No. 781,872. PATENTED FEB. 7, 1905.

U. B. CRANE.

APPARATUS FOR LOADING OR UNLOADING TRUCKS, &c.

APPLICATION FILED MAR. 2, 1904.

Fig. 1.

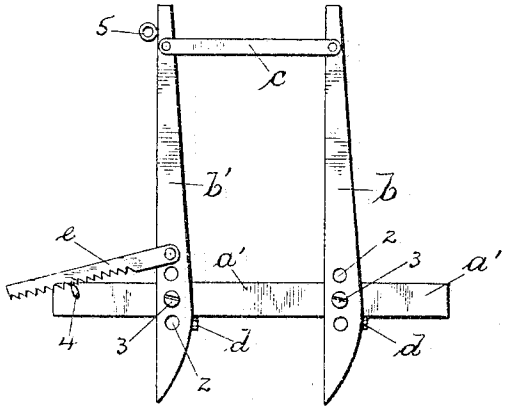


Fig. 2.

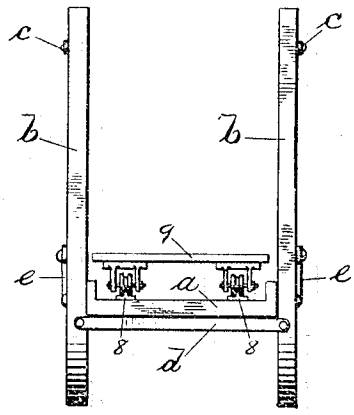


Fig. 3.

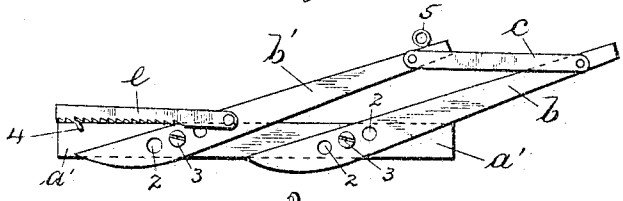
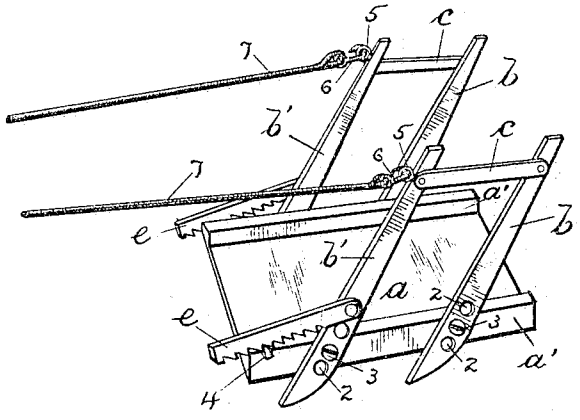


Fig. 4



WITNESSES

Leopold Heer.

E. C. Bennett

INVENTOR

per Uzal B. Crane

Harold Serrell

ATTY.

No. 781,872. Patented February 7, 1905.

UNITED STATES PATENT OFFICE.

UZAL B. CRANE, OF PLAINFIELD, NEW JERSEY.

APPARATUS FOR LOADING OR UNLOADING TRUCKS, &c.

SPECIFICATION forming part of Letters Patent No. 781,872, dated February 7, 1905.

Application filed March 2, 1904. Serial No. 196,233.

To all whom it may concern:

Be it known that I, UZAL B. CRANE, a citizen of the United States, residing at Plainfield, in the county of Union and State of New Jersey, have invented an Improvement in Apparatus for Loading or Unloading Trucks and other Vehicles, of which the following is a specification.

My invention relates to apparatus for loading and unloading heavy articles of merchandise to and from trucks and other vehicles or raising and lowering heavy articles from one level to another.

In carrying out my invention I employ a platform, levers in pairs pivotally connected together and to opposite sides of the platform and adapted to be actuated to raise and lower the platform, means limiting the movement of said levers in one direction, and means for preventing the movement of the levers in the other direction when so desired, and thereby holding the same in place. I may also employ a track upon the platform upon or off which a roller-truck may be run while supporting the article to be raised or lowered and blocked in place.

