

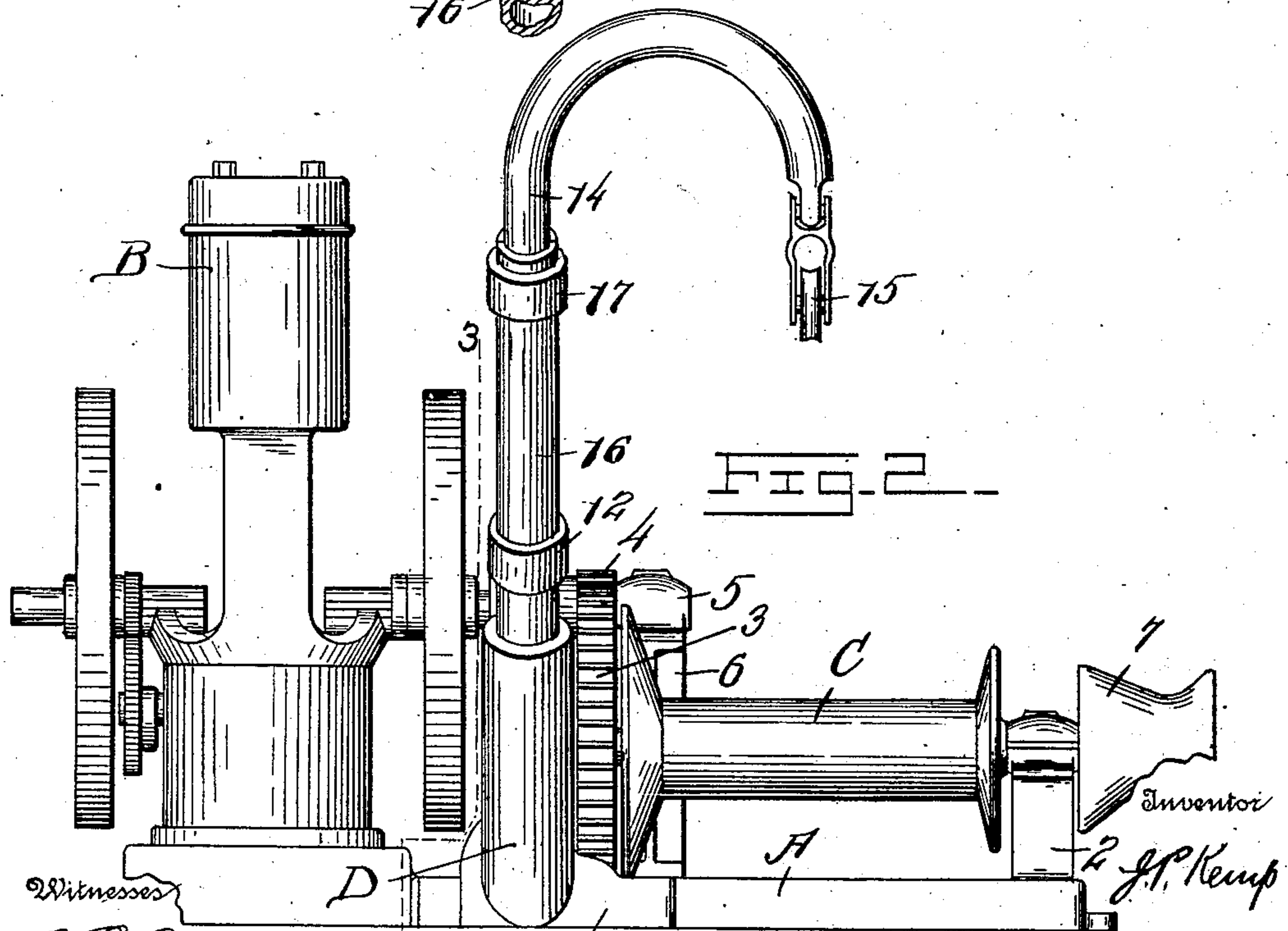
