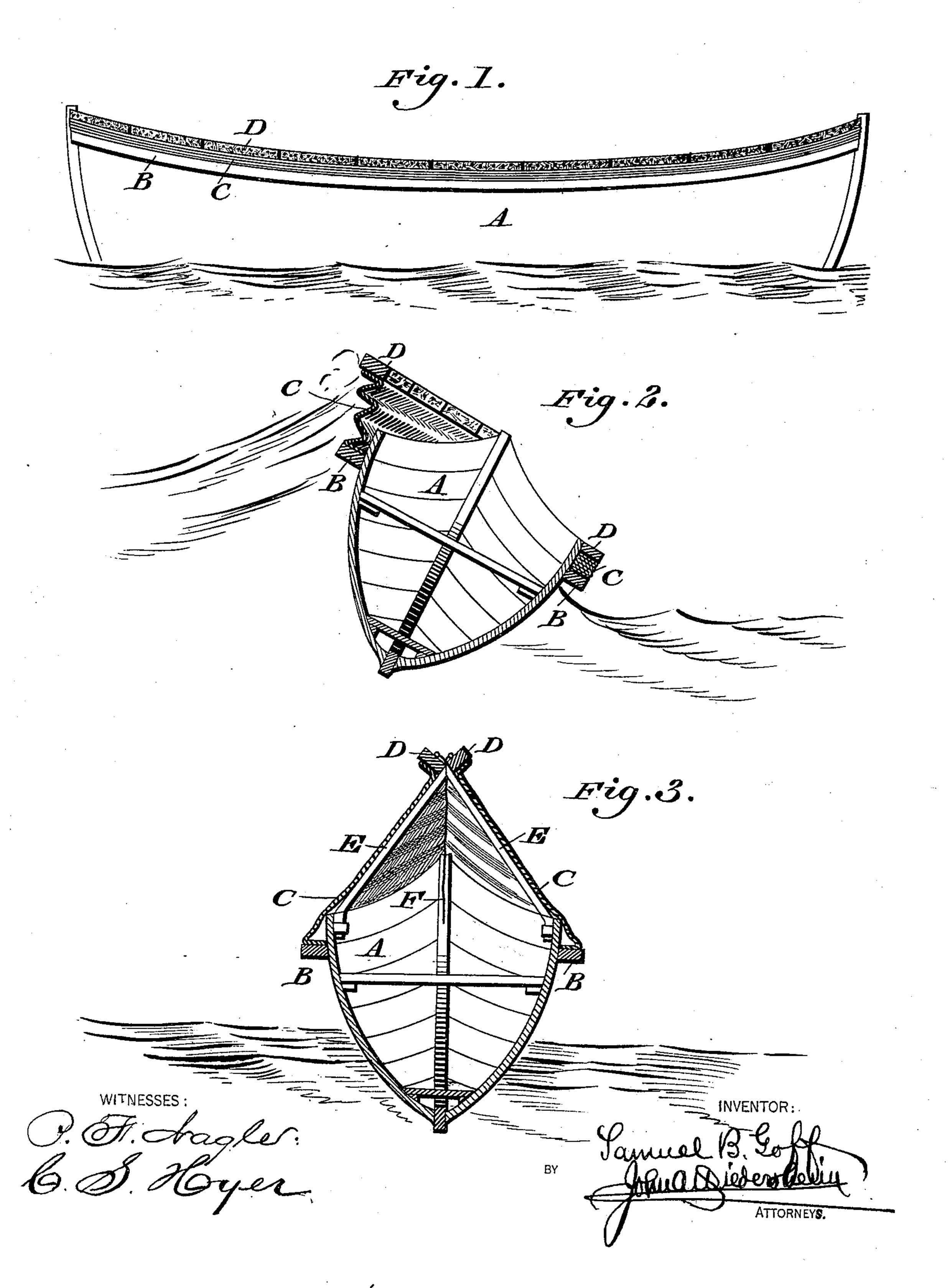
S. B. GOFF.
GUARD FOR BOATS, SHIPS, &c.

No. 438,917.

Patented Oct. 21, 1890.



## United States Patent Office.

SAMUEL B. GOFF, OF CAMDEN, NEW JERSEY.

## GUARD FOR BOATS, SHIPS, &c.

SPECIFICATION forming part of Letters Patent No. 438,917, dated October 21, 1890.

Application filed November 11, 1889. Serial No. 329,904. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL B. GOFF, a citizen of the United States, residing in the city and county of Camden, State of New Jersey, 5 have invented a new and useful Improvement in Guards for Boats, Ships, &c., which improvement is fully set forth in the following specification and accompanying drawings.

The invention consists of bellows-like de-10 vices connected to the sides of a boat, the same receiving the impact of the waves, which yield independently of the motion of the boat so as to relieve the said boat of the shock incident to the waves, and also prevent ship-

15 ping of water.

Figure 1 represents a side elevation of a boat embodying my invention. Fig. 2 represents a cross-sectional view thereof, showing one guard raised. Fig. 3 represents a 20 similar view of a modification of the improvement, showing both guards raised and held elevated as a covering or roofing for the boat. Similar letters of reference indicate corre-

sponding parts in the three figures.

Referring to the drawings, A designates a boat, having side rails B secured to the gunwale below the upper edge thereof. Said rails B extend throughout the length of the boat from stem to stern.

To the upper side of each rail B is attached the lower end of a guard C, and to the upper edge of the latter is secured a rim D of cork or analogous material, the said guard C, being formed of bellows-like folds, with the rim 35 D resting thereon, as shown in Figs. 1 and 2: The cork rim D, being lighter than the water, will be raised by a wave striking the side of the boat, and the gurad C expands or is elevated to receive the impact or blow of the 40 waves, and also prevents shipping of water into the boat, as shown in Fig. 1. When the water recedes from the side of the boat, the guard C and rim D fall back upon the rail B. I

The rims D are preferably made in sections to make them flexible, and thereby strengthen 45 the same against vibration and strain.

As shown in Fig. 3, the guards C are adapted to be used for a roofing or covering of the entire boat. In this instance the boat is supplied with temporary adjusted rafters E, 50 over which the rims D and guards C are drawn upward to form a water-proof covering or roof to the boat. In this form of arrangement a cord F is secured to the rims D to draw the same upward from the interior of 55 the boat, and thereby completely inclose the occupants and protect them against weather and sea in each boat, and be arranged in position, when desired.

Having thus described my invention, what 60 I claim as new, and desire to secure by Let-

ters Patent, is—

1. A boat having an automatic elevatingguard attached to the sides thereof, substan-

tially as described.

2. A boat having an elevating folding guard attached to the sides thereof, having a buoyant rim in connection therewith, substantiaily as described.

3. A boat having side rails secured thereto, 7° guards connected at their lower edges to said rails, and buoyant rims connected to the upper edges of said guards, substantially as de-

scribed.

4. In a boat, removable rafters adapted to 75 be secured to the inner portions of the gunwales of said boat, water-proof guards having buoyant rims, and a cord secured to said rims for drawing the same and the guards up over the rafters to form a covering for the boat, 8c substantially as described.

SAMUEL B. GOFF.

Witnesses:

JOHN A. WIEDERSHEIM, L. Jennings.