

T. Beck, Sails & Rigging.

N^o 2,973
N^o 33,977.

Patented Dec 24, 1861.

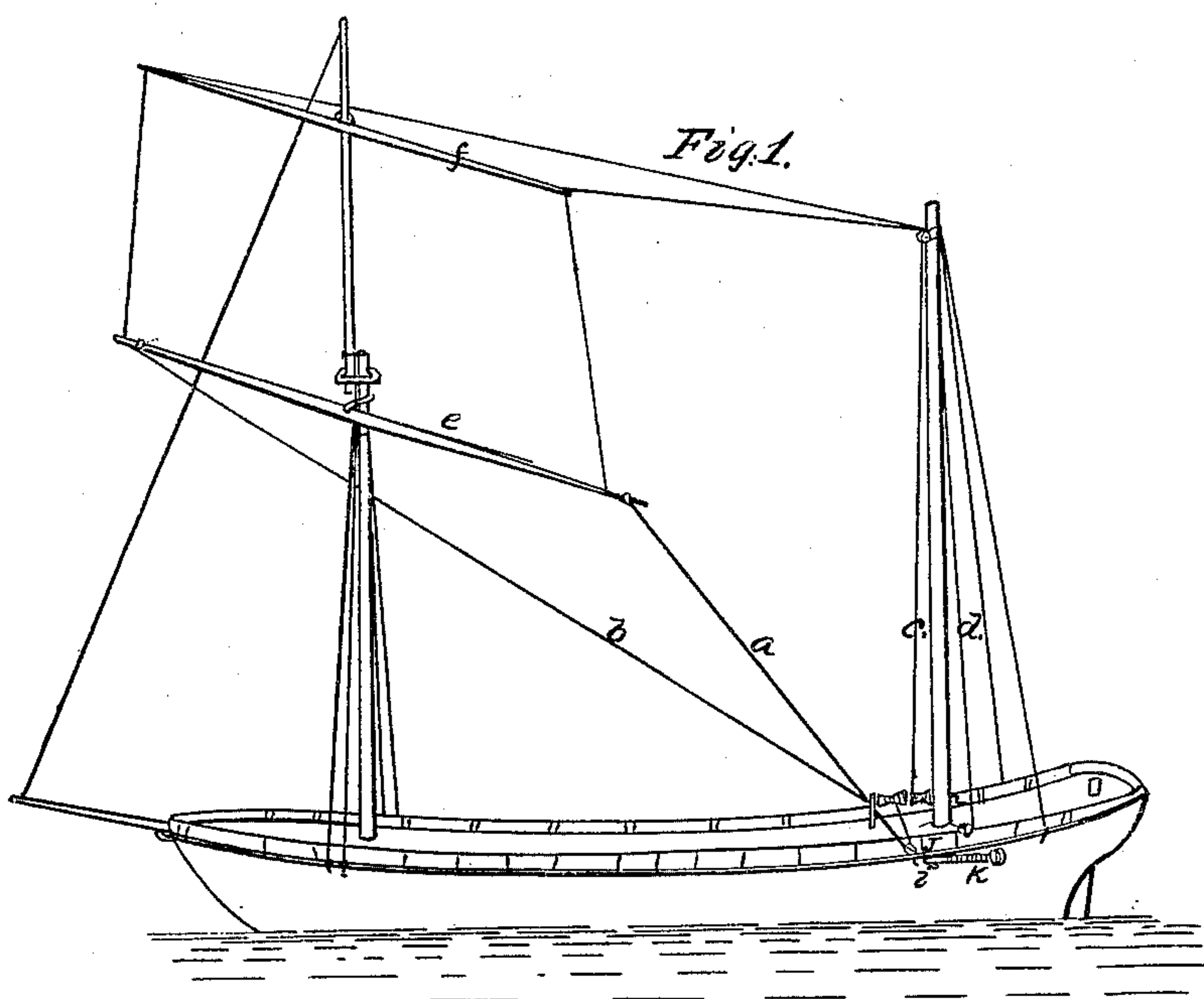


Fig. 2.