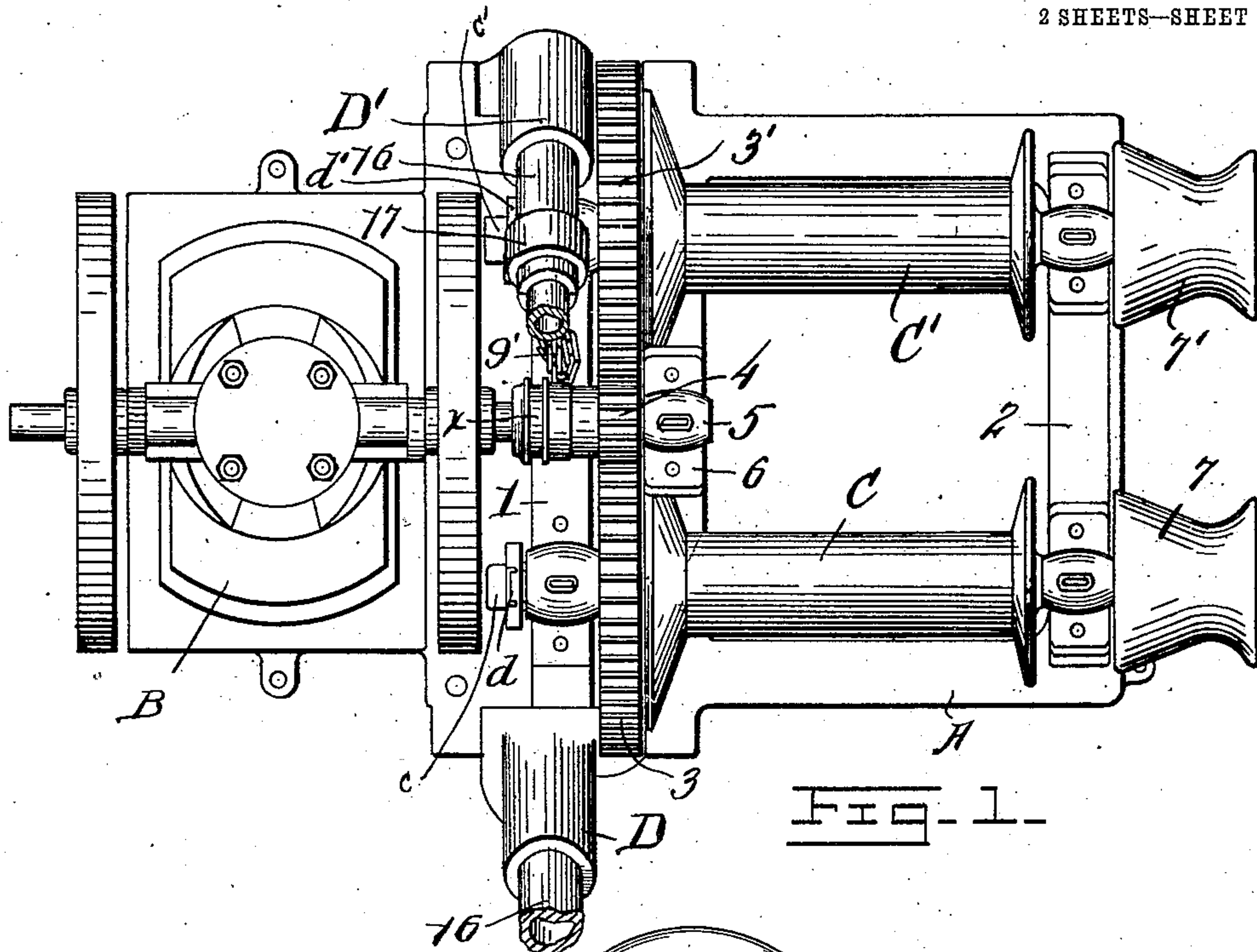
No. 855,184.

