No. 818,645. PATENTED APR. 24, 1906.

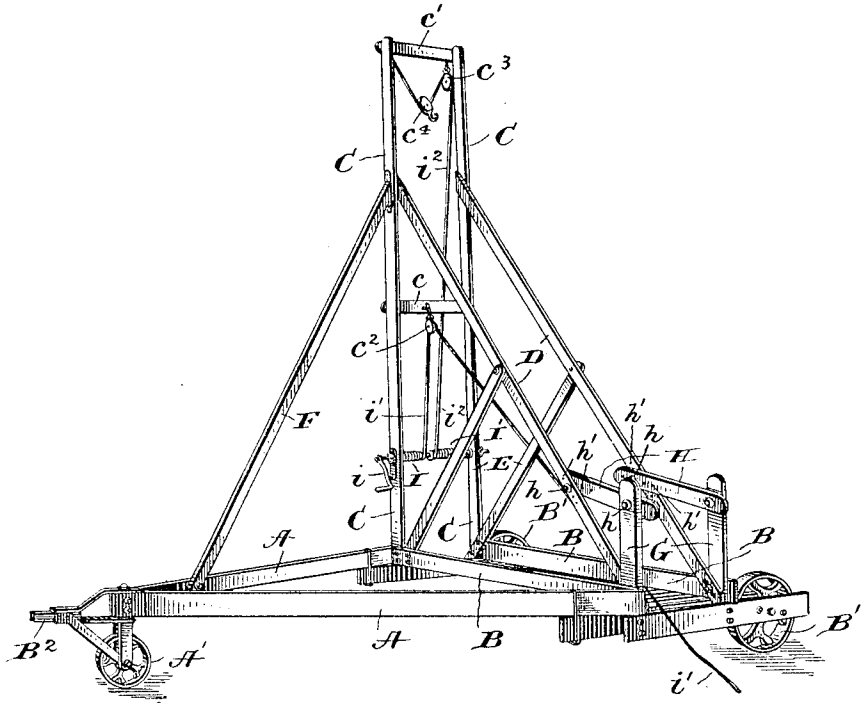
J. F. WHITE.

PORTABLE DERRICK.

APPLICATION FILED JAN. 16, 1905.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

Jas. E. Hutchinson.

Thos. R. Heath

Inventor:

John F. White,

By Macomber & Macomber Attorneys:

No. 818,645. PATENTED APR. 24, 1906.

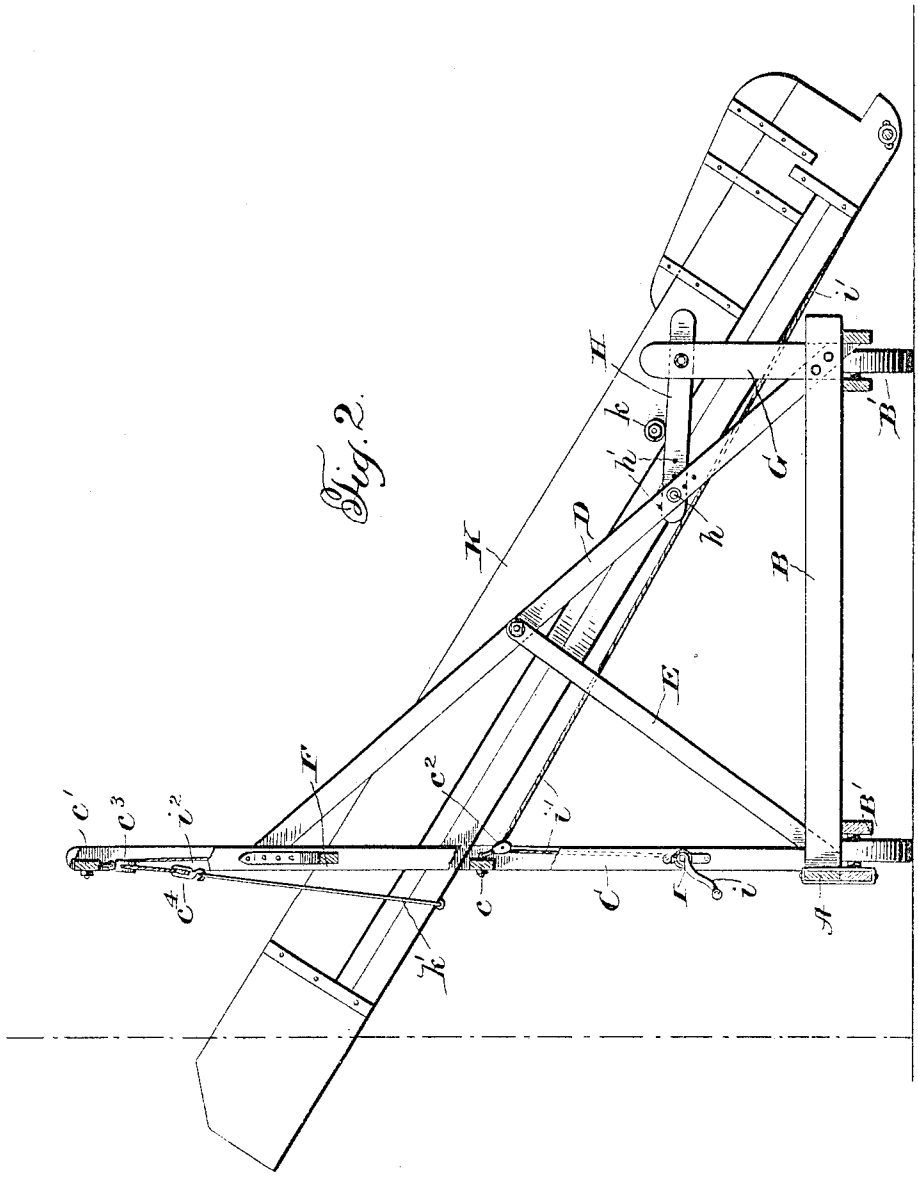
J. F. WHITE.

