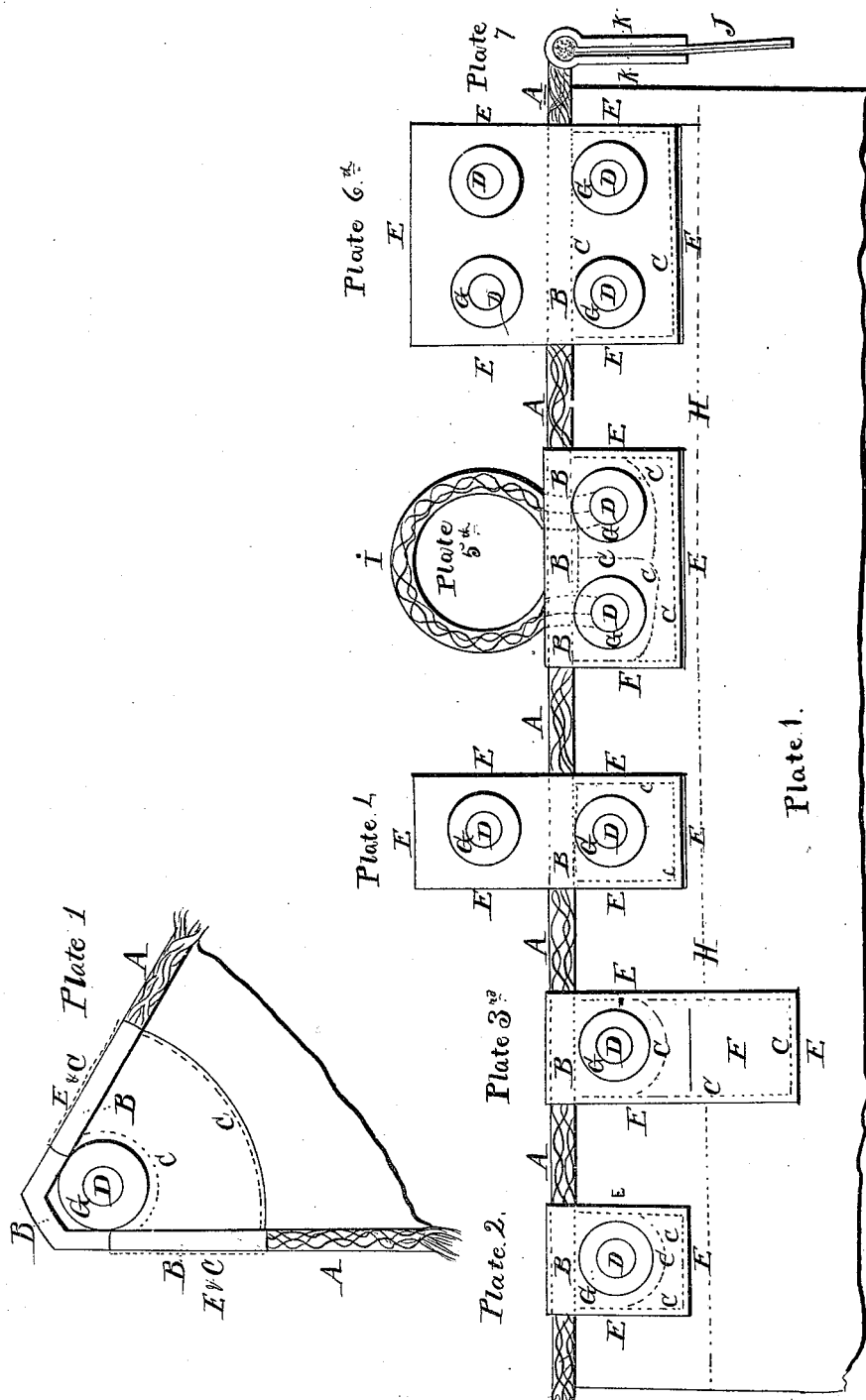


E. F. Southard.
Grummet Strap.
No. 7,708. Patented Oct. 8, 1850.



UNITED STATES PATENT OFFICE.

ELI F. SOUTHWARD, OF WELLFLEET, MASSACHUSETTS.

GROMET-STRAP.

Specification of Letters Patent No. 7,708, dated October 8, 1850.

To all whom it may concern:

Be it known that I, ELI F. SOUTHWARD, of Wellfleet, in the county of Barnstable and Commonwealth of Massachusetts, have invented a new and useful improvement in the art of sail-making, which may be called a metal gromet or thimble strap and the mode of applying the same to be used on the sails of vessels, awning, tents, and wagon covers; and I do hereby declare that the following, taken in connection with the accompanying drawings, is a full, clear, and exact description of my invention.

On the edges of sails as heads, foots, leeches and luffs I take a piece of leather or raw hide from two to three inches wide, and from six to eight inches long, when a single gromet is to be used, I then encircle the rope with the said piece of leather or raw hide and lapping it on each side of the sail, stick or peg through both strap and sail around the place where the metal gromet is to be inserted, I then punch or cut a hole through both the strap and the canvas, insert one of Penfield's patent metallic gromets, and set it in a good and substantial manner with the dies prepared for that purpose (see plate second).

A represents the rope, the colored portion the sail, B, that part of the strap which encircles the rope, E the edges of the strap, *c* the stitching or pegging, D the hole in the gromet, and G, the gromet as inserted. (Plate third see.)

F represents the additional length of the strap when more than ordinary strength is required.

Plate 4th represents the strap as extended and ready for application. D, G, and *c* not being completed. A ring may be used and a thimble formed in the strap and answer the same purpose.

When two gromets are used as for a

cringle, I take a strap sufficiently large to admit both gromets, say from six to eight inches wide and proportionably long, and stretched or pegged as in the single gromet (see plate fifth) to which the foregoing explanations are applicable. When used at the corners of sail (see plate 1st) I vary the shape of the strap so as to correspond with the shape of the corner, and apply as before described.

The nature and operation of this strap is such that by its use as above directed, the rope is secured to the sail by being strapped thereto by the leather, in a manner altogether new, and the rope and canvas and ties are better protected from chafing than in any other mode now in use, a firmer foundation is thereby afforded to the gromet, rendering it more durable and enabling the sail to bear a much greater strain without tearing away, a greater thickness is given to the gromet (see plate seventh) which gives a sectional view D, representing the canvas, and K, K, the additional thickness afforded by the leather, and that it gives greater durability to those parts of the sail most exposed to excessive wear and strain, and differs from all other modes of strapping further in that it is performed after the rope is sewed to the sail.

What I claim as new in this invention is—

The mode of applying the above described strap by encircling the rope therewith, and stitching or pegging the strap to the canvas and so applying it as to insert the gromet through the strap and canvas, and this is what I desire to secure by Letters Patent.

ELI F. SOUTHWARD.

Witnesses:

REUBEN H. SPARROW,
JOHN W. DAVIS.