J. F. GRAHAM.

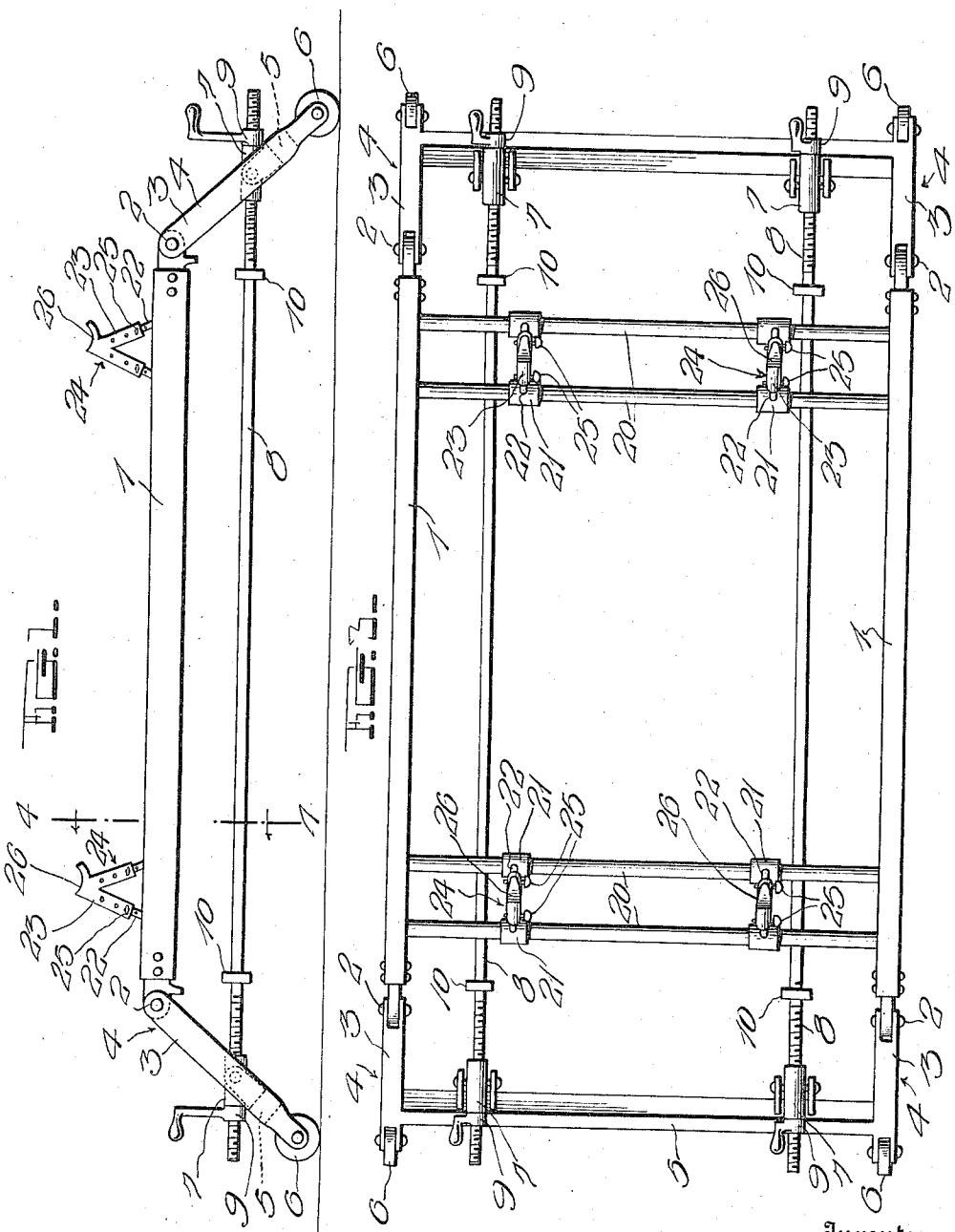
AUTOMOBILE HOIST.

APPLICATION FILED FEB. 8, 1915.

1,169,255.

Patented Jan. 25, 1916.

