W. YOHA, C. P. SHATZER & H. L. YOHA.

COAL LOADING BARGE.

APPLICATION FILED SEPT. 17, 1909.

952,293.

Patented Mar. 15, 1910.

3 SHEETS—SHEET 1.

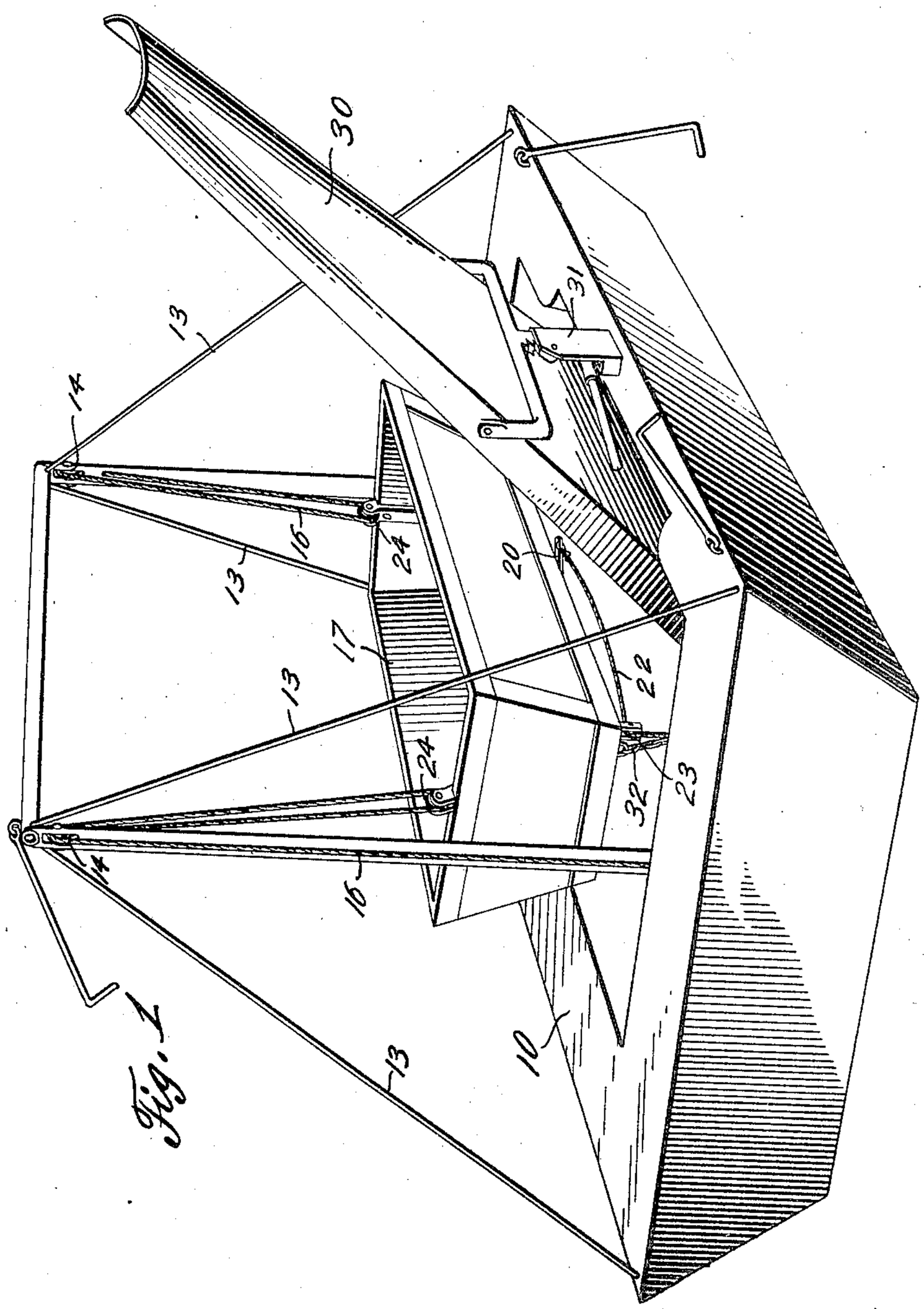


Fig. 1.

