 operating between the surface 28 of the housing and the surface 24 thereof.

The clamp or element for engaging the axle or some other part of the car is designated 30, and includes a box-like structure having upper and lower walls and a rear wall. An opening is provided at 31 in order that the clamp and jack may be properly positioned with reference to the element of the vehicle which is to be engaged. Bolts 32 pass through apertures in the upper and lower walls of the clamp and retain the latter in substantially permanent position, removal being easily effected when required.

In Figure 4 this clamp is shown in engagement with the front axle of a vehicle, such as a motor car, and the clamp used in the jack designed especially for this purpose may have inwardly extending member 33 projecting from the rear wall of the clamp, in order to engage the reduced portion of the axle, in the manner illustrated.

Clamps of the form shown in Figure 2 are used for the jacks designed to elevate the rear portion of the car. These jacks or the clamps thereof are connected with the springs 35 at a point adjacent to the rear axle, and bolts pass through the elements of the clamp after the latter have been placed around the springs.

By the use of these jacks in the manner indicated, the forward jack being placed under the central portion of the front axle,

and the rear jacks as indicated, all of the wheels of the car may be raised very quickly, and without the necessity of assuming an inconvenient position, on the part of the operator, in order to place the jack. Owing to the ease with which the operation is performed, all of the wheels may be lifted at night, or at frequent intervals, in order to relieve the tire from the weight of the vehicle. The car cannot be moved while thus jacked up, and slight delay would be experienced in the event of an unauthorized person attempting to remove the car from its stored position.

What is claimed is:—

In a lifting jack, an upper housing member, a lower housing member connected with said upper member, a screw passing through both members of the housing, the lower member having an inner horizontal bearing surface, axle clamping means carried by said lower member, a gear wheel having a central threaded portion cooperating with the screw, the wheel resting on said bearing surface, a gear wheel positioned in the upper housing member and meshing with the gear wheel first named, a shaft for the second named gear wheel, and means for rotating the shaft.

In testimony whereof I affix my signature.

WILLIAM HABERGOH.