

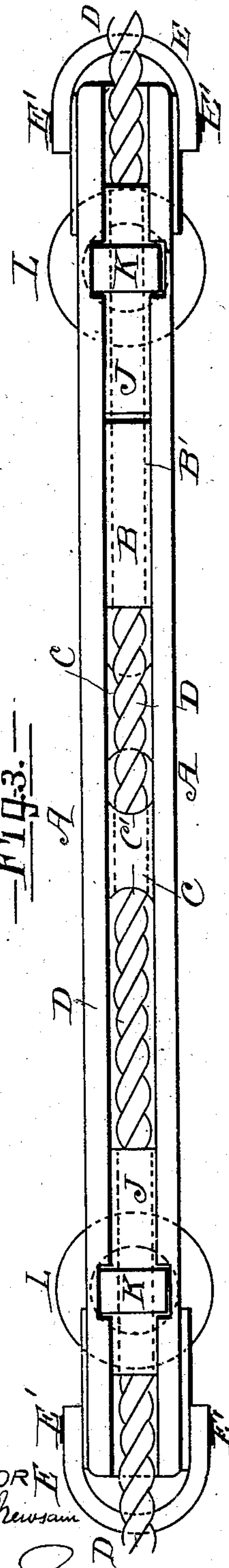
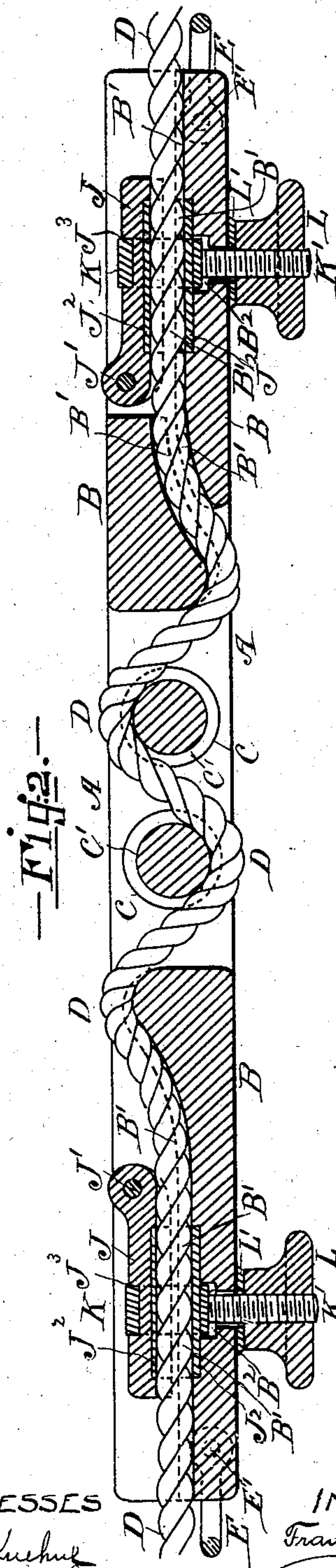
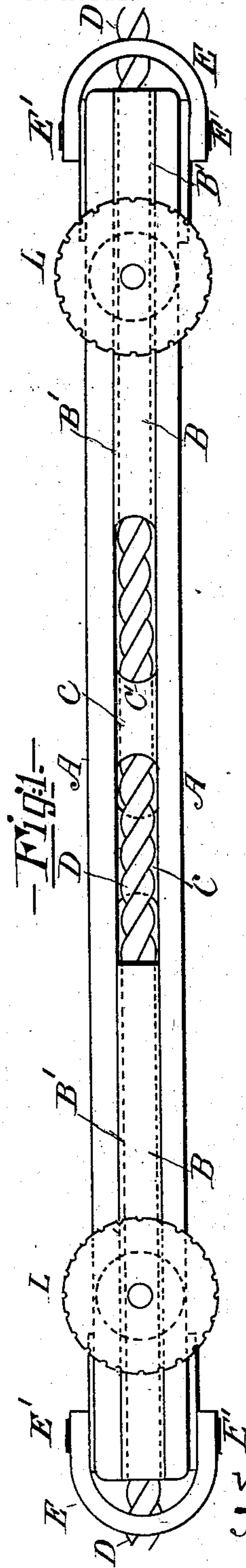
F. E. NEWSAM.

APPARATUS FOR SAVING LIFE FROM FIRE AND SHIPWRECK.

