

A. L. ENGLISH.
LOADING AND UNLOADING APPARATUS.
APPLICATION FILED JUNE 9, 1909.

949,981.

Patented Feb. 22, 1910.

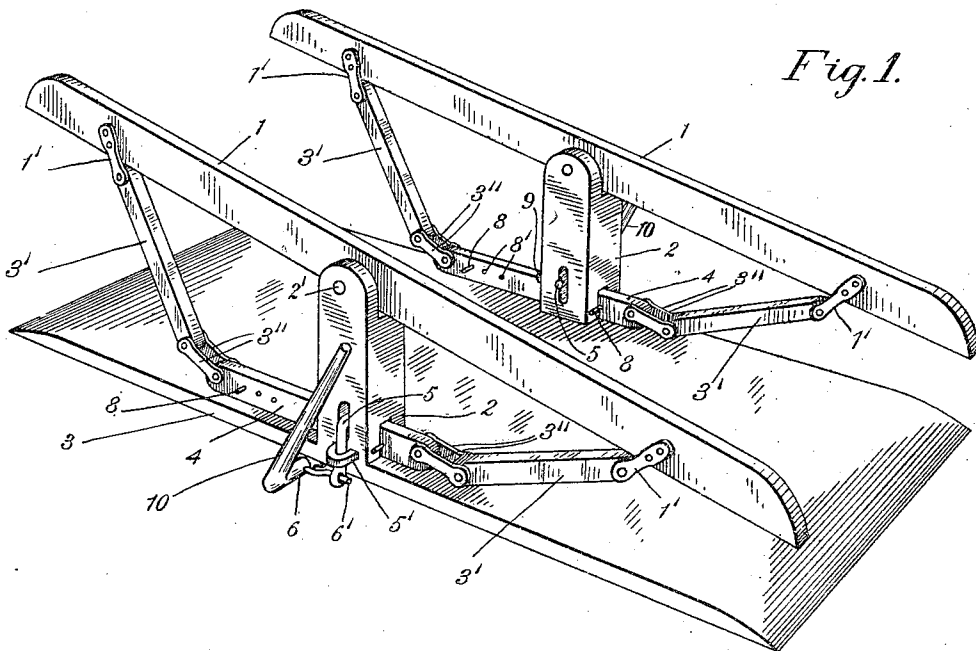


Fig. 2.

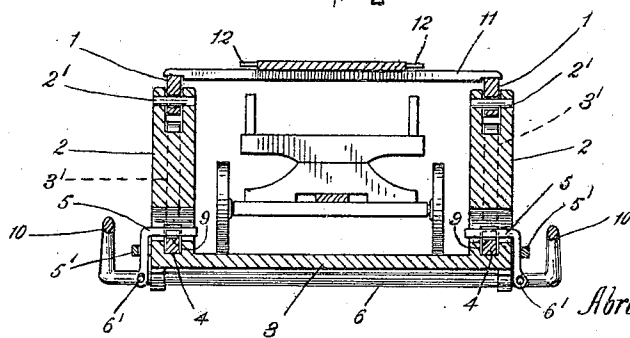
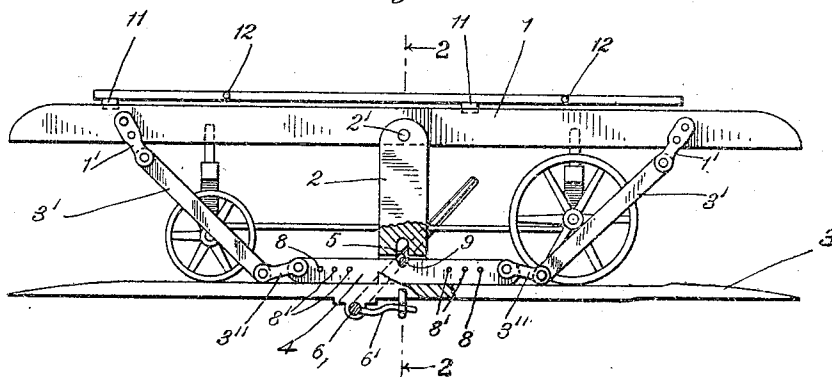


Fig. 3.

Inventor

Abraham L. English

Witnesses

Alfred Adams
Carlita Adams

By

Adams & Brooks

Attorneys

UNITED STATES PATENT OFFICE.

ABRAHAM L. ENGLISH, OF EVERETT, WASHINGTON.

LOADING AND UNLOADING APPARATUS.

Specification of Letters Patent. Patented Feb. 22, 1910.

949,981.

Application filed June 9, 1909. Serial No. 501,193.

To all whom it may concern:

Be it known that I, ABRAHAM L. ENGLISH, a citizen of the United States of America, and a resident of the city of Everett, in the county of Snohomish and State of Washington, have invented certain new and useful Improvements in Loading and Unloading Apparatus, of which the following is a specification.

My invention relates to leverage apparatus of the above type operative by overbalancing application of the load or carrier.

The primary aim of my invention is the production of an apparatus of this character which will be more directly under control in the operation of loading and unloading.

Further objects and advantages will be set forth as the description progresses and the scope of my invention particularly pointed out in the appended claims.

In the accompanying drawing wherein like reference numerals designate corresponding parts throughout: Figure 1 is a perspective of my improved apparatus in such form as now preferred by me with the bearing members presented in receiving position. Fig. 2 is a side elevation with a load carrier in position thereon, and Fig. 3 is a vertical section on line 3—3 of Fig. 2.