PORTABLE DERRICK.

APPLICATION FILED JAN. 16, 1905.

2 SHEETS—SHEET 2.

Fig. 2.



Witnesses:

Jas. E. Hutchinson.

Thos. R. Heath.

Inventor:

John F. White,

By Macomber & Sykes Attorneys.

UNITED STATES PATENT OFFICE.

JOHN F. WHITE, OF BLOOMINGTON, ILLINOIS, ASSIGNOR TO PORTABLE WAGON DUMP AND ELEVATOR COMPANY, A CORPORATION OF ILLINOIS.

PORTABLE DERRICK.

No. 818,645. Specification of Letters Patent. Patented April 24, 1906.

Application filed January 16, 1905. Serial No. 241,357.

To all whom it may concern:

Be it known that I, JOHN F. WHITE, a citizen of the United States, residing at Bloomington, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Portable Derricks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improvement in portable derricks for grain-elevators, and more particularly to that type of grain-elevators which are in themselves portable and which are designed to receive grain from a wagon and convey the same into a barn or crib. In the devices of this character heretofore in use it has been proposed to mount a portable elevator on a truck provided with means for raising the forward end of the elevator. To use the device, the forward end of the elevator was raised to the desired extent and the truck moved bodily on its wheels to cause the upper end of the elevator to enter an opening in the crib to be filled. In filling very large cribs, however, it has been found necessary to introduce the elevator at various points thereof, and in order to do this with the devices heretofore in use it has been necessary to first move the truck bodily to withdraw the elevator from the crib and to then turn it so that it could be moved parallel with the crib to its next position, where it would have to be again turned and moved bodily forward to permit the introduction of the elevator into the crib, all of which has been found to consume considerable time, and it is to overcome this objection that I have designed the present invention, which comprises, broadly, a truck designed when in use to travel parallel with the crib to be filled, an elevator supported transversely upon said truck, means for elevating the delivery end of the elevator, and means for moving the elevator longitudinally upon the truck to cause its delivery end to enter the crib. With this construction it will be apparent that the elevator can be withdrawn from the crib and the truck moved forward to a new position and the elevator again introduced into the crib without turning the truck, thereby effecting a great saving of time.

In the drawings, wherein a preferable embodiment of my invention is shown and wherein like letters of reference refer to similar parts in both the views, Figure 1 is a perspective view of my improved portable derrick, and Fig. 2 is a side elevation with parts broken away of the derrick with the elevator mounted thereon.