Witnesses

E. Larson

S. E. Dodge

Inventors

W. Yoha

C. P. Shatzer

H. L. Yoha.

By Dewey & Cobb

Attorneys

W. YOHA, C. P. SHATZER & H. L. YOHA.

COAL LOADING BARGE.

APPLICATION FILED SEPT. 17, 1909.

952,293.

Patented Mar. 15, 1910.

3 SHEETS—SHEET 2.

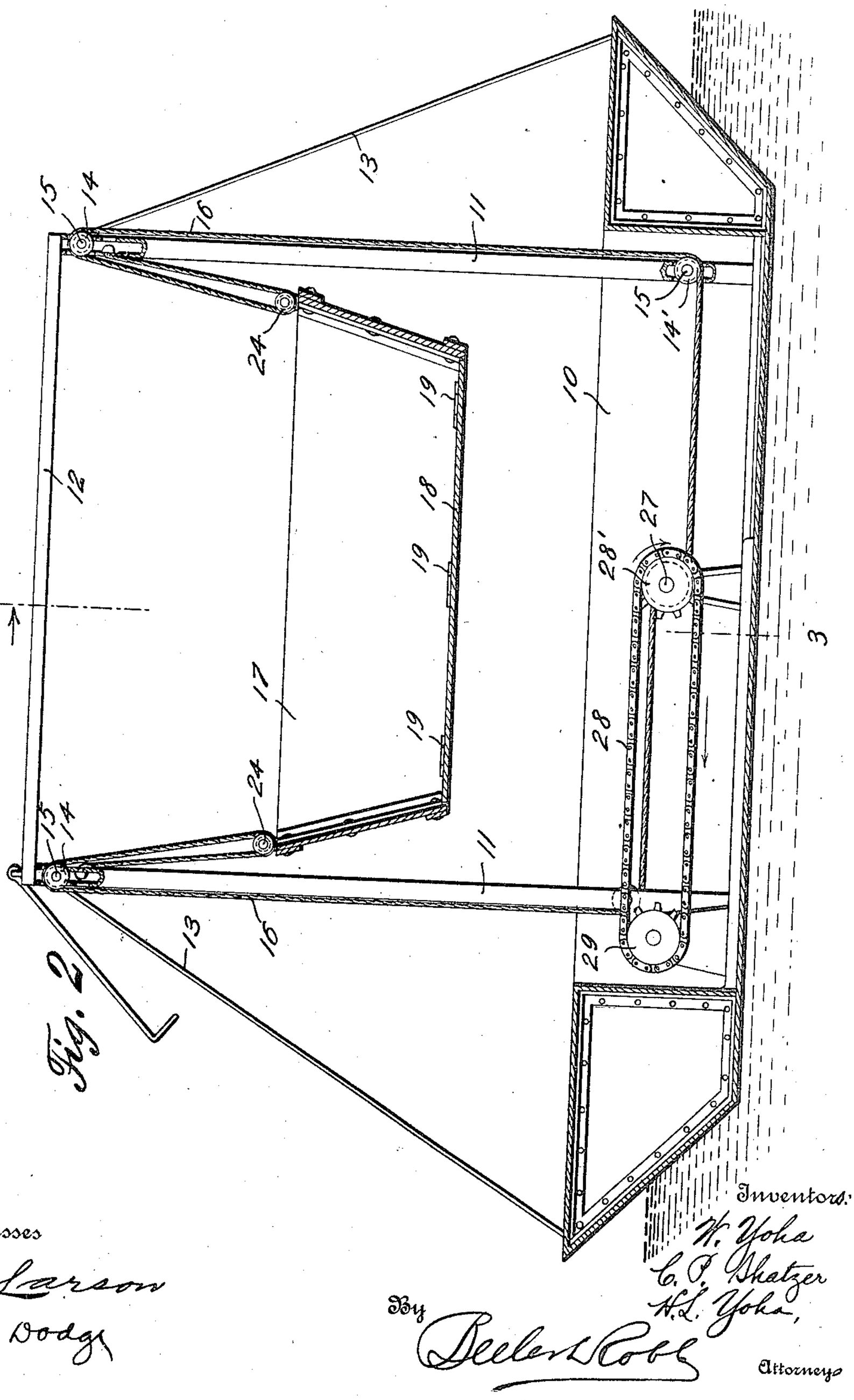


Fig. 2.

