No. 609,307. Patented Aug. 16, 1898.

# C. F. SULTEMEYER.

## SHIP'S BANDAGE.

(Application filed Jan. 3, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1

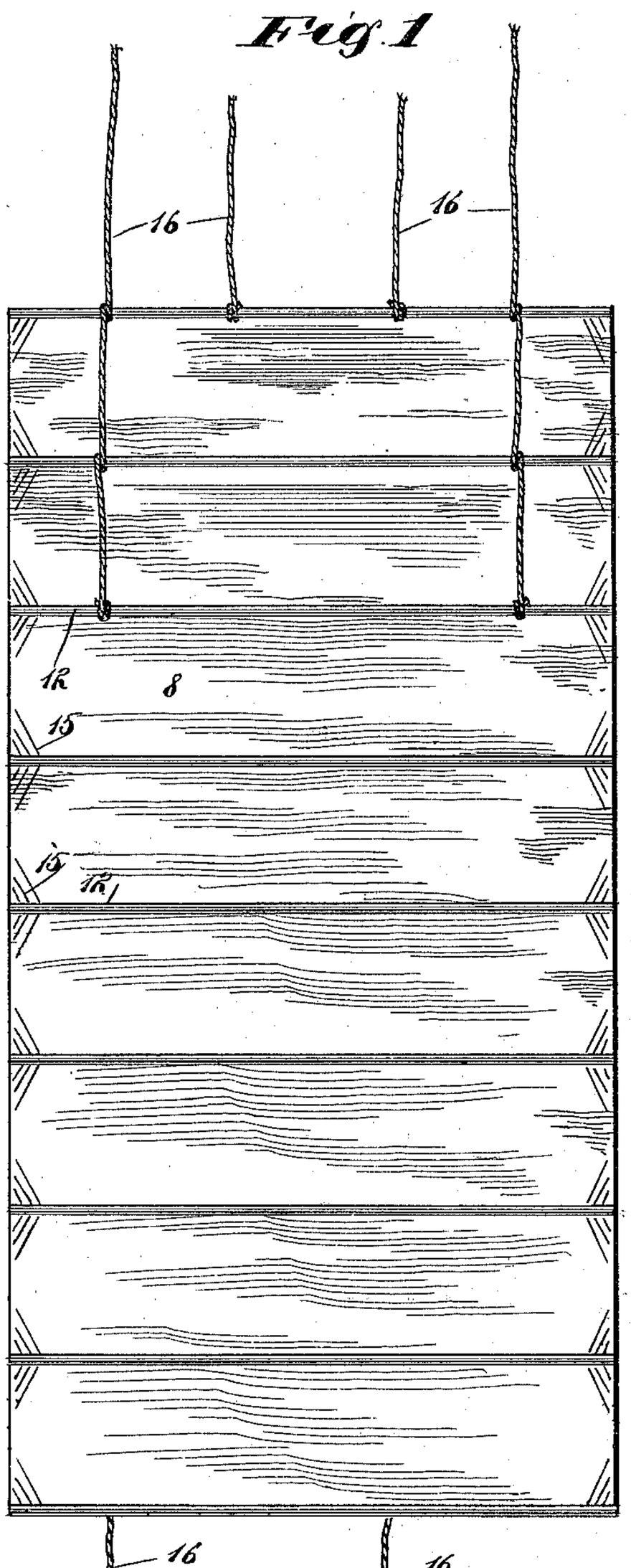


Fig. 2

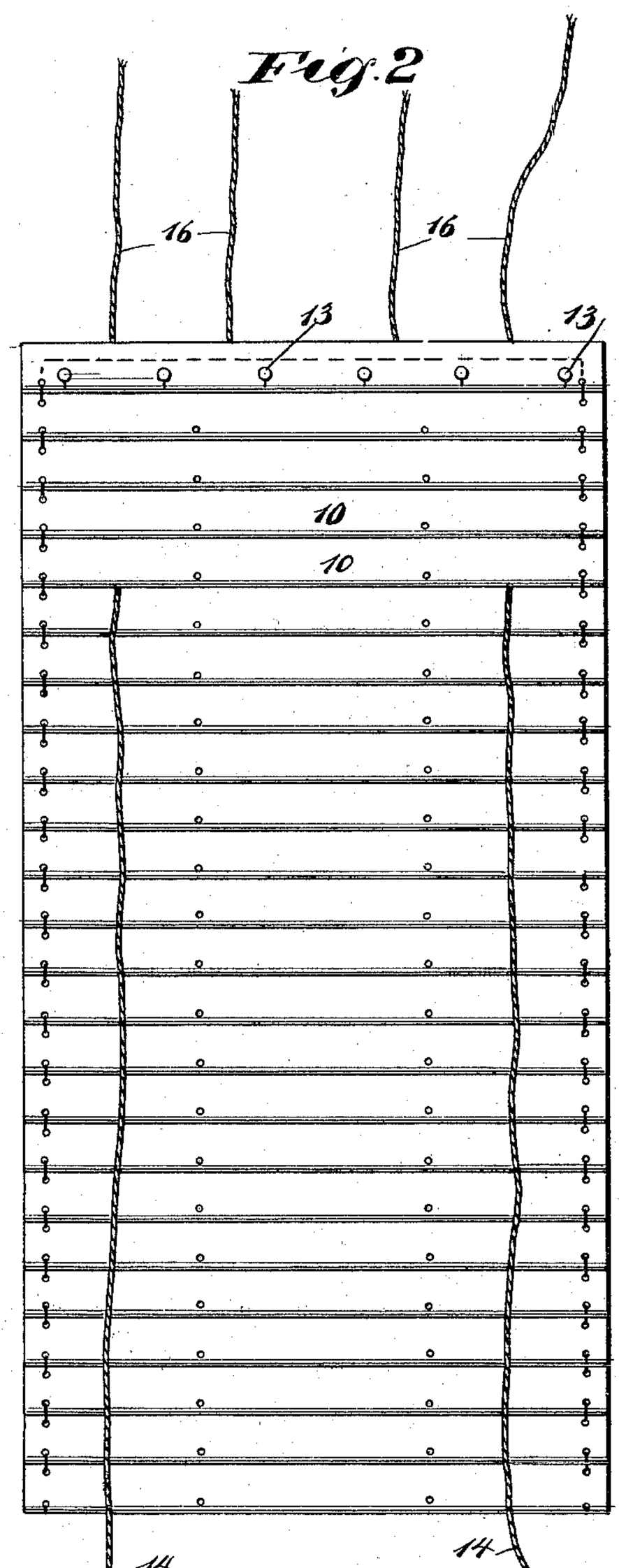


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Fig. 3

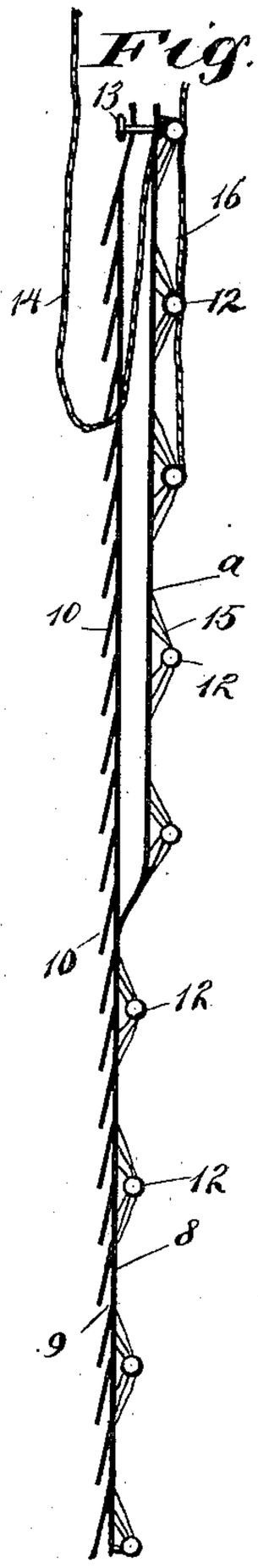



Fig. 4

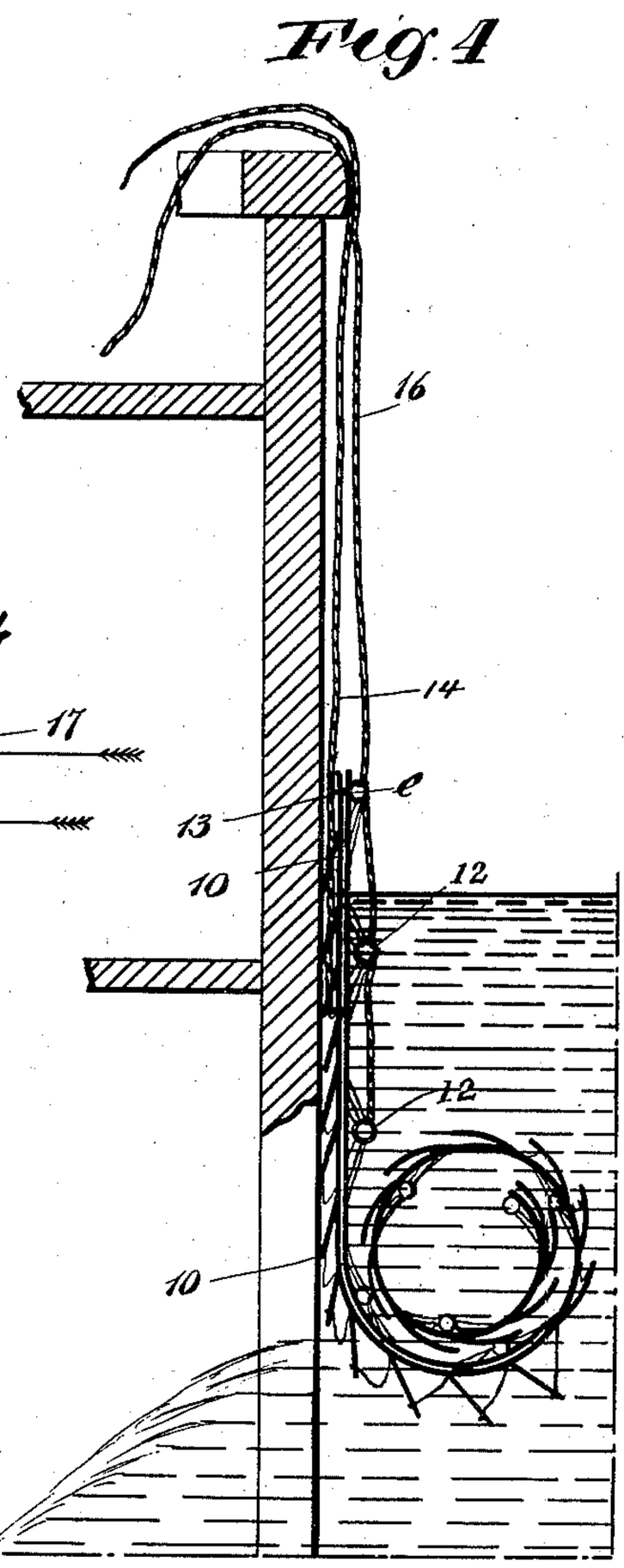



