

E. F. MILLER.
LIFE SAVING DEVICE.

APPLICATION FILED MAY 26, 1910. RENEWED JAN. 25, 1911.

1,002,424.

Patented Sept. 5, 1911.

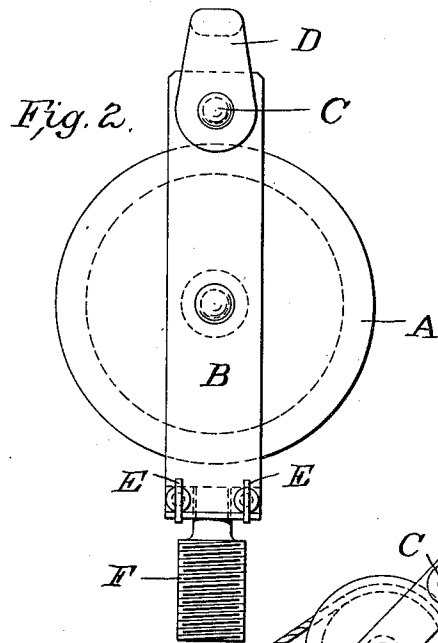
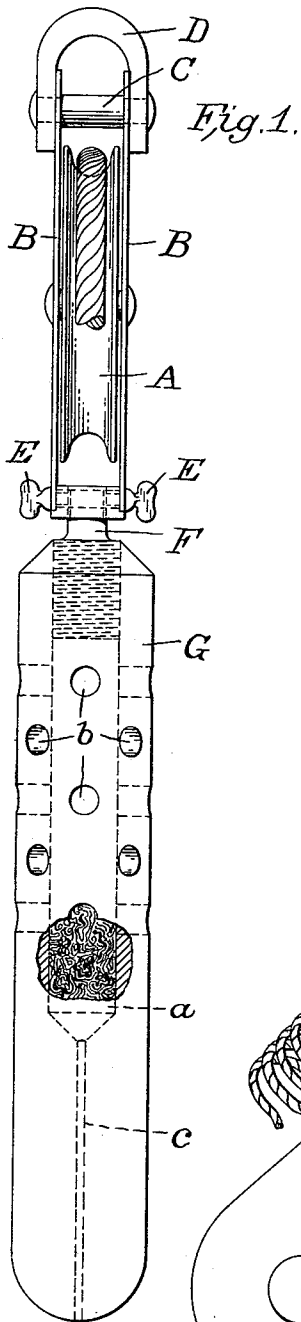
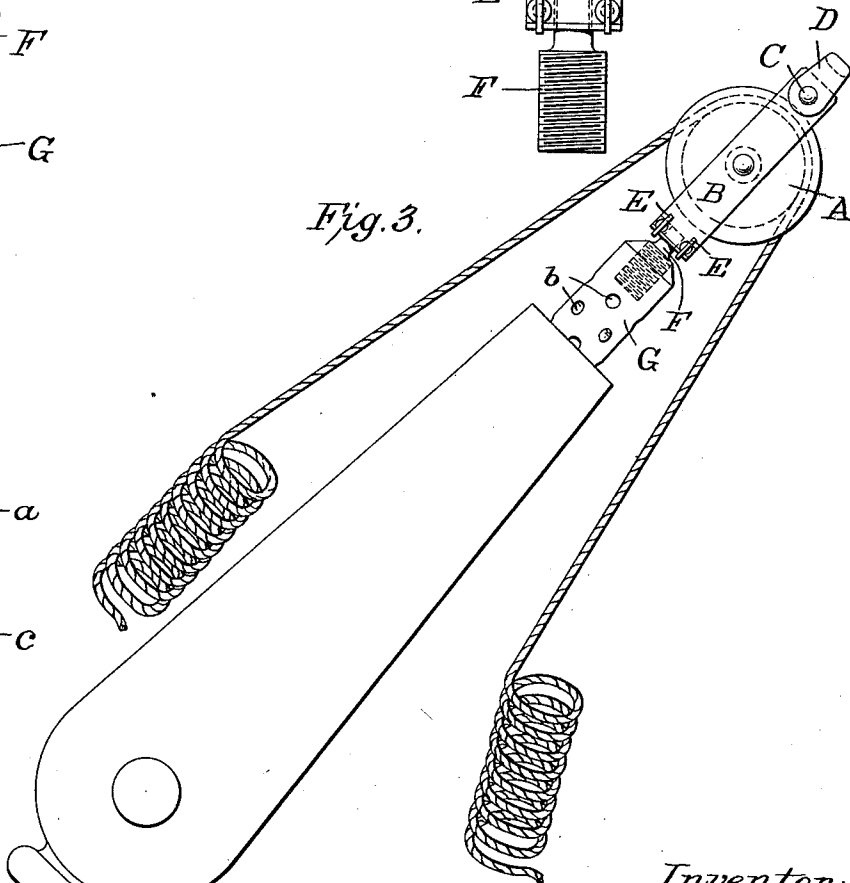


