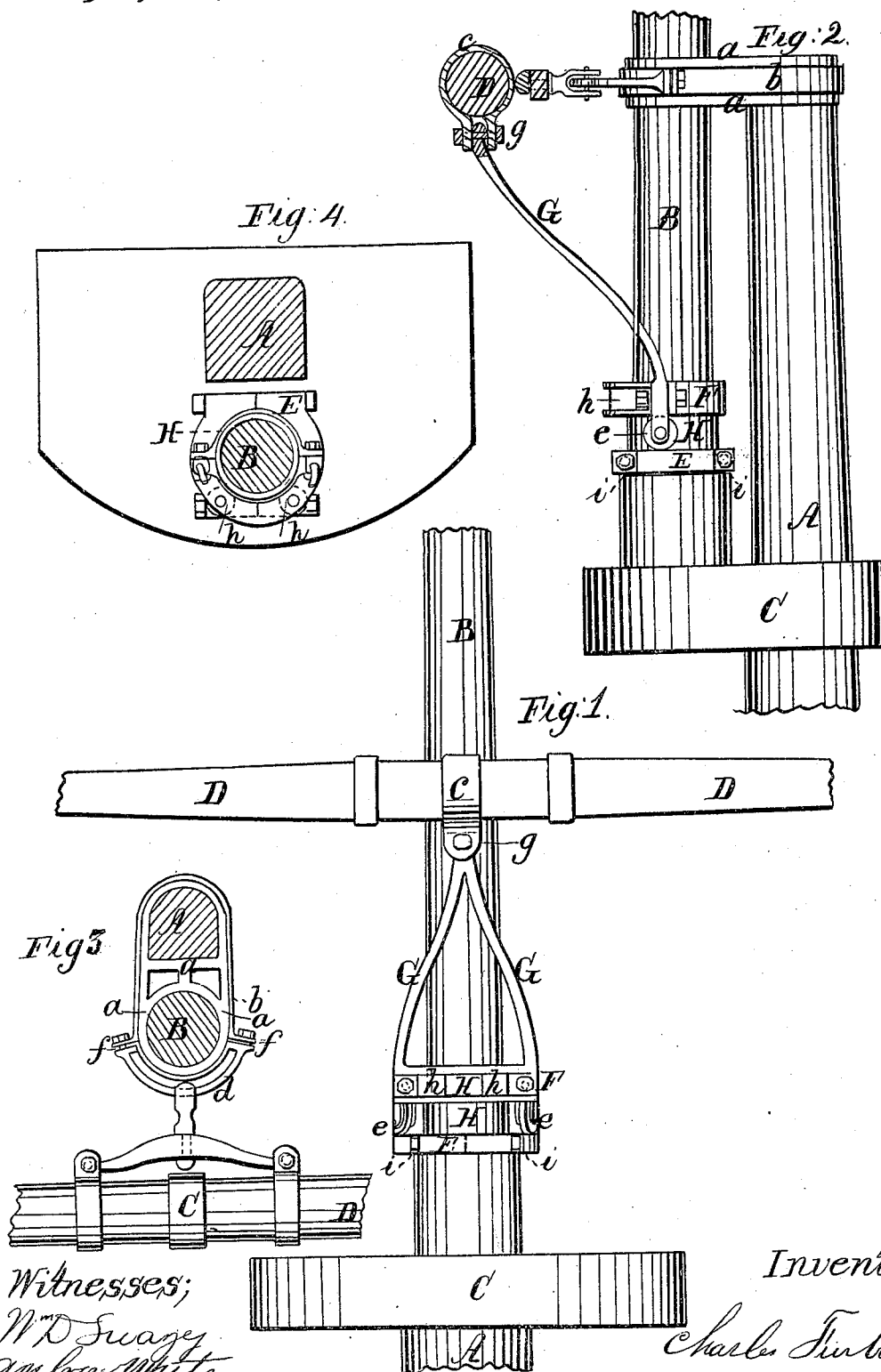


C. Furbish.

Truss for Vessels.

Nº 98,242. Patented Dec. 28, 1869.



Witnesses;
W.D. Swager
ambrose white

Inventor;
Charles Furbish

United States Patent Office.

CHARLES FURBISH, OF BUCKSPORT, MAINE.

Letters Patent No. 98,242, dated December 28, 1869.

IMPROVEMENT IN TRUSSES FOR VESSELS.

The Schedule referred to in these Letters Patent and making part of the same

Be it known that I, CHARLES FURBISH, of Bucksport, in the county of Hancock, and State of Maine, have invented a new and useful Improved Apparatus for Supporting the Yards of Vessels; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification.

This invention consists in the construction and arrangement of the devices hereinafter described, and in their combination with those ordinarily in use, for supporting heavy yard-arms of large ships, so as to relieve the joints and working-portions of a large amount of friction, and enable the yard to be braced or shifted with greater ease and facility.

To enable others skilled in the art to which this belongs, to make and use same, I will now proceed to describe its construction and operation.

Like letters apply to corresponding parts in all the figures.

Figure 1 is a front elevation of part of the lower mast, the cap, the top-mast, and yard, with the devices constituting the invention above alluded to attached.

Figure 2 is a side elevation of the same.

Figure 3 and 4 are views of detached portions of figs. 1 and 2.

In all the figures, A represents the lower mast; C, the cap; B, the top-mast, resting upon said cap, and secured to the top of the lower mast by the ordinary withe, *a*, outside of and surrounding which is the strap or band *b*, figs. 2 and 3.

Attached to this band, is the traveller *d*, the ends of which pass through and are secured by nuts to the lugs *f f*, and to this traveller the yard D is secured, in the ordinary manner.

To support the weight of the yard, which, in the case of a large square-rigged vessel, is considerable, and to relieve the traveller of the strain consequent thereon, as well as to facilitate shifting the position of or "bracing the yard," the forked strut or arms G are applied, secured to the band *c*, by the joint *g*, and their lower ends furnished with friction-rollers, *e e*, and clamped between the lugs of the loose band or collar F, in the front of which are also placed friction-rollers *h h*, as plainly shown in figs. 1 and 2.

In the same figures, and in fig. 4, H represents a wide band or cylinder, surrounded and secured in its place by the clamp or collar E, which, in turn, is supported upon the enlargement or shoulder *i i*, of the base of the top mast B.

This band or cylinder and clamp or collar form the support and platform against and upon which turn the rollers *e e* and *h h*, and upon which is thus borne the entire weight of the yard and its appropriate rigging.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The struts or arms G G, with rollers *e e*, the band or collar F, and rollers *h h*, the support or platform H and E, combined and arranged substantially as herein set forth.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

CHARLES FURBISH.

Witnesses:

WM. D. SWAZEY,
AMBROSE WHITE.