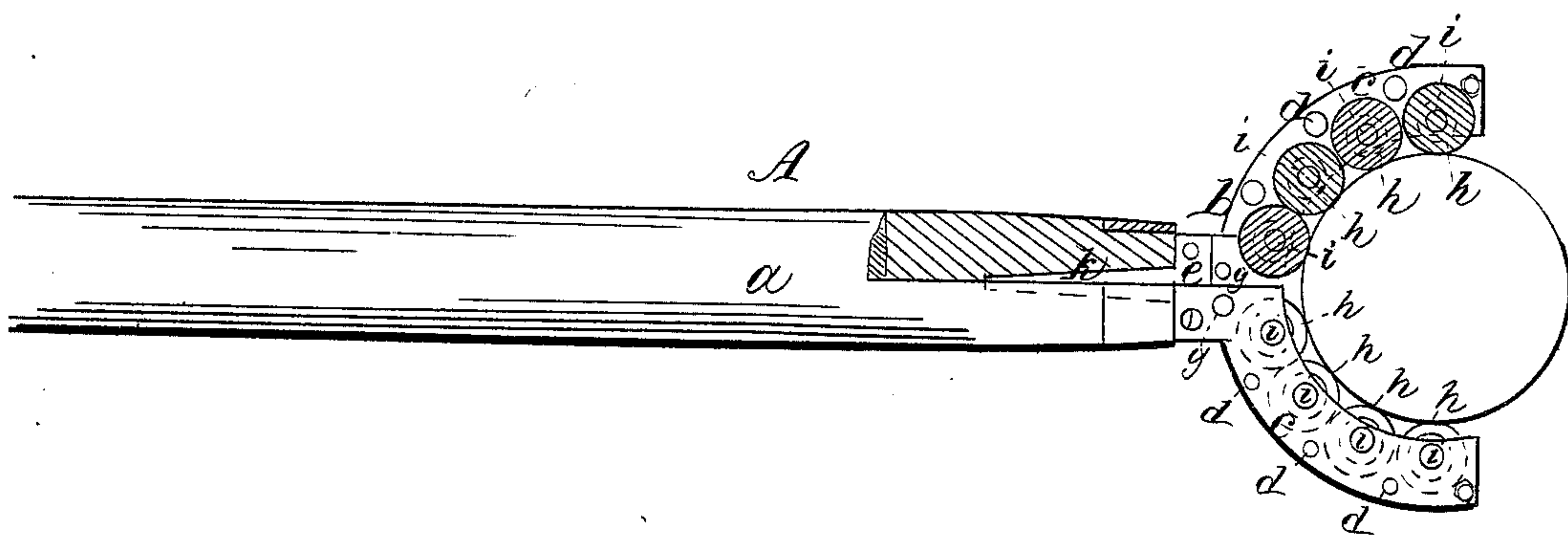
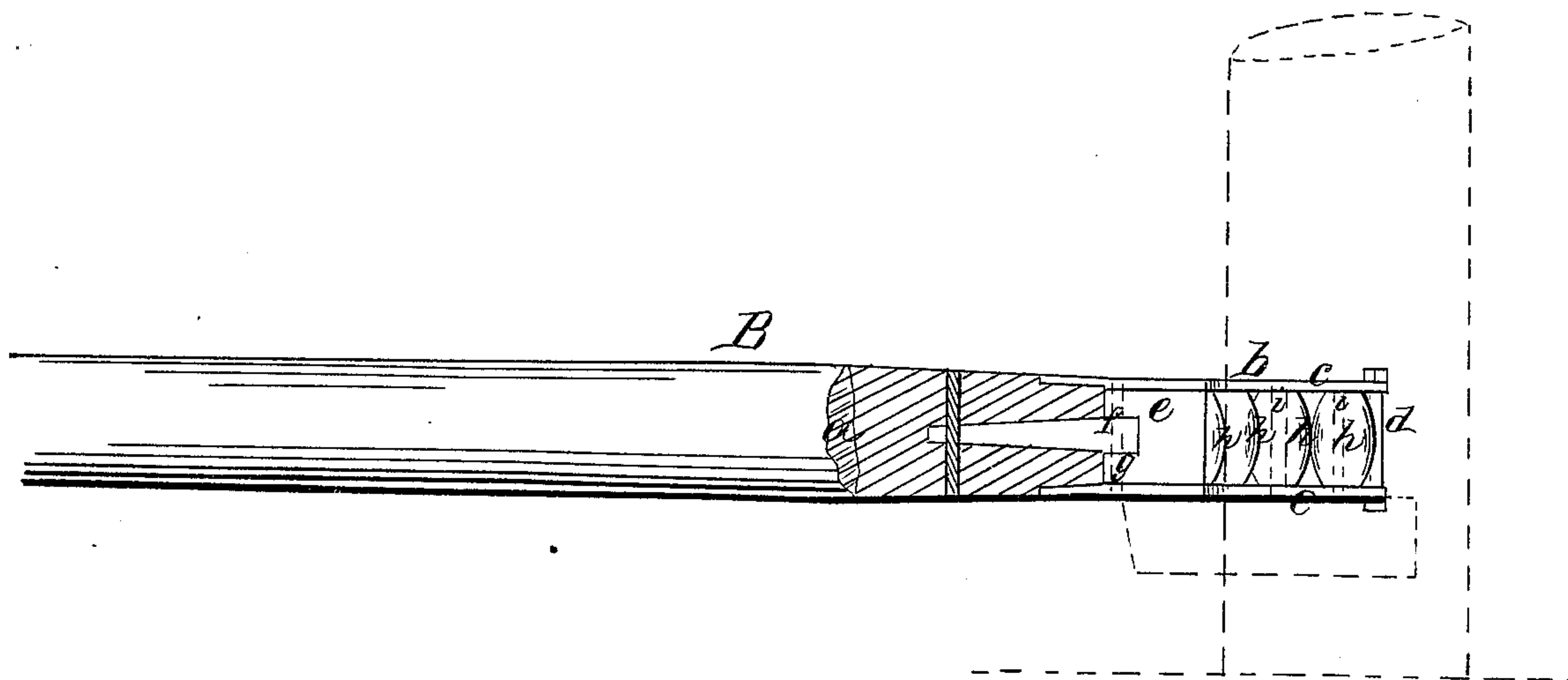