2 SHEETS—SHEET 1.



Witnesses

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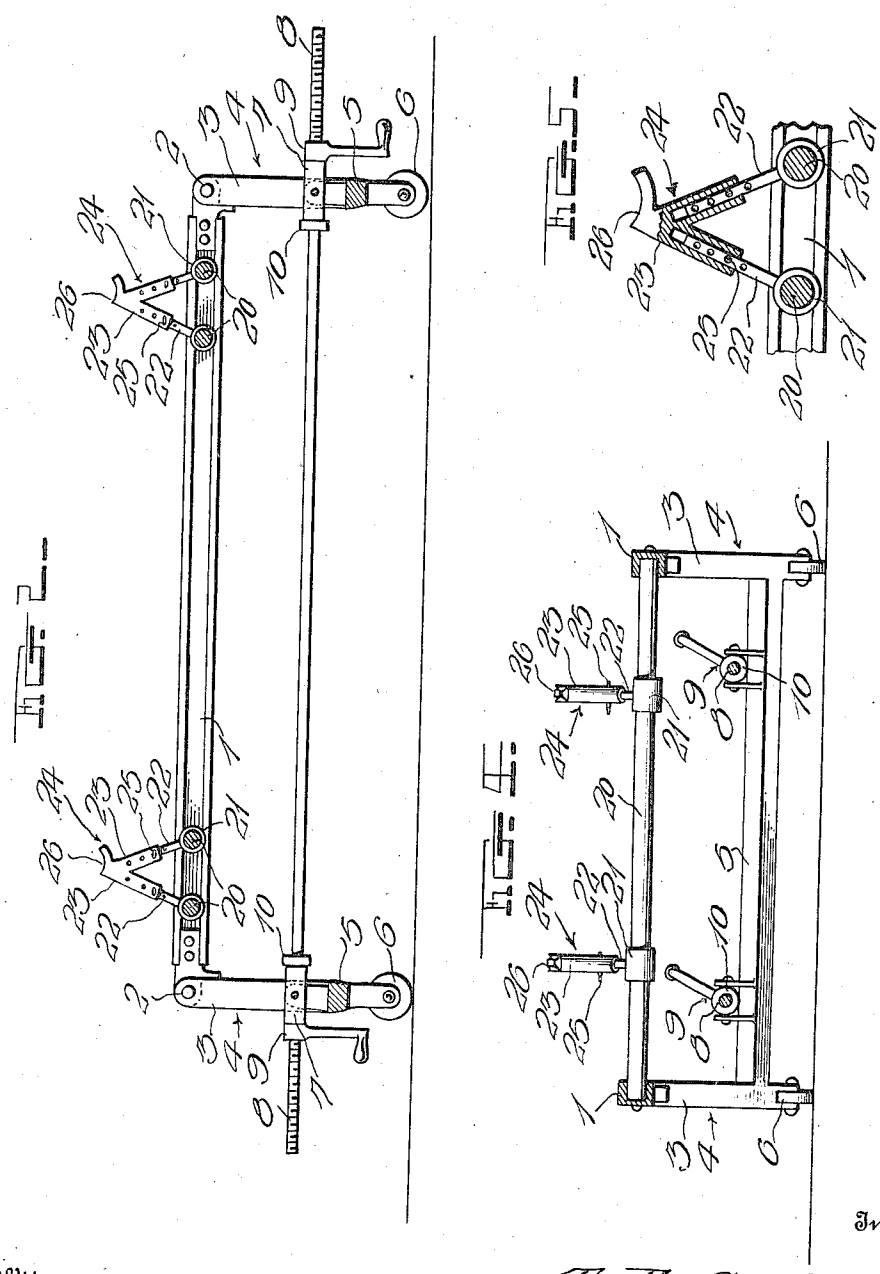

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UNITED STATES PATENT OFFICE.

JASON FRED GRAHAM, OF EVANSVILLE, WISCONSIN.

AUTOMOBILE-HOIST.

1,169,255. Specification of Letters Patent. Patented Jan. 25, 1916.

Application filed February 8, 1915. Serial No. 6,964.

To all whom it may concern:

Be it known that I, JASON FRED GRAHAM, citizen of the United States, residing at Evansville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Automobile-Hoists; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in hoisting devices and more particularly to those adapted for use in raising motor vehicles and the like.

The object of the invention is to provide a comparatively simple device of this character possessing a number of novel and advantageous features, and so constructed as to render it readily adjustable for application to vehicles of different sizes.

With this and other objects in view, the invention resides in certain novel features of construction and combination hereinafter described and claimed and shown in the drawings wherein;

Figure 1 is a side elevation of a device constructed in accordance with my invention showing the same in lowered position; Fig. 2 is a central vertical longitudinal section showing the positioning of parts when a vehicle is supported on the hoist; Fig. 3 is a top plan view; Fig. 4 is a vertical transverse section as seen along the plane of the line 4—4 of Fig. 1; and Fig. 5 is a detail vertical longitudinal section showing more particularly the construction of one of the axle rests.

