No. 881,556. PATENTED MAR. 10, 1908.

A. S. DEHLER.

JACK.

APPLICATION FILED OCT. 17, 1906.

2 SHEETS—SHEET 1.

Fig 1.

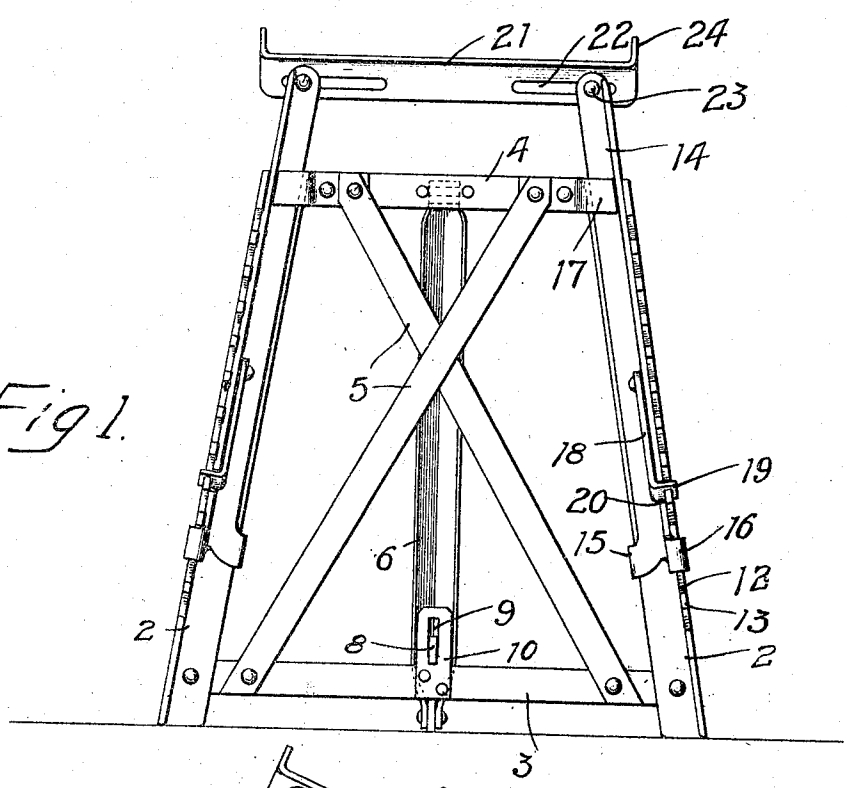
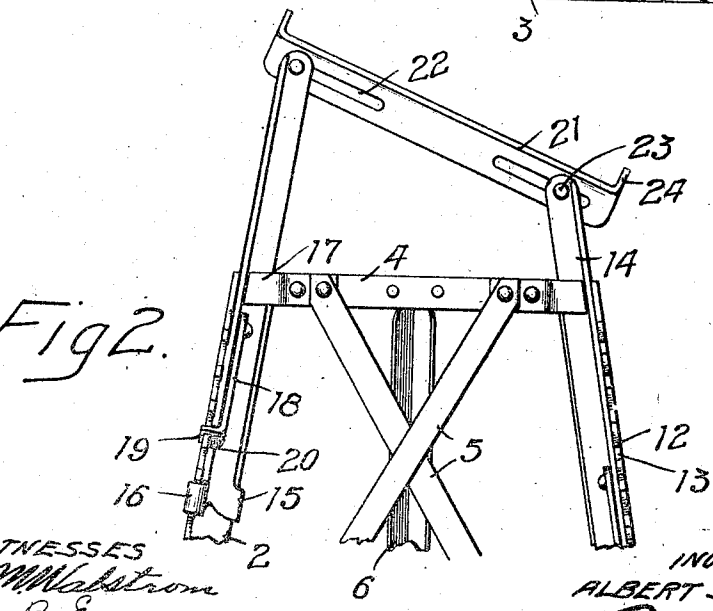


Fig 2.



WITNESSES

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INVENTOR

ALBERT S. DEHLER

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HIS ATTORNEYS

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2 SHEETS—SHEET 2.

