

C. Lucas.
Sail Cringle.
N^o 87,859. Patented Mar. 16, 1869.

Fig: 1.

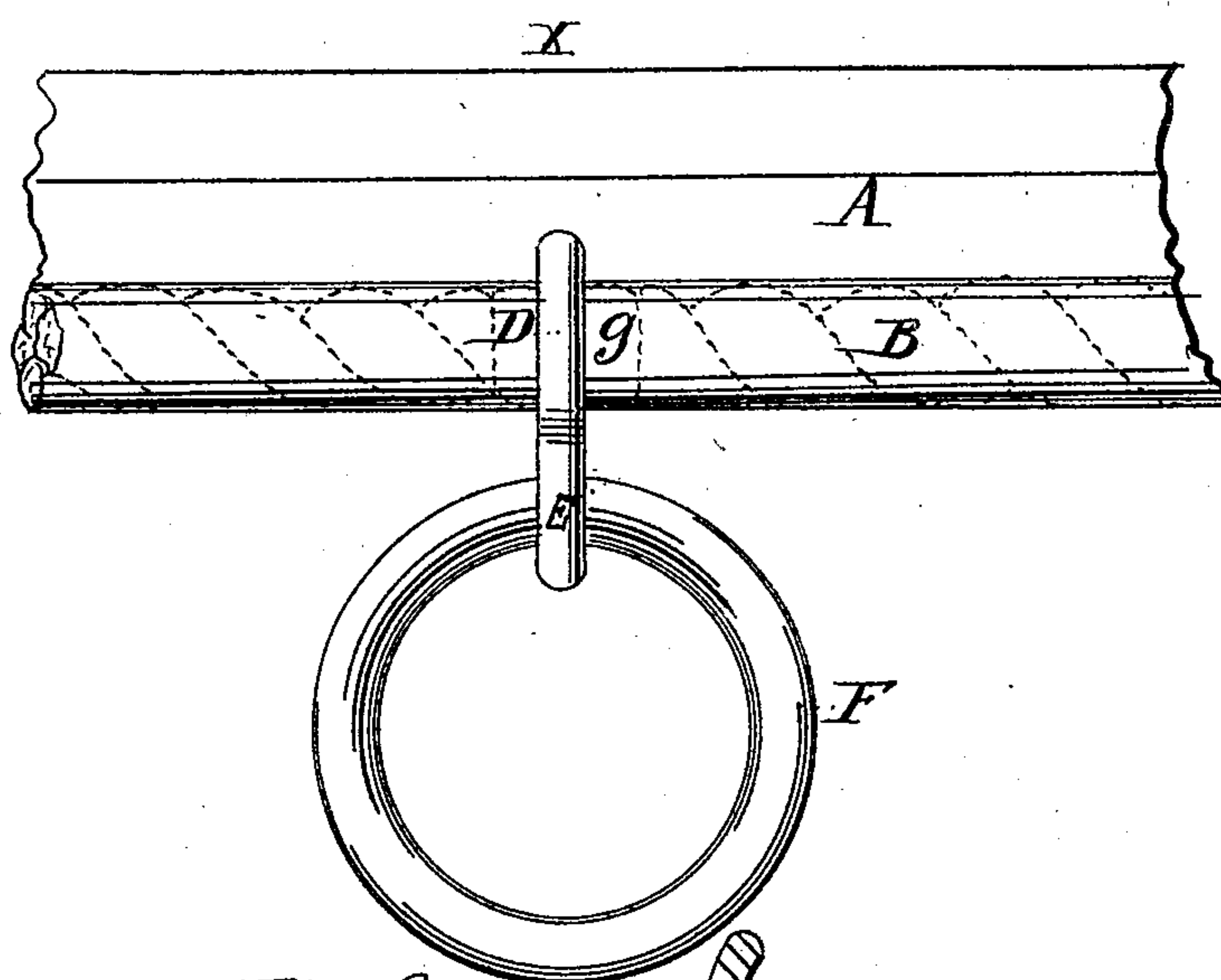
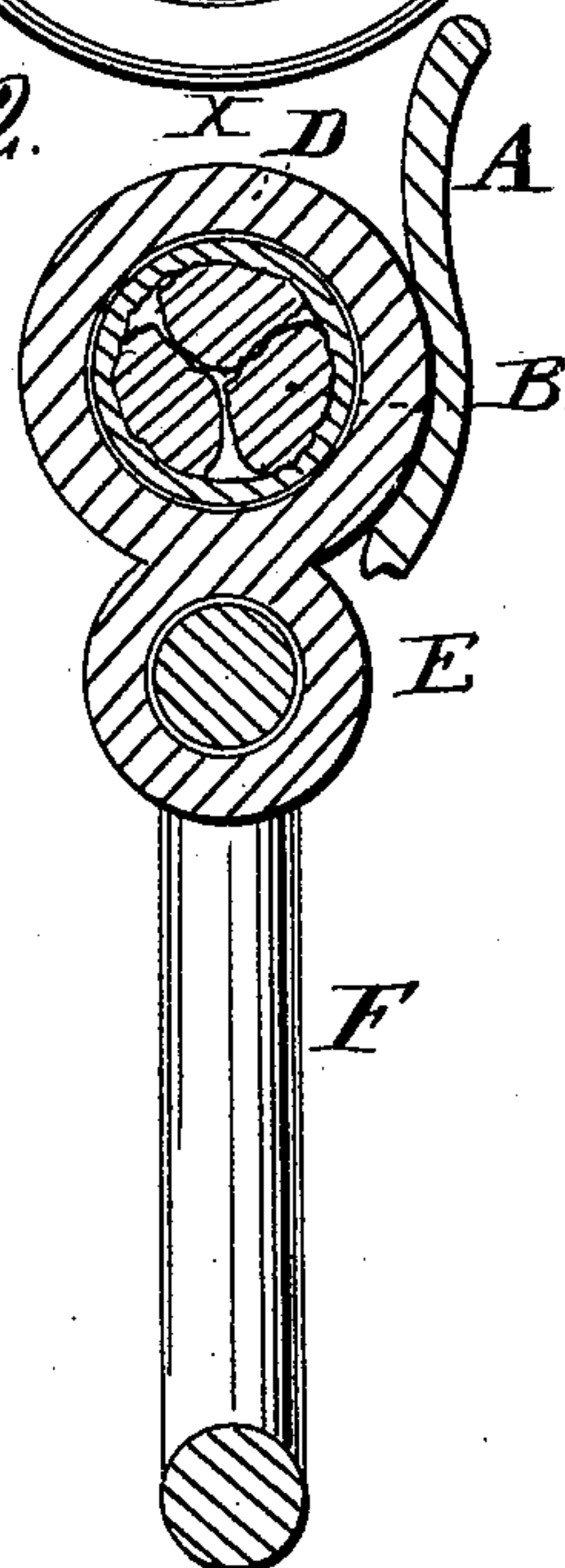