PATENTED MAY 28, 1907.

J. P. KEMP.
HOIST FOR OYSTER DREDGES.

APPLICATION FILED JAN. 19, 1907.

2 SHEETS—SHEET 1.



Witnesses
L. A. Cunningham.
J. W. P. Willis.

Inventor
J. P. Kemp
Robert Watson
Attorney

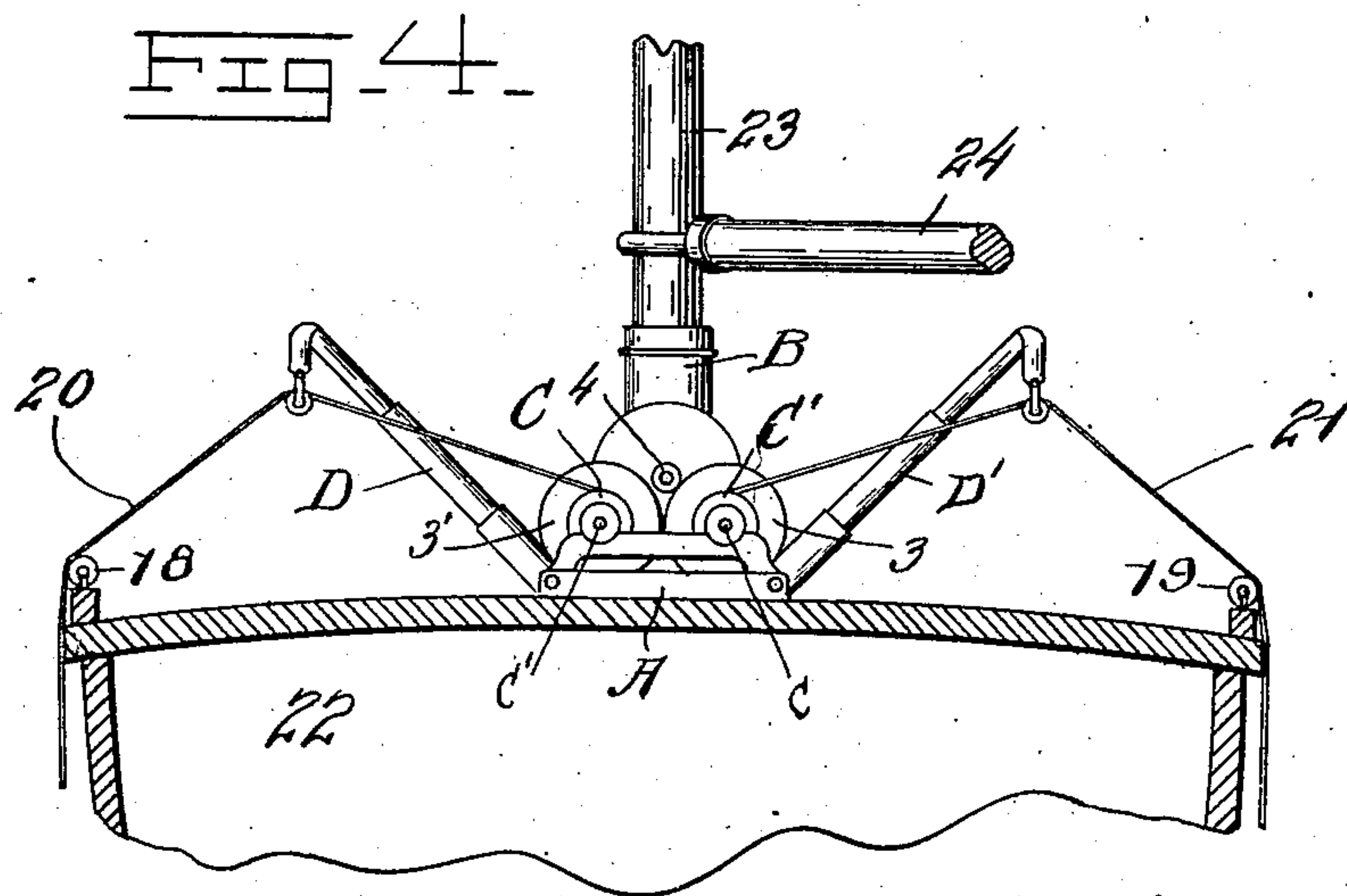
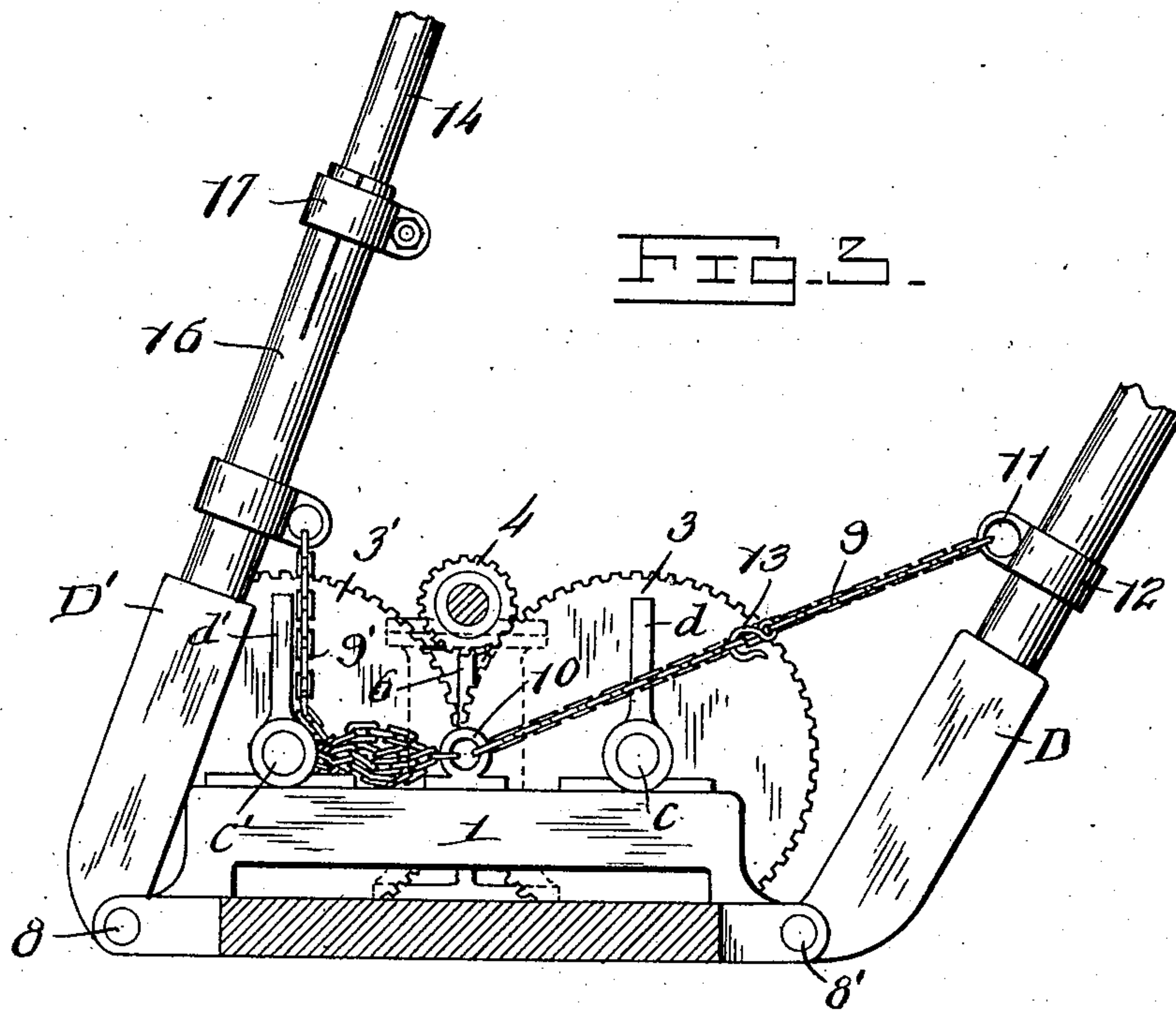
No. 855,184.

