J. & A. BERMAN.

LIFE SAVING GARMENT AND BELT.

APPLICATION FILED JAN. 6, 1912.

1,077,868.

Patented Nov. 4, 1913.

3 SHEETS—SHEET 1.

Fig. 1.

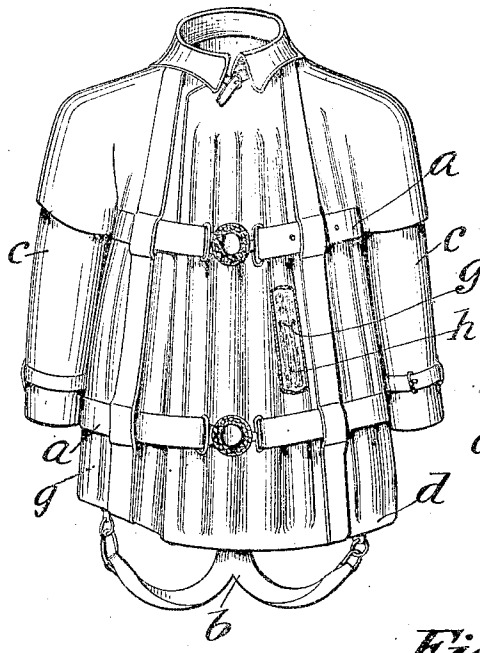


Fig. 2.

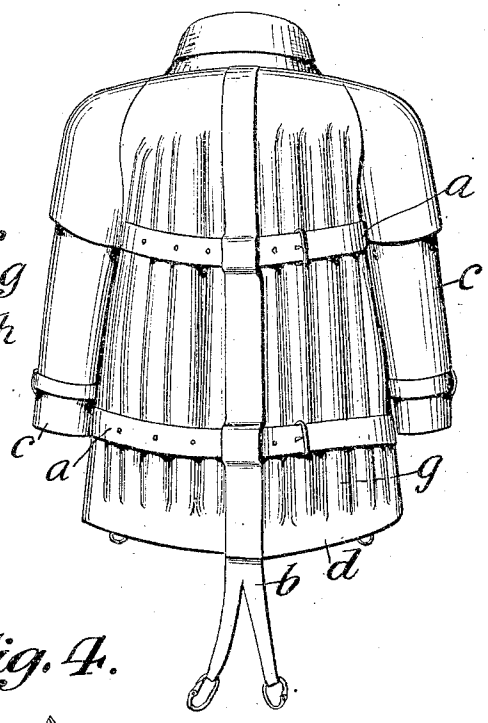


Fig. 4.

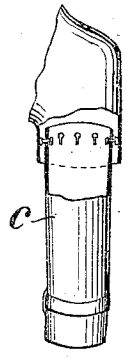
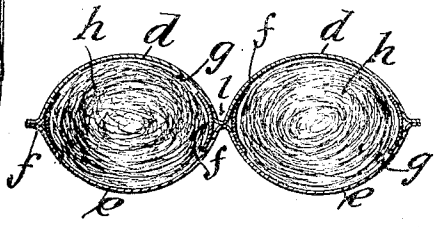


Fig. 3.



Fig. 5.



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3 SHEETS—SHEET 3.

Fig. 6.

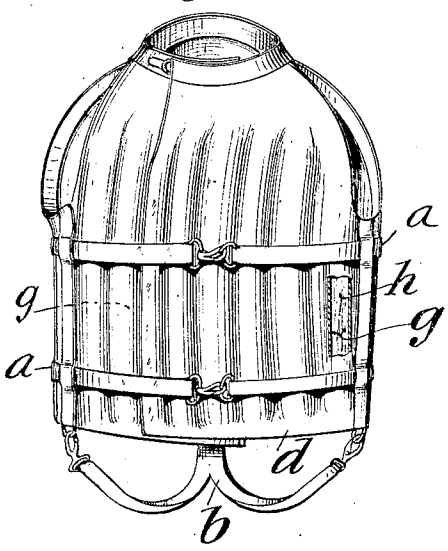


Fig. 7.

