(No Model.)

M. HUNTER.

LIFE SAVING NET.

No. 396,491. Patented Jan. 22, 1889.

Fig. 1.

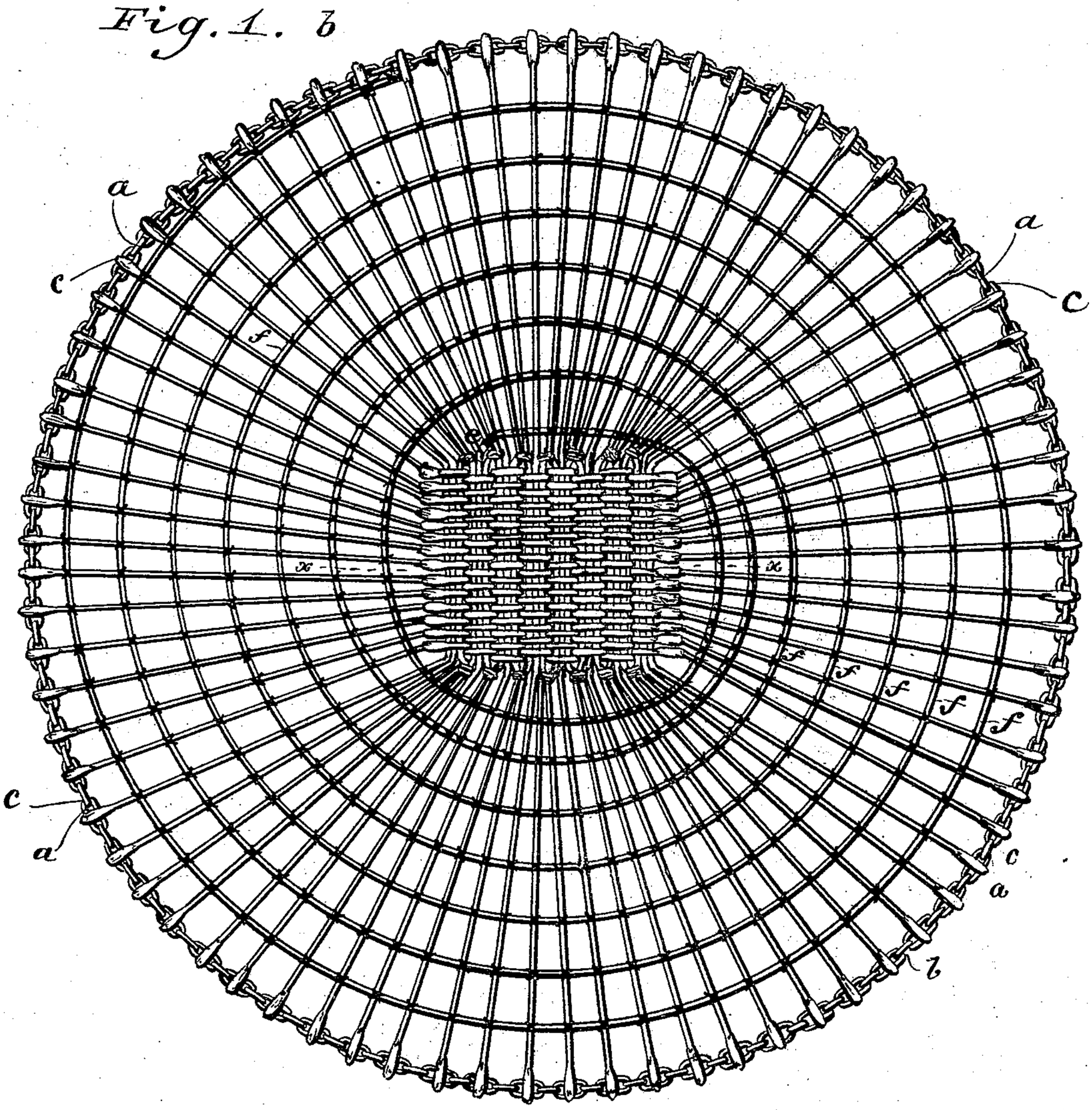
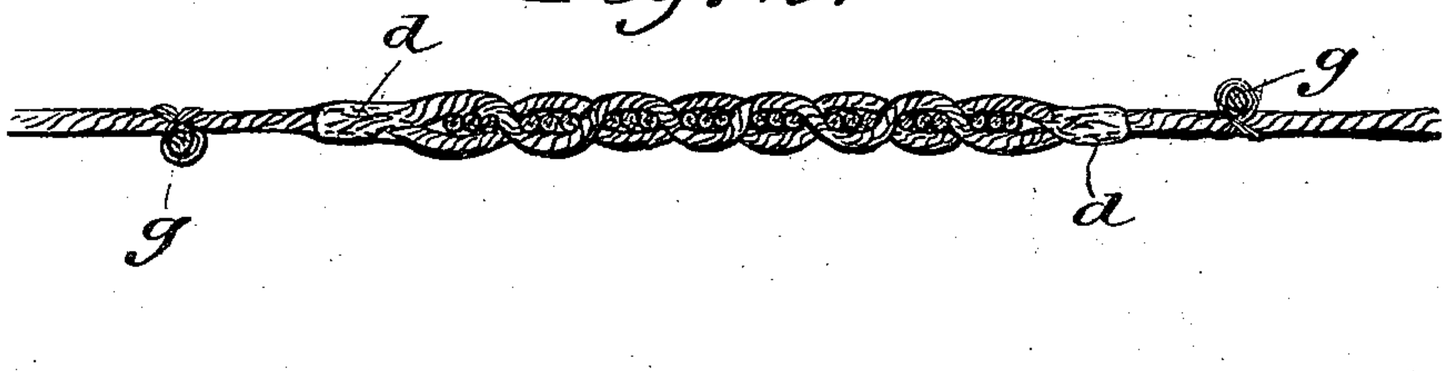