Fig: 2.



Witnesses:

W. C. Ashkett
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United States Patent Office.

CHARLES LUCAS, OF BROOKLYN, NEW YORK.

Letters Patent No. 87,859, dated March 16, 1869.

IMPROVEMENT IN SAIL-CRINGLES.

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, CHARLES LUCAS, of Brooklyn, in the county of Kings, and State of New York, have invented a new and useful Improvement in Sail-Cringles; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improvement in sail-making, and consists in forming what is known as the "cringle," (which supports the sail when it is raised,) entirely of iron, instead of combining rope and iron with the troublesome and expensive grommets through the sail, by which the old cringle is attached.

Figure 1 is a view of the cringle attached to a section of a sail, made and attached according to my invention.

Figure 2 is a cross-section of fig. 1, through the line *xx*.

Similar letters of reference indicate corresponding parts.

A is the sail.

B is the bolt-rope, to which the sail is attached in the ordinary manner.

C is the cringle, which is formed simply of a ring, D, (through which the bolt-rope is drawn,) which has an eye, E, in which the ring F freely plays.

Between the bolt-rope and the ring D, there may be a piece of leather placed, to prevent injury to the bolt-rope, as seen in red in fig. 2, and at *g*, fig. 1.

When the cringle is thus placed upon the bolt-rope, the rope is somewhat compressed, so that when it expands, the ring will be fixed in the desired place.

The cringle, after having been placed upon the bolt-rope, is secured in the exact position desired at the time the sail is roped, several cross-stitches being taken upon each side of the cringle, so as to make the cringle more secure.

It will thus be seen that a cringle made and attached in this manner, must be more durable than when formed mostly of rope, and the expense will be trifling, when compared with the old method of forming and attaching them.

Having thus described my invention,

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

A sail-cringle, formed of two parts, or pieces, D and F, of iron, or other suitable metal, and attached to the bolt-rope and sail, substantially as and for the purposes specified.

CHAS. LUCAS.

Witnesses:

WM. F. McNAMARA,
ALEX. F. ROBERTS.