Fig. 5

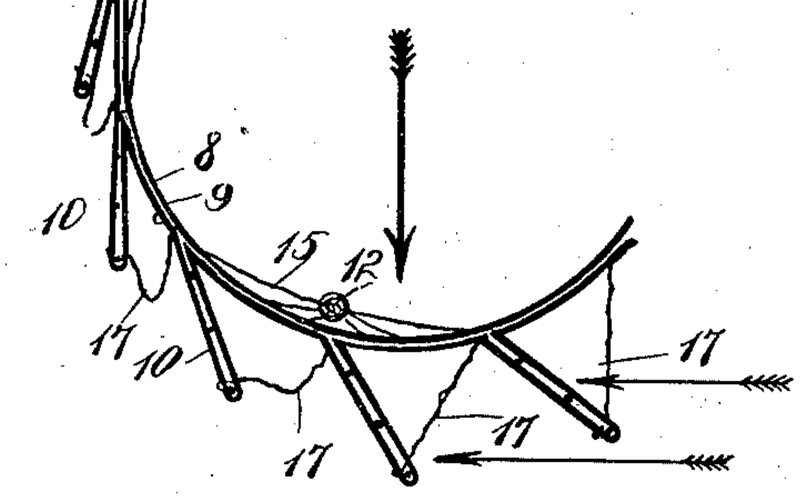



Fig. 6

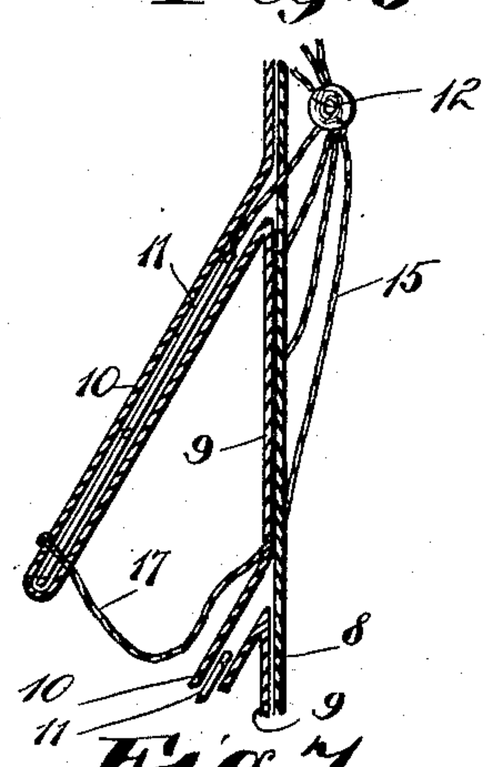
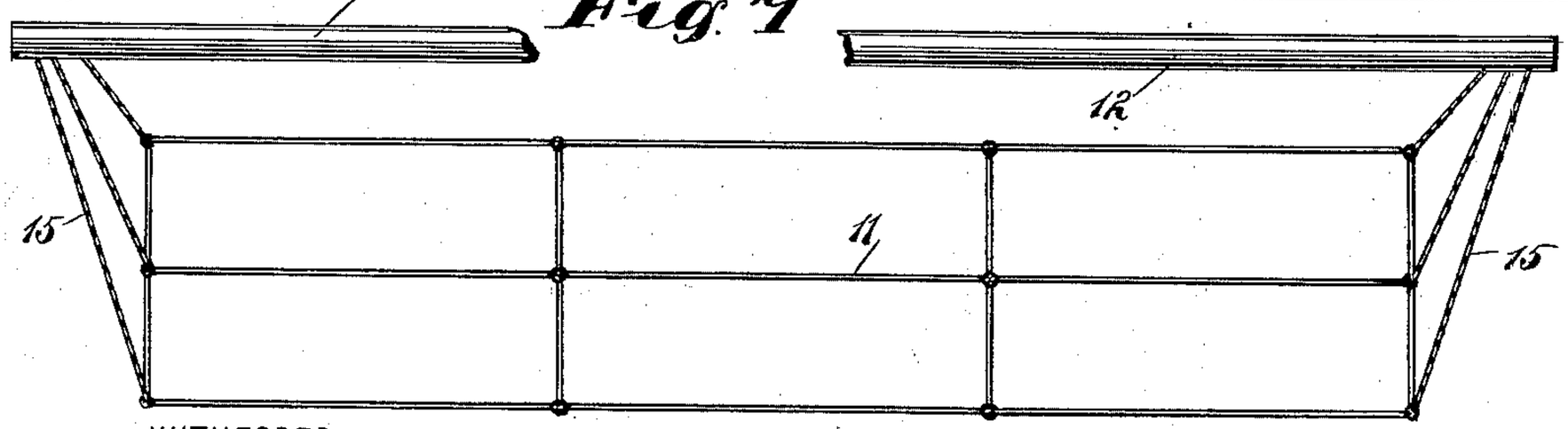



Fig. 7

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# UNITED STATES PATENT OFFICE.

CARL F. SULTEMEYER, OF CHICAGO, ILLINOIS, ASSIGNOR OF PART TO HARRY V. PETERS, HENRY B. CLARKE, AND PATRICK J. O'FLAHERTY, OF SAME PLACE.

## SHIP'S BANDAGE.

SPECIFICATION forming part of Letters Patent No. 609,307, dated August 16, 1898.

Application filed January 3, 1898. Serial No. 665,411. (No model.)

*To all whom it may concern:*

Be it known that I, CARL F. SULTEMEYER, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Ship's Bandage, of which the following is a full, clear, and exact description.

This invention is a flexible cloth structure designed to blanket or bandage a leak in the hull of a vessel, so as to keep the water from entering the same; and the bandage is provided on one side with overlapping flaps, which when the bandage is rolled project out tangentially from the roll, so that the pressure of the incoming water, acting on the flaps, will unwind the roll and spread the bandage over the surface of the vessel.

