

No. 881,388.

PATENTED MAR. 10, 1908.

W. P. EASTWOOD.

MOTOR SLED.

APPLICATION FILED MAY 27, 1907.

3 SHEETS—SHEET 1.

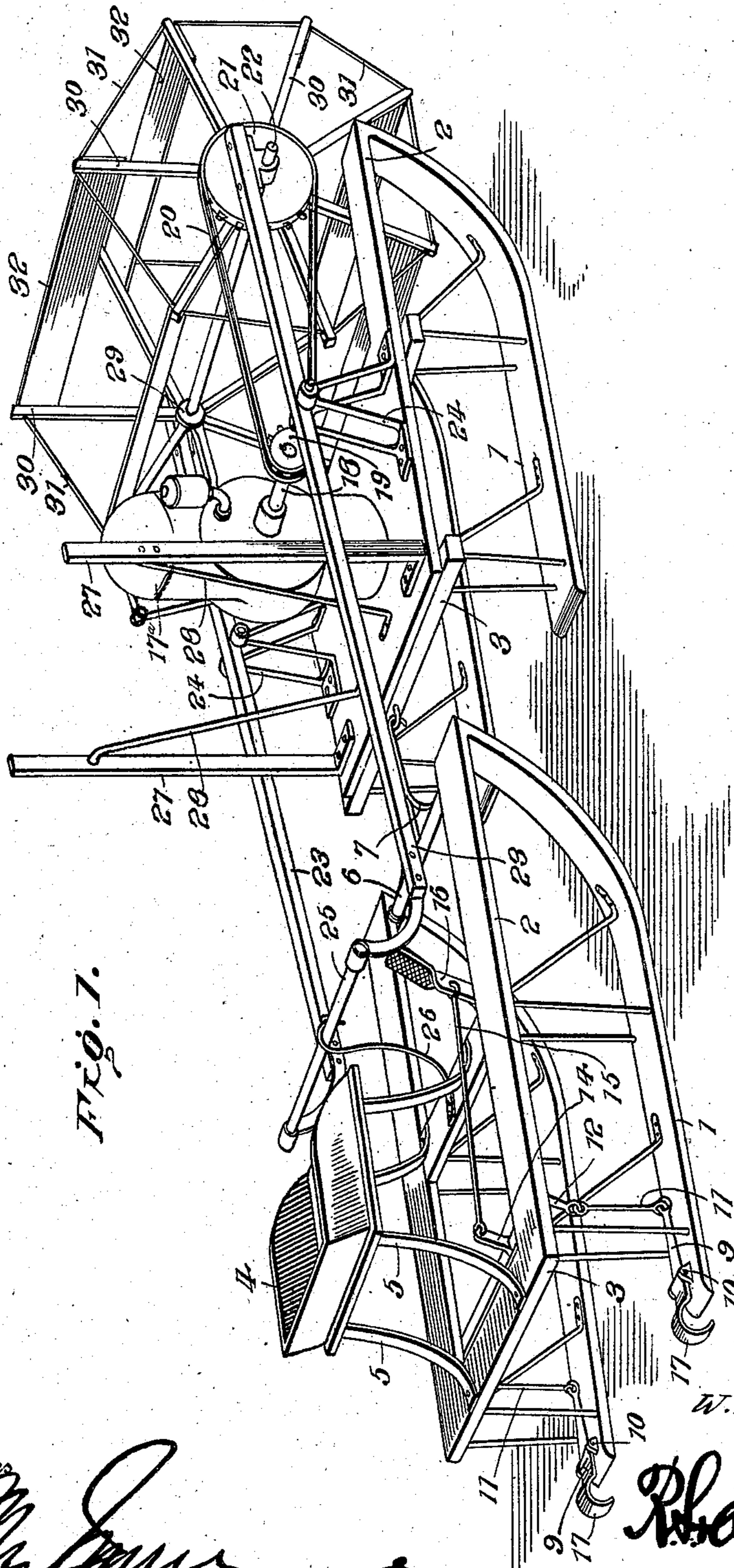


FIG. 1.

Witnesses

W. P. Eastwood
W. P. Eastwood.

Inventor

W. P. Eastwood

By

R. A. M. Kay
R. A. M. Kay,

Attorneys

No. 881,388.

