Nov. 22, 1949 S. C. STEWART 2,489,056

LIFTING JACK

Filed March 21, 1946 2 Sheets-Sheet 1

Fig. 1.

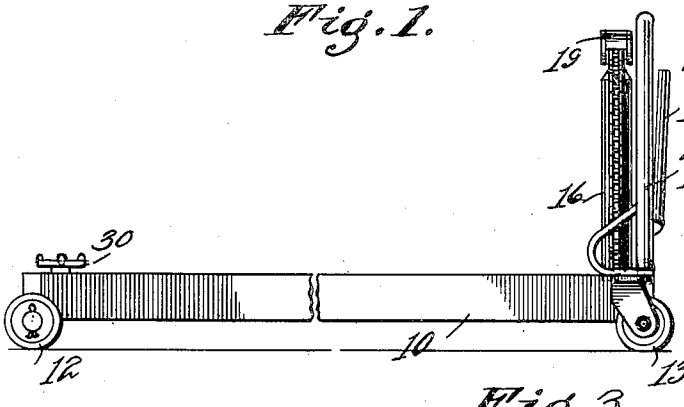


Fig. 2.

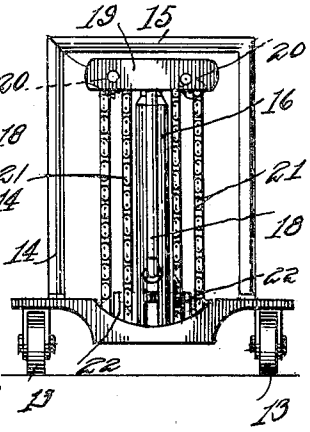


Fig. 3.

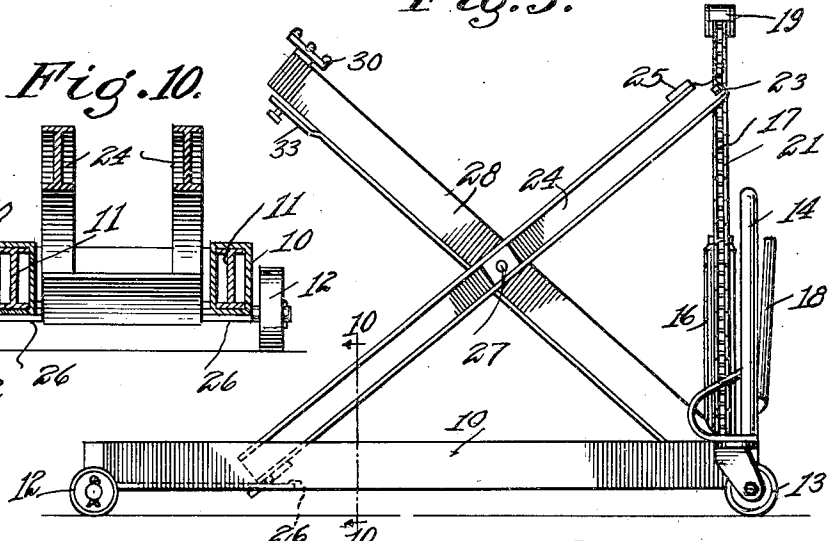


Fig. 10.

Fig. 4.



