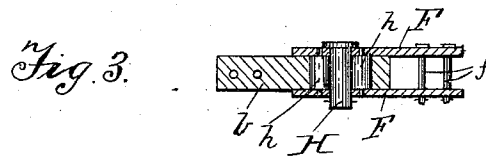
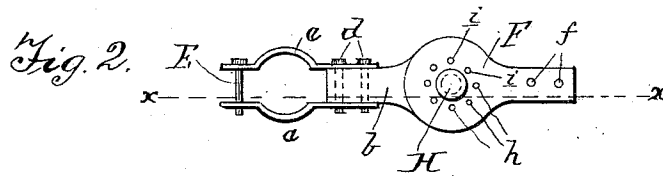
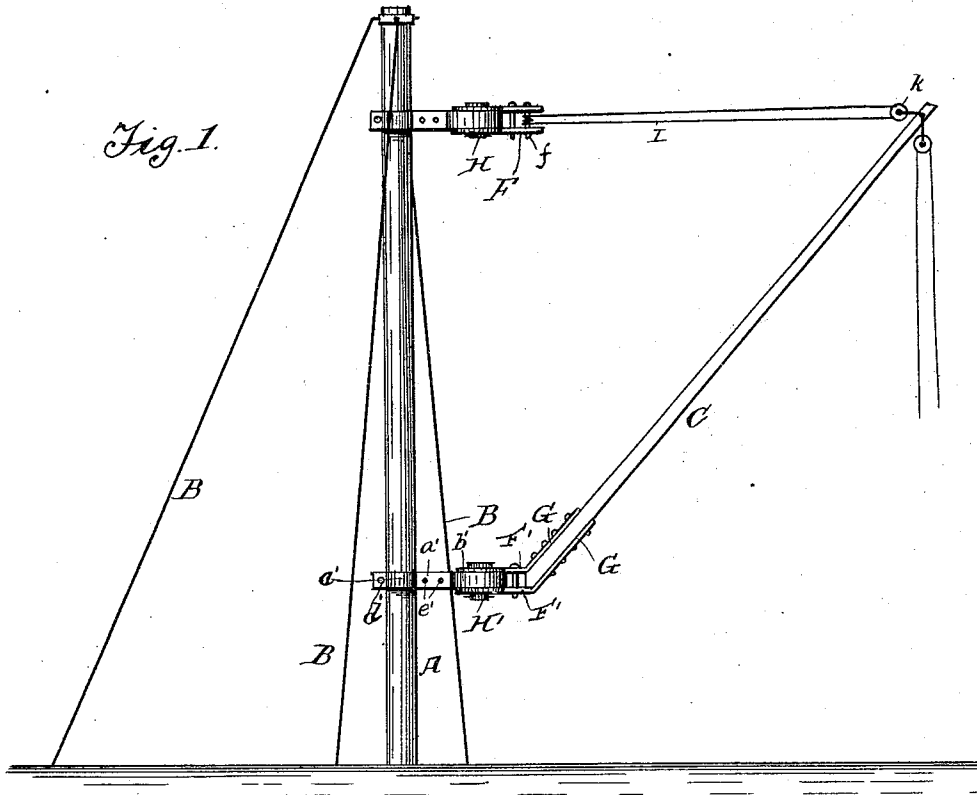


(No Model.)

W. G. STRINGER.
CRANE.

No. 475,092.

Patented May 17, 1892.



Witnesses
R. Slater
L. Watson

Inventor
William G. Stringer
By his Attorney
W. R. Stringfellow

UNITED STATES PATENT OFFICE.

WILLIAM G. STRINGER, OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF ONE-
FOURTH TO WILLIAM GIBSON HENRY, OF SAME PLACE.

CRANE.

SPECIFICATION forming part of Letters Patent No. 475,092, dated May 17, 1892.

Application filed October 7, 1891. Serial No. 407,993. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GREEN STRINGER, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Cranes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in hoisting-cranes; and the novelty will be fully understood from the following description and claim, when taken in connection with the annexed drawings, in which—

Figure 1 is a side elevation of my improved crane. Fig. 2 is a plan view of the improved devices for connecting the horizontal arm of the crane with the pole or upright; and Fig. 3 is a sectional view of the plates F and bracket b, taken in the plane indicated by the dotted line *x x* on Fig. 2.

Referring by letter to said drawings, A indicates the mast or pole, such as ordinarily used in derricks, and B indicates stay ropes or chains, which are also of the character usually employed.

I indicates a rope, and C the incline or oblique arm of the crane, which may be equipped with the usual guides and pulleys.

a indicates two similar plates or strips of metal. These strips are bent or curved at a suitable point in their length, as shown, so as to conform to the outer surface of the pole or mast and embrace the same at a suitable point near its upper end. These plates, which are arranged one on each side of the mast, have holes at opposite ends, and the holes at one end receive a bolt E, while the holes at the opposite end are designed to receive two bolts *d*, with one end of the bracket *b* interposed and perforated to receive said bolts *d*. This bracket *b* is provided at its outer end with a vertical eye to receive a pivot-bolt H.

F indicates two similar horizontal plates, which are secured together upon opposite sides of the bracket *b* by means of bolts *f*. The inner end of these plates F are provided with eyes, which are designed to coincide with the holes in the outer end of the bracket *b*, and within the eye of said bracket and surrounding the pivot-bolt H are arranged anti-friction rollers *h*. These rollers are journaled

at opposite ends in the holes *i* of the plates F, whereby said rollers are held in position, and a horizontal hinged or pivotal connection is had between the bracket *b* and the plates F, so that the crane may be allowed to swing horizontally at this point.

a' indicates two plates, which are counter-parts of the plates *a* and are secured at a suitable distance from the base of the mast at one end by means of a bolt *d'* and are secured together at their opposite ends with the inner end of the bracket interposed by means of two bolts *e'*. A pivot-bolt H', similar to the bolt H above, is used for pivotally connecting the outer end of the bracket *b'*, and friction-rollers are arranged within the eye of the bracket exterior to said pivot-bolt, and are journaled at opposite ends in the plates F' in a manner similar to the friction-rollers *h* in the upper plates F. The outer ends of these plates F' are disposed obliquely, as shown at G, and the lower end of the arm C is secured between these oblique branches by bolts or other suitable fastening devices.

k indicates a pulley carried by the upper end of the arm C, and this pulley is connected with the plates F, near the upper end of the mast, by a rope passed around one of the bolts *f*.

Having described my invention, what I claim is—

The combination, with a mast and the arm C and rope I, of the strips secured to said mast at suitable points from its upper and lower ends, respectively, the brackets secured at one end to the respective strips and each bracket having an eye at its outer end, the plates adapted to be connected at one end to the arm C and rope I, respectively, and having an eye at their inner ends, friction-rollers arranged within the eyes of the bracket and confined in position by the plates on opposite sides thereof, and a pivot-bolt passing through the respective eyes so as to pivotally connect the plates and brackets, and consequently the arm C and rope I to the mast, substantially as specified.

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

WILLIAM G. STRINGER.

Witnesses:

HELMUTH HOLTZ,
PERCY D. PARKS.