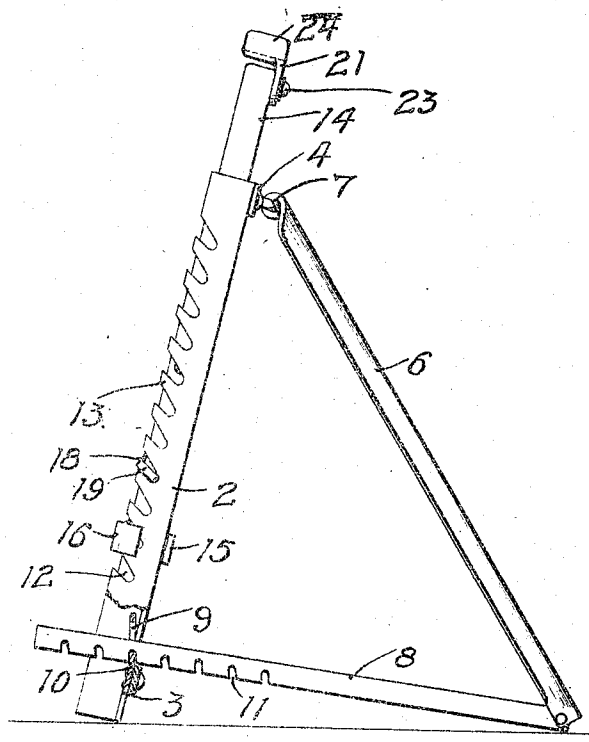


Fig 3.

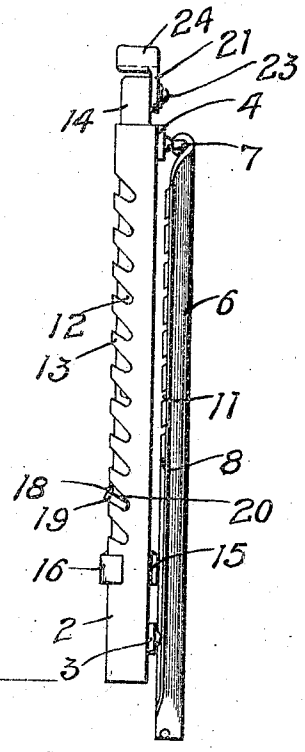


Fig 4.

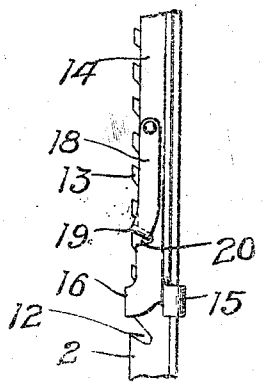


Fig 5.

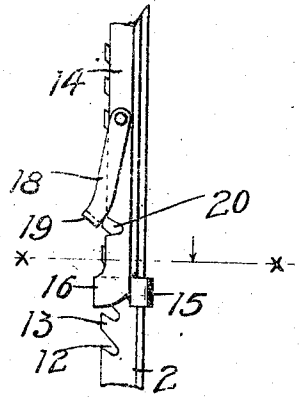


Fig 6.

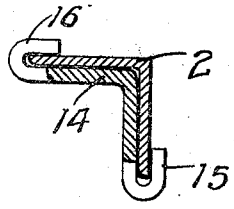


Fig 7.

WITNESSES

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UNITED STATES PATENT OFFICE.

ALBERT S. DEHLER, OF MINNEAPOLIS, MINNESOTA.

JACK.

No. 881,556. Specification of Letters Patent. Patented March 10, 1908.

Application filed October 17, 1906. Serial No. 339,370.

To all whom it may concern:

Be it known that I, ALBERT S. DEHLER, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful Improvements in Jacks, of which the following is a specification.

My invention relates to devices for supporting sections of gravity carriers, stagings and platforms of various kinds and the object of the invention is to provide a device capable of convenient and rapid adjustment at any desired height from the ground and at any incline.

The invention consists generally in a frame and means for tilting it to any desired angle and a bar carried by said frame and having supports thereon at each end and adapted to be raised at both ends simultaneously or at one end independently of the other end.

Further, the invention consists in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of a jack embodying my invention. Fig. 2 is a similar view of the upper portion of the jack, showing the bar tilted to an angle from the horizontal thereof. Fig. 3 is a side elevation of the same. Fig. 4 illustrates the jack in its folded position. Figs. 5 and 6 are details showing the means for adjustably supporting the cross bar on the frame of the jack. Fig. 7 is a sectional view on the line x—x of Fig. 6.

In the drawing, 2 represents the legs of the jack made preferably of angle bar iron and connected by the cross bars 3 and 4. The frame is strengthened by means of the diagonally arranged braces connecting the bars 3 and 4. A leg 6 is hinged at 7 on the cross bar 4 preferably at a point near the middle of the same and the lower end of the leg is pivotally attached to a bar 8 that is adapted to slide in a slot 9 provided in a plate 10 secured to the lower cross bar 3, said bar 8 having a series of notches 11 which receive the lower edge of the slot and lock the bar against longitudinal movement. By raising the bar and sliding it in the slot, the position of the leg 6 can be easily changed and the angle of inclination of the frame varied according to the height of the carrier or staging desired and the character of the ground where the device is used. One of the flanges of each of the legs 2 has a series of notches 12 arranged at intervals vertically therein forming teeth 13. Bars 14 also preferably of angle iron are arranged to slide within the angle formed by the flanges of the legs 2, and lugs 15 and 16 are formed on the lower ends of the bars 14 and bent around the edges of the flanges of the legs 2 for the purpose of guiding the bars in their vertical movement. The bars are further guided by means of clips 17 secured on the cross bar 4. For the purpose of locking the bars at any desired height latches 18 are pivoted thereon having outwardly turned ends 19 that are adapted to drop into slots 20 in one of the flanges of the bars and into one of the slots 12 of the legs and engaging a tooth 13 to lock the bar against downward movement. The teeth 13, however, are inclined on their under sides so that when the bars are raised their latches will slip easily over the teeth without any attention. When it is desired to lower the bars the latches may be readily disengaged from the teeth and held out of the slots in the bars until lowered to the desired level.

