J. JEROME & G. O. EBERHARDT.

KNOCKDOWN HOISTING FRAME.

APPLICATION FILED MAY 2, 1917.

1,298,508.

Patented Mar. 25, 1919.

2 SHEETS—SHEET 1.

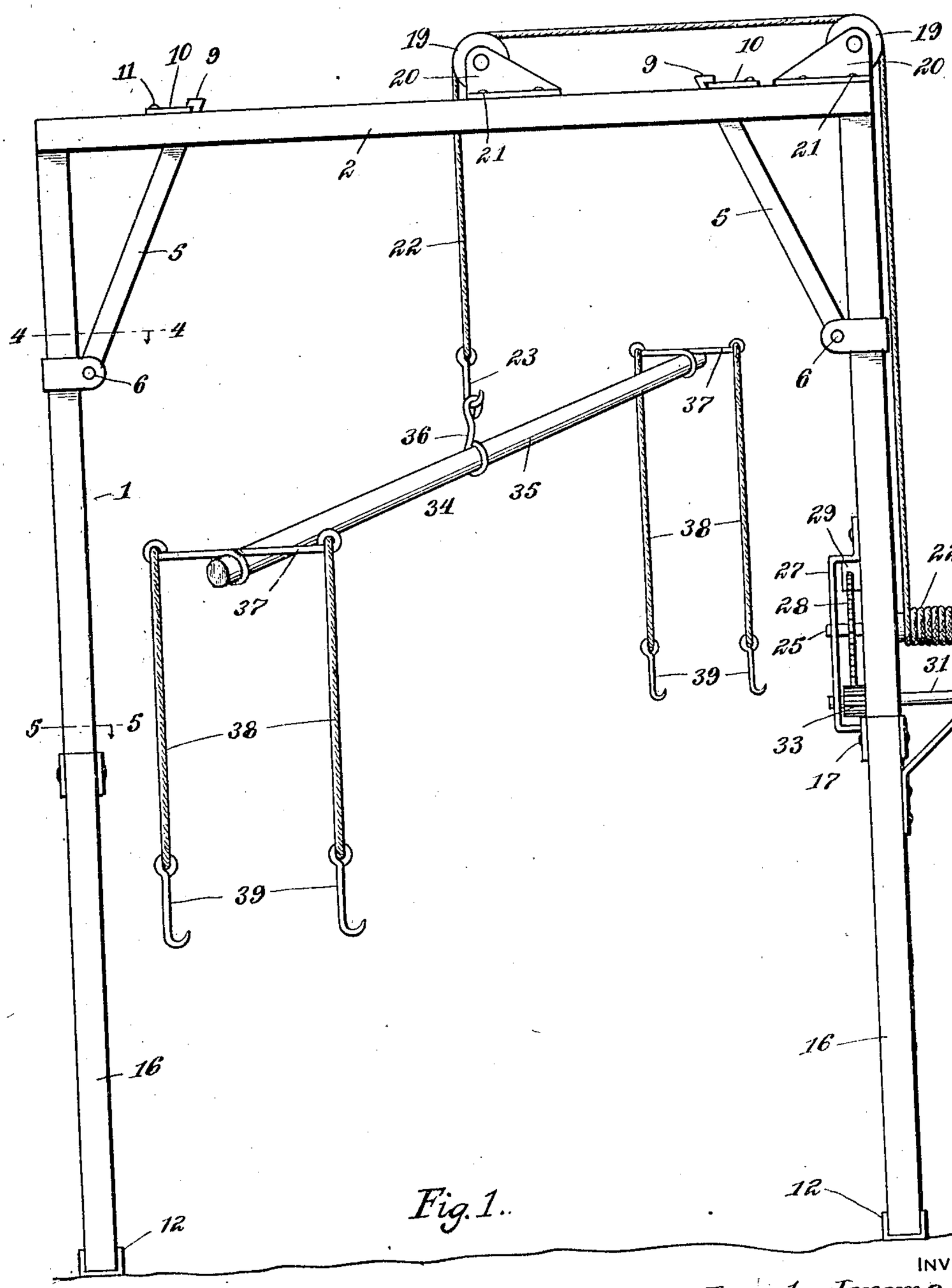

Fig. 1.

WITNESSES

C. F. Rudolph

J. W. Garner

INVENTOR

Joseph Jerome,
G. O. Eberhardt.

BY Victor J. Evans

ATTORNEY

J. JEROME & G. O. EBERHARDT.

KNOCKDOWN HOISTING FRAME.

APPLICATION FILED MAY 2, 1917.

Patented Mar. 25, 1919.

2 SHEETS—SHEET 2.

1,298,508.

