

V. O. BARLOW & J. HOLMAN.

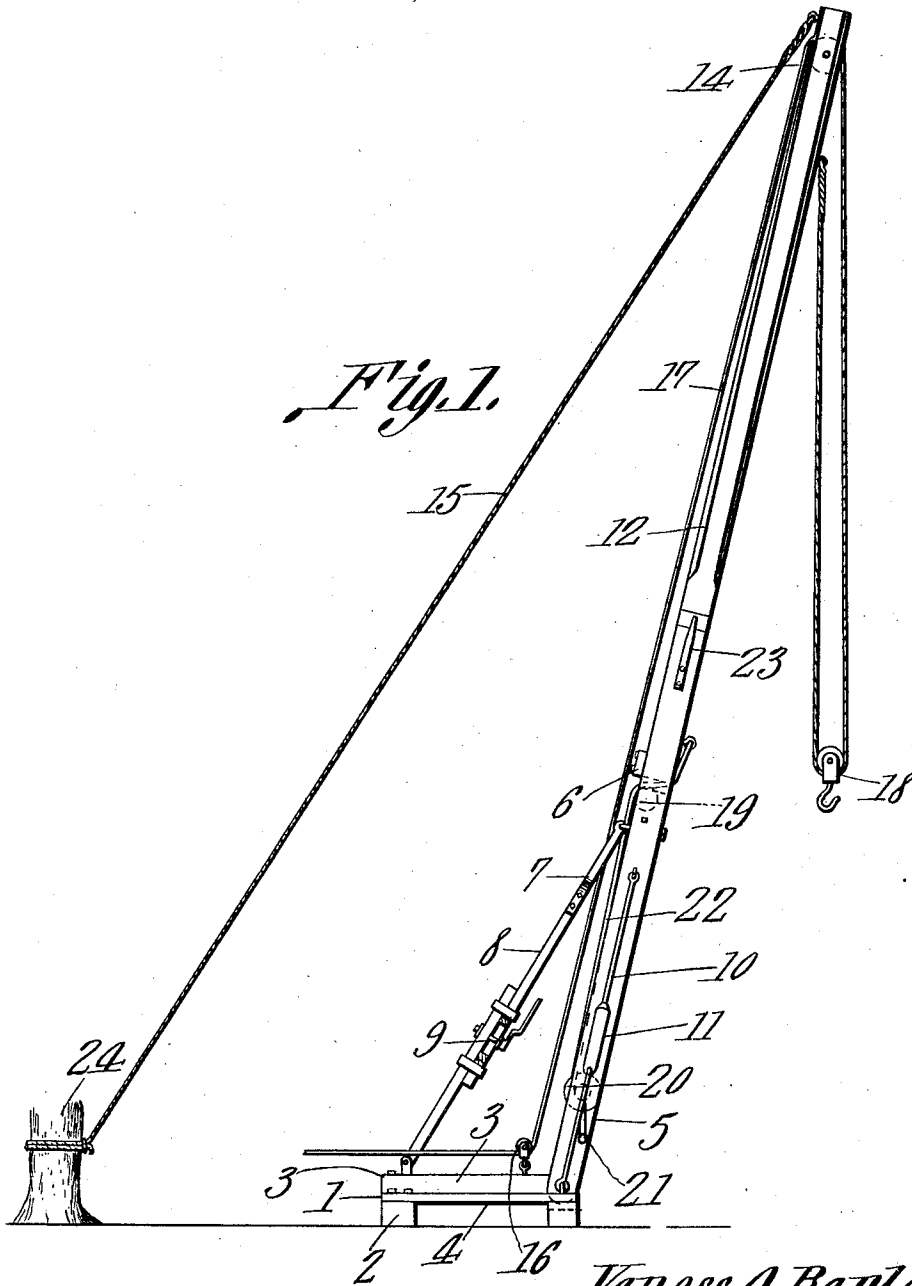
DERRICK.

APPLICATION FILED OCT. 24, 1910.

1,024,665.

Patented Apr. 30, 1912.

