

W. H. NILES.
LOAD CARRIER.
APPLICATION FILED MAY 9, 1910.

990,378.

Patented Apr. 25, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

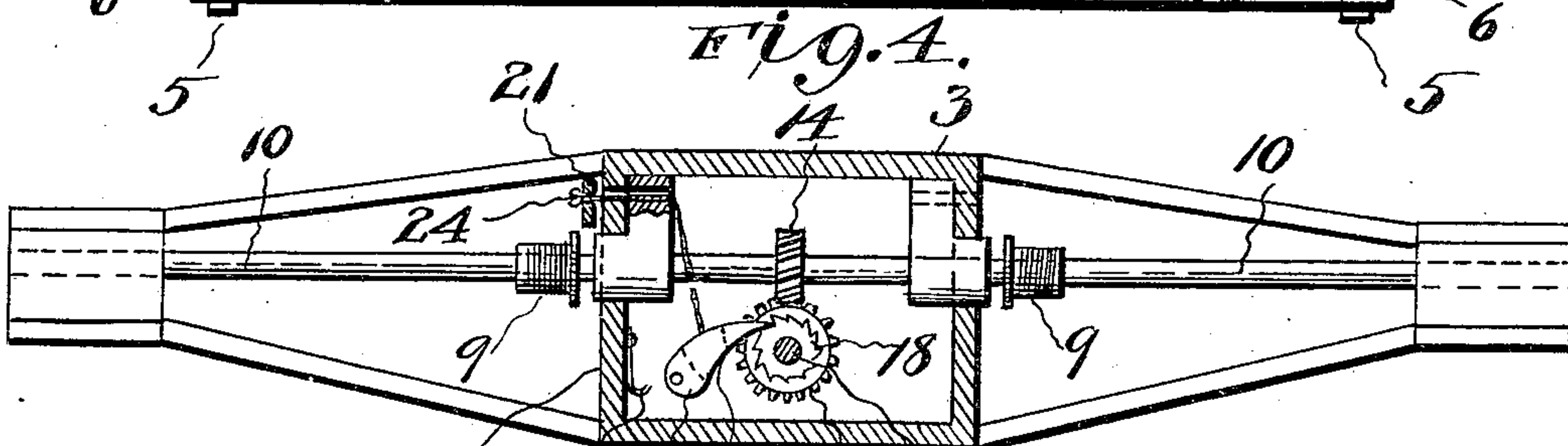
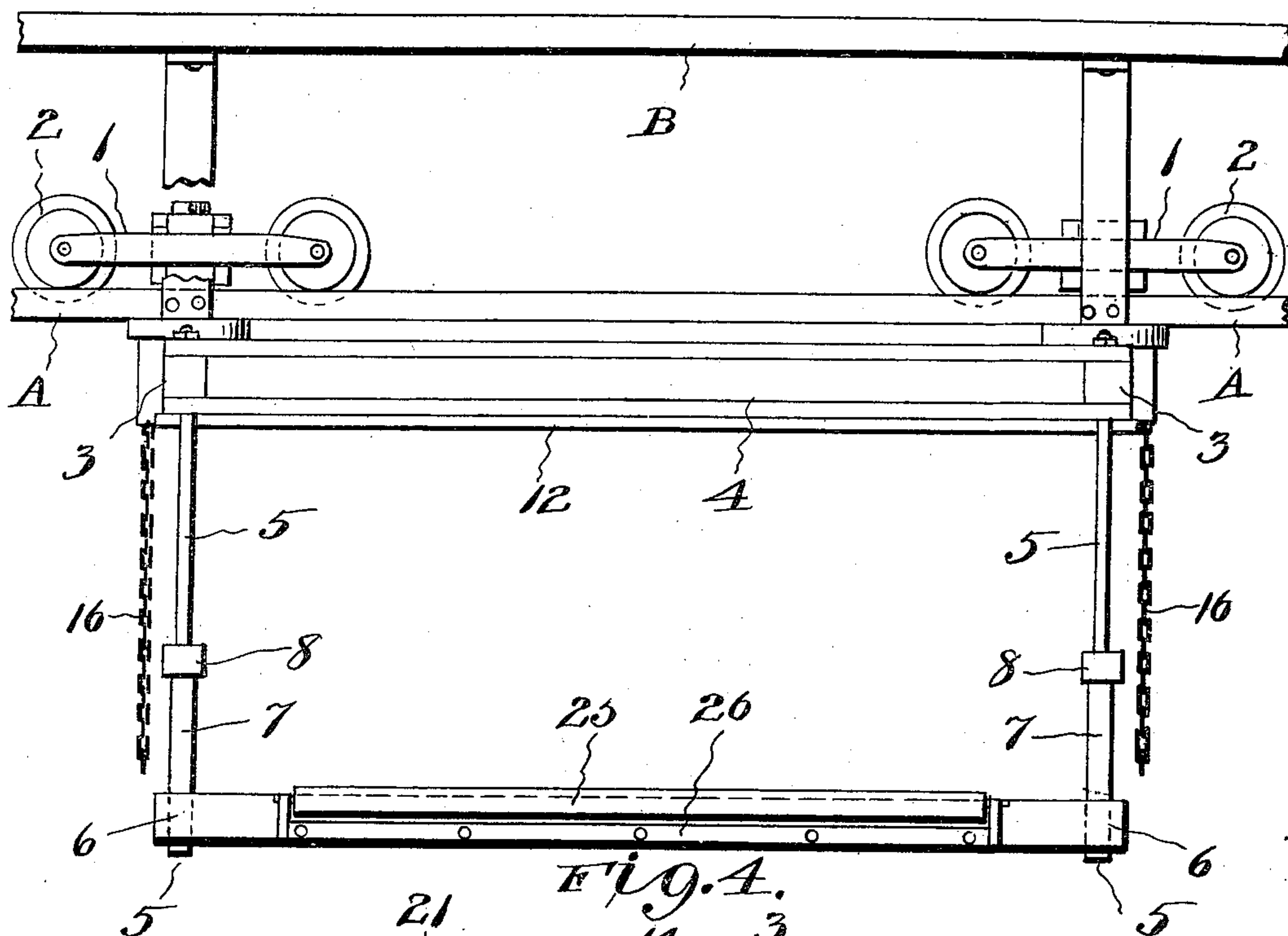
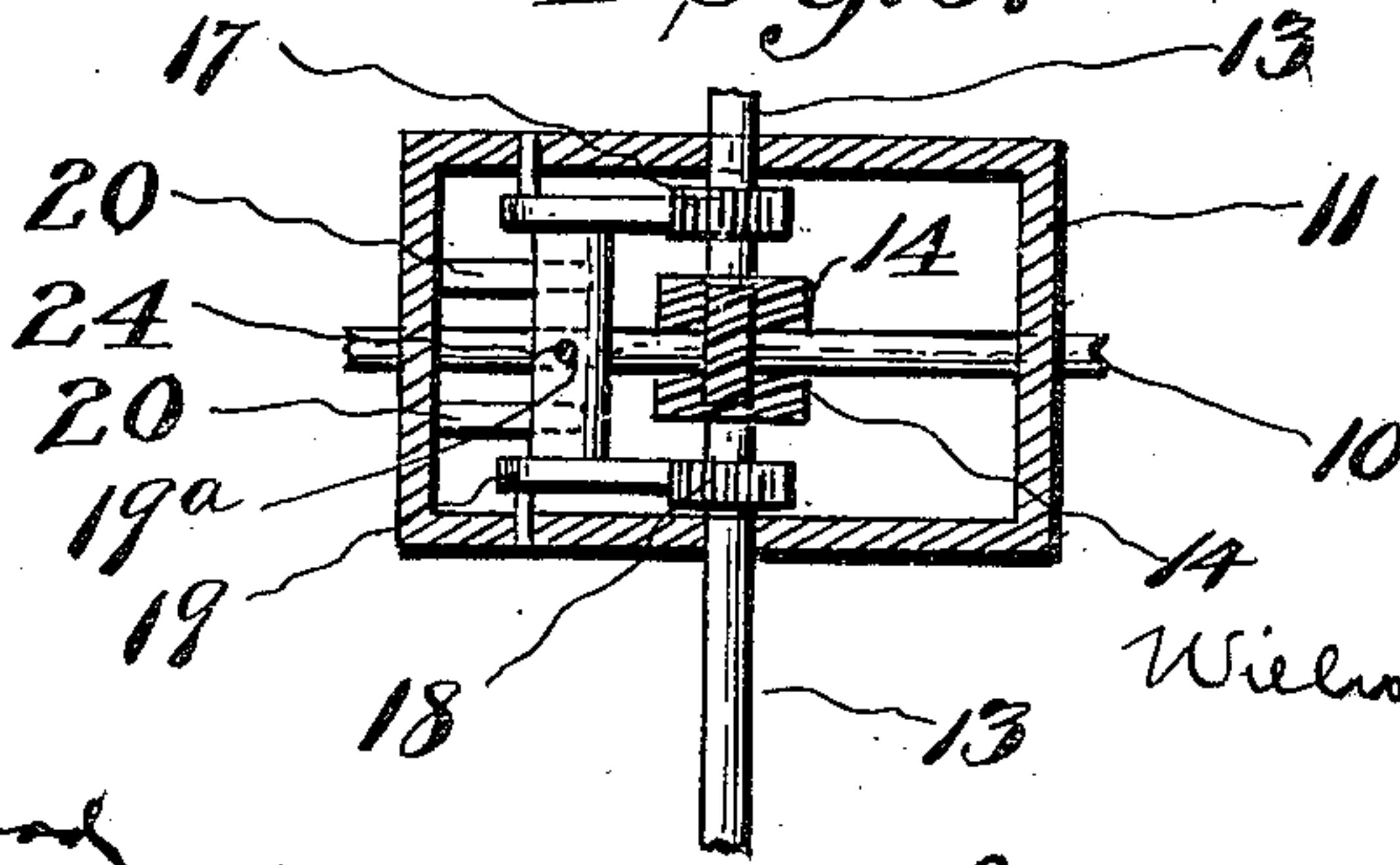