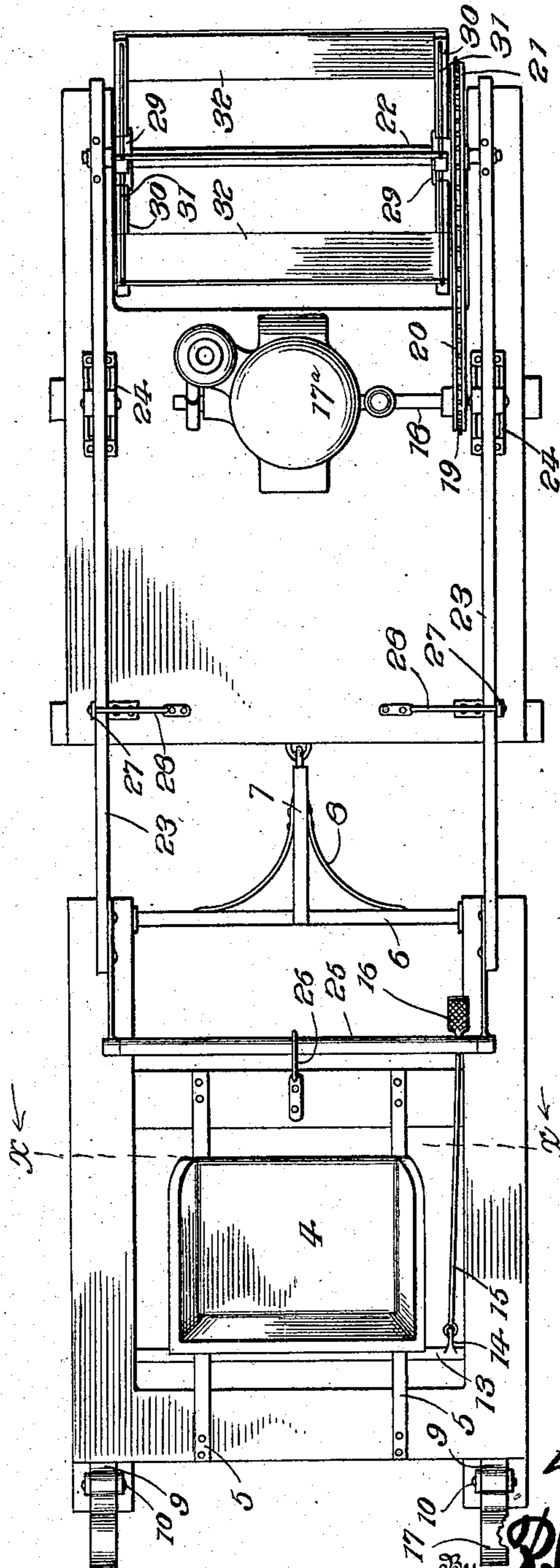
PATENTED MAR. 10, 1908.

W. P. EASTWOOD.
MOTOR SLED.

APPLICATION FILED MAY 27, 1907.

3 SHEETS—SHEET 2.

FIG. 2.



Witnesses

W. P. Eastwood
W. P. Eastwood.

Inventor

W. P. Eastwood,

Ph. A. R. R. R.
Ph. A. R. R. R.

Attorneys

No. 881,388.

PATENTED MAR. 10, 1908.

