(No Model.)

J. C. WILCOX.

LIFE SAVING BELT.

No. 419,132. Patented Jan. 7, 1890.

Fig. 1.

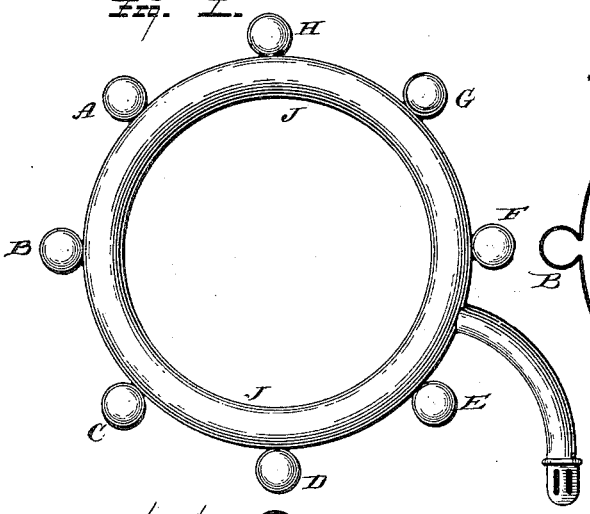

Fig. 2.

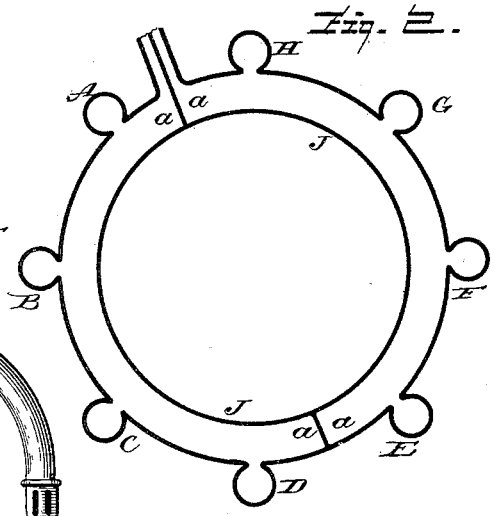

Fig. 3.

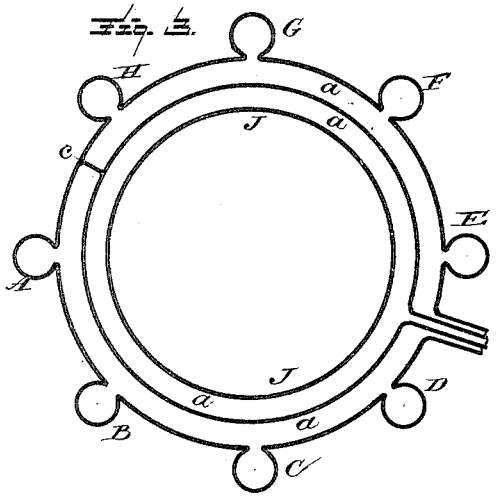

Fig. 4.

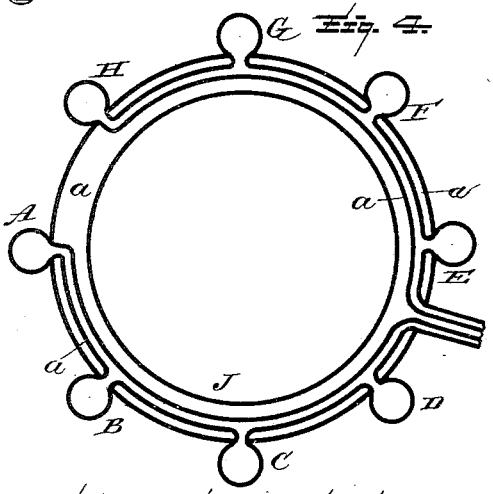

Fig. 5.

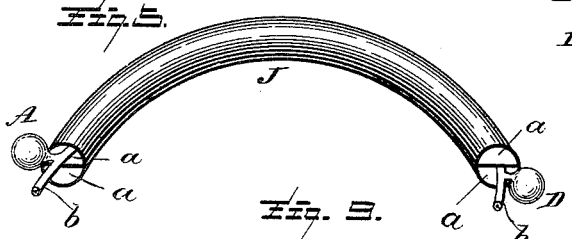

Fig. 6. Fig. 7. Fig. 8.

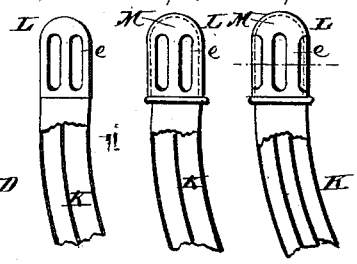

Fig. 9.

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JOHN CHARLES WILCOX, OF 60 LONDON ROAD, CARLISLE, COUNTY OF CUMBERLAND, ENGLAND.

LIFE-SAVING BELT.

SPECIFICATION forming part of Letters Patent No. 419,132, dated January 7, 1890.