Fig. 5.



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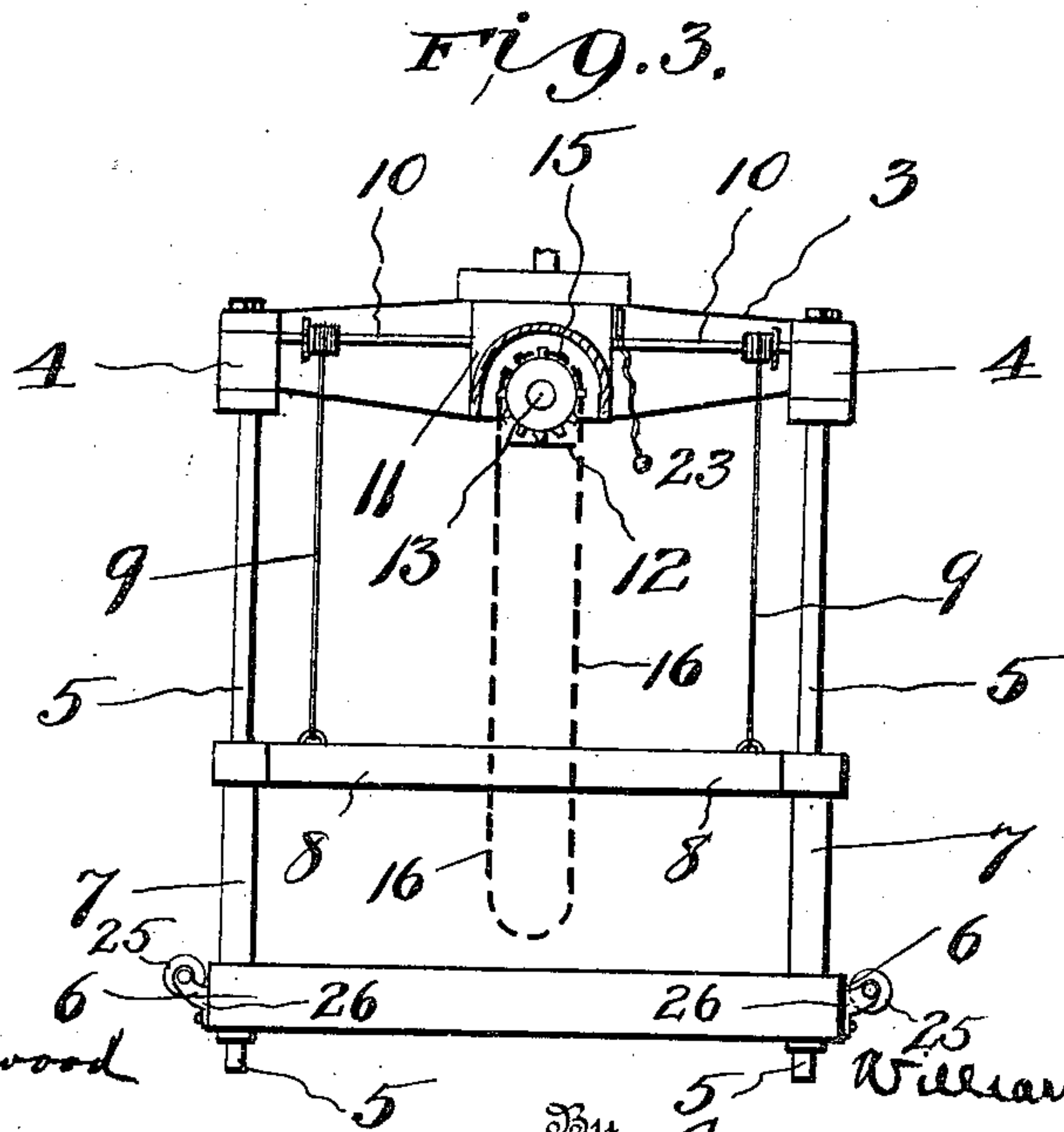
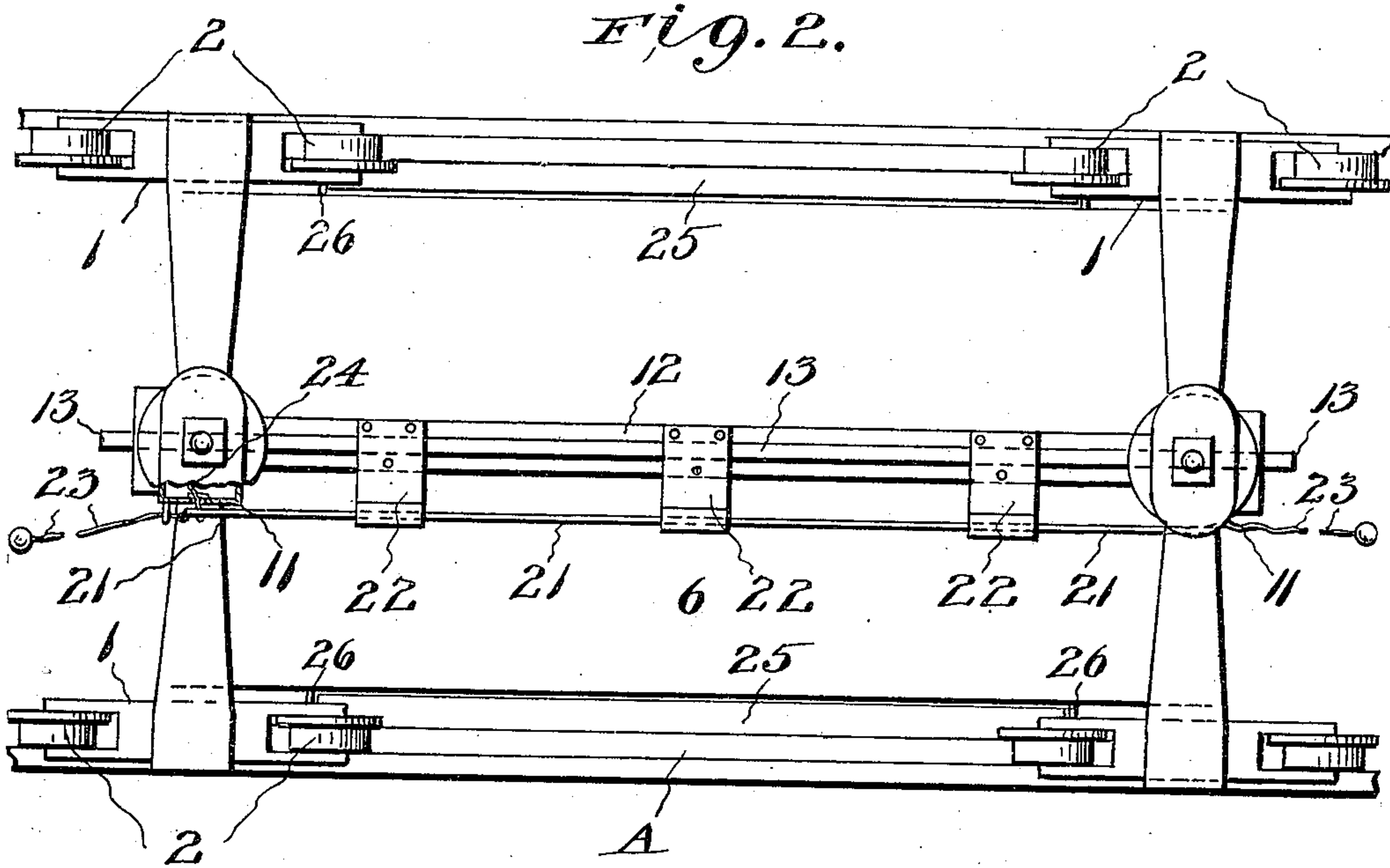
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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. NILES, OF GARDINER, MAINE.

LOAD-CARRIER.

990,378.

Specification of Letters Patent.

Patented Apr. 25, 1911.

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To all whom it may concern:

Be it known that I, WILLIAM H. NILES, a citizen of the United States, and a resident of Gardiner, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Load-Carriers, of which the following is a specification.