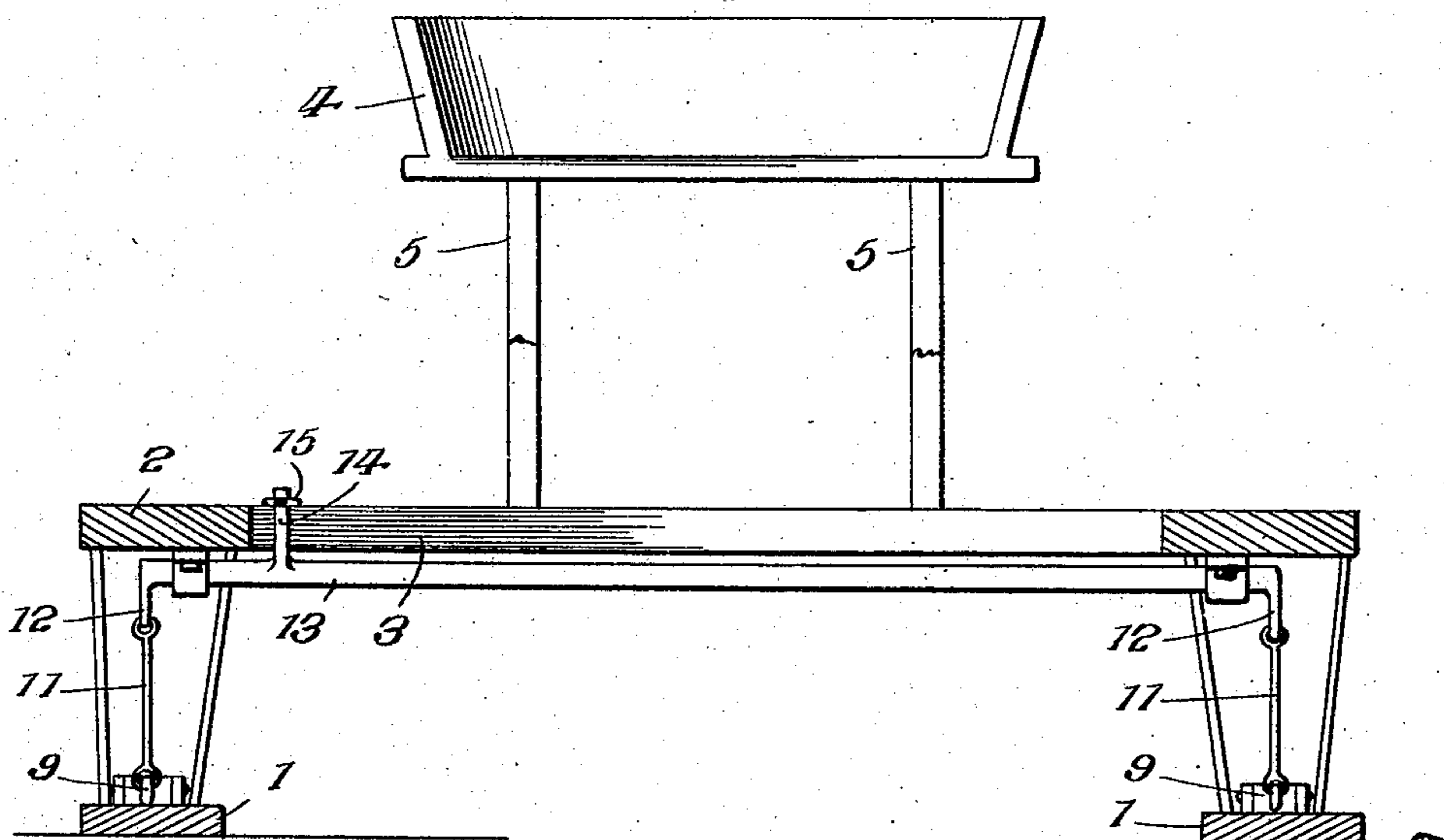
W. P. EASTWOOD.

MOTOR SLED.

