

W. & S. G. Coleman.

Masts & Spars.

N^o 9,619.

Patented Mar. 15, 1853.

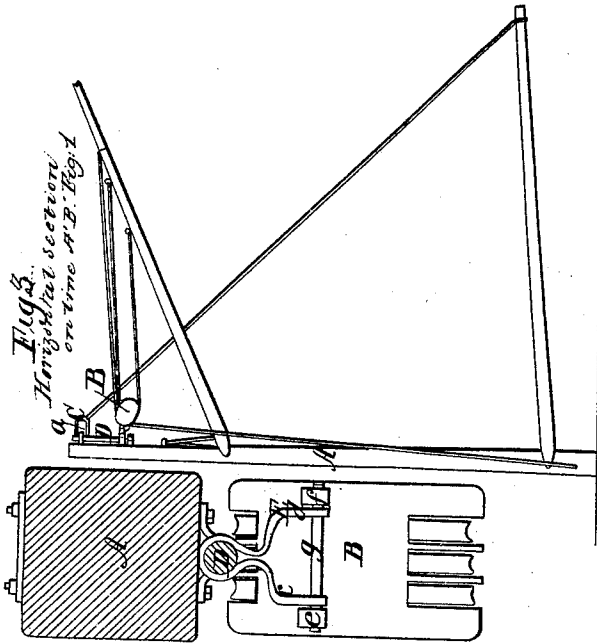


Fig. 2.

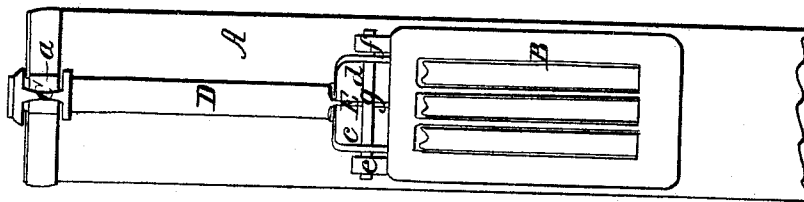
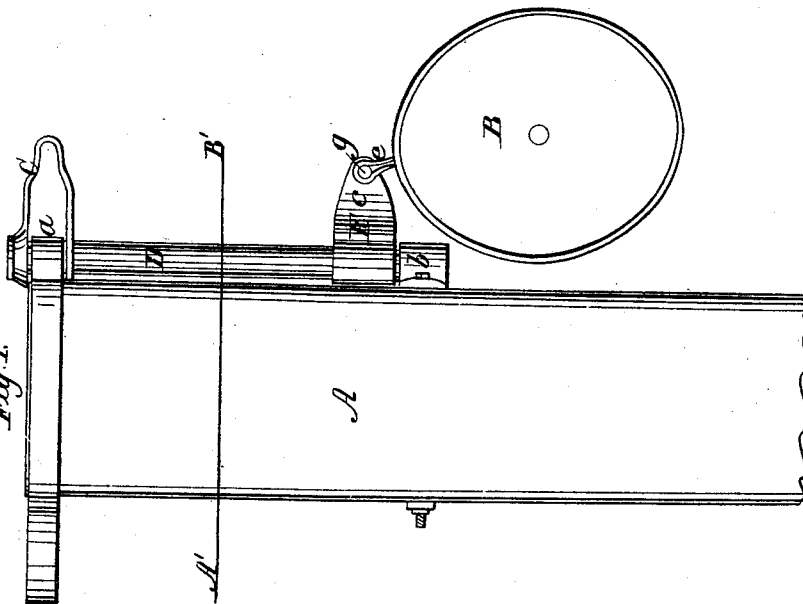


Fig. 1.



UNITED STATES PATENT OFFICE.

W. COLEMAN AND S. G. COLEMAN, OF PROVIDENCE, RHODE ISLAND.

SUPPORTING THE TOPPING-LIFT AND PEAK-HALYARD BLOCK OF SAIL VESSELS.

Specification of Letters Patent No. 9,619, dated March 15, 1853.