With reference to the drawing, numeral 1 designates bearing members conveniently in the form of bars fulcrumed intermediate their ends, as at 2', on spaced apart standards 2 secured to a base or platform, as 3.

In conjunction with the bearing members I make provision for obtaining a braking effect. Such provision I have combined with articulated stay devices each comprising diagonal parts 3', 3' connected with their respective bearing member 1, and an intermediate part, as 4, which serves as a braking element, in slidable engagement with base 3. The intermediate parts 4 are conveniently applied for braking through the medium of overlying pressers, as 5 provided with vertical stem portions slidable in suitable bearings 5' on the standards 2, and engaged with arms 6' of a rock shaft 6 journaled on base 3.

The diagonal parts 3', as shown, are pivotally connected with depending lugs 1' of bearing members 1 and likewise connected with links 3'' swingingly connected with the end portions of the intermediate parts 4. Thus the diagonals are permitted to assume

various angular positions to compensate for tilting action of the bearing members and sliding movement of the intermediates.

The intermediate parts 4, as will be observed, extend through openings in standards 2 and have their end portions provided with a plurality of apertures 8' adapted to receive pins 8 which engage the standards to limit endwise movement of said parts, while notches as 9 provided in the center portions of parts 4 are adapted to receive the pressers 5 for locking said parts to secure the bearing members in horizontal position.

Handles as 10 are secured to the end portions of shaft 6 at suitable inclination to exert a downward pull upon the stems of the pressers and thereby effect automatic movement of the latter for engagement in the notches 9 when the bearing members are brought to a horizontal position.

The diagonals 3' normally bear at their lower ends upon base 3, as shown in Fig. 2. When the bearing members 1 are tilting the diagonals at the downwardly moving ends of said members continue to bear on the base while those at the upwardly moving ends are elevated as shown in Fig. 1. Tilting movement of the bearing members from the horizontal may therefore be retarded by applying pressure to either handle 10 to force the pressers 5 against the members 4. Such control of the apparatus is desirable as a safe guard when transferring the carrier to the wagon.

The carrier shown is in the form of a rack provided with cross riders 11 for engagement with the bearing members 1, and with laterally projecting pins 12 for engagement with the posts of the wagon bolsters.

In unloading, the wagon is driven between the bearing members, previously tilted, and the forward riders 11 thereby forced to slide on said members by engagement of the rear bolster with the adjacent pins 12 until the carrier reaches an overbalanced position. The bearing members will then respond to the weight imposed and lift the carrier clear of the wagon and simultaneously adjust the parts 4 for engagement of the pressers 5 in the notches 9. In loading, the wagon is properly positioned beneath the carrier for engagement of the forward pins 12 with the adjacent bolster. The operator then grasps one of the handles 10 and adjusts shaft 6 to disengage the pressers from the

notches 9. As the bearing members start to swing the operator applies the pressers to parts 4 by a reverse movement of the handle to restrain the bearing members from abrupt movement until the forward pins 12 of the carrier engage the adjacent bolster. The wagon is then driven on and the carrier slides down the bearing members to its seat on the rear bolster.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is:

1. An apparatus of the type set forth comprising bearing members supported for tilting movements, diagonal stay parts connected therewith for angular adjustments, and movably supported intermediate stay parts having flexible connections with said diagonal parts.

2. An apparatus of the type set forth comprising bearing members supported for tilting movements, and stay devices including angular parts connected with said members, and slidably supported intermediate parts having flexible connections with said angular parts.

3. An apparatus of the type set forth comprising bearing members supported for tilting movements, and stay means including angular parts adjustably connected with said members, slidably supported parts having flexible connections with said angular parts, and means for locking said last named parts.

4. An apparatus of the type set forth comprising standards, bearing members fulcrumed thereon, slidably supported stay parts extending proximately said standards, and companion stay parts pivotally connected with said bearing members and having link connections with the adjacent slidable stay part.

5. An apparatus of the type set forth comprising bearing members supported for

tilting movements, articulated stay devices movably connected each with a respective one of said members, means for limiting movement of said devices, and movement retarding means associated with said devices. 50

6. An apparatus of the type set forth comprising bearing members supported for tilting movement, a stay part pivotally connected with one of said members, and a slidably supported member having flexible connection with said part. 55

7. An apparatus of the type set forth comprising bearing members supported for tilting movement, a stay part pivotally connected with one of said members, a slidably supported member having flexible connection with said part, and releasable means for locking said slide member. 60

8. An apparatus of the type set forth comprising bearing members supported for tilting movement, a stay part pivotally connected with one of said members, a slidably supported member having flexible connection with said part, and means to limit sliding movement of said last named member. 65 70

9. An apparatus of the type set forth comprising bearing members supported for tilted movement, a stay part pivotally connected with one of said members, a slidably supported member having flexible connection with said part, a presser for engaging said last named member, and means for operating said presser. 75

10. An apparatus of the type set forth comprising bearing members supported for tilting movements, flexible stays connected with said members, and means whereby said stays are movably supported. 80

Signed at Seattle, Washington this 24 day of May 1909.

ABRAHAM L. ENGLISH.

Witnesses:

A. A. BOOTH,

FRANK E. ADAMS.