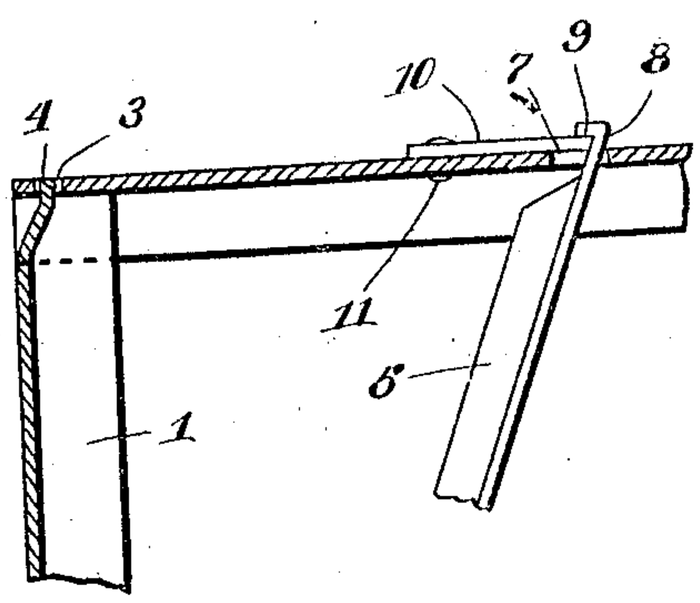

Fig. 3

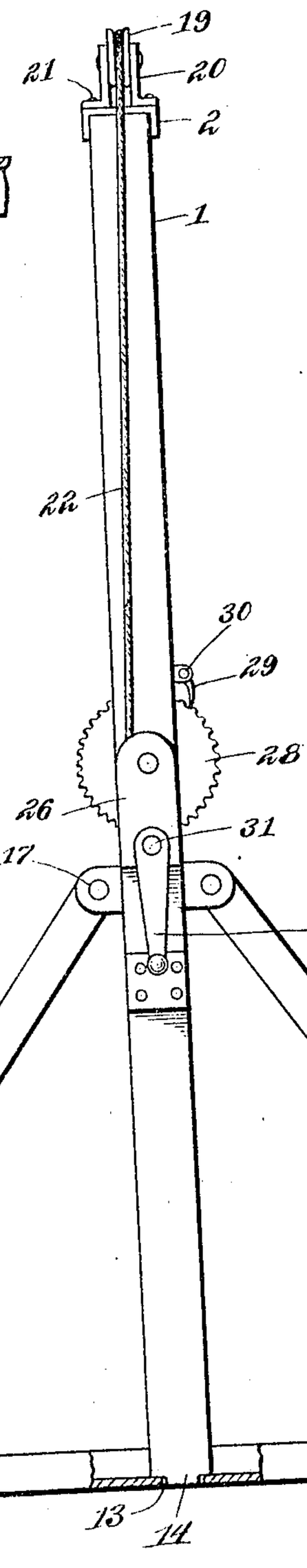

Fig. 2

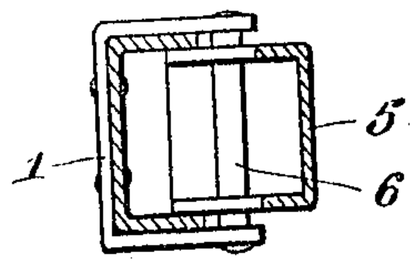

Fig. 4

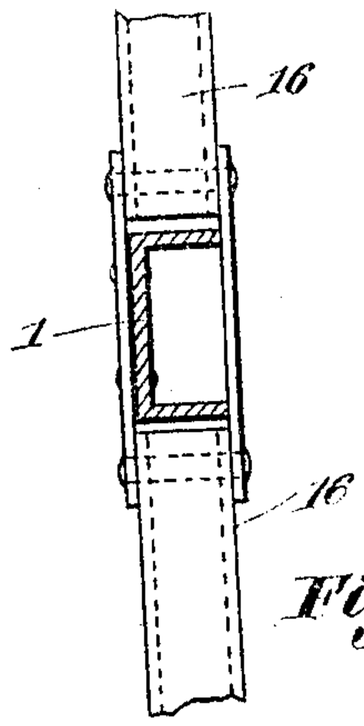

Fig. 5

WITNESSES

C. F. Rudolph

J. W. Garner

INVENTOR

Joseph Jerome,
G. O. Eberhardt,

BY Victor J. Evans

ATTORNEY

UNITED STATES PATENT OFFICE.

JOSEPH JEROME AND GEORGE ORBAN EBERHARDT, OF BATTLERIVER, MINNESOTA.

KNOCKDOWN HOISTING-FRAME.

1,298,508. Specification of Letters Patent. Patented Mar. 25, 1919.

Application filed May 2, 1917. Serial No. 165,981.

To all whom it may concern:

Be it known that we, JOSEPH JEROME and GEORGE O. EBERHARDT, citizens of the United States, residing at Battleriver, in the county of Beltrami and State of Minnesota, have invented new and useful Improvements in Knockdown Hoisting-Frames, of which the following is a specification.