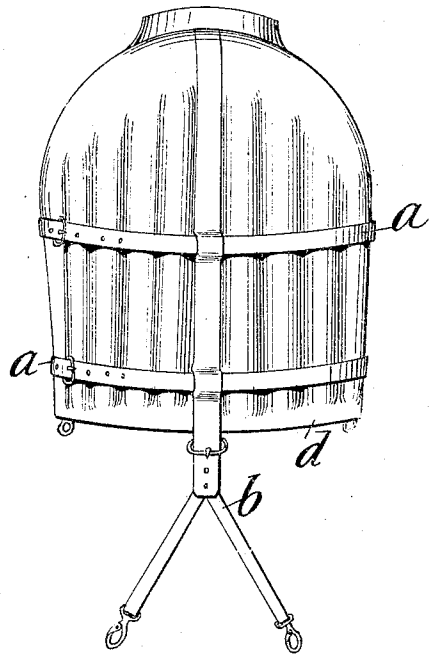


Fig. 8.

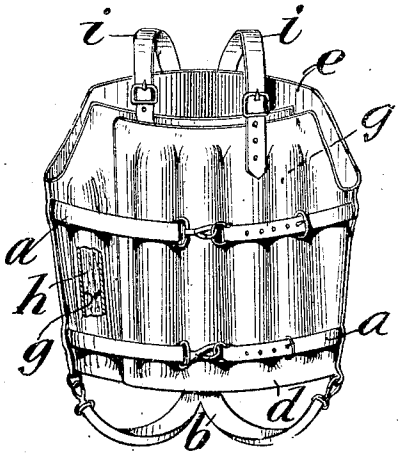
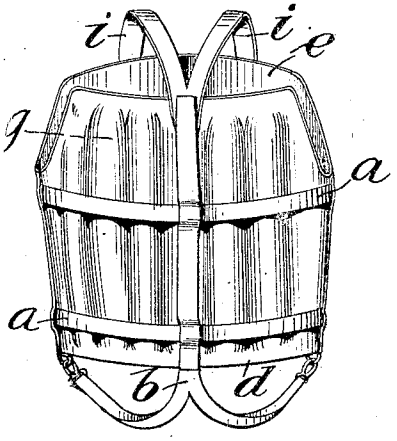


Fig. 9.



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3 SHEETS—SHEET 3.

Fig. 10.

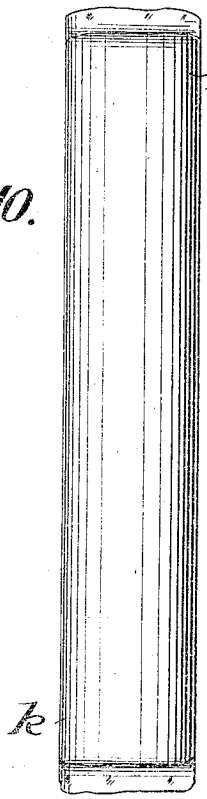


Fig. 12.

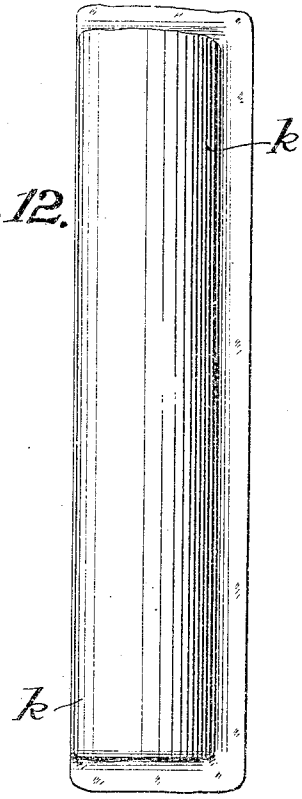


Fig. 11.

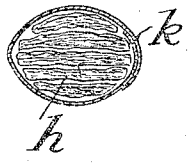


Fig. 13.

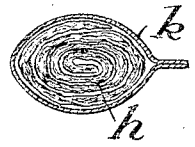
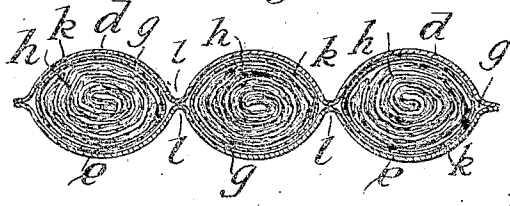


Fig. 14.



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UNITED STATES PATENT OFFICE.

JACOB BERMAN AND ALFRED BERMAN, OF MANCHESTER, ENGLAND.