Fig. 2.



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MALCOM HUNTER, OF LONG ISLAND CITY, NEW YORK.

LIFE-SAVING NET.

SPECIFICATION forming part of Letters Patent No. 396,491, dated January 22, 1889.

Application filed November 19, 1888. Serial No. 291,213. (No model.)

To all whom it may concern:

Be it known that I, MALCOM HUNTER, of Long Island City, in the county of Queens and State of New York, have invented a new and Improved Life-Saving Net, of which the following is a full, clear, and exact description.

Heretofore life-saving nets have been constructed by providing a metallic ring about eight inches in diameter and splicing thereto at their inner ends the radiating lengths of rope which go to compose the net proper, and at their outer ends splicing the said lengths to a grasping-rope, which, to secure the requisite strength, was made of rope about three inches in circumference. An example of such a net is shown in United States Letters Patent No. 360,082, dated March 29, 1887, granted to Hugh Bonner. The presence of the metallic center ring is likely to render the use of the net unsafe from the likelihood of a user striking the ring and injuring himself; and the object of my invention is to produce a life-saving net which shall contain no metallic ring at any point where a user would be likely to strike, and which shall contain an approximately solid rope center piece, which shall act as a cushion for a falling body striking it, and which shall also add strength to the entire net.

I will describe a net embodying my invention, and then point out in the claims the features I deem novel.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 represents a plan view of my improved life-saving net; and Fig. 2 is a cross-section thereof, taken on the plane of the line *x x*, Fig. 1.

It is usual to construct life-saving nets of about ten feet in diameter, and I prefer to follow this dimension. I prefer, also, to use Russian bolt-rope three-quarters of an inch in circumference and a three-sixteenth galvanized grasping-chain.

In the drawings it will be seen that each of the radiating ropes of my net is equal in length to the full diameter of the net. By so constructing a net strength is added to the whole structure. It will also be observed that a certain number of the ropes, as those between the lines *a a*, Fig. 1, pass directly from one point of attachment to the grasping-chain *b* to the other, and that they are held in place at the center of the net by being confined between certain other of the ropes, as those between *c c* in the drawings, and short pieces of rope *d* spliced at each end to the stock-rope and following a sinuous course, as shown in Fig. 2, so as to form pockets sufficient to receive a number—say three, as shown in the drawings—of the ropes which pass directly from one point of the grasping-chain to the other. The ropes to which the short pieces are spliced also follow a sinuous course over and under the ropes to be received in the pockets. The result of so combining the ropes of the net at the center will be that a compact closely-united piece is formed, from which the ropes radiate to form the body of the net.

After the center piece is formed as above described, the radiating ends are combined with the grasping-chain *b* by passing the loose ends thereof through the eyes of the links and splicing each of them into itself, or in any other convenient manner. A length of rope is then taken, preferably of the same diameter as the other rope used in the net, and is spliced at *e* to one of the radiating ropes, and is then taken and carried, as shown in Fig. 1, first over and then under each of the radiating ropes in such manner as to describe a spiral, *f*, in its course, and is united, as shown at *g g*, Fig. 2, to each radiating rope at each of the points it crosses it. By this means more than a single splice is avoided, and consequently the strength of the device is increased.

It will of course be understood that the spaces left between the radiating ropes and the spirally-wound rope will not be large enough to admit the foot of a person.

Some of the advantages following from my invention are, that with the approximately solid rope center danger to the person of a user by injury from the net is obviated. Cushions are unnecessary to be carried or used, as my net is self-cushioning. The use of a grasping-chain instead of a heavy rope permits the

net to be folded into a small compass, and thus space is economized. The use of a spirally-wound rope does away with a large number of splices necessary where concentric intermediate ropes are used.

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

1. A life-saving net comprising an approximately solid rope center piece and ropes radiating therefrom to form the body proper of the net, said radiating ropes being combined at their outer ends with a grasping rope or chain, substantially as specified.

2. A life-saving net comprising an approximately solid rope center piece formed from the radiating ropes and spliced pieces, substantially as specified.

3. A life-saving net the body of which is made of rope and consists of pieces radiating approximately from a common center and a spirally-wound rope secured thereto at regular intervals, substantially as specified.

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