Witnesses

E. Larson

S. E. Dodge

Inventors:

W. Yoha

C. P. Shatzer

H. L. Yoha,

By Peirce & Cobb

Attorneys

W. YOHA, C. P. SHATZER & H. L. YOHA.

COAL LOADING BARGE.

APPLICATION FILED SEPT. 17, 1909.

952,293.

Patented Mar. 15, 1910

3 SHEETS—SHEET 3

Fig. 3

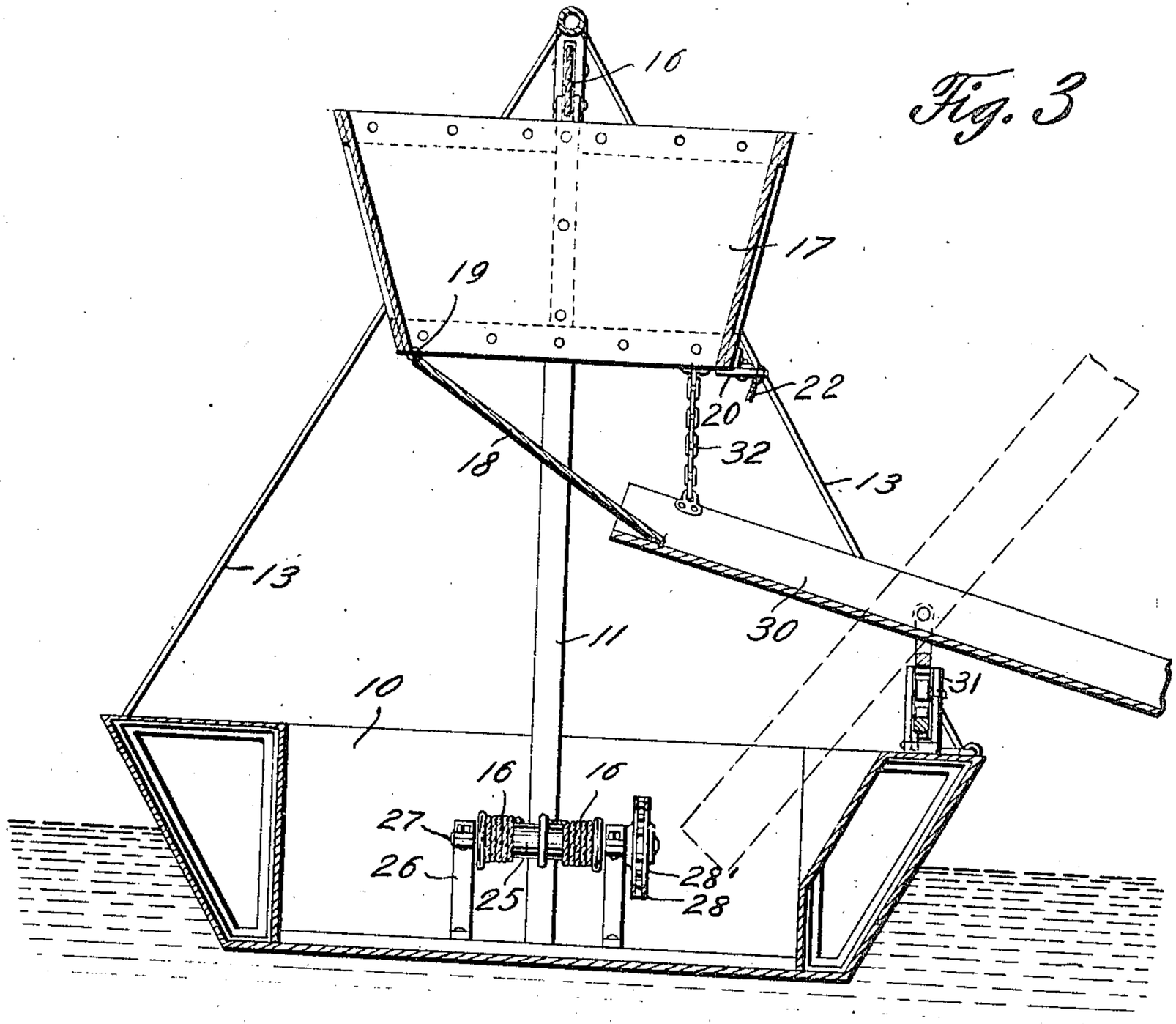


Fig. 5

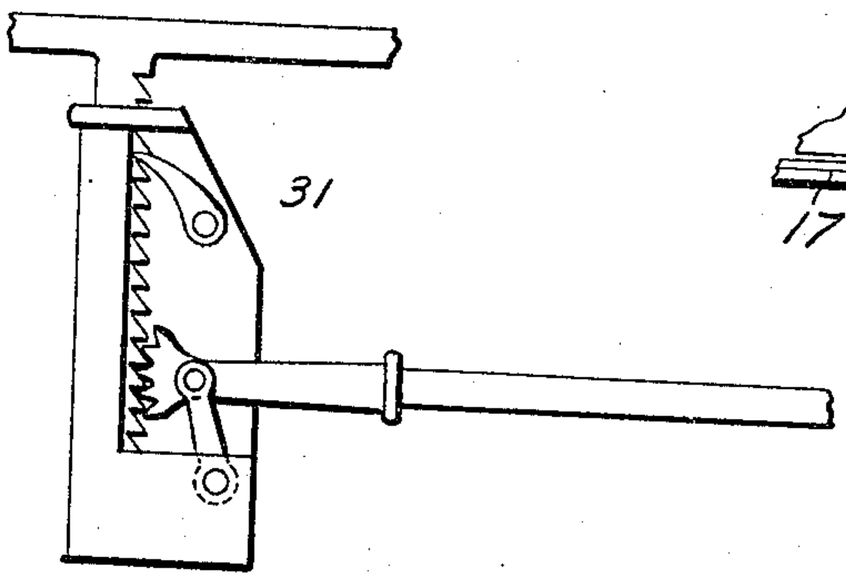
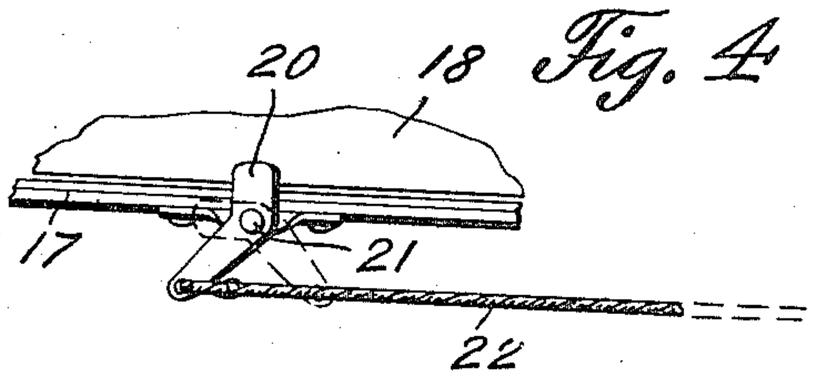


Fig. 4



Witnesses

E. Larson

S. E. Dodge

Inventors:

W. Yoha

C. P. Shatzer

H. L. Yoha,

By Peele & Cobb

Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM YOHA, CHRISTIAN P. SHATZER, AND HARVEY L. YOHA, OF MANSFIELD, OHIO.

COAL-LOADING BARGE.

952,293. Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed September 17, 1909. Serial No. 518,303.

To all whom it may concern:

Be it known that we, WILLIAM YOHA, CHRISTIAN P. SHATZER, and HARVEY L. YOHA, citizens of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Coal-Loading Barges, of which the following is a specification.

This invention relates to coal handling apparatus, and has special reference to machinery of this nature designed for the purpose of delivering coal from a wharf to a man-of-war or other sea-going vessels which ordinarily draw too much water to permit them to approach near enough to the wharf to be coaled directly therefrom.

The invention consists of certain novel details of construction hereinafter fully described and claimed and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the invention, showing the skep in a lowered position; Fig. 2. is a vertical longitudinal section; Fig. 3 is a vertical transverse section substantially on the line 3—3 of Fig. 2; Fig. 4 is a detail in bottom plan of the catch hereinafter referred to, and Fig. 5 is a detail of the adjustable support for the chute.

Throughout the following description and on the several figures of the drawings similar parts are referred to by like reference characters.