In these drawings constituting a part of the present application, the numerals 1 designate a pair of parallel horizontal tracks here shown as formed of channel iron with the channels thereof located on the inner opposed faces of the tracks. Hingedly connected to the opposite ends of the tracks 1, are the arms 3 of a pair of U-shaped end frames 4 whose cross bars 5 are equipped with casters 6 and with bearings 7 which are pivoted to their intermediate portions, these bearings receiving a longitudinal shaft 8 whose opposite ends are externally threaded and equipped with cranked nuts 9. By this construction, rotation of the nuts 9 in the proper direction will move the end frames 4 from the position seen in Fig. 1 to that seen in Fig. 2, thus raising the tracks 1. It may here be explained that the hinges 2 are of such construction as to permit these end frames to swing outwardly to the necessary extent, but will not permit them to swing inwardly to an extent greater than to position them at right angles to the tracks 1 and, if desired, the worm shaft 8 may be provided with stops 10 adapted to abut the bearings 7 to positively prevent the end frames from moving to an extent great enough to injure the hinges. Furthermore, these stops 10 assist in imparting rigidity to the structure when in active position as seen in Fig. 2.

Extending transversely of the tracks 1 and having their opposite ends slidably mounted in the channels thereof, is a pair of carriages each composed of two parallel rods 20, one pair of such rods being disposed at each end of the device. As most clearly seen in Figs. 2 and 4, these rods support a plurality of bearings 21 which are mounted thereon to slide longitudinally thereof, said bearings being equipped with upwardly converging bars 22 which are received by the hollow legs 23 of a number of inverted V-shaped axle rests 24, these legs and the bars being provided with a series of spaced apertures through which pins or the like 25 are adapted to be passed. The rests 24 are further equipped with seats 26 at their upper ends, these seats being so shaped as to readily receive the axles of a vehicle.

With the parts constructed as above described, the entire device may be positioned beneath the vehicle to be raised, and the two pairs of rods 20 (constituting the carriages) may be adjusted longitudinally upon the tracks 1 to position the axle rests 24 under the front and rear axles of said vehicle. If obstructions are now encountered, these rests 24 may be adjusted transversely upon the rods 20, and may also be adjusted vertically if necessary. The cranked nuts 9 are now rotated to draw the two end frames 4 inwardly toward each other, thereby raising the two tracks, the two carriages thereon, and the entire vehicle.

From the foregoing description taken in connection with the accompanying drawings, it will be seen that a very simple construction has been provided for carrying out the object of the invention, yet that a device constructed in this manner will possess a number of advantageous features and will be very efficient in operation.

The invention has been described with

considerable detail, and in the drawings, a number of mechanical expedients have been provided for reducing such invention to an operative structure, but it will be readily understood that I need not be limited to such mechanical details otherwise than as set forth in the appended claims.

I claim:—

1. A device of the class described comprising a pair of parallel wheel supported tracks having channels on their inner opposed faces, an axle rest rising above one end of said tracks, a pair of parallel transverse rods having their ends mounted to slide in said channels, and a pair of axle rests rising from said rods and adjustable longitudinally thereon.

2. A device of the class described comprising a pair of parallel tracks having channels on their inner opposed faces, an axle rest rising above one end of said tracks, a pair of parallel transverse rods having their ends mounted to slide in said channels, two pairs of independent bearings mounted on the ends of said rods to slide longitudinally thereon, upwardly converging bars rising from said bearings, and inverted V-shaped axle rests secured to said bars for vertical adjustment.

3. A device of the class described comprising a pair of parallel tracks having channels on their inner opposed faces, an axle rest rising above one end of said tracks, a pair of parallel transverse rods having their ends mounted to slide in said channels, two pairs of independent bearings mounted on the ends of said rods to slide longitudinally thereon, upwardly converging bars rising from said bearings, and inverted V-shaped axle rests having hollow legs adjustably receiving said bars.

4. A device of the class described comprising a pair of parallel longitudinal wheel supported tracks formed of channel iron with the channels thereof disposed inwardly, a pair of transverse parallel rods disposed at each end of the device and having their opposite ends mounted slidably in the channels of the tracks, and a pair of axle rests rising from each pair of rods.

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

JASON FRED GRAHAM.

Witnesses:
GEO. T. BUKEY,
THORA BRUNSELL.