APPLICATION FILED NOV. 15, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES

H. M. Kuehn  
J. M. Dowling

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By

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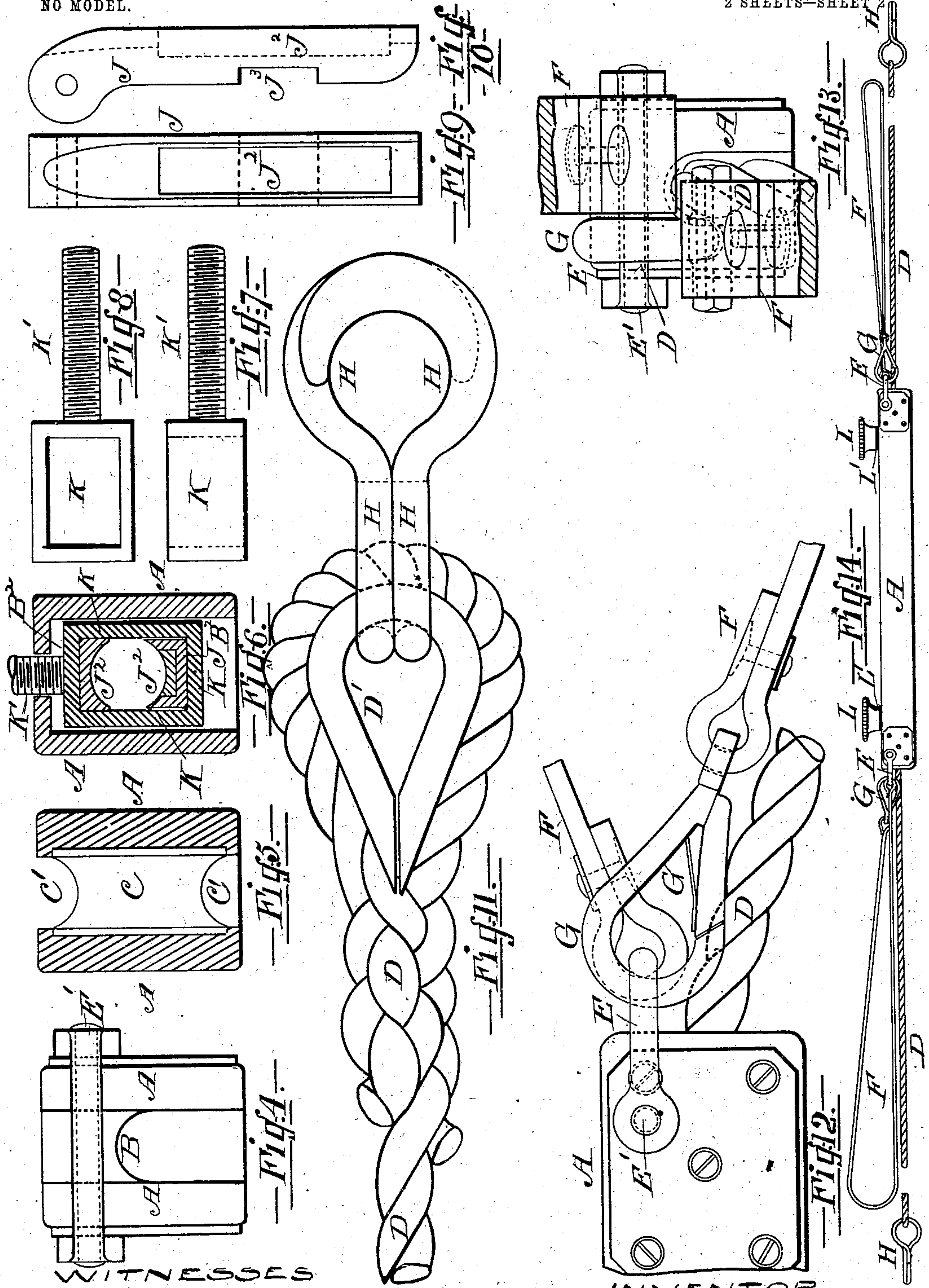
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2 SHEETS—SHEET 2



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# UNITED STATES PATENT OFFICE.

FRANCIS ERNEST NEWSAM, OF LEAMINGTON SPA, ENGLAND.

## APPARATUS FOR SAVING LIFE FROM FIRE OR SHIPWRECK.

SPECIFICATION forming part of Letters Patent No. 726,185, dated April 21, 1903.

Application filed November 15, 1902. Serial No. 131,578. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS ERNEST NEWSAM, a subject of His Majesty King Edward VII of Great Britain and Ireland, and a resident of Leamington Spa, in the county of Warwick, England, have invented certain new and useful Improvements in Apparatus for Saving Life from Fire and Shipwreck, also applicable for building and mining operations and the like, (for which I have applied for a patent in Great Britain, No. 19,538, bearing date September 6, 1902,) of which the following is a specification.

The objects of my invention are to provide apparatus for saving life from fire and shipwreck essentially; to provide new or improved apparatus that shall be portable, simple in construction, and readily adjustable for use, readily understood for operation, and that can be conveniently stored away when out of use, always at hand in case of emergency, and of such construction that a person or number of persons can quickly escape from danger; to provide apparatus for use in building operations and the like or for the use of mining-engineers, well-sinkers, and for other purposes.