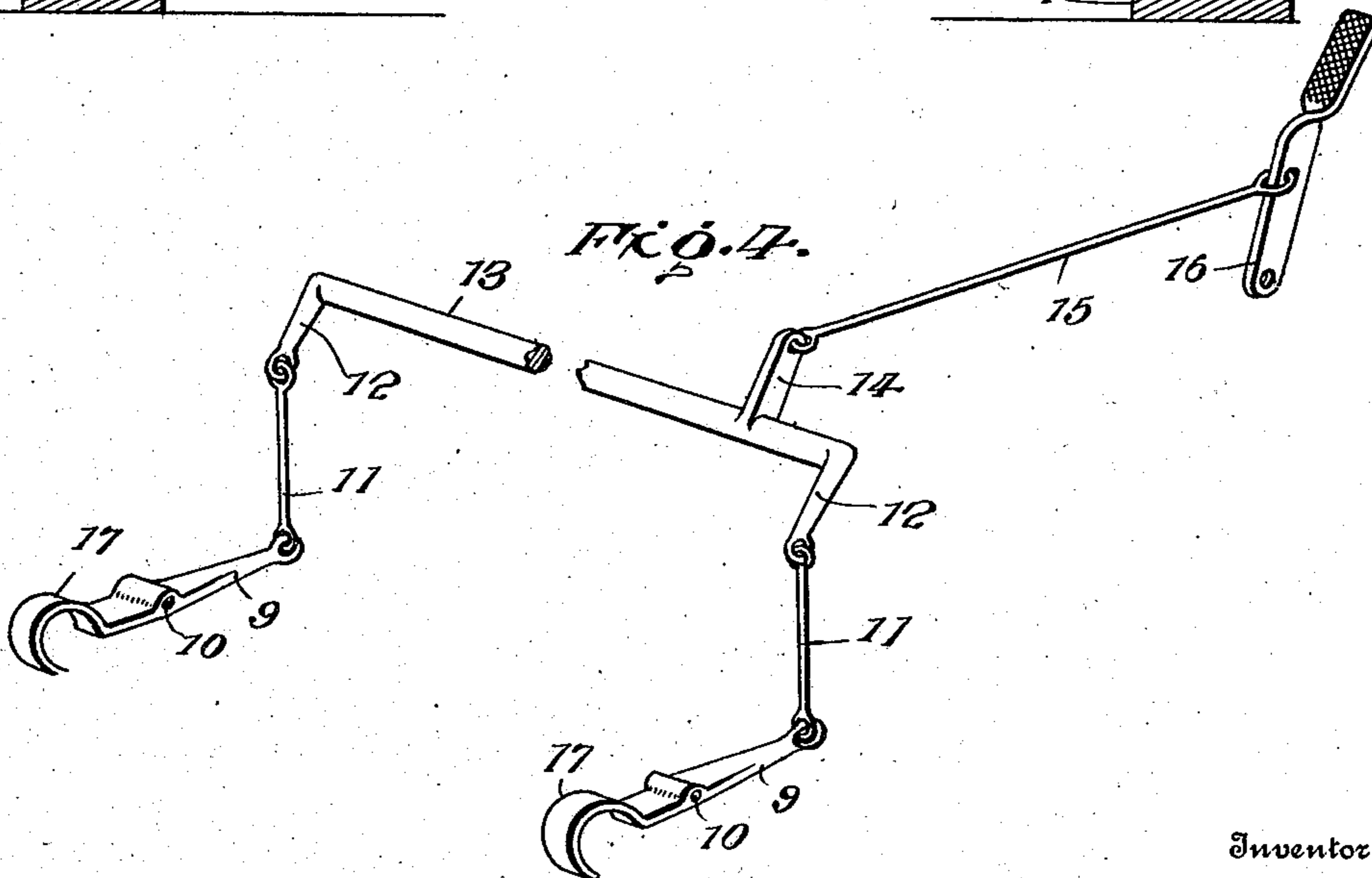
APPLICATION FILED MAY 27, 1907.

3 SHEETS—SHEET 3.

Fig. 3.




FKO. 4.



Inventor

W. P. Eastwood

Witnesses

Witnesses

 W. V. Woodson.

विषय

Pharmacy,

Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM P. EASTWOOD, OF HAILEY, IDAHO.

MOTOR-SLED.

No. 881,388.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed May 27, 1907. Serial No. 375,996.

To all whom it may concern:

Be it known that I, WILLIAM P. EASTWOOD, citizen of the United States, residing at Hailey, in the county of Blaine and State of Idaho, have invented certain new and useful Improvements in Motor-Sleds, of which the following is a specification.

This invention relates to conveyances mounted upon runners and designed to be propelled over a slippery surface, such as ice and snow, the purpose being to provide a novel structure and to combine therewith unique propelling means under control of the operator both for steering and for stopping and starting, without necessitating throwing the engine out of gear or bringing the same to rest.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of a motor sled embodying the invention. Fig. 2 is a top plan view thereof. Fig. 3 is a transverse section on the line $x-x$ of Fig. 2. Fig. 4 is a detail perspective view of the brake.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The conveyance embodies two sleds having a tandem arrangement and coupled to admit of relative independent vertical and lateral play while at the same time permitting the front sled to be deflected for purposes of steering. The front sled is preferably provided with the propelling and steering means, whereas the rear sled is utilized for carrying passengers. The sleds are of similar construction, each comprising runners 1, upper longitudinal members 2 and transverse connecting pieces 3 which may consist either of bars, plates or rods. The rear sled is provided with a seat 4 which is mounted upon standards 5. For coupling the two sleds a rod 6 is journaled at its ends to the upper front portions of the run-

ners, and a stub pole 7 extends forwardly therefrom at a central point and is stayed by means of braces 8. Coupling means unite the front end of the pole 7 with the rear cross piece of the front sled and is of such formation as to admit of relative play between the sleds without causing strain or interference.