PATENTED MAY 28, 1907.

J. P. KEMP.
HOIST FOR OYSTER DREDGES.

APPLICATION FILED JAN. 19, 1907.

2 SHEETS—SHEET 2.



Witnesses
J. L. Armstrong
Amos P. Willis

By

J. P. Kemp Inventor
Robert Watson Attorney

UNITED STATES PATENT OFFICE.

JABEZ P. KEMP, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE FAIRBANKS COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

HOIST FOR OYSTER-DREDGES.

No. 855,184.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed January 19, 1907. Serial No. 353,160.

To all whom it may concern:

Be it known that I, JABEZ P. KEMP, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Hoists for Oyster-Dredges, of which the following is a specification.

My invention relates to a hoisting apparatus especially adapted for operating oyster dredges.

The vessels engaged in the oyster industry are mainly sailing vessels of moderate or small size and light draft, and not fitted with steam or other auxiliary power. On account of the difficulty in obtaining crews to operate the hand dredging machines on such vessels it is desirable to substitute power operated hoisting mechanism for the dredges.

The purpose of my invention is to provide a self-contained hoisting apparatus of this kind which can be placed on deck amidships of such vessels and operated with small power and without interfering with the boom or sails when the latter are let out or taken in, and which will not occupy much deck space or be unduly heavy.

In the accompanying drawings, which illustrate the invention, Figure 1 is a top plan view of the hoisting mechanism some of the projecting parts being broken away; Fig. 2 is a side elevation of the apparatus shown in Fig. 1; Fig. 3 is a section on the line 3—3 of Fig. 2; and Fig. 4 is an end view, on a reduced scale, of the apparatus showing it in position upon the deck of a vessel, the hull of the vessel being indicated, in part, in cross section.

Referring to the drawings, the apparatus comprises a bed-plate A upon which are mounted an internal combustion engine B of any suitable type, drums C and C' for the hoisting cables and jib arms D and D'.

Referring to the drawings in detail, it will be seen that the engine B is mounted upon the bed-plate. Pedestals 1 and 2, for supporting the bearings for the shafts *c* and *c'* of the winding drums C and C', respectively, are also mounted upon the bed-plate. The shafts of the drums C and C' extend parallel to the shaft of the engine and upon opposite sides of the axis thereof. The drums are secured to the shafts *c*, *c'* so as to turn therewith. Loosely mounted upon each of the drum shafts is a gear, 3 or 3', said gears

meshing with each other and one of them meshing with a pinion 4 which is loosely mounted upon the engine shaft and adapted to be clutched thereto by a suitable clutch *x*. The outer end of the engine shaft is supported and steadied by means of a bearing 5 mounted upon a pedestal 6 erected upon the bed-plate. On the outer ends of the hoisting drum shafts winch-heads 7 and 7' are mounted, these winch-heads being useful for winding the anchor rope or other similar purposes. By suitable means, unnecessary to illustrate in detail, the drum shafts may be moved longitudinally in their bearings to move the ends of the drums into and out of frictional engagement with the faces of the adjacent gears, so that the drums, or either of them, may be rotated by the engine or released therefrom. The hand levers *d* and *d'*, shown in Figs. 1 and 3, are for the purpose of effecting this independent endwise movement of the drum shafts.

Jib arms D and D' are pivoted at 8 and 8', respectively, to the bed-plate at points between the hoisting drums and the engine, and when swung outwardly each is adjustably supported in an inclined position by a suitable stay, such as a chain 9 secured at one end to an eye 10 upon the pedestal 1 while its other end is passed through an eye 11 upon a collar 12 secured to the jib arm, the stay being adjustable by entering its hook 13 in links nearer to or farther from the eye 10. When not in use the jib arms may be turned until they rest against the pedestal 1. In Figs. 1 and 3 the jib arm D' is shown folded inwardly against the pedestal.

Each of the jib arms is extensible. This may be accomplished in a number of ways but in the drawing the arms are shown as telescoping. The member 14 of each, which is bent to one side so that the pulley 15 which it carries overhangs the line of travel of the rope from the hoisting drum, is telescoped within the inner member 16 and is held in any desired position of extension by means of a clamp 17, the member 16 being slitted at its outer end, as shown, to give it the flexibility which is necessary to permit it to be manipulated by the clamp in securing or releasing the outer member.