Referring to the drawings which form a part of this specification, Figure 1 is a front view of my improved apparatus. Fig. 2 is a longitudinal section of same. Fig. 3 is a back view of the apparatus. The figures on Sheet 2 are drawn to a larger scale, excepting Fig. 14. Fig. 4 is an end view. Fig. 5 is a cross-section through center of apparatus. Fig. 6 is a cross-section through one of the brakes in connection with the apparatus. Figs. 7, 8, 9, and 10 are detail views of the brake action. Fig. 11 is one end of the rope, showing the sister-hook attachments. Fig. 12 is a view of one end of the apparatus, showing the connecting or supporting strap, swivel, and D-loop. Fig. 13 is an end view. Fig. 14 is a general view showing the whole apparatus and its connections drawn to a smaller scale.

Like letters of reference indicate like parts on each figure.

My invention refers mainly to new or improved apparatus for saving life from fire or shipwreck or for other purposes, as herein mentioned, and is designed to provide an apparatus which consists of a sliding traveler,

hereinafter generally referred to as the "traveling" apparatus or "traveler," which is caused to slide or travel down upon a single length of rope. The said traveling apparatus comprises two side parallel supporting-pieces A, which consist of metal or wood and are connected together by metal or wooden body-pieces or blocks B. In the space centrally between the sides A and intermediate longitudinally between the body-pieces B are one, two, or more round metal studs or fixed sheaves C or cross-pieces, which are preferably transverse fixtures in the sides A or may be made to act as rollers and which are grooved, C', to form side flanges, as shown. A single length of rope D, of the usual fabric, dressed with fireproof chemicals or other suitable preparation, or of wire, runs longitudinally through the entire apparatus and upon which it works and through an arrangement of brake mechanism at each end of the traveling apparatus, passing through inclined or partly-inclined grooves or channels B' (shown in dotted lines,) formed in the body part B of same, and under and over the fixed sheaves or studs C or rollers, as the case may be, the grooves of which, as also the grooves in the body B, are of a size relative to the size of the rope D. Each end of the traveling apparatus or traveler is provided with a strong metal loop E, pivotally connected by a pin E'. To the loop E is attached a strap, webbing, or cord F, provided at the one end with a swivel-hook G, which serves as the supporting-belt for attachment of the apparatus to the body of the person. Each end of the rope D has a metal-lined loop D', to which are connected hooks H, known as "sister" hooks. The brake mechanism at each end consists of an arm J, pivoted at J' to the apparatus, said arm being of concave form upon its under face, so as to follow the outline of and fit closely to the rope. A leather pad is preferably introduced on the concave face of the arm J, (shown at J<sup>2</sup>,) so as to bear upon the rope, and a central part or eyepiece K fits into a countersinking J<sup>3</sup> in the top side of the arm J. A screw-threaded milled head or knob L operates the screw K' of the part K, working in a slot B<sup>2</sup> in the sides A.

By screwing down the head L a bearing is obtained upon its seating L' upon the front



of the apparatus. The action upon the screw K' causes the center part K to draw up the arm J against the rope D on its one side, thus gripping it and forcing it on the opposite side 5 tightly against the groove B' in the body B. This groove at the point opposite to the brake is also padded with leather J<sup>2</sup>, preferably, or other material.

It is apparent that the operation of the head 10 L contracts or expands the arm J upon the rope D.

The operation of the traveling apparatus or traveler upon the rope is as follows: Secure the one end of the rope D, by means of 15 the hooks H, to a ring at or near the window, for instance. The traveling apparatus will be now at the top of the rope. The loose end with its hooks is cast to the ground. The strap F is secured around the body of the person about to descend. The brake is adjusted according to the weight to be conveyed 20 down the rope and so as to grip the rope more or less tightly. Thus the traveling apparatus or traveler, with the person strapped to same, 25 is caused by the weight of the body to gradually slide down the rope, the manipulation of the head or knob L of the brake governing the grip upon the rope. So powerful a grip can be brought to bear that a person descending 30 can regulate the traverse of the apparatus or bring it to a stop at will. The sheaves or studs C, under and over which the rope passes, also act as a check to a too rapid descent by reason of the kinks formed in the rope. Upon 35 the person reaching ground the apparatus is hauled up and reversed, the rope made fast,

and the slack rope thrown down again, when another can descend, and so on.

It will be apparent that no physical exertion is needed to manipulate the apparatus, 40 as its action is practically automatic.

The advantages of this invention will be manifest to those skilled in the art, especially for fire and shipwreck; also, for building, mining, and the like operations and wherever 45 slings and pulleys are now employed.

Changes may be made in the form and arrangement of the traveling apparatus and its connections without departing from the invention. 50

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

In combination a traveler formed of two parallel side pieces having intermediate bottom parts B provided with inclined grooves 55 B' and with intermediate friction-blocks, sheaves or rollers C provided with grooves C' and brakes beyond the said inclined grooves B' consisting of arms J pivotally supported 60 and arranged to bear on the rope D passing through said traveler, screws K' having eye-pieces K engaging the arms or clamps J and knobs L engaging the said screws K' for operating the same, substantially as described. 65

In witness whereof I have hereunto set my hand in presence of two witnesses.

FRANCIS ERNEST NEWSAM.

Witnesses:

EDWD. BURTON PAYNE,  
ALBERT NEWBY.