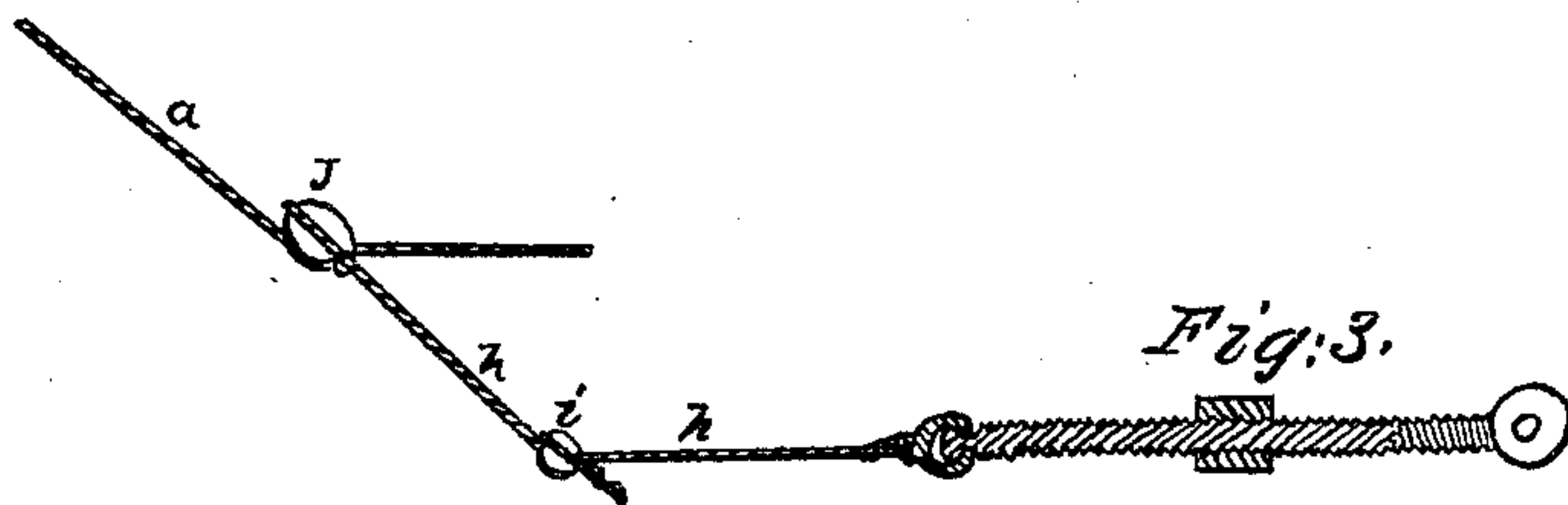
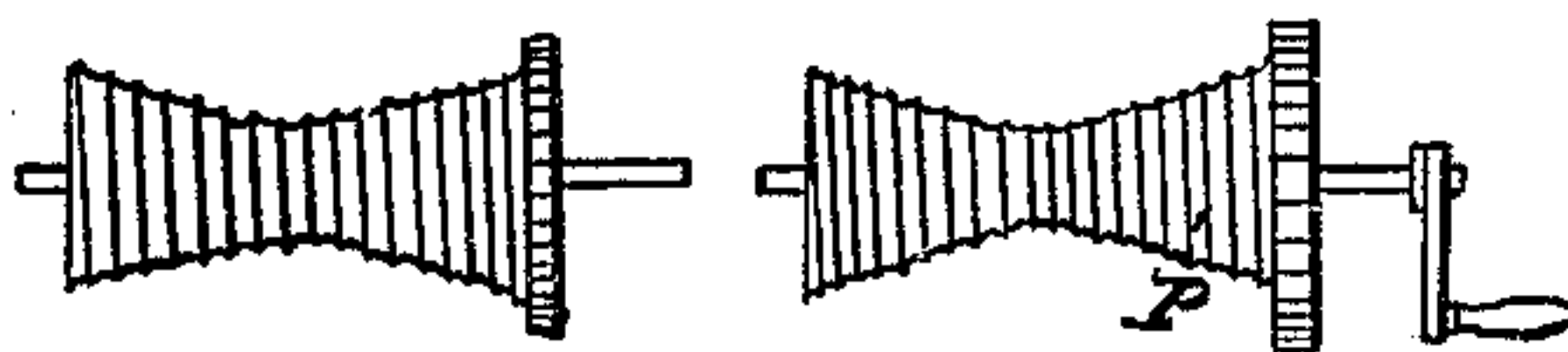


Fig. 3.



Fig. 4.

Witnesses
Wm Gooding
J D Kiser

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UNITED STATES PATENT OFFICE.

TRAUGOTT BECK, OF NEWARK, NEW JERSEY.

IMPROVED APPARATUS FOR BRACING THE YARDS OF VESSELS.

Specification forming part of Letters Patent No. 33,977, dated December 24, 1861.

To all whom it may concern:

Be it known that I, TRAUGOTT BECK, of the city of Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in the Means for Bracing the Yards of Navigable Vessels; and I do hereby declare the following to be a full and exact description of the same, reference being had herein to the drawings, which accompany this specification and make part of the same.

The nature of my invention consists in connecting the braces and in means to operate both sides at one and the same time, and in providing the means or apparatus of the operation.

In the drawings, Figure 1 shows a vessel with the improved apparatus thereon. Fig. 2 shows the barrels so constructed as to take up the slack of the braces while hauling them; Fig. 3, a tightener to meet the effects of the weather upon the braces.

The same letters refer to the same parts in each figure.

In any convenient place or position in a vessel a barrel or barrels are put so as to be revolved by any common mechanical contrivance.

The barrel or barrels are constructed of a double cone joined together near their apex, and thereupon is cut a screw-thread running from one end to the other in the same direction, as shown in Fig. 2. The barrel is so proportioned in the bevel of the cones as to correspond with the increasing or decreasing length of the braces consequent upon the ends of the yard-arms *e* and *f* turning in a circle and increasing the angle on the one side while it decreases in the same proportion on

the other. The brace being round, the smallest part of the barrel when the yards are square moves up one incline as much as it comes down on the other, the diameter of the roll or barrel being exactly adapted to the required variations in length of brace.

The braces *a* and *b c* and *d* are connected at or by the barrel, as the case may be.

As increasing or decreasing moisture in the atmosphere affects the length of cordage, and as lowering the top-sail yards in reefing calls for variations in the length of the braces, provision is made by affixing the block, ring-bolt, or dead-eye *i* to the vessel's side, through which passes a rope or chain *h*, having the sheave-block *J* at one end for the brace *a* or *b c* or *d* to pass through it to the barrel *P*, and at the other end is a screw, as Fig. 3. The nut *k* being fast to the ship's side, or, if desired, a lanyard, as Fig. 4, can be used, either being placed in the most convenient place. Connecting the braces in this manner they require less length of ends, which usually in the ordinary manner lie in coils on the deck, where their room is an object, the labor of bracing is materially decreased, and all the yards can be moved and braced at the same time, instead of one at a time, in the usual way.

While I do not claim the separate parts, they not being new, I do claim—

The combination and arrangement of the cone-barrels and the tightener with the braces, substantially in the manner and for the purpose hereinabove specified.

TRAUGOTT BECK.

Witnesses:

W. M. GOODING,

I. D. NESLER.