Referring now more particularly to the drawings, the base of the derrick comprises a substantially triangular-shaped portion A and a rectangular-shaped portion B, secured to the rear side thereof. A caster-wheel A′ is journaled in the forward portion of the triangular-shaped portion A of the frame, and carrying-wheels B′ are secured to the frame adjacent the rear corners of the rectangular-shaped portion B of the frame. A tongue B^2 is secured to the caster-wheel A′, so that the device may be readily transported from place to place.

C C designate a pair of parallel uprights extending upwardly from one end of the rectangular-shaped portion B of the frame. The uprights C C are connected intermediate their ends by a cross-bar *c* and at their outer ends by a cross-bar *c′*. D D designate a pair of braces extending from the upper portions of the uprights C C to the opposite end of the rectangular-shaped portion B of the frame. The braces D D are themselves braced by a pair of braces E E, extending from points intermediate the ends of the braces D D to the portions of the frame adjacent the lower ends of the uprights C C. A brace F connects the upper portion of one of the uprights C C with the forward portion of the frame.

Extending upwardly from the end of the rectangular-shaped portion B of the frame opposite the uprights C C are a pair of relatively short uprights G G. A pair of track members H H have their inner ends pivotally secured to the upper portions of the uprights G G and their outer ends secured to the braces D D by means of bolts *h*. The outer ends of the track members H H and the adjacent portions of the braces D D are provided with a plurality of openings *h′*, so that by removing the bolts *h* the track members can be adjusted to any desired degree of inclination for a purpose to be more particularly hereinafter set forth.

Journaled between the lower portions of the uprights C C are a pair of windlasses I I′, each of which is provided with a squared

shaft which projects beyond one of the uprights and is adapted to receive a crank *i*. The windlasses I and I′ are also provided with the usual pawls and ratchets to hold them in any position to which they may be turned by the crank *i*. Secured upon the windlass I is a cable *i′*, the free end of which passes over a supporting-pulley c^2, secured to the cross-bar *c*, and from thence to one side of the machine for a purpose to be more particularly hereinafter set forth. Secured to the windlass I′ is a cable i^2, the free end of which passes over a supporting-pulley c^3, secured to the cross-bar *c′*, and is attached in any suitable manner to the upper end of one of the uprights C C. A pulley c^4, provided with a supporting-hook, is secured upon the cable i^2 intermediate its end and the pulley c^3 for a purpose to be hereinafter set forth.

K designates a portable elevator, which may be of any suitable type. The elevator K is provided adjacent its lower end on opposite sides with rollers *k* and adjacent its upper end with a bail *k′*.

To use my device, the elevator K is placed with its forward end projecting through the uprights C C and with the rollers *k* secured to the lower end thereof, resting on the track members H H. The bail *k′* on the forward end of the elevator is then engaged with the hook carried by the pulley c^4, and the free end of the cable *i′* is attached in any suitable manner to the lower end of the elevator K. The truck is then moved to a position parallel with the crib which it is desired to load, and the crank *i* is placed on the squared shaft of the windlass I′ and turned until the delivery end of the elevator is raised high enough to enter the opening through which the crib is to be filled. The crank *i* is then placed on the squared shaft of the windlass I and turned, which will cause the elevator to move forward on the track members H H and enter the opening in the crib. The elevator is left in this position until that portion of the crib has been filled, when the pawl of the windlass I is disengaged, which will permit the withdrawal of the elevator from the opening in the crib. The truck is then moved along parallel with the crib for a short distance, when the windlass I is again actuated to again cause the delivery end of the elevator to enter the crib. From the above description it will be seen that when the truck is once placed in position alongside the crib the entire crib can be filled without turning the truck to various positions to introduce and withdraw the elevator to and from the crib, thereby effecting a considerable saving in the time usually consumed in the loading operation.

When the delivery end of the elevator K is raised and lowered, the rollers *k* constitute a fulcrum, and the lower end or boot of the elevator will be moved toward or away from the ground. I have therefore made the track members H H adjustable, so that by varying the inclination thereof the lower end of the elevator can always be maintained the same distance from the ground regardless of the position of the forward end of said elevator.

I do not desire to limit myself to the precise form and construction shown in the drawings, as it is obvious that many minor changes might be made thereto without departing from the spirit of the invention.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A portable supporting device for elevating-conveyers comprising a supporting-frame, means for supporting an elevator transversely thereon, and means for bodily moving said elevator endwise on said supporting-frame while supported transversely thereon.