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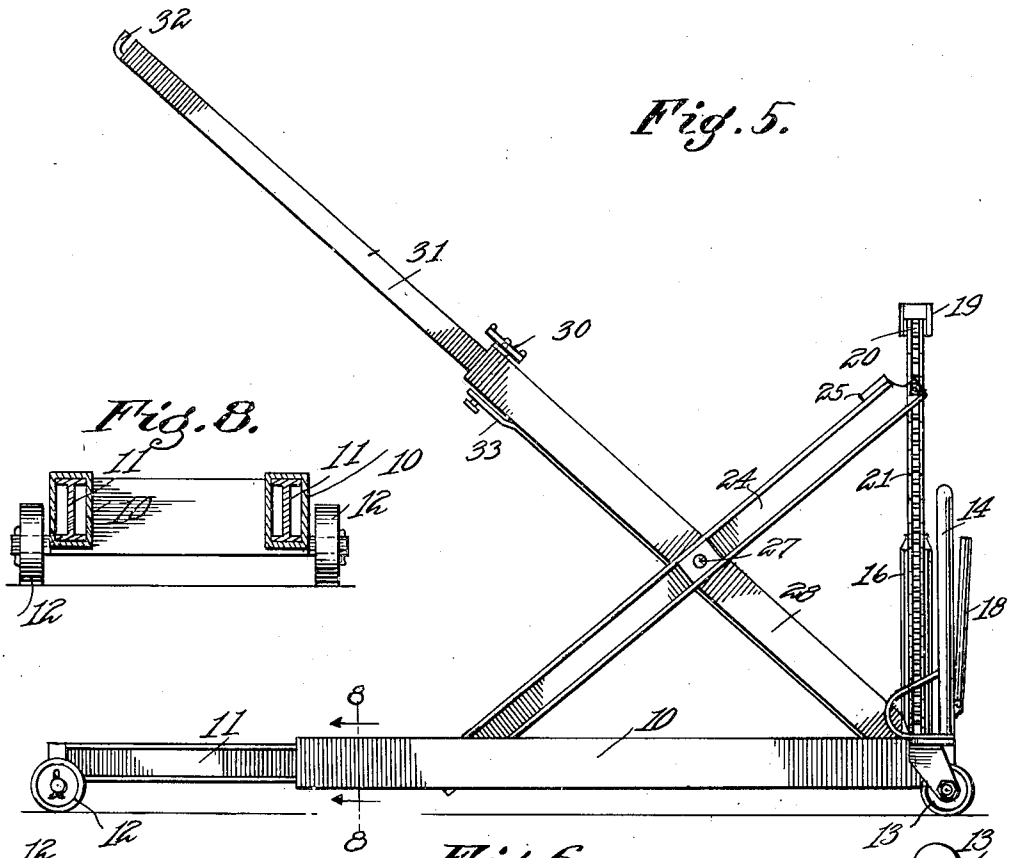


Fig. 5.

Fig. 8.

Fig. 6.

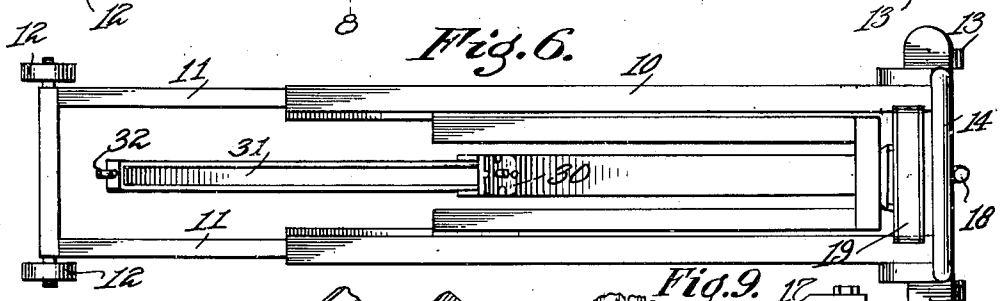


Fig. 7.

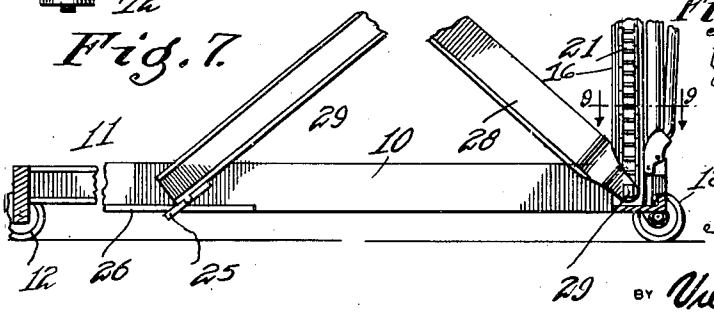
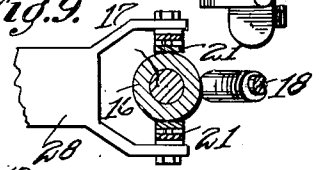


Fig. 9.



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LIFTING JACK

Skiler C. Stewart, Minden, La.

Application March 21, 1946, Serial No. 656,086

2 Claims. (Cl. 254—9)

1

The invention relates to a lifting jack and more especially to a wheeled truck jack.

The primary object of the invention is the provision of a jack of this character, wherein through a toggle acting lift mechanism upon a wheeled carriage, a motor or other vehicle can be raised and lowered with ease and dispatch, the height of lifting can be varied and the lift having a maximum range without any possibility of the jack turning over or becoming unbalanced by its load under maximum lift range.

Another object of the invention is the provision of a jack of this character, wherein the construction thereof is novel and the assembly of the parts unique, to assure the maximum of adjustment to give extreme lifting heights thereto in the raising or hoisting of work.