2 SHEETS—SHEET 1.



Witnesses

J. H. Dineen
C. C. Prentiss

Vaness O. Barlow, and
John Holman,

Inventors.

by

C. A. Snow & Co.

Attorneys

V. O. BARLOW & J. HOLMAN.

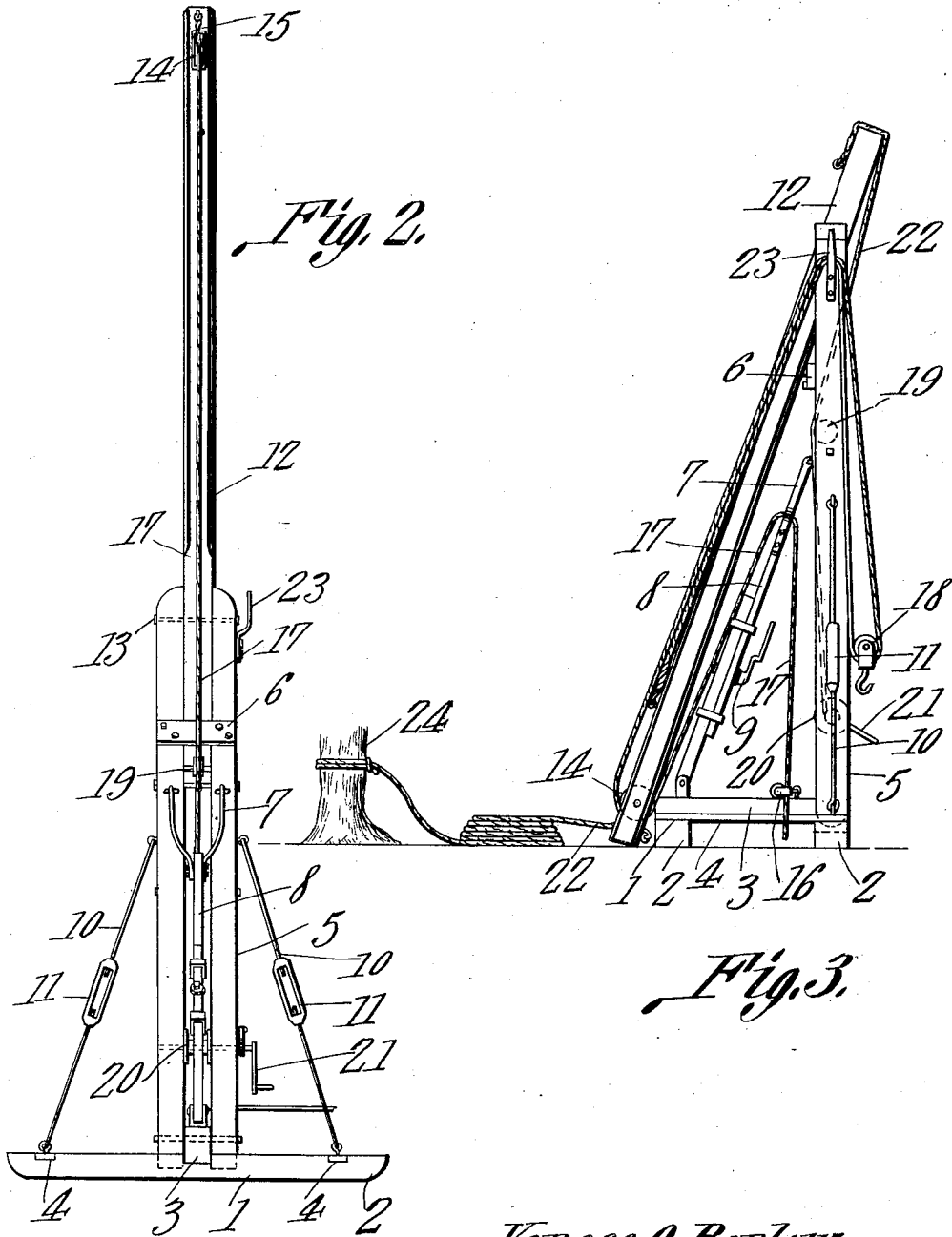
DERRICK.

APPLICATION FILED OCT. 24, 1910.

1,024,665.

Patented Apr. 30, 1912.

2 SHEETS-SHEET 2.



Witnesses

J. P. Dineen
C. E. Freinkent

Vaness O. Barlow and
John Holman,

Inventors.

by

C. A. Snow & Co.

Attorneys

UNITED STATES PATENT OFFICE.

VANESS O. BARLOW AND JOHN HOLMAN, OF CARNEY, MICHIGAN.

DERRICK.

1,024,665.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed October 24, 1910. Serial No. 588,874.

To all whom it may concern:

Be it known that we, VANESS O. BARLOW and JOHN HOLMAN, citizens of the United States, residing at Carney, in the county of Menominee, State of Michigan, have invented a new and useful Derrick, of which the following is a specification.

This invention has relation to a derrick and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide in a derrick structure, a sectional mast with means for tilting and securing the mast at a desired angle with relation to the base of the structure. The sections of the mast are pivotally connected together, and means are provided for swinging and securing the upper mast section upon the lower section thereof whereby the structure may be extended or collapsed as desired.

In the accompanying drawings,—Figure 1 is an edge elevation of the derrick showing the parts extended. Fig. 2 is a side elevation of the derrick showing the parts extended. Fig. 3 is an edge elevation of the derrick showing the upper mast section collapsed or swung down.

