L'ESSE.

Device for Protecting Vessels.

Patented Apr. 23, 1861. 32,121. Inventor,

## UNITED STATES PATENT OFFICE.

FRANCIS COMTESSE, OF NEW YORK, N. Y.

## DEVICE FOR PROTECTING THE HULLS OF VESSELS FROM CANNON-BALLS.

Specification of Letters Patent No. 32,121, dated April 23, 1861.

To all whom it may concern:

Be it known that I, Francis Comtesse, of No. 126 Leonard street, in the city, county, and State of New York, have invented a ter of the shield.

5 new and Improved Device for Protecting Vessels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of the shield.

The several shield the edge of each lapped by the edge

Figure 1 represents a side elevation of my invention. Fig. 2 is an elevation of a portion of the side of a vessel in a larger scale than the previous figure. Fig. 3 is a trans-

15 verse vertical section of the same.

Similar letters of reference in the three

views indicate corresponding parts.

This invention consists in the employment of a series of convex rounded shields of iron or steel plate or of any other suitable material and attached to the sides of a vessel by means of eye bolts and loops or in any other desirable manner and so that the edges of each succeeding shield overlap those adjoining it for the purpose of protecting the vessel and rendering it proof against any cannon ball which may hit it.

To enable those skilled in the art to make and use my invention I will proceed to describe it with reference to the drawing.

The shields A are made circular or of any other desirable shape and they are raised in the center and rounded similar to the bucklers of ancient warriors. For ordinary vessels of war their diameter will be from 18 to 20 inches and they must be made of steel plate about \(\frac{3}{16}\) of an inch thick so that they are perfectly impenetrable for a ball. By being rounded or convex, if a ball strikes their surface it will glance off without damage to the vessel to which such shields are attached.

Each shield is provided on its under side with a stout loop a firmly inserted into the center of the shield and an eye bolt b secures it to the side B of the vessel. When the shields are to be attached to a vessel of the ordinary construction, a metal plate c is secured to the outside planks and washers

d, are placed under the eye bolts to pre- 50 vent them being driven back into the sides of the vessel, if a ball should strike the center of the shield.

The several shields are so arranged that the edge of each of them is partially over- 55 lapped by the edges of the adjoining shields as clearly shown in Fig. 2 of the drawing. By these means the strength and the power of resistance of said shields is considerably increased and if a ball should strike one of 60 the shields, it will readily glance off and pass over the side of the vessel without doing any damage. The protecting power of the shields is still further increased by attaching them in such a maner that their 65 edges are left perfectly free to turn down in either direction, so that by this very action a ball striking one of the shields in one direction or in the other is turned off and caused to glide over the surfaces of the 70 shields, without doing any injury to the vessel.

It is obvious that the shields can be attached in any other manner desirable and I do not confine myself to the precise means 75 above described for securing the shields to the sides of the vessel.

Any vessel can be protected by means of these shields and the shields can be attached or taken off at pleasure so that in case it is 80 desired to convert an ordinary vessel into an efficient war vessel, it is only necessary to secure to its sides a number of my shields and the hull will be perfectly safe against being injured in an engagement.

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

Letters Patent is—

The employment of convex rounded shields A, attached to the sides of a vessel by means 90 of loops a and eye-bolts b, or by any other equivalent means substantially as and for the purpose herein shown and described.

FR. COMTESSE.

Witnesses:

W. HAUFF,

J. F. Buckley.