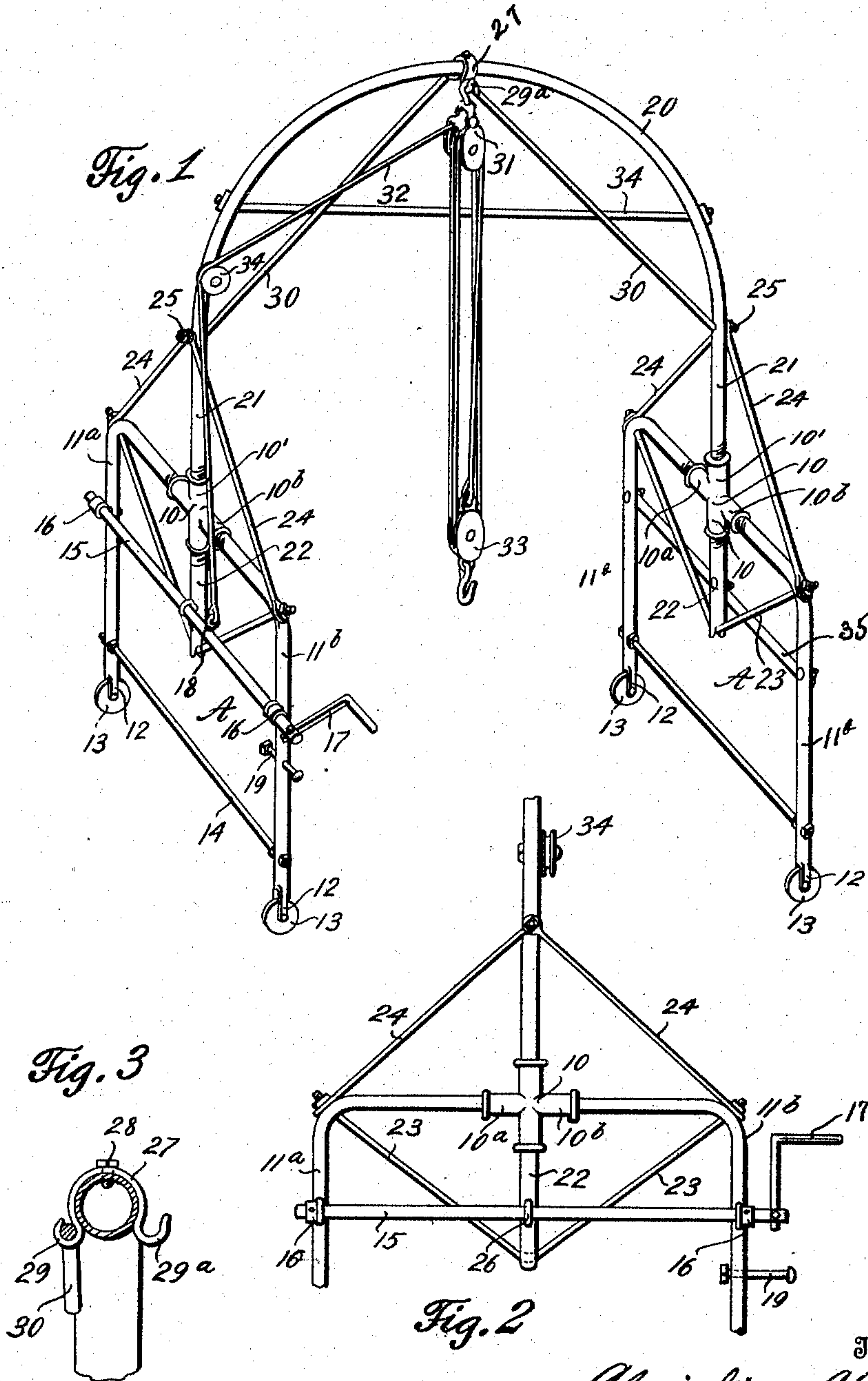


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FARM HOIST.  
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# UNITED STATES PATENT OFFICE.

CHRISTIAN C. FURNBERG, OF OSGOOD, NORTH DAKOTA.

FARM-HOIST.

965,806.

Specification of Letters Patent.

Patented July 26, 1910.

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*To all whom it may concern:*

Be it known that I, CHRISTIAN C. FURNBERG, a citizen of the United States, residing at Osgood, in the county of Cass and State of North Dakota, have invented certain new and useful Improvements in Farm-Hoists, of which the following is a specification.

This invention relates to hoists and is designed particularly for farm hoists which are adapted to lift grain tanks, wagon bodies, hay racks, and in fact to hoist articles of all characters about a farm. It contemplates the construction of a device of this nature which will be simple, and inexpensive in construction and which also may be taken apart for the purpose of storage.