The brake mechanism is mounted upon the rear sled and consists of levers 9 which are fulcrumed intermediate of their ends at 10 to the runners and which have their front ends connected by means of links 11 to crank arms 12 at the ends of a rock shaft 13, said rock shaft having an arm 14 which is connected by means of a rod 15 with an operating lever 16 which is conveniently located to be pressed upon by the foot of the operator to set the brakes when required. The levers 9 are provided at their rear ends with hooks 17 which extend in the rear of the runners 1 and are adapted to be brought into forcible engagement with the surface over which the conveyance or sled may be propelled. The rock shaft 13 is mounted in bearings applied to the longitudinal pieces 2 and is located at the rear of the sled so as to be out of the way.

The engine 17^a for propelling the sled may be of any type commonly employed for driving machinery and particularly adapted for locomotives. The engine shaft 18 is provided with a sprocket pinion 19 which is connected by means of sprocket chain 20 with a sprocket wheel 21 fast to any of the propeller shafts 22. The engine and propeller are mounted upon the front sled. Handle bars 23 are pivoted intermediate of their ends to standards 24 and are connected at their upper rear ends by means of a cross bar 25. The front ends of the handle bars carry the propeller and are provided with bearings in which a propeller shaft 22 is journaled. When the upper rear ends of the handle bars are depressed, the propeller is elevated, hence the conveyance or sled may be brought to a standstill without either stopping the engine or applying the brakes. When the rear ends of the handle bars are depressed, they are held lowered by means of a hook 26 loosely connected to the frame of the rear sled and adapted to engage over the cross bar 25. The handle bars, besides serving to throw the propeller into and out of operative position, are also employed for steering the sled by moving the front sled either to the

right or to the left as may be required according to the direction to be traveled. Standards 27 project upwardly from the outer rear corners of the front sled and are adapted to engage with the inner sides of the handle bars to limit their movement and insure proper deflection of the front sled when the handle bars are moved laterally to steer the conveyance. The standards 27 are braced by means of stays 28.

It will be understood that the handle bars have in effect two points of contact, the one with the standards 24 and the other with the standards 27, and these points are separated so as to insure a firm bracing of the handle bars when subjected to lateral stress. The standards 27 admit of the rear ends of the handle bars being moved up and down to throw the propeller into and out of working position. The propeller is of the paddle type and comprises slats and end supports. Each end support consists of a hub 29, arms 30 and braces 31 between the arms and connecting the same near their outer ends. The slats or paddles 32 are firmly secured at their ends to the arms 30 and are adapted to engage with snow so as to insure positive movement of the conveyance. In the event of the surface being ice, the projecting ends of the arms 30 will usually be found sufficient to insure proper propulsion of the conveyance.

From the foregoing it will be understood that the conveyance involves a simple construction and one that admits of the same being under control at all times and which may be started or quickly stopped without having recourse to the brake mechanism proper and which may be steered or have its speed regulated without the intervention of complex mechanisms.

Having thus described the invention, what is claimed as new is:

1. A conveyance embodying front and rear

sleds or trucks having a tandem arrangement and coupled to admit of relative independent movement, a propeller mounted upon the front sled or truck, handle bars having the propeller mounted thereon and extended within convenient reach of the operator mounted upon the rear truck and adapted to be manipulated for starting the conveyance and to admit of throwing the propeller into and out of action.

2. In combination, sleds or trucks having a tandem arrangement and coupled to admit of relative independent movement, a propeller, handle bars pivotally mounted intermediate of their ends upon the front sled or truck and extended within convenient reach of the operator upon the rear truck and having said propeller carried thereby at their front ends, and standards projected upward from the front truck and adapted to engage with the handle bars to brace the same laterally against horizontal stress when exerted to steer the conveyance.

3. In combination, two sleds or trucks having a tandem arrangement and coupled to have limited independent movement, the rear sled or truck adapted to carry the operator, an engine and propeller mounted upon the front truck, connecting means between the propeller and engine, pivoted handle bars carrying the propeller and extended within convenient reach of the operator upon the rear sled, and standards projected upward from the rear portion of the front truck and adapted to engage with the handle bars to sustain lateral stress and admit of proper steering of the conveyance.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM P. EASTWOOD. [L. s.]

Witnesses:

W. A. HOLLAND,

HENRY R. PLUGHOFF.