

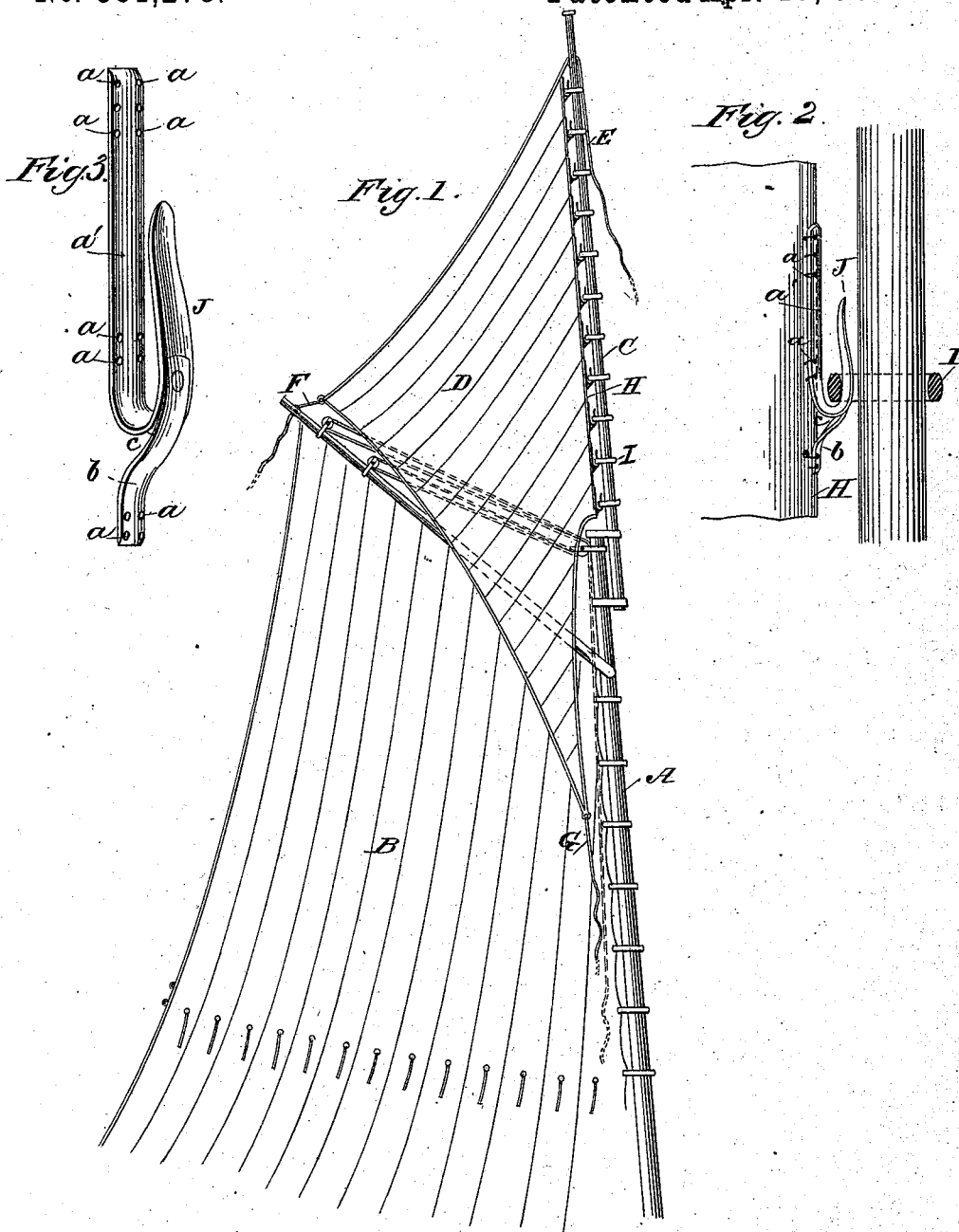
(No Model.)

C. A. POST.

RIG AND GEAR FOR GAFF TOP SAILS.

No. 381,278.

Patented Apr. 17, 1888.



WITNESSES:

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RIG AND GEAR FOR GAFF-TOPSAILS.

SPECIFICATION forming part of Letters Patent No. 381,278, dated April 17, 1888.

Application filed August 2, 1887. Serial No. 245,910. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. POST, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in the Rig and Gear of Gaff-Topsails, of which the following is a specification.

My invention relates to improvements in the rig and gear of gaff-topsails, whereby they may be quickly and safely taken in without the necessity of sending a man aloft, and without danger of fouling with other parts of the rigging, by the use of which the sail may be stowed below instead of being furled aloft.

Broadly stated, the invention consists in attaching to the luff-rope of the top sail a series of hooks, which at the time the sail is set are engaged with hooks on the top-mast; and as the sail is hoisted each hook carries its hoop with it as the sail goes up, and when the sail is to be taken in upon slackening the sheet and halyard and hauling down on the tack the hoops slide down on the top-mast, the hooks disengaging themselves as the sail comes down, the sail with the hooks attached coming down on deck and the hoops remaining at the mast-head or foot of the top-mast.

It is desirable that a top-sail shall set as flat as possible, and to this end the luff of the sail must be held as close to and nearly parallel with the top-mast as possible. The ordinary device for this purpose in this country is a number of hoops sliding on the top-mast, and it is in connection with these that I have described my invention. It is, however, equally adapted to use in connection with any other device sliding up and down on or along the top-mast.