It will be noted that the ends 19 of these latches bear directly on the teeth 13 and consequently the pressure of the load will exert a shearing strain on the ends of the latches instead of on their pivotal connections with the bars. At the upper ends of the bars I provide a cross bar 21 having longitudinal slots 22 and connected with the upper ends of the bars 14 by pivots 23 through said slots. The bar 21 preferably has upwardly turned ends 24 for the purpose of holding the rails of the carrier or the staging or platform in place thereon.

The jack is narrower at the top than at the bottom and consequently when the bar 21 is raised its pivotal connections with the bars 24 will move in toward the ends of the slots and will slide back and forth therein to accommodate themselves to the different positions of the bar.

I claim as my invention:—

1. A jack comprising a frame, leg mounted thereon and converging from the bottom towards the top and vertically adjustable, and a bar carried by said legs and having a sliding pivotal connection therewith, whereby the adjustment of either end of said bar independently of the other end is permitted.

2. A jack comprising a frame having angle bar side rails converging from the bottom toward the top, of extension angle bars slidably mounted on said rails and a cross bar

connecting the upper ends of said extension bars and said connection permitting the vertical adjustment of either one of said extension bars and the corresponding elevation of either end of said cross bar independently of the other extension bar and the other end of said cross bar.

3. The combination, with a frame, of a plate forming a rest for the rails of a carrier or staging, legs having a sliding, pivotal connection with said plate and an independent vertical movement on said frame, substantially as described.

4. The combination, with a frame, having upper and lower cross bars of a leg pivotally connected at one end to said upper cross bar, a bar pivotally attached to said leg and having a series of notches in its edge adapted to receive said lower cross bar and adjustably connecting the lower end of said leg with said frame, and whereby said frame may be tilted to vary its inclination with respect to the ground, and a plate supported on said frame and adjustable vertically thereon, substantially as described.

5. The combination, with a frame having legs provided with a series of vertically arranged ratchet teeth, of bars vertically slidable on said frame and having slots contiguous to said ratchet teeth and adapted to move past the same when said bars are raised or lowered, latches pivoted on said bars and having ends turned at an angle to their main portions and passing through said slots and adapted to enter the spaces between said ratchet teeth and engage said teeth and lock said bars at different elevations on said frame, and a cross plate connecting the upper ends of said bars, for the purpose specified.

6. A jack comprising angle bar legs having a series of notches in their flanges forming ratchet teeth and cross bars connecting said legs, angle bars slidably mounted on said legs between their flanges and having latches to enter said notches and lock said bars, a plate connecting the upper ends of said bars and means for changing the inclination of said legs for the purpose specified.

7. The combination, with a frame composed of angle bars and cross bars connecting the same, said angle bars having a series of ratchet teeth in one of their flanges, angle bar legs slidably mounted on said frame and having a series of slots therein, dogs pivoted on said legs and having ends adapted to enter said slots and engage said teeth and lock said legs at any desired elevation on said frame, said dogs slipping over said teeth when said legs are raised, and a plate connecting the upper ends of said legs.

8. An adjustable support for a gravity carrier section comprising a frame and means whereby it may be tilted at any desired angle with respect to the ground line, a bar mounted on said frame and whereon the gravity carrier section is placed, and said bar being vertically adjustable at both ends simultaneously or at one end independently of the other.

9. A support for a gravity carrier section comprising a frame and means for tilting the same at any desired angle with respect to the ground line, a bar adapted to form a rest for the carrier section and having guards at the ends to hold the section in place thereon, said bar being vertically adjustable on said frame at either end to adapt the device for inequalities of the ground where it may be used, substantially as described.

10. A jack comprising a frame, extension bars slidably mounted thereon and capable of vertical movement, and a cross bar having a sliding pivotal connection with said extension bars, for the purpose specified.

In witness whereof, I have hereunto set my hand this 12th day of October, 1906.

ALBERT S. DEHLER.

Witnesses:

RICHARD PAUL,

J. B. ERA.