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

EDWARD F. MILLER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO UNITED STATES LIFE SAVING EQUIPMENT COMPANY, OF BOSTON, MASSACHUSETTS.

LIFE-SAVING DEVICE.

1,002,424.

Specification of Letters Patent.

Patented Sept. 5, 1911.

Application filed May 26, 1910, Serial No. 563,627. Renewed January 25, 1911. Serial No. 604,671.

To all whom it may concern:

Be it known that I, EDWARD F. MILLER, citizen of the United States, residing at Boston, Massachusetts, have invented certain new and useful Improvements in Life-Saving Devices, of which the following is a specification.

My invention relates to an improvement in life saving devices of the type illustrated in Letters Patent of the United States of Dalton 814116 dated March 6, 1906. In this patent there is shown a frame for a sheave or pulley mounted therein at one end with a bail at the other end to which a shot 2 is flexibly connected, the center of the frame containing a lighting medium such as a battery and light.

I have aimed to simplify the construction in the present invention and to this end my invention consists in the details herein shown and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 shows a sectional view of a sheave and its carrying frame, Fig. 2 is a side elevation of the sheave and frame, while Fig. 3 is a diagrammatic view showing how the device is used.

In these drawings the sheave is represented at A suitably supported in a frame which comprises two side plates B, held together at the front by a bolt C, which also holds in place a bail D. The sheave or pulley is preferably made of aluminum alloy to get strength with lightness. At the rear of the frame I clamp thereto by means of thumb screws E a socket F and this socket is adapted to have screwed thereon or otherwise secured a slug or shot G.

As shown in Fig. 3 the slug is fired from a gun such as that of the well known Lyle type, and by passing a line over the sheave with the ends of the line loosely coiled a light line is carried to the vessel which it is desired to reach and a heavier line may be carried out through the light line to bring

off the crew or passengers in any of the well known ways.

It is desirable, as set forth in the Dalton patent referred to, to have a light to indicate to the persons on the ship that the life line is being sent, and to indicate further its location when it strikes the ship, and I have aimed to secure this effect by hollowing out the slug with a central channel *a* having openings from the central channel through to the periphery of the slug as at *b* and then within the channel *a* I have a charge of cotton lint on chemical which may be fired so as to ignite or burn, being initially ignited by the charge burned in the gun through a passage *c* extending from the rear of the slug to the central cavity *a*. When the line has reached the vessel the slug is removed by detaching the thumb screws E. The frame is then fastened through the ring at one end to some fixed part of the vessel so as to form a permanent means of attachment before the heavy rope is drawn through the pulley.

What I claim is:

1. In a life saving device, a frame, a pulley carried thereby, a slug or shot connected directly with the pulley frame and detachable therefrom, substantially as described.
2. In a life-saving device, a frame having a bail pivoted to it at one end, and a slug or shot detachably connected directly thereto at the opposite end, and a pulley journaled in said frame, substantially as described.
3. In a life saving device a frame, a pulley journaled therein, a slug or shot having a central passage, or recess, a member having a screw threaded connection with said slug or shot, and means for detachably connecting said member to said frame.

In testimony whereof, I affix my signature in presence of two witnesses.

EDWARD F. MILLER.

Witnesses:

ELIZABETH C. SAUL,
ALLYN L. MERRILL.