Application filed July 8, 1889. Serial No. 316,885. (No model.) Patented in England December 6, 1888, No. 17,868.

To all whom it may concern:

Be it known that I, JOHN CHARLES WILCOX, clerk in holy orders, a subject of the Queen of Great Britain, residing at 60 London Road, Carlisle, in the county of Cumberland, England, have invented a new and useful Improvement in the Construction of Belts for Saving Life from Drowning, (for which I have obtained Letters Patent of Great Britain, No. 17,868, dated December 6, 1888,) of which the following is a specification.

The object of this invention is to provide a ready and instantaneously inflated belt for saving life from drowning in cases of shipwreck or other disaster at sea or in any deep water, the said belt occupying but little space when not in use, and so constructed as to be less liable to suffer from accidental knocks or blows than those hitherto in use.

In order that my invention may be more fully understood and carried into practice, I will describe the same with reference to the accompany drawings, in which similar letters are used to indicate corresponding parts.

Figure 1 is a plan of the belt when inflated. Figs. 2, 3, 4, and 5 are sectional views of different forms of the belt when inflated. Figs. 6, 7, 8, and 9 show details of the inflation-tubes used with my invention.

According to this invention the belt J and its connections are constructed of india-rubber, gutta-percha, or of any other similar material which is sufficiently elastic and of such consistency as will allow a free passage for the air when inflating, and provided with any suitable number of oval or other shaped air chambers or receptacles A B, &c., affixed to the said belt and in open communication with air channels, passages, or tubes *a* in the interior thereof. The belt has two or more distinct air channels, passages *a*, or tubes *b* therein, so arranged that each leads into an equal number of the chambers or receptacles A B, &c., while one channel or passage may be made to lead into the body of the belt alone. The object of this management of separate and distinct air passages, channels, or tubes is, that if by any accident one of the receptacles or the belt should be burst or broken in any way there will still remain an inflated part of the belt uninjured, each separate part being of itself sufficient to float any ordinary adult person.

Fig. 2 shows a belt with two air-channels *a*, separated by a diaphragm *c*, one air channel or passage opening into the air chambers or receptacles A B C D upon one side and the other opening into the remaining air-chambers E F G H upon the other.

Fig. 3 shows a belt with three air-chambers, two of which are constructed in a similar manner to those shown in Fig. 2, while the third is separated from the others and is carried over or above them, so as to thoroughly inflate the belt independently of the air-receptacles A B, &c.

Fig. 4 shows a belt with one air channel or passage *a* and two air-tubes *b*, each tube supplying the receptacle on one side and the channel *a* supplying the belt independently of the receptacles A B, &c.

In Figs. 2, 3, and 4, by means of the inflation-tube, which will be more particularly described hereinafter, the belt can be placed so that all the receptacles supplied by one channel or tube are in the front, while all those supplied by the other channel or tube are at the back of the wearer, so that in the event of a blow or knock on the front breaking or bursting more than one of the receptacles, those at the back, being all supplied by a separate channel or tube, are unaffected.

Fig. 5 is a vertical section of part of a belt shown in perspective. The interior of this belt is divided into two parts by a horizontal diaphragm *d*. Two tubes *b* are used, one running round the belt above the diaphragm *d* and the other below it. The receptacles A, B, and C are so arranged that each tube supplies alternate receptacles. For example, suppose the receptacles arranged as shown in Fig. 1, then the upper tube *b* supplies the receptacles A, C, E, and G, and the lower tube *b'* supplies the receptacles B, D, F, and H. The belt in this case is inflated by the two channels *a*. If desired, each receptacle A B, &c., may be supplied with a separate channel or tube for greater security against accident. Onto the belt J an inflated tube K is affixed and provided with two or more channels or

passages or tubes corresponding with and leading into the channels or passages *a* or tubes *b* in the interior of the belt. The end of this inflation-tube terminates in a metal dome or thimble-shaped mouth-piece L, provided with slits *e* leading into each of the channels, passages, or tubes of the inflation-tube. Over this mouth-piece L is placed a dome or thimble-shaped cover M, provided with slits *e* to correspond with the slits *e* in the mouth-piece L, and pivoted in such a manner that it may be slightly turned to the right or left, as desired, and fixed in either position, thus opening or closing the slits *e* in the mouth-piece according as it is desired to inflate the apparatus or to securely close the same when inflated. The mouth-piece and cover are made of bone, ivory, metal, or other rigid material.

Fig. 6 shows the mouth-piece L without the cover, and Fig. 7 shows the mouth-piece with the cover M thereover.

Fig. 8 is a section of part of the inflation-tube K with three passages therein.

Fig. 9 is a transverse section of Fig. 8.

The belt is intended to be passed over the head and shoulders and worn round the chest and back. When not in use, the whole apparatus may be placed within a gutta-percha or other case, which can be easily carried in the pocket.

What I claim is—

A life-saving belt composed of two or more independent sections, a plurality of outwardly-projecting air-receptacles affixed thereto and communicating therewith, and air-supply channels or ducts, one for each section, as hereinbefore shown and described.

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