In the drawings, Figure 1 illustrates a plan view of the invention, the sail being set. Fig. 2 illustrates a single hook, showing the method of its engagement with the hoop on the top-mast. Fig. 3 illustrates a perspective of the hook, the shank of which is, for convenience, made concave, so as to receive the luff-rope.

In Fig. 1 I have omitted many parts of the rigging which are not necessary to an understanding of my invention in order that the drawing may be more clear.

Prior to my invention gaff-topsails were bent

and set in three ways. In the ordinary way in use in this country hoops sliding upon the top-mast were seized at proper intervals to the luff-rope of the sail, which was thereby permanently fixed aloft and was of necessity furled at the mast-head, necessitating the use of clew-lines, either single or double, to clew it up or down, and a man aloft to furl it when it was to be taken in, the sail being exposed to the weather at all times, with the consequent liability to mildew. Another way, commonly in use in England, has been to dispense with hoops on the top-mast and to have a series of grommets worked in the luff of the sail and a lace-line seized to the luff-rope near the head of the sail, and when the sail was to be set a man was sent aloft, who, as the sail was hoisted, passed this lace-line around the top-mast and through these grommets successively, hauling the line taut, and so hauling the luff of the sail close to the mast, and belaying the end when the sail was fully hoisted. This method is slow, both in setting and taking in the sail, and necessitates sending a man aloft when the sail is to be taken in to cast off the line and unlace the sail, which is then hauled down on deck. The third way, commonly in use in small craft, has been to bend the luff of the sail to a pole or yard of the same length, to which two sets of halyards running through blocks properly placed aloft were attached—one near the top of the pole, the other near the foot. The sail was hoisted by the upper halyard, and the foot of the pole hauled into the heel of the top-mast by the other or lower halyard, sometimes a man going aloft to lash the foot of the pole to the top-mast. This method necessitates an extra halyard, and the pole is awkward to handle and slow and liable to foul both in setting and taking in the sail, and with this rig it is not always easy to make the sail set properly.

In small vessels particularly it is very desirable not to have to send a man aloft when taking in a top-sail. A top-sail is a light sail and a desirable sail to carry; but it would never be set when by the impact of the wind on her other sails a small vessel was heeled to such a degree that the weight of a man aloft would be a detriment or danger; but especially in racing, when it is necessary to carry

sail as long as possible, sometimes a top-sail is carried until the weight of a man aloft to furl or unlace it is a dangerous thing.

By my invention I obviate all of the foregoing objections.

Referring to the drawings, A is the mast. B is the main or fore sail, as the case may be. C is the top-mast. D is the top-sail. E is the top-sail halyard. F is the top-sail sheet, and G is the top-sail tack. H is the luff-rope attached to the inner edge of the top-sail, as usual. I are the hoops encircling the top-mast and arranged to slide thereon, as usual. J are the hooks. They are attached to the luff-rope H at suitable intervals.

Any desired means of attaching the hooks to the luff-rope may be employed; but an efficient means is to seize them to the luff-rope by seizings passing through the holes *a a*, as shown. The hooks consist of a vertical part, *a'*, preferably concaved to fit accurately to the luff-rope, which at its lower end is bent into the hook form, as shown, and a guard-piece, *b*, which may also be concaved, if desired, to fit the luff-rope, and which is riveted or otherwise attached at its upper end to the outside of the hook part of the piece *a'*. This guard *b* prevents accidental fouling of the rigging in the recess between the luff-rope and the under side of the hook at the part marked *c*.

The operation is as follows: When it is desired to set the top-sail, a man goes aloft to the mast-head, and the sail is hoisted by means of the halyard E, as usual. As it goes up past him, he successively engages the hooks J with the hoops I, which are resting on the cap of the mast, and they one after the other are carried by the hooks up the top-mast until each of the hooks has been engaged with its appropriate hoop and the sail has been fully hoisted to its proper position. The sheet and tack are then hauled taut, and the sail is thus set, the hooks J and hoops I holding its edge close to the top-mast. The sail can now be carried as long as the boat will stand it, and when desired

able to take it in the halyard E and sheet F are slackened, and the sail is hauled down by the tack G, the hooks disengaging themselves from the hoops which rest on the cap of the mast while the top-sail with the hooks attached comes down on deck.

I thus obviate the necessity of any one going aloft for taking in the top-sail, and I also do away with the pole or yard.

Having described my invention, I claim—

1. The described improvement in top sails, consisting in a series of hooks running parallel with the luff of the sail and open at their upper ends, permanently attached to the luff of the sail adjacent to the top-mast and removable therewith, as and for the purposes set forth.

2. The described combination in rig for top-sails, consisting of hooks permanently attached to the luff of the top-sail, and hoops constructed to slide upon the mast or its equivalent, the said hooks being detachably engaged with said hoops, substantially as set forth.

3. As a new article of manufacture, a hook, J, having a shank, *a'*, running parallel with the hook and adapted to rest against the luff of the sail, provided with holes *a a*, substantially as set forth.

4. As a new article of manufacture, a hook, J, having a concaved shank to fit the luff-rope, provided with the holes *a a*, and a guard at the bottom to prevent fouling, substantially as set forth.

5. As a new article of manufacture, a hook, J, having a shank, *a'*, adapted to be fastened to the luff of a sail, and a guard, *b*, substantially as and for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 29th day of July, A. D. 1887.

CHAS. A. POST.

Witnesses:

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