This specification is the disclosure of one form of my invention, while the claims define the actual scope of the invention.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is an outer face view of the bandage. Fig. 2 is an inner face view thereof. Fig. 3 is a section taken longitudinally through the bandage. Fig. 4 is a fragmentary section showing the ship and the action of the bandage when being applied thereto. Fig. 5 is an enlarged section of the bandage, showing the unfolding operation. Fig. 6 is an enlarged section showing the construction of the flaps; and Fig. 7 is an enlarged plan, also showing such construction.

The bandage is constructed of a continuous outer layer 8 of cloth and an inner layer 9 of cloth, having a series of parallel folds, forming the flaps 10. Each flap 10 has a wire frame 11 secured therein, so as to give the flap necessary weight and stiffness. The canvas layer 8 is stiffened by parallel ribs 12, secured thereto by cords 7, the cords being attached to the ends of the ribs and to bandage at different points along its longitudinal edges. By thus connecting the ribs to the bandage the bandage will be free to bag, so as to enter the hole in the side of the vessel, and at the same time the strain upon the cords and bandage will be so distributed that likelihood of the bandage being torn from the ribs or the ribs broken is reduced to a minimum. The inner layer 9 is securely joined to the layer 8 throughout the greater portion of the cloth of the bandage, but for a short distance at the upper end the layer 8 is separated from the layer 9 and removably connected therewith by fastening devices 13. Lines 14 are attached to the uppermost rib 12 and run down between the layers 8 and 9 for a short distance and thence through the layer 9, whereby to manage this loose portion of the layer 9, the purpose of which will be explained hereinafter. Those frames 11 which are adjacent to the respective ribs 12 are connected thereto by means of suitable lashings 15, as shown best in Fig. 7. Each end of the bandage is connected with lines 16, by which the bandage may be handled. The flaps 10 are held so as to swing in a uniform manner by means of stays 17, which respectively run from the outer portions of the flaps inward to the body of the bandage, as shown best in Figs. 5 and 6.

In applying the bandage it is rolled, as shown in Fig. 4, so that the flaps 10 will be on the outer side of the roll and will project outward like the blades of a water-wheel. The roll is then lowered transversely, as shown in the view referred to, and upon entering the water the force of the water rushing into the break in the vessel will act on the flaps 10 and press the lowermost flaps toward the hull of the vessel in a manner to close the break therein. The pressure of water will generally act quickly on the bandage to place the bandage and to hold the bandage in position. Should the headway of the vessel, however, tend to carry away the roll, the loose upper portion of the layer 9 should be released from the fastening devices 13 and permitted to drop downward from behind the roll. As this loose portion of the layer 9 hangs beneath the roll and over the break in the vessel, the pressure of the water will immediately carry the loose portion into the hull of the vessel or bind it firmly against the projecting edges of the hull, so that the bandage will be fixed to the hull, and the unrolling of the bandage will then go on without interruption. The loose portion of the layer 9 may

be handled by the lines 14, for which purpose such lines are provided. By rigging lines beneath the hull of the vessel the bandage may be drawn on at each end and lashed firmly in place. It is generally unnecessary, however, to resort to this expedient.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A ship's bandage having a series of independent flaps attached thereto, the bandage being capable of being rolled with the flaps outward so that the action of the water bearing against the flaps will unroll the bandage to place it against the hull of the vessel.

2. A ship's bandage capable of being rolled and having independent projecting portions secured thereto receiving the action of the water to unroll the bandage in the act of placing the bandage against the hull of the vessel.

3. A ship's bandage having two layers of cloth joined to each other for a portion of their lengths and having the remaining portions independently movable.

4. A ship's bandage having a loose portion capable of hanging down from the bandage when the bandage is rolled so as to engage with the side of the vessel.

5. A ship's bandage having a layer of cloth disposed with independent parallel folds secured thereto and forming flaps, and a series of ribs secured to the bandage parallel with the flaps.

6. A ship's bandage having a series of independent parallel flaps secured thereto, and a frame of stiff material secured in each flap.

7. A ship's bandage provided with a series of ribs secured thereto at their ends by flexible connections, said connections being secured to the bandage at different points along the longitudinal edges thereof, substantially as described.

8. A ship's bandage provided with transverse ribs on one face and on the opposite face with a series of flaps containing stiffening-frames, the frames of the flaps being connected by flexible connections with the ribs, substantially as described.

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Witnesses:
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