The numeral 10 refers to a scow or barge proper, which may be made of any suitable design or materials. Devices of this nature are usually flat and broad, and intended to be towed by a pilot boat or tug. The scow is provided with a pair of masts or standards 11, rigidly secured in any suitable manner within the scow and extending upwardly therefrom to any suitable height. The masts may be made of any suitable material, preferably hollow metallic structures. The masts may be braced by any suitable means, such as a cross bar 12 connecting their tops and a set of guys 13 extending from the ends of the bar 12 diagonally toward the corners of the scow. The masts near their top and bottom are provided with pulleys 14 and 14′, the same preferably being mounted within the masts on transverse axes 15. Each mast also is provided near its top with holes in which is fixed one end of a hoisting cable 16. A coal bucket or skep 17 of any suitable size or configuration is mounted between said masts and is movable vertically with respect thereto. The skep is provided with a trap door bottom 18, hinged at 19 at one edge to the bottom of the skep. The bottom 18 is adapted to be held up in closed position by any suitable form of catch, indicated at 20 and pivoted at 21 to the bottom of the skep on the side thereof opposite the hinges 19. The catch may be operated to release the door by a pull upon a rope 22 connected thereto and guided over a pulley 23 near one end of the skep. The skep is intended to have considerable capacity, depending upon the size of the scow and the design of the builders, and will receive a cargo of coal directly thereinto from a railway car or other dump at the wharf. At each end of the skep is preferably arranged a pulley 24.

Suitable operating and hoisting machinery will be located within the scow, the same being represented somewhat diagrammatically in Figs. 2 and 3, and including a double-ended power drum 25, journaled in uprights 26, the several ends or rope seats of the drum having connected thereto the ends of the cables 16 after the same have been passed over or around the several sets of pulleys above described in connection with the masts and the ends of the skep. The drum shaft 27 has connected thereto a sprocket wheel 28′ over which operates a chain 28, being driven by another sprocket wheel 29 from any suitable engine or motor (not shown). The relative sizes of the wheels 28′ and 29 may be varied in accordance with the power or speed required. When the sprocket chain and drum are driven in the direction indicated by the arrows in Fig. 2 the skep will be elevated.

A delivery chute 30 is pivotally mounted intermediate of its ends in a yoke or support 31, and is connected at its inner end by flexible connections, shown as chains 32, to the skep for simultaneous operation therewith. The chains 32 are preferably connected at or near the ends of the skep and on the side opposite the hinges 19 of the bottom. The said inner end of the chute is substantially as broad as the trap door bottom is long and upon which the free edge of the bottom is received after being released from the catch 20. The bottom 18, therefore, con-

stitutes in effect a continuation of the chute when the skep is elevated and delivering its load.

We claim:

1. The hereindescribed coal barge comprising, in combination, a scow, masts extending upwardly therefrom, means to brace said masts, a skep movable upwardly between the masts and having a trap door bottom hinged at one edge to the skep, means coöperating with the masts to elevate the skep, a chute connected to the skep and movable upwardly therewith, and means to trip the trap door to permit its free edge to drop upon the adjacent end of the chute.

2. The hereindescribed coal barge comprising, in combination, a scow, hollow masts extending vertically therefrom, means extending between the tops of the masts to rigidly brace the same, other bracing means extending therefrom diagonally to the corners of the scow, sets of pulleys journaled within the masts, a skep between the masts, said skep having a hinged trap door bottom, means mounted on the skep to hold the bottom closed, the skep also being provided with a pair of end pulleys, a pair of cables connected at one end near the tops of the masts and extending thence to and around the skep pulleys thence to and around the mast pulleys, a hoisting drum within the scow, the other ends of the hoisting cables being connected thereto, and means to rotate the drum to elevate the skep.

3. In combination, a scow, masts extending upwardly therefrom, a skep movable between the masts, hoisting means coöperating with the masts to elevate the skep, said skep having a trap door bottom adapted to open downwardly, a supporting yoke connected to one side of the scow, a chute pivoted intermediate of its ends upon said support, a pair of flexible connections securing the inner end of the chute to the skep, said inner end of the skep being broader than the length of the trap door bottom and adapted to receive the same when the skep is elevated, and means to release the catch to permit said bottom to swing downwardly.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM YOHA.
CHRISTIAN P. SHATZER.
HARVEY L. YOHA.

Witnesses:
PETER OWEK,
D. S. KOONTZ.