2. In a device of the character described, a supporting-frame, a track fixed relatively to said supporting-frame secured transversely thereof, and an elevator supported upon said track and bodily movable endwise thereon.

3. In a device of the character described, a supporting-frame, a track fixed relatively to said supporting-frame secured transversely thereof, an elevator supported upon said track, and means for bodily adjusting said elevator endwise on said track.

4. In a device of the character described, a supporting-frame, a track fixed relative to said supporting-frame secured transversely thereof, an elevator supported upon said track and bodily movable endwise thereon, and means for raising and lowering the delivery end of said elevator.

5. A portable support for elevating-conveyers comprising a supporting-frame, a track arranged transversely of said frame and adapted to support the rear end of an elevator, means for supporting the forward end of the elevator, and means for adjusting said elevator on said track.

6. A portable support for elevating-conveyers comprising a supporting-frame, an adjustable track thereon adapted to support the rear end of a conveyer, and means for supporting the forward end of the conveyer.

7. A portable support for elevating-conveyers comprising a supporting-frame, an adjustable track thereon adapted to support the rear end of a conveyer, and means for adjustably supporting the forward end of the conveyer.

8. A portable supporting device for elevating-conveyers comprising a supporting-frame, an adjustable track on said frame adapted to support the rear end of an elevator, hoisting mechanism carried by said frame for adjust-

ably supporting the forward end of an elevator, and means on the frame for moving the elevator endwise on the track.

9. In a device of the character described, a supporting-frame, an elevator supported transversely thereon, and means for bodily moving said elevator endwise on said frame while supported transversely thereon.

10. In a device of the character described, a supporting-frame an elevator extending transversely thereof, means for supporting the forward end of said elevator, and adjustable means for supporting the rear end of said elevator.

11. In a device of the character described, a supporting-frame, an elevator supported transversely thereon, means for raising and lowering the delivery end of said elevator, and independent means for moving said elevator bodily endwise on said frame while supported transversely thereon.

12. In a device of the character described, a supporting-frame, an adjustable track secured thereto, and an elevator supported at its lower end upon said track and movable thereon.

13. In a device of the character described, a supporting-frame, an adjustable track secured thereto, an elevator supported at its lower end upon said track, and means for adjusting said elevator on said track.

14. In a device of the character described, a supporting-frame, an adjustable track secured thereto, an elevator supported at its lower end on said track and movable thereon, and means for raising and lowering the delivery end of said elevator.

15. In a device of the character described, a supporting-frame, a track secured transversely thereof, an elevator having its lower end supported on said track, means for supporting the upper end of the elevator and means for adjusting said elevator on said track.

16. In a device of the character described, a supporting-frame, an adjustable track secured thereto, an elevator having its lower end supported upon said track, a derrick secured to said supporting-frame and extending above the delivery end of the elevator, winding mechanism for raising and lowering the delivery end of the elevator, and means for adjusting the elevator on the track.

17. In a device of the character described, a supporting-frame, an angularly-adjustable track secured thereto, an elevator supported adjacent its rear end on said track, and means for raising and lowering the delivery end of said elevator.

18. In a device of the character described, a supporting-frame, an angularly-adjustable track secured thereto, a conveyer supported adjacent its rear end on said track, means for raising and lowering the delivery end of the elevator, and means for adjusting the elevator on the track.

19. In a device of the character described, a supporting-frame, a transversely-arranged track secured to one side thereof, a pair of uprights secured to the opposite side of said frame, an elevator supported adjacent its rear end upon said track and having its delivery end projecting through said uprights, means for raising and lowering the delivery end of said elevator, said means comprising a windlass journaled in said uprights, a cable wound thereon and connected to the delivery end of the elevator, and means for adjusting the elevator on the track, said means comprising a windlass journaled in the uprights and a cable wound on said windlass and connected to the rear end of said elevator.

20. In a device of the character described, a wheeled truck, a conveyer extending transversely thereof, means for adjustably supporting the forward end of the conveyer, and means for adjustably supporting the rear end of the conveyer.

21. In a device of the character described, a supporting-frame, a track secured transversely thereof, an elevator having its lower end supported on said track, and means for adjustably supporting the forward end of said elevator.

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

JOHN F. WHITE.

Witnesses:
CHARLOTTA D. SMITH,
EVERETTE HAMILTON.