Referring particularly to Fig. 4 it will be seen that rollers 18 and 19 are mounted upon the gunwales of the vessel to ease the passage

of the ropes 20 and 21 over the sides. It will further be observed that if some means were not provided to prevent it, the ropes would draw almost at right angles around the rollers referred to. This arrangement results in a considerable waste of power which decreases the efficiency of the apparatus and, for a given duty, requires an increase in the size of the engine employed. The efficiency of the apparatus may be very greatly increased if, instead of drawing the hoisting ropes at right angles, or nearly so, about the rollers, the ropes and tackle are so arranged that the ropes in passing around the rollers make obtuse angles. This can be accomplished by raising each rope at a point between the roller and drum. It has been proposed to erect a post or support for supporting pulleys directly over the hoisting drums, which pulleys in turn support the hoisting ropes. This improves the angles at which the ropes pass about the rollers at the gunwales but with the arrangement referred to, the hoisting ropes are compelled to pass at right angles or less about the pulleys upon the post. Whatever gain there may be, therefore, at the rollers, is off-set by the loss in transmission about the supporting pulleys. Moreover as the post and its pulleys are located at the hoisting drums, the condition at the rollers, are but slightly improved unless the post referred to is made of such height as to interfere with the movement of the boom. According to the present invention the ropes are raised at points intermediate the rollers on the gunwales and the hoisting drums. This is accomplished by constructing the jib arms referred to so that, in use, they extend outward laterally beyond the edges of the bed plate and upwardly from the hoisting apparatus. The angles at which they extend can be regulated by means of the adjustable stays, and their lengths are adjustable by reason of their characteristic of extensibility above referred to. On reference to Fig. 4 in which 22 is the hull of the vessel, 23 the mast and 24 the sail boom, it will be seen that the rope angles at the rollers are relieved as described and that this is accomplished without producing equally objectionable angles at the hoisting means, or without interference between the jib arms and the boom. In using the apparatus the height of the supporting pulleys may be increased by extending the jib arms, and when the apparatus is not in use, the arms may be shortened, so that they will not interfere

with the movements of the boom when the arms are swung inwardly and resting against the pedestals. 60

What I claim is

1. The combination with a bed plate, of an engine and a hoisting drum mounted thereon, an extensible jib arm pivoted to said bed plate, said jib arm being adapted to extend outwardly and upwardly from said bed plate and overhang the line of travel of the rope from said drum and an adjustable stay for said jib arm. 65
2. The combination with a bed plate, of an internal combustion engine and two hoisting drums mounted thereon, and pivoted jib arms, one on each side of said bed plate, adapted to extend outward laterally beyond the edges of said bed plate and upwardly therefrom. 70
3. The combination with a bed plate, of an internal combustion engine and two hoisting drums mounted thereon, extensible jib arms, one pivoted to each side of said bed plate between its respective drum and said engine and adapted to extend outwardly and upwardly from said bed plate, and adjustable stays, one for each of said jib arms. 80
4. The combination with a bed plate, of an internal combustion engine and a hoisting drum mounted thereon, a roller supported at a distance from said drum and a jib arm extending outward laterally beyond the edges of said bed plate and upwardly from said bed plate whereby the rope is supported between said drum and roller. 85
5. The combination with a vessel, of a hoisting means upon the deck of the vessel, a roller supported at one side of the vessel and a jib arm extending from said hoisting means, whereby said jib arm is arranged to support the hoisting rope between said hoisting means and said roller. 90
6. The combination with a vessel, of a hoisting means upon said deck, a roller supported at one side of said deck, an extensible jib arm pivoted at said hoisting means and an adjustable stay for said jib arm, whereby said jib arm is arranged to support the hoisting rope between said hoisting means and said roller. 100

In testimony whereof I affix my signature, in presence of two witnesses. 105

JABEZ P. KEMP.

Witnesses:

THOS. P. LASSELL,
A. E. CLARSON.