In the drawings, Figure 1 is a side elevation of my improved apparatus, and Fig. 2 is an end view of the same. Fig. 3 is a side elevation showing the levers in the lowered position, and Fig. 4 is a perspective view illustrating my invention.

a represents a platform made of any suitable material and in any desired manner, and *a' a'* are the stringers or sides thereof.

b b' are levers arranged on opposite sides of the platform in pairs and pivotally connected together at or adjacent to one end by a bar *c*. The opposite ends of all the levers are provided at corresponding points with series of apertures or holes 2, corresponding holes being adapted to receive tap-bolts 3, secured in the stringers or sides *a' a'* and projecting from the outer faces thereof, and at the lower ends of the levers one edge is rounded, forming a curved bearing-surface upon which the platform is raised and lowered, thereby facilitating the lifting operation. The corresponding members of each pair of levers are connected by transverse bars *d*, which when the levers are in a vertical position and the platform at its maximum height come into contact with the under side of the platform, preventing the further movement of the levers in one direction—namely, that of raising the platform. I also employ rack-bars *e*, pivotally connected to the levers *b'* above the apertures 2 therein, and the teeth of the bars *e* are adapted to engage stops 4, secured in the stringers, whereby in raising the platform the levers *b b'* may be maintained in any desired position and because of which the return movement of the levers cannot be effected without first disengaging the rack-bars *e* from their respective stops 4. The levers *b'* are provided at their upper ends with eyebolts 5 to be engaged by hooks 6 at the ends of ropes 7, which are adapted to be connected to the winch of a truck or other apparatus.

As seen in Fig. 2, I may also provide the floor of the platform with tracks 8, upon which a roller-truck 9 for conveying the article to be raised may be run.

In raising heavy articles—such as pianos, safes, or heavy furniture, that are difficult to manage—the apparatus is placed with the platform in the lowered position, as shown in Fig. 3, the article to be raised is placed thereon, and the levers moved by pulling upon the ropes 7 or by any other suitable means, swinging the levers to the vertical position shown in Fig. 1 and raising the platform. It will be apparent that by the reverse operation the article may be lowered. During the raising movement the rack-bars *e* run freely over the stops 4, engaging at the end of the movement to prevent accidental return. For the reverse or return movement the rack-bars *e* must be lifted and thrown back and the platform lowered by means of the ropes 7 or other suitable devices. The height to which the platform may be raised will depend upon which set of apertures 2 the tap-bolts 3 are placed in.

I do not limit myself to the number of levers shown and described or to the manner of pivotally connecting the same together and to the platform, as these features may be varied and changed without departing from the spirit of my invention.

I claim as my invention—

1. An apparatus for raising and lowering heavy articles, comprising a platform to receive such articles, levers in pairs pivotally connected intermediate of their length to the sides of the platform, and pivoted together adjacent to the free ends of their longer arms, and holding and operating devices therefor.

2. An apparatus for raising and lowering heavy articles, comprising a platform to receive such articles, levers in pairs pivotally connected intermediate of their length to the sides of the platform and pivoted together adjacent to the free ends of their longer arms, means for limiting the movement of the levers in one direction, and means for swinging the levers to raise and lower the platform.

3. An apparatus for raising and lowering heavy articles, comprising a platform to receive such articles, levers in pairs pivotally connected intermediate of their length to the sides of the platform and pivoted together adjacent to the free ends of their longer arms, means for limiting the movement of the levers in one direction, and means for maintaining the levers in a given position and preventing an accidental return movement thereof.

4. An apparatus for raising and lowering heavy articles, comprising a platform, levers in pairs pivotally connected to each other and to the platform, cross-bars connecting corresponding members of the pairs of levers for limiting the movement thereof in one direction, and means for swinging the levers to raise and lower the platform.

5. An apparatus for raising and lowering heavy articles, comprising a platform, levers in pairs adapted to be pivotally connected to the platform, bars pivotally connecting the upper ends of said levers, cross-bars connecting the corresponding members of each pair of levers for limiting the movement of the same in one direction, and means for swinging the levers to raise and lower the platform.

6. An apparatus for raising and lowering heavy articles, comprising a platform, levers in pairs adapted to be pivotally connected to the platform, bars pivotally connecting the upper ends of said levers, cross-bars connecting the corresponding members of each pair of levers for limiting the movement of the same in one direction, rack-bars pivotally connected to corresponding members of each pair of levers, stops adapted to engage the teeth of said rack-bars to prevent the return movement of the levers, and means for swinging the levers to raise and lower the platform.

Signed by me this 26th day of February, 1904.

UZAL B. CRANE.

Witnesses:
A. H. SERRELL,
S. T. HAVILAND.