

(No Model.)

E. R. COGSWELL.
LIFE PRESERVER.

No. 270,745.

Patented Jan. 16, 1883.

Fig 1

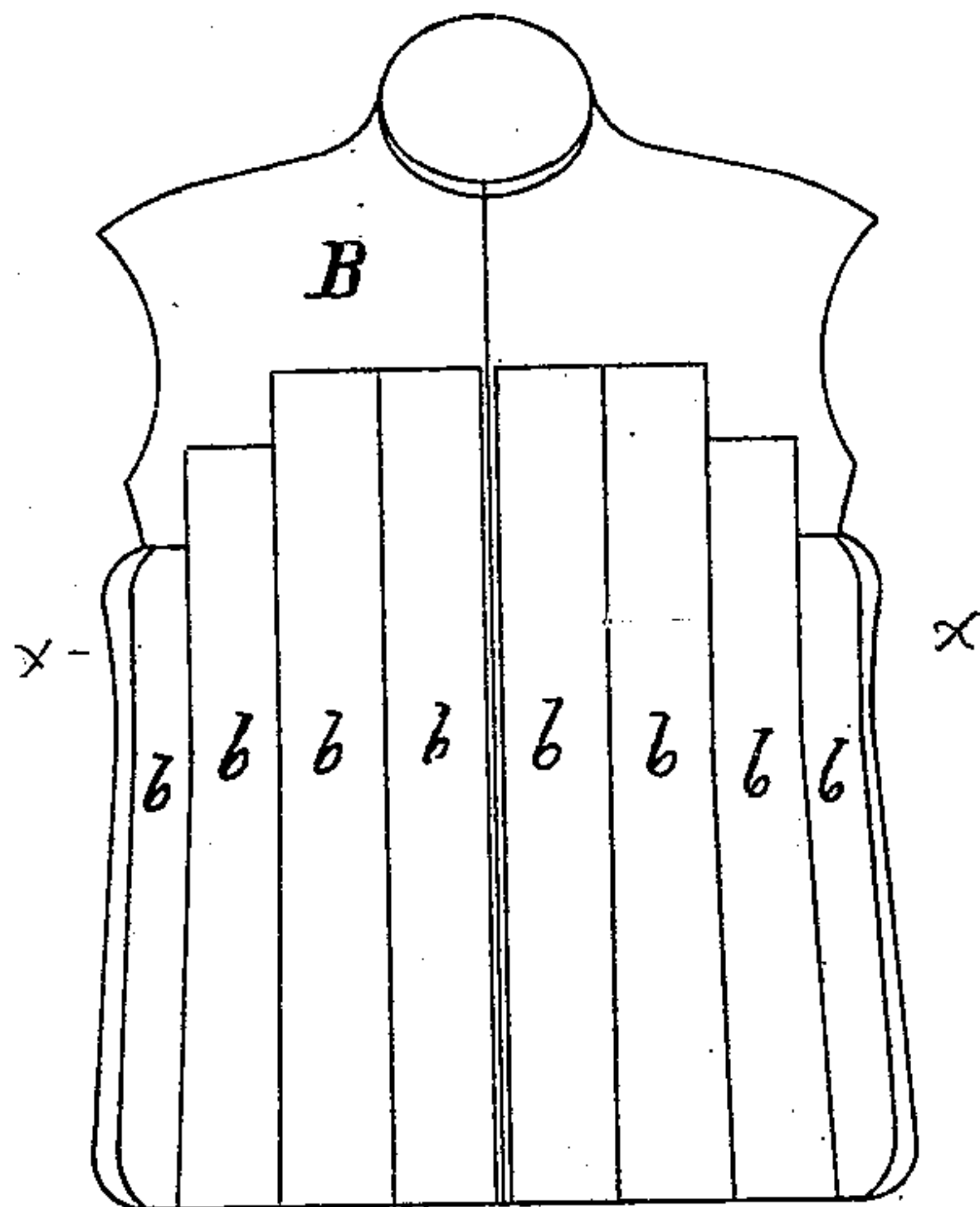


Fig 2