This invention is an improved knock-down hoisting frame for use for raising or lowering wagon bodies, hay racks and the like and for holding the same suspended at any desired height, and also for use in a garage for lifting automobiles, or for raising automobile bodies from the chassis, or for raising automobile motors, and for other analogous uses, the object of the invention being to provide an improved hoisting frame and apparatus of this kind which is simple in construction and which can be very readily set up or dismounted and the parts of which may be readily assembled and dissembled.

The invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings:—

Figure 1 is an elevation of a knock down hoisting frame constructed and arranged in accordance with our invention.

Fig. 2 is a similar view of the same at right-angles to Fig. 1.

Figs. 3, 4 and 5 are detailed views.

Our improved knock-down hoisting frame comprises essentially a pair of standards 1 and a cross beam 2 connecting the uper ends of the standards. The standards and cross beam are made of channel steel or iron. The channels of the standards are on the inner or opposing sides thereof. The channel of the cross beam is in the under side thereof. The cross beam has openings 3 near its ends and the standards have tenon projections or tongues 4 at their upper ends to pass through said openings and detachably secure the beam on the standards. The width of the beam is slightly greater than that of the standards so that the upper ends of the standards fit in the channel of the beam. Each standard has a brace 5 which is also made of channel iron or steel and which is pivotally connected at its lower end to the standard as at 6. The braces are hence adapted to be folded against the standards. When the frame is set up the upper ends of the braces are attached to the beam, the latter being provided with openings 7 for the reception of tongues 8 with which the upper ends of the braces are provided. Each tongue has a locking notch 9 in one side. A turn button or other suitable locking device 10, is provided for each brace 5, said locking devices being pivotally mounted on the beam as at 11 and being adapted to be engaged with the notches 9.

A channel iron or steel sill 12 is provided for the lower end of each standard. Each sill is arranged with its channeled side uppermost to receive the lower end of one of the standards in its channel and is provided at its center with an opening 13 for the reception of a tenon or tongue 14 at the lower end of the standard. Each sill is also provided with openings 15 near its ends. Each standard is provided with a pair of channel iron or steel braces 16 arranged one on each side thereof, in line with the sill, the upper ends of said braces being pivotally connected to the standards as at 17 and their lower ends having tongues or tenons 18 to engage in the openings 15 of the sills. It will be understood that the standards and their braces 16 may be readily detached from the sills and that said braces 16 may be readily folded against the standards so that the frame may be compactly arranged for storage or transportation.

A pair of pulleys 19 are arranged one above the center and one above one end of the beam 2 each pulley being mounted in a channel iron or steel bracket 20 which is bolted on the beam as at 21. The beam has a central opening through which a hoisting cable 22 passes. The hoisting cable engages over the pulleys and has a hook 23 at its inner end, the outer end of the cable being attached to a drum or winch 24. The axle shaft 25 of the drum or winch passes through one of the standards and is mounted in brackets 26, 27 which are bolted respectively to the outer and inner sides of said standard, the winch being arranged also on the outer side of the standard and the axle being provided with a spur gear 28 near its inner end. A suitable pawl 29 is pivotally mounted as at 30 and is arranged to engage and hold the gear 28 and hence hold the drum or winch. A shaft 31 also has its bearings in said brackets 26, 27 and has a hand crank 32 at its outer end so that said shaft may be manually turned, a pinion 33 being secured near the inner end of said shaft and engaged with the gear 28. Hence the winch

or drum may be readily revolved to cause the cable to raise or lower a wagon body, automobile body, or other weight or object and may be also held or locked to sustain the weight or object at any desired elevation.

We also provide a sling 34 which comprises a bar 35 having an eye bolt 36 at its center for engagement by the hook 23 and provided with eye bolts 37 at its ends through which chains 38 are passed. Each chain is provided with suitable hooks 39 at its ends for engagement with suitable eyes or other engaging devices at the corners of the wagon body, hay rack or other object to be raised or lowered by the hoisting apparatus.

While we have herein shown and described a preferred form of our invention we would have it understood that changes may be made in the form, proportion and construction of the several parts, without departing from the spirit of our invention and within the scope of the appended claim.

Having thus described our invention, we claim:—

In a hoisting frame of the class described channel metal sills arranged with their channeled sides uppermost and provided with central openings and also with openings near their ends; standards having their lower ends detachably arranged in the channeled upper sides of the sills fitted between the walls of the sills and provided with tongues arranged in the central openings of the sills, lower braces pivotally connected to the standards, foldable thereagainst and having their lower ends fitted between the walls of the sills and provided with tongues at their lower ends engageable in the end openings of the sills; a beam of channel metal having its channeled side undermost and arranged on the upper ends of the standards, said beam having openings near its ends and said standards so that the walls of the beam bear against opposite sides of the standards having tongues at their upper ends engageable in said openings, and upper braces pivotally connected to the standards and foldable thereagainst, said upper braces having tongues at their upper ends engageable in openings with which the beam is provided.

In testimony whereof we affix our signatures.

JOSEPH JEROME.
GEORGE ORBAN EBERHARDT.