My invention relates to devices for transporting loads in cold storage warehouses, large stores, lunch rooms, etc., and has for its object the provision of a frame having a vertically adjustable platform mounted thereon and supported by wheeled trucks riding on overhead tracks.

My invention also contemplates the provision of improved means for raising and lowering the platform and improved means for holding the platform in an adjusted position.

My invention will be described in detail hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my improved carrier in position on the track; Fig. 2, a top plan view; Fig. 3, an end view with the trucks removed; and Figs. 4 and 5, sectional views of the gear casing at one end of the carrying frame.

In the drawings similar reference characters indicate corresponding parts throughout all of the views.

A indicates the track on which my improved load carrier is mounted, which may be secured to any overhead support, such as the ceiling B of the warehouse, as shown.

The trucks 1 of my improved carrier have the wheels 2 journaled thereon and are swivelly mounted on bolsters 3.

4 indicates the side sills secured to the ends of the bolsters 3 and forming therewith an open rectangular frame, as shown.

5 indicates rods extending downwardly from the corners of the frame, being secured through the ends of bolsters 3 and side sills 4. The platform 6 is secured to tubular sleeves 7, secured to its corners, and the sleeves 7 are slidably mounted on the rods 5.

8 indicates cross-bars secured to each pair of sleeves 7, under the bolsters 3, and 9 ropes or chains secured thereto that are secured to cross-shafts 10, journaled in the ends of bolsters 3 and extending through casings 11 in the middle of the bolsters.

12 indicates a longitudinal beam connecting the casings 11, and 13 a power-shaft journaled on the beam 12 and having its

ends extended outside of said casings. Shaft 13 is geared to each cross-shaft 10 by means of worm-gears 14, and the power-shaft is rotated by means of sprocket-wheels 15, secured to its ends, and chains 16, engaging the teeth of said wheels. It will be understood from this construction that by rotating the power-shaft 13 in one direction cross-shafts 10 will also be rotated by means of the worm-gearing 14 to wind up the ropes or chains 9 thereon to lift the platform, while by rotating the power-shaft in the opposite direction the platform will be lowered to discharge its load and for reloading.

17 and 18 indicate ratchet-wheels secured to power-shaft 13 on each side of the worm-wheel thereon, and 19 a double-ended pawl pivotally mounted in each casing 11 and held in engagement with ratchet-wheels 17 and 18 by means of leaf-spring 20, secured to one end of the casing.

21 indicates a bar slidably mounted in brackets 22, secured to beam 12, and operated by a chain or rope 23, secured to each end.

24 indicates a rope or chain secured to cross-bar 19^a of each double pawl 19 and extended through a hole in the end of casing 11 and secured to bar 21.

By this means of construction it will be apparent that the pawls 19 are normally held in engagement with ratchets 17 and 18 by means of leaf-spring 20 and prevent the power-shaft 13 rotating in the direction to lower the platform 6, said pawls, however, permitting the power-shaft to rotate so as to lift the platform without lifting them from engagement with the ratchets, but when it is desired to lower the platform the pawls are lifted by sliding the bar 21 toward either end by the rope or chain 23 on the end of the bar, the weight of the platform and its contents causing it to lower, restrained by the operator by grasping the chain 16 at the end of the frame at which he may be then stationed.

25 indicates a roller journaled in a bracket 26 secured to each side of the platform 6 to assist in placing heavy trunks, cases, etc., on the platform.

Having thus described my invention, what I claim is—

A load-carrier comprising a frame consisting of bolsters and side sills secured thereto, wheeled trucks mounted on said bolsters and adapted to travel on overhead tracks, rods

secured to said frame and extending downwardly therefrom, tubular sleeves slidably mounted on said rods, a platform secured to said sleeves, cross-bars secured to the sleeves,
5 gear-casings in said bolsters, cross-shafts journaled in said bolsters and extending through said gear-casings, a longitudinal shaft journaled in said casings, means to rotate said longitudinal shaft, worm gearing
10 connecting said longitudinal shaft and the cross-shafts, ratchet-wheels secured to said longitudinal shaft inside of the gear-casings, spring-actuated pawls engaging said ratchet-

wheels, a rod slidably mounted longitudinally of the frame, ropes secured to the ends 15 of the rod, and ropes connecting said rod and the pawls to disengage them from the ratchet-wheels, substantially as shown and described.

In witness whereof, I have hereunto set 20 my hand in presence of two subscribing witnesses.

WILLIAM H. NILES.

Witnesses:

C. H. LAURENCE,
JAMES H. BOOKER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
