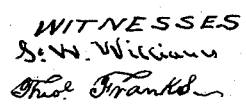


### Signal Frame.

Patented April 11, 1865.



INVENTOR  
Wm. H. Sprague

# UNITED STATES PATENT OFFICE.

WILLIAM H. SPRAGUE, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN SIGNAL-FRAMES.

Specification forming part of Letters Patent No. 47,230, dated April 11, 1865.

*To all whom it may concern:*

Be it known that I, WILLIAM H. SPRAGUE, of Boston, in the county of Suffolk, in the State of Massachusetts, have invented a new and useful frame for extending signals when there is no wind, to be used by naval and commercial vessels generally; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in providing a metallic frame, which extends the signal so that it can be distinctly discerned during a calm or when there is no wind.

To enable others to make and use my invention, I will proceed to describe its construction and operation.

I construct the angular frame with four (4) different kinds of joints—viz., A, B, C, and D. (See accompanying drawing.) Joint A is a tongue-joint, with a slide to cover the joint to make it firm. Joints B are swivel-joints, revolving on the rods A B and D B at the upper and lower parts of the frame, and will allow the rods D B at the end to open only to its proper angle and to close to the rods A B and D B. Joint C is an angular joint, which allows the rods A C and D C to open only to its proper angle, which angle depends upon the length of the rod B D B. Joints D are joints which allow their rods to open and close only in one direction. Upon each of the upper and lower parts of the frame are two (2) rings so placed as to allow the frame to hang in its proper position. Attached to the ring on the rod C D is a short cord or rope, sufficiently long to allow a ring at the other end of it to be level with the ring on the rod D B, and which will allow the said angular frame to hang in its proper position when placed below a square frame. Attached to each of the rings on the lower part of the frame is a short cord or rope, having

on the other end a swivel-clasp and sufficiently long to allow a square frame to hang in its proper position when placed below. The said angular-frame may be closed as follows—viz.: first, close the joints D, which bring the joints B together; second, remove the slide from off the joint A and further close the frame by joints A and D; third, and last, close the end with joint B.

I construct the square frame with two (2) different kinds of joints—viz., D and E. (See accompanying drawing.) Joints D are the same as in the angular frame. Joints E, at each corner, allow their rods, respectively, to open only in a right angle and close together. Upon each of the upper and lower parts of the frame are two (2) rings placed as in the angular frame. Attached to the two (2) lower rings is a cord or rope, having a swivel-clasp at the lower end sufficiently long to allow other frames to hang in their proper positions below. The said square frame may be closed as follows: first, close the joints D at the end, which bring the upper and lower part together; second, close the other joints D, which bring all the joints E together; third, and lastly, close with joints E.

The material of which the signal is composed is to be sewed around each frame, allowing sufficient space for each joint to operate. Attached to the halliards by which the signals are hoisted is a short cord or rope, forming two (2) legs, having on the end of each leg a swivel-clasp to hook on the rings of the uppermost signal.

What I claim as my invention, and desire to secure by Letters Patent, is—

Two (2) kinds of frames, to extend signals when there is no wind, as herein described and set forth in this specification.

WILLIAM H. SPRAGUE.

Witnesses:

S. W. WILLIAMS,  
E. H. BATES.