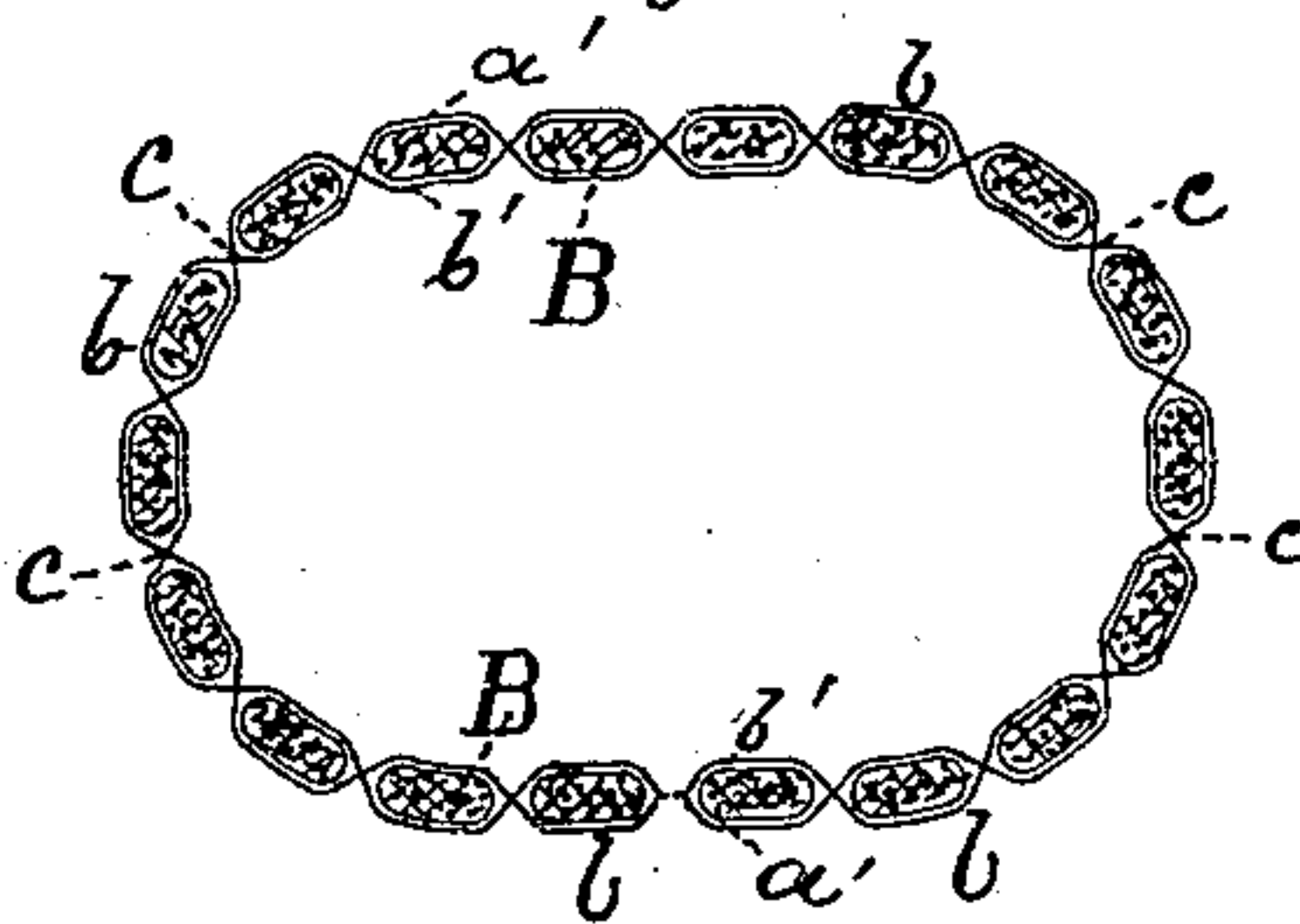


Fig 3

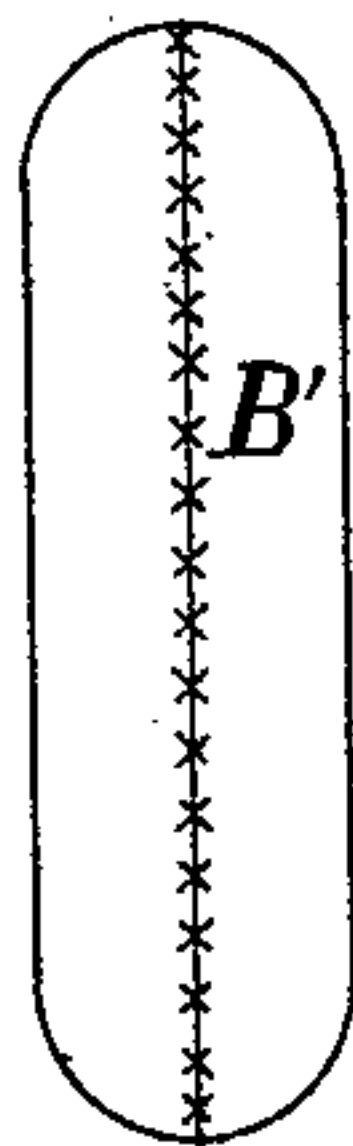


Fig 4

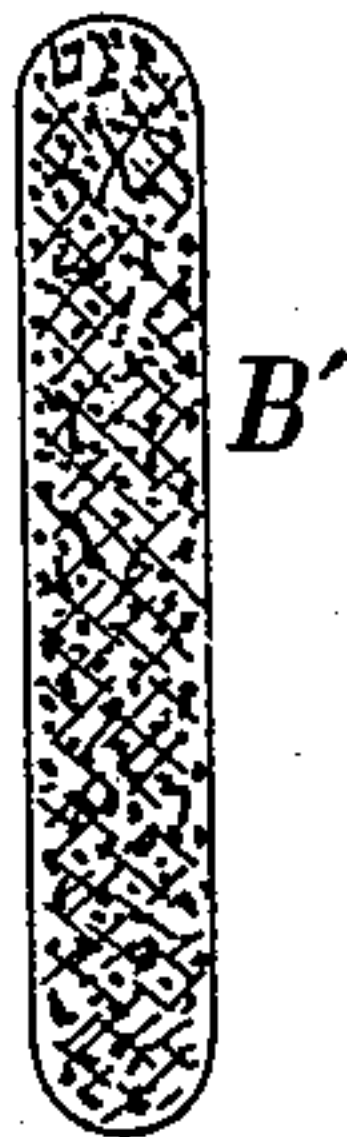


Fig 5