*I. Webster,
Gaff.*

No. 91290.

Patented June 15. 1869



*Witnesses
J. B. Kidder
M. W. Frothingham.*

*Loach Webster
by his Atty
Groby Helbert & Fuller*

United States Patent Office.

ISAIAH WEBSTER, OF BUCKSPORT, MAINE, ASSIGNOR TO JAMES F. MOSES, OF SAME PLACE.

Letters Patent No. 91,290, dated June 15, 1869.

IMPROVEMENT IN JAWS FOR BOOMS.

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

To all whom it may concern:

Be it known that I, ISAIAH WEBSTER, of Bucksport, in the county of Hancock, and State of Maine, have invented an Improvement in Vessels' Gaffs and Booms; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention, sufficient to enable those skilled in the art to practise it.

In sea-vessels, the swinging of the jaws of the gaff and boom of fore-and-aft sails upon the masts cuts into, or "chaws" the surface of the mast, and, to remedy this, a rocking block, or chock has been pivoted to the jaw of a boom, the chock holding the surface of the jaw from the mast, and remaining stationary as the boom swings vertically. But as this chock presents only a narrow bearing-surface, and the strain of the boom comes wholly upon it, and through it upon the mast, its use does not wholly save the mast from injury.

To remedy this difficulty is the principal object of my invention, and, for this purpose, I construct the jaw of a gaff or spanker-boom with two semicircular plates, between which is placed a series of friction-rolls, which turn with or upon pins extending from one plate to the other, the rolls projecting, on one side, from the jaw, so that as the boom swings it rolls upon the mast, instead of sliding against the same.

It is in a boom, or gaff-jaw having these rolls that my invention primarily consists.

The drawings represent a boom embodying my improvement.

A shows a view of the boom, partly in plan, and partly in section.

B is a vertical section through the centre of the jaw.

a denotes the spar, having, at its front end, the jaw *b*.

This jaw is made up of the two semicircular plates *c*, connected by the pins *d*, and having a slotted block, *e*, which embraces a tongue, *f*, projecting from the spar, pins *g* passing through the block and tongue, and thus confining the spar to the jaw.

Between the jaw-plates *c c* are the friction-rolls *h*, each turning on a pin, *i*, the opposite ends of which are preferably riveted to the opposite plates, each roll projecting, on one side, beyond the edges of the jaw-plates, the bearing-surface of each roll being, preferably, made bulging, as seen at B. The rolls extend around the jaw, so that in whichever direction the jaw presses, toward the mast, the rolls form the bearing-surfaces, and rotate as the boom or gaff swings, or rides upon the mast, thereby preventing all injury to the surface against which the jaw presses.

The boom-jaw is generally made of wood, or as a bifurcated continuation of the wood of the spar, instead of which I make it as a separate piece, and of metal, and with the connecting-block *e*, into the groove in which the tongue *f* is fastened, said tongue being also preferably formed of metal, and on the end of a shank, *k*, driven into, and fastened to the spar.

I claim, in combination with a metallic jaw of a boom or gaff, constructed substantially as described, a series of friction-rollers, arranged and secured therein, substantially as set forth.

I also claim the metallic jaw, constructed substantially as described, when connected with the spar by its shank *k*, tongue *f*, and slotted block *e*, substantially as set forth.

Witnesses:

ISAIAH WEBSTER.

THEO. C. WOODMAN,
F. F. MOSES.