

No. 767,297.

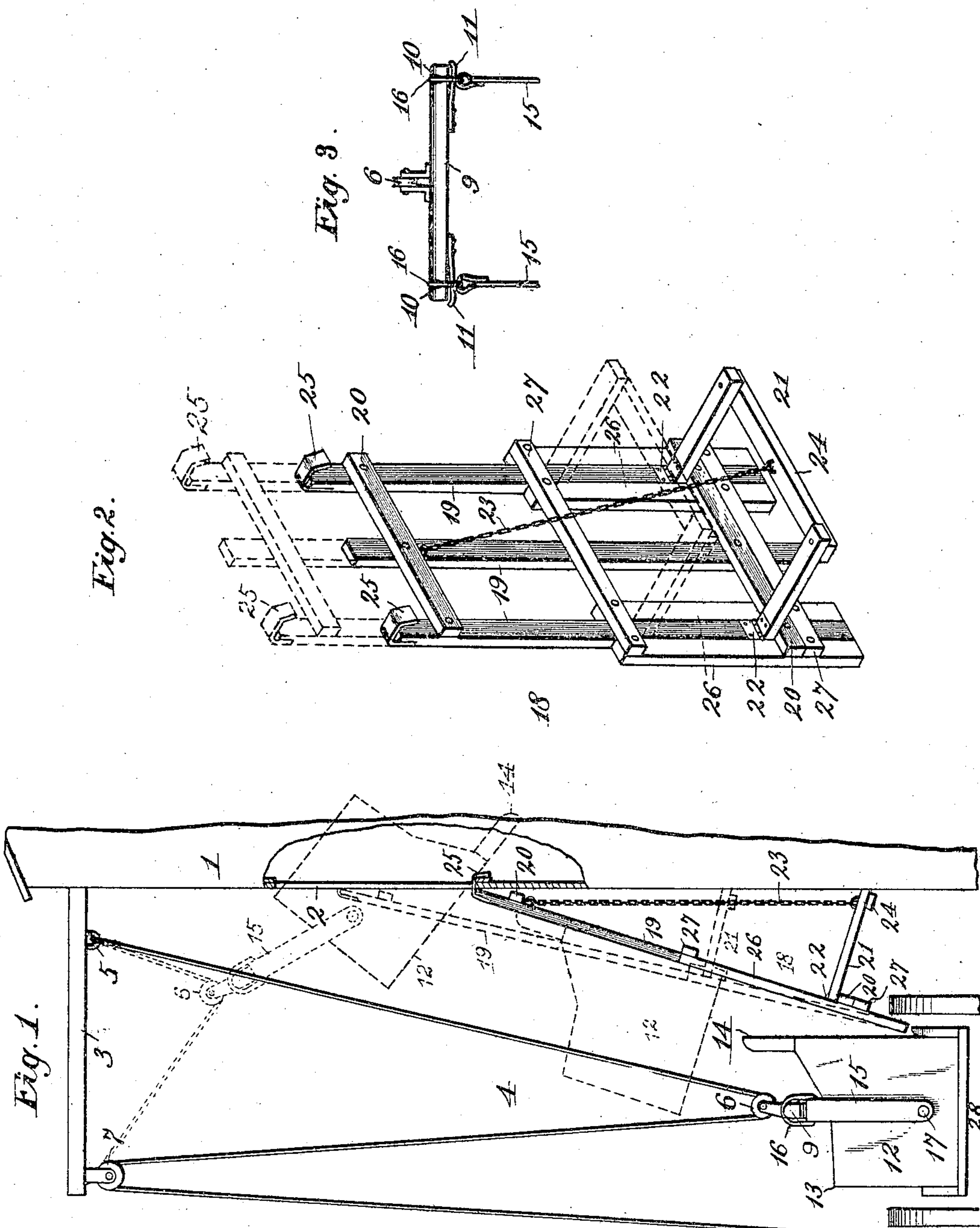
PATENTED AUG. 9, 1904.

C. A. LONG.

INCLINED GUIDE FOR LOADING OR UNLOADING APPARATUS.

APPLICATION FILED SEPT. 4, 1903.

NO MODEL.



Witnesses:

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UNITED STATES PATENT OFFICE.

CALVIN A. LONG, OF SOLDIER, KANSAS.

INCLINED GUIDE FOR LOADING OR UNLOADING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 767,297, dated August 9, 1904.

Application filed September 4, 1903. Serial No. 171,972. (No model.)

To all whom it may concern:

Be it known that I, CALVIN A. LONG, a citizen of the United States, residing at Soldier, in the county of Jackson and State of Kansas, have invented certain new and useful Improvements in Inclined Guides for Loading or Unloading Apparatus, of which the following is a specification.