To all whom it may concern:

Be it known that we, WILLIAM COLEMAN and STEPHEN G. COLEMAN, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Fixtures for Mast-Heads of Navigable Sailing Vessels; and we do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Our invention relates to a mode of applying the topping lift shackle and the peak halyard block to the upper part of a mast.

In Figure 1 of the drawings we have exhibited a side elevation, and in Fig. 2 an end elevation of our invention.

In the said figures A represents the upper part of the mast of a sailing vessel.

B is the peak halyard block and C is the topping lift shackle.

Our invention consists in the supporting the topping lift by means of a crane of such form and construction, that when the topping lift sags when the sail is hoisted it shall not foul or chafe against the peak halyard block. It also consists in so arranging and constructing such crane that it may also support the peak halyard block substantially as specified.

In the first place the said crane is composed in part of a vertical shaft D that is supported in an upright position and made to turn horizontally in bearings or boxes *a, b*, affixed to the mast. To the lower part of the said shaft a forked arm E is affixed, the shaft being carried through and affixed or welded to it so that the arm may rest on the lower bearing *b* and constitute a collar or shoulder to support the shaft. The forked arm spreads into two horizontal parts *c, d*, which are extended between two eye bolts *e, f*, fixed into the upper end of the block. A pin or bolt *g* is carried through the eye bolts and the ends of the parts *c, d*, the whole connecting the block to the parts *e, f*, in such manner as to enable the said block to turn upward through a vertical plane and as though it was hinged to the arms.

From the above it will be seen that as the arm is attached to the shaft D, such block can be moved in a horizontal plane either starboard or larboard as the case may require. It thus is sustained by a peculiar

joint which always keeps it in its correct position with respect to the gaff underneath—whatever may be the position of such gaff. The topping lift shackle C is secured directly to the vertical shaft D, and so as to turn with such shaft and the block. Consequently it will be seen that it always maintains its correct position with respect to the lateral movements of the gaff. It has been customary heretofore to fasten such shackle directly on the head of the mast so that it would be immovable. The topping lift purchase hook that is inserted in such shackle will, when said shackle is so immovably fixed to the mast—so strain—and grind—in the shackle as to soon injuriously wear it. So with the hook of the block, it will produce a similar strain and wear on the eye or staple that is usually fixed in the mast, under the ordinary method of applying the block thereto. But by applying the block and the topping lift shackle to the mast by means of the crane, they swing freely and laterally with the gaff and boom without any such injurious strain and wear, the wear being brought on the journals of the shaft D in such manner as to be of little or no account, and of little liability to create serious derangement of the parts.

As the common method of connecting the block to the mast is by means of a hook from the block strap and an eye attached to the mast, when the sail is partly hoisted the block approaches a horizontal position. Under these circumstances the rope passing over one of the end sheaves of the block will cant or turn the block so as not only to cause its hook to grind in the eye, but to create wear on the rope and much extra labor in hoisting the sail. The crane obviates these difficulties. By means of it the block is preserved at all times in its proper position. The eye at the mast head when applied in the usual way soon wears by the constant motion of the vessel and the grinding of the hook in it.

The shackle at the top of the crane is very important. It may be made of sufficient length to carry the topping lift clear of the peak halyard block, by which much friction and injury to the topping lift and block may be prevented.

With the crane there is not that danger of accidents by the breakage of the hook while

jibbing ship during a sudden change of wind.

What we claim as our invention is—

5 The supporting the topping lift by means of a crane of such form and construction, that when the topping lift sags, when the sail is hoisted, it shall not foul or chafe against the peak halyard block. We also claim the so arranging and con-
10 structing such crane that it may also sup-

port the peak halyard block substantially as specified.

In testimony whereof we have hereto set our signatures, this twenty-second day of April A. D. 1852.

WILLIAM COLEMAN.

STEPHEN G. COLEMAN.

Witnesses:

JOSEPH L. PITMAN,

NATHAN PORTER.