With the above and other objects in view this invention consists in the construction, combination, and arrangement of parts, all as hereinafter more fully described, claimed and illustrated in the accompanying drawings wherein—

Figure 1 is a perspective view of a farm hoist constructed in accordance with the present invention; Fig. 2 is a side elevation of the present invention; Fig. 3 is a fragmentary section illustrating the stationary pulley support.

Referring more particularly to the drawings A indicates in general the longitudinal side supports to which is secured the upwardly extending crane hereinafter more fully described. Each side support A comprises a cross joint 10, said cross joint having threaded in the horizontal sides 10<sup>a</sup> and 10<sup>b</sup> thereof the L-supports 11<sup>a</sup> and 11<sup>b</sup>, said L-supports forming in combination with the cross joint a U-shaped support. At the lower terminal of the vertical arms of the L-supports 11<sup>a</sup> and 11<sup>b</sup> are formed the ears 12 between which are pivoted the wheels 13, said wheels facilitating the transportation of the hoist. A transverse bracing rod 14 is interposed between the vertical arms of the L-supports 11<sup>a</sup> and 11<sup>b</sup> and provides a means whereby the entire structure may be rigidified. A shaft 15 is mounted in a pair of bearings 16 secured to the vertical arms of the L-supports 11<sup>a</sup> and 11<sup>b</sup> on one of the side supports A, said shaft being provided at one terminal with the crank 17, thus providing for the rotation of the shaft.

In order to provide a means whereby the hoisting rope may be secured to the shaft an eye 18 is centrally secured to said shaft and is adapted to rotate therewith. To pro-

vide a means whereby the crank may be retained in a stationary position, likewise the shaft, a bolt 19 is reciprocatingly mounted in the vertical support 11<sup>b</sup> of the side supporting member A carrying the shaft, and is adapted to project into the path of the crank, thus when it is desired to secure the crank and shaft stationary the bolt 19 is so located that the crank will bear against the same.

A semi-circular crane 20 provided with the straight arms 21 is mounted in the upper of the vertical sides 10<sup>b</sup> of the cross joint 10 through the instrumentality of threads formed in the lower terminals of the straight arms 21. A supporting and bracing bar 22 is mounted in the lower vertical side 10<sup>a</sup> of the cross joints 10, said bracing and supporting bar being bifurcated at its lower terminal. This bifurcation is engaged by the V-support 23 which passes under the rod 22 and projects through the bend in the L-support 11<sup>a</sup> and 11<sup>b</sup> where it engages the converging braces 24 which extend upwardly and are secured to the straight portions 21 of the crane 20 by the bolt 25. The joint between the V-brace 23 and the converging braces 24 is rigidly clamped by a nut threaded on the projecting terminals of the V-brace. In order that the shaft 15 may be centrally supported and thus prevented from buckling a bearing 26 is located on the rod 22 adjacent to the shaft 15 through which said shaft passes and rotates.

A U-shaped support 27 is rigidly mounted centrally on the crane 20 by a set screw 28 and conforms with the contour of said crane, said U-shaped member having the terminals of these arms bent upwardly to form the hooks 29 and 29<sup>a</sup>. A V-shaped brace 30 extends from the joint between the converging braces 24 and the straight arms 21 of the crane over the hook 29 and provides a means whereby the tendency of the crane to buckle is greatly reduced.

A stationary block pulley 31 is mounted on the hook 29<sup>a</sup> through which passes the hoisting rope or element 32 which carries at its lower extremity the movable block pulley 33. This hoisting rope passes over a pulley 34 mounted on the crane over the supporting side A which carries the shaft 15, thence to the eye 18 to which it is secured. Thus it will be seen that upon rotating the shaft 15 the rope 32 will be wound there-



about consequently raising the pulley 33 and as a result any article which should be attached thereto.

5 It will be seen from this construction that by the provision of the various braces the tendency of the device to buckle, break, or otherwise bend is practically eliminated. Furthermore, the present invention is simple in its construction and eliminates all of the  
10 objectionable complicated features of an invention of this nature heretofore.

A brace 34 is located on the crane 20 adjacent to the top thereof to prevent the same from buckling when a load is lifted by the  
15 hoist. A longitudinal brace 35 is also secured to the uprights located opposite to the uprights carrying the hoisting shaft to retain said uprights in a normally perpendicular position.

20 Having thus described my invention, what is claimed as new is:

1. A hoist of the class described, comprising in combination vertical side supporting members consisting of jointed supports, a

supporting rod carried by the joint of said 25 supports, and braces cooperating with said supporting rod, a crane carried by said vertical side supports, hoisting means carried by said crane, means carried by one of said side supports for operating said hoisting 30 means, and braces cooperating with said crane and side support.

2. A hoist of the class described, comprising in combination vertical side supports, a crane carried by said vertical side supports, 35 braces secured to said crane, braces cooperating between said crane and said vertical side support, hoisting means carried by said crane, and means carried by one of said vertical side supports for operating said hoist- 40 ing means.

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

CHRISTIAN C. FURNBERG.

Witnesses:

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JOHN COOKE.