A further object of the invention is the provision of a jack of this character, wherein it is effective as a hoisting or lift crane, and is perfectly balanced at variable heights or lift, it also being movable from one point to another as it is of the mobile type.

A still further object of the invention is the provision of a jack of this character, which is simple in construction, thoroughly reliable and efficient in operation, strong, durable, readily and easily operated, possessed of few parts, compact in assembly, conveniently handled with dispatch, and inexpensive to manufacture.

With these and other objects in view the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1 is a side view of the jack constructed in accordance with the invention.

Figure 2 is a rear end view of the same.

Figure 3 is a view similar to Figure 1 showing the jack in an adjusted position.

Figure 4 is a top plan view with the jack in position as shown in Figure 1.

Figure 5 is a view similar to Figure 3 showing the jack in an adjusted position.

Figure 6 is a plan view with the jack in the position shown in Figure 5.

Figure 7 is a fragmentary sectional view taken on the line 7—7 of Figure 6.

Figure 8 is a sectional view taken on the line 8—8 of Figure 5 looking in the direction of the arrows.

Figure 9 is a sectional view taken on the line

2

9—9 of Figure 7 looking in the direction of the arrows.

Figure 10 is a sectional view taken on the line 10—10 of Figure 3 looking in the direction of the arrows.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawings in detail, the jack constructed in accordance with the invention, comprises a wheeled carriage involving an elongated or rectangular shaped horizontal sill or chassis frame 10, having a front extension section 11, its wheels together with the wheels of the frame 10 being provided with traction and swiveled caster steering wheels 12 and 13 respectively.

The frame 10 at the end next to the wheels 13 has rising therefrom a perpendicular handle bar frame 14 having the cross handle rung 15 at an elevation.

At the longitudinal center of the frame 10 and at the end having the handle bar frame 14 is a hydraulic lifter, its upright cylinder 16 is stationarily mounted on the frame 10, while its movable lifting plunger 17 telescopes within this cylinder and is raised and lowered hydraulically under the control of an actuator hand lever 18. The plunger 17 at its upper end carries a crosshead 19 encasing at its outer ends pulleys 20 over which are trained hoisting chains 21, there being a pair of these, and the same have coupling connections 22 with the frame 10 and also coupling connections 23 to a pair of vertically swingable and horizontally slidable beams 24, which are in spaced parallel relation to each other. The beams 24 are joined near opposite ends by cross struts 25, one being a runner on a horizontal guide lodge or track 26 built to the side sills of the frame 10 at their inner faces.

Arranged between the beams 24 and swingingly connected thereto by a pivot 27 is a jacking rail 28, the pivot being intermediate with relation to the length of such beams and the rail, and the latter connected by a hinge 29 at its inner end to the frame 10 next to the end of the latter adjacent to the steering casters thereof.

The outer end of this rail is equipped with a swivel rest fitting 30 while telescopically engaged in such rail is slidable extension rail section 31, which has an outer hook end 32 thereto, and by this extension rail section the rail can be lengthened or shortened, as may be required for vertical height lifting quality.

The rail 28 is provided at its outer end with an

underslung latch device **33** which can engage the frame **10** to hold them together when in a horizontal plane with one another, when the rail has been completely lowered on the carriage.

The height of swing of the lift rail **28** can be altered by extending the rail section **31**, as best seen in Figure 5 of the drawings, while to prevent the tipping over of the carriage the frame extension section **11** can be projected from the frame **10**, so that the load will be properly balanced, this being also best seen in said Figure 5. The lifter is operated to raise and lower the jacking rail **28** and its extension rail section **31**, which is latched by the latch device **33** in an extended position. To shorten the throw of the jacking rail beams **24** are automatically adjusted by the lifter, including the cylinder **16** and plunger **17** respectively.

What is claimed is:

1. A structure of the kind described, comprising a wheeled carriage including a pair of horizontally extending hollow side members of rectangular cross section, vertically swingable and horizontally shiftable hoisting beams on the carriage, a jacking rail pivoted to the carriage and to the beams and regulated by movement of the latter, and an adjustable extension for the carriage including a pair of I-beams each slidably mounted in one of said hollow members.

2. A structure of the kind described, comprising a wheeled carriage including a pair of horizontally extending hollow side members of rectangular cross section, vertically swingable and horizontally shiftable hoisting beams on the carriage, a jacking rail pivoted to the carriage and to the beams and regulated by movement of the latter, an adjustable extension for the carriage including a pair of I-beams each slidably mounted in one of said hollow members, and an extensible section for the jacking rail and a latch for holding the same in adjusted positions.

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