My invention relates to improvements in inclined guides adaptable for use in connection with loading and unloading apparatus; and my object is to provide a guide which may be adjusted to accommodate bin-openings of different height.

In order that the invention may be readily understood, reference will now be made to the accompanying drawings, in which—

Figure 1 represents a side elevation of my improved guide in an operative position. Fig. 2 is a detail perspective view of the guide, showing by dotted lines the manner in which it is extended to accommodate bin-openings arranged at different elevations. Fig. 3 is a broken detail view of the upper ends of the receptacle-arms and the cross-bar for elevating the receptacle.

In said drawings, 1 designates the storage structure, which is provided at its upper portion with an opening 2 and the projecting beam 3, arranged a suitable distance above said opening for the support of a hoisting-tackle. Said tackle consists of a cable 4, secured at its upper terminal to a staple 5 in the inner end of beam 3, sheave-wheels 6 7 8, and a cross-bar 9. Cross-bar 9, to which sheave-wheel 6 is secured, is provided at its opposite ends with notches 10 and springs 11, for a purpose hereinafter described.

12 designates a rectangular box or receptacle used in conveying the grain from the field to the storage structure. Said receptacle has a low side 13, so the grain may be readily thrown therein, and an oppositely-disposed scoop-shaped side 14 for the discharge of the grain. Said receptacle is also provided with a pair of arms 15, having loops 16 at their upper ends adapted to engage notches 10, with which they are reliably held in engagement by springs 11 when it is desired to elevate

the receptacle to the opening in the bin. Arms 15 are pivoted at their lower ends to pins 17, which latter are secured to the lower portion of the end walls of the receptacle in order that when the latter is elevated its heavy side 14 will tip over in contact with inclined guide 18, along the surface of which it travels until it reaches the sill of the opening 2, when it automatically dumps.

Guide 18 consists of a suitable number of longitudinal slats 19, which are united near their opposite ends by transverse cleats 20; a folding brace 21, secured by hinges 22 to the two outer slats 19; a cable 23, secured at its opposite ends to central slat 19 and a transverse cleat 24 at the outer end of the brace; hooks 25, secured to the upper ends of the two outer slats 19, and an adjustable portion consisting of two pairs of longitudinal slats 26, slidably arranged on the opposite sides of the two outer slats 19 and secured together at their opposite ends by transverse cleats 27.

In operation guide 18 is supported from the sill of opening 2 by hooks 25, and its proper inclination is obtained by brace 21, which abuts against the side of the bin and is prevented from opening too wide by cable 23. Vehicle 28, containing the loaded receptacles, is then hauled up close beside the lower end of the guide, as shown in Fig. 1, and cross-bar 9 is attached to loops 16 on one of the said receptacles, the springs 11 holding notches 10 reliably in engagement with the loops. When power is applied to the lower end of cable 4, the receptacle will be drawn upwardly and being heavier on side 14 will tip over against guide 18 until it reaches opening 2. Upon reaching the sill of the opening scoop end 14 will rest thereon, while the bottom of the receptacle is carried upwardly to the position shown by dotted lines, Fig. 1, when the grain will be discharged into the bin. After the receptacle has thus been relieved of its charge it is lowered back into the vehicle, when the other receptacles are successively elevated, emptied, and lowered, as above described.

From the above description it is apparent that I have produced a very simple and effective apparatus, and as the receptacle dumps

and rights itself automatically complicated trip mechanism is not required, and the inclined guide being adjustable renders the same applicable to bin-openings of different heights.

5 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

10 1. In an apparatus of the character described, an inclined guide, hooks secured to the upper end thereof for supporting it from the sill of the bin-opening, a folding brace secured to the guide and adapted to abut against the side of the bin, and means to limit the movement of the brace.

15 2. An inclined guide consisting of an upper section, supporting-hooks secured to the upper end thereof, a brace hinged to the lower portion of the upper section, a cable secured at its opposite ends to the upper part of said
20 section and the free end of the brace to limit the opening movement of the latter, and a

lower section adjustably secured to the upper section.

3. An inclined guide consisting of an upper section comprising a series of slats, transverse 25 cleats uniting the opposite ends of said slats, a pair of supporting-hooks secured to the upper ends of two of the slats, a brace hinged to the lower portion of the two outside slats, means for limiting the opening movement of 30 the brace, a lower section comprising two pairs of longitudinal slats slidingly arranged on the opposite sides of the two outer slats on the upper section, and transverse cleats uniting the opposite ends of the sliding slats. 35

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

CALVIN A. LONG.

Witnesses:

GEORGE SMITH,

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