The derrick comprises a base 1 which consists of parallel runners 2 connected together by a cross bar 3 and cross braces 4 which are located in the vicinity of the ends of the said runners. Parallel mast sections 5 are pivotally connected at their lower ends with one end of the cross bar 3 or but one of the runners 2. The upper portions of the mast sections 5 are connected together by means of a cross plate 6. The end portions of a yoke 7 are pivotally connected with the upper portions of the mast section 5 and a longitudinally extensible brace 8 connected at one end with the said yoke and at its other end with the end portion of the cross bar 3 opposite the end thereof to which the lower ends of the mast sections 5 are pivoted. The brace 8 is composed of sections which are adjustably secured together by means of a clamp bolt and slot connection indicated at 9 in Fig. 1 of the drawings. Bracing rods 10 are connected at their upper ends with the sides of the mast sections 5 and at their lower ends with the end portions of one of the runners 2 and are provided with turn buckles 11 of usual pattern.

A mast section 12 is pivoted upon a cross pin 13 which passes transversely through the

upper portions of the mast sections 5 and the end portion of the mast section 12 is located between the said mast sections 5. A sheave 14 is journaled at the upper end of the mast section 12. A drag cable 15 is fixed at one end to the upper end of the mast 12 and may be attached at its other end portion to any fixed object. A pulley block 16 is mounted upon the cross bar 3 and a hoisting cable 17 passes under the pulley of the block 16 thence up and over the sheave 14 and thence down and up and is secured at one end to the upper portion of the mast section 12. In its return bend the hoisting cable 17 carries a hook block 18 of the usual pattern. A sheave 19 is journaled for rotation in the upper portions of the mast section 5 and a winding drum 20 is journaled between the lower portions of the said mast section 5. A crank handle 21 is attached to the shaft of the winding drum 20. A cable 22 is arranged to wind upon the drum 20 and passes over the sheave 19 and is connected at its upper end with the outer lower portion of the mast section 12. A cable hook 23 is fixed to the side of the upper portion of one of the mast sections 5.

When the cable 22 is wound upon the drum 20, the mast section 12 is swung up into the same plane as that in which the mast section 5 may be and the inner lower portion of the mast section 12 will be brought into contact with the cross plate 6. Then by lengthening or shortening the longitudinally extensible brace 8, the mast section may be pitched at any desired angle with relation to the base 1. When the parts are thus positioned the structure as an entity is braced by the cable 15 which may be attached at its lower portion to an object as for instance a stump 24. When the derrick is so positioned the hoisting cable 17 may be readily used for hoisting or loading heavy objects. When the structure is not in use or when it is being transported from one point to another, the cable 22 is unwound from the drum 20, and by drawing down upon the cable 15 the upper end portion of the mast section 12 will be swung down toward the platform 1 and the intermediate portions of the cables 15 and 17 may be engaged with the cable hook 23. Also by shortening the extensible brace 8, the mast sections 5 and 12 may be positioned at approximately equal angles over the base 1. Therefore it will be seen that

when the parts are collapsed, as indicated, the structure will occupy comparatively small space.

Having described the invention what is claimed is;—

1. A derrick, comprising a base, a pair of spaced mast sections having their lower ends pivoted to the base, adjustable braces connected to the sides and rear of the mast sections and base, a vertically movable top mast section, and flexible means for raising said top mast section and holding it as an extension of the spaced mast sections.

2. A derrick, comprising a base, a pair of spaced lower mast sections held spaced apart at their upper ends, and pivoted at their lower ends to the base, an adjustable brace connected to each member thereof and the base an extensible brace connected to the base and the upper end of the sections and operating in a direction of the pivotal movement of the sections, a top mast section, and means connected to said top mast section and the spaced sections for elevating and locking the top mast section in elevated position.

3. The combination with a portable support, of a spaced mast section having its lower end pivoted for movement transverse

of said support, an extensible brace pivotally connected at its respective ends to the support and section, means for extending and retracting the sections of said brace to permit various angles of the mast section to the support, side brace rods connected to the support and to the mast section, a second mast section pivotally connected near one end between the members of the spaced mast section and having a movement from the inclined or collapsed position to an alined or extended position, a winding drum disposed between the spaced mast section, and a flexible connection between said drum and the short end of the swinging mast section for moving the swinging section from an inclined to an alined position.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

VANESS O. BARLOW.
JOHN HOLMAN.

Witnesses as to Vaness O. Barlow:

PETER GARRIGAN,
DONOLD GARRIGAN.

Witnesses as to John Holman:

R. S. WIGGIN,
J. W. BRILL.