LIFE-SAVING GARMENT AND BELT.

1,077,868. Specification of Letters Patent. Patented Nov. 4, 1913.

Application filed January 6, 1912. Serial No. 669,848.

To all whom it may concern:

Be it known that we, JACOB BERMAN and ALFRED BERMAN, subjects of the King of Great Britain, residing at Manchester, in the county of Lancaster, England, have invented certain new and useful Improvements in Life-Saving Garments and Belts; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in the non-inflatable type of life saving garments and belts and has for its object to render the same more flexible, compact, light, and efficient than hitherto has been the case. To this end we form the garment in the shape of a jacket or vest or a life belt of waterproof material so made up into separate compartments, by means of rubber solution or cement and each of which we so fill with any material lighter than water, that the said compartments are rendered thoroughly waterproof from each other.

We attain this object by the means illustrated in the accompanying three sheets of drawings, in which—

Figure 1 is a front elevation partly in section and Fig. 2 a back elevation of a jacket formed in accordance with our invention. Fig. 3 is a cross section of Fig. 1, and Fig. 4 a detached sectional view of the sleeve, and Fig. 5 a detached cross section on an enlarged scale of a portion of the jacket. Figs. 6 and 7 are front elevations partly in section and Figs. 8 and 9 are back elevations of a life saving vest and belt constructed in accordance with our invention. Figs. 10 and 12 are elevations, Figs. 11 and 13 cross sections respectively, and Fig. 14 a cross section of a modification of our invention.

Similar letters refer to similar parts throughout the several views.

In carrying out our invention and referring to Figs. 1, 2 and 3, according to one embodiment the garment may take the form of a "Norfolk" jacket, say having two belts *a* instead of one, and a strap *b* between the legs to keep it in position when floating. The sleeves *c* of the jacket may be made detachable as shown in Fig. 4, to give more freedom to the arms while in the water. The said jacket consists of two thicknesses of waterproof cloth *d*, *e*, say fabric proofed or coated with india rubber on one or both sides, secured to each other at certain distances, say by means of strips *f* of waterproof fabric solutioned thereto, thus forming compartments *g* all around and along the whole length of the garment. These compartments are filled with wadding and hermetically sealed all around by the said two thicknesses of cloth. The garment may also be used when fishing or the like as a waterproof overcoat, as the filling of wadding makes it very warm to wear.

According to another embodiment of our invention we may form a life saving garment in the shape of a vest, as shown in Figs. 6 and 7, or in the shape of a belt, as shown in Figs. 8 and 9. In each case the garment or belt is also made up of two thicknesses of waterproof cloth, say fabric proofed or coated on one or both sides with india rubber and formed into compartments filled with wadding and hermetically sealed as in the case of the jacket described. The said vest is also provided with two belts *a* and a strap *b* between the legs and the said belt with a strap *i* over each shoulder. The wadding *h* we inclose in strip or rolled up form in a hermetically closed covering of light waterproof fabric, say fabric coated with rubber, as shown in Figs. 10, 11, 12, 13 and 14. The said wadding may have the said covering rolled or placed around it as shown in Figs. 10, 11 and 12 and 13 respectively, and the covering hermetically sealed at the side, top and bottom, by means of rubber solution or cement. The said covering is preferably employed with the texture side next to the wadding. A number of such coverings *k* containing wadding *h* and hermetically sealed are placed side by side between two thicknesses of waterproof cloth *d*, *e*, see Fig. 14, and retained in position by securing the said two thicknesses of waterproof cloth to each covering, say by rubber solution or cement, so that each thickness of cloth embraces half of the periphery of the said coverings as shown with a small space *l* between each two compartments *g*.

We may remark that in lieu of forming the compartments filled with wadding on the garment or belt longitudinally as shown, they may be formed circularly or diagonally and if desired longitudinally divided into sections as will be readily understood without illustration.

We claim:

The combination in a life saving garment

or belt of two thicknesses of waterproof fabric cemented together to form pockets, with a hermetically closed waterproof fabric covering inside each of the said pockets and cemented to the said two thicknesses of waterproof fabric and a filling of wadding in each of the said coverings, substantially as and for the purpose specified.

In testimony whereof we have affixed our signatures in presence of two witnesses.

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ALFRED BERMAN.

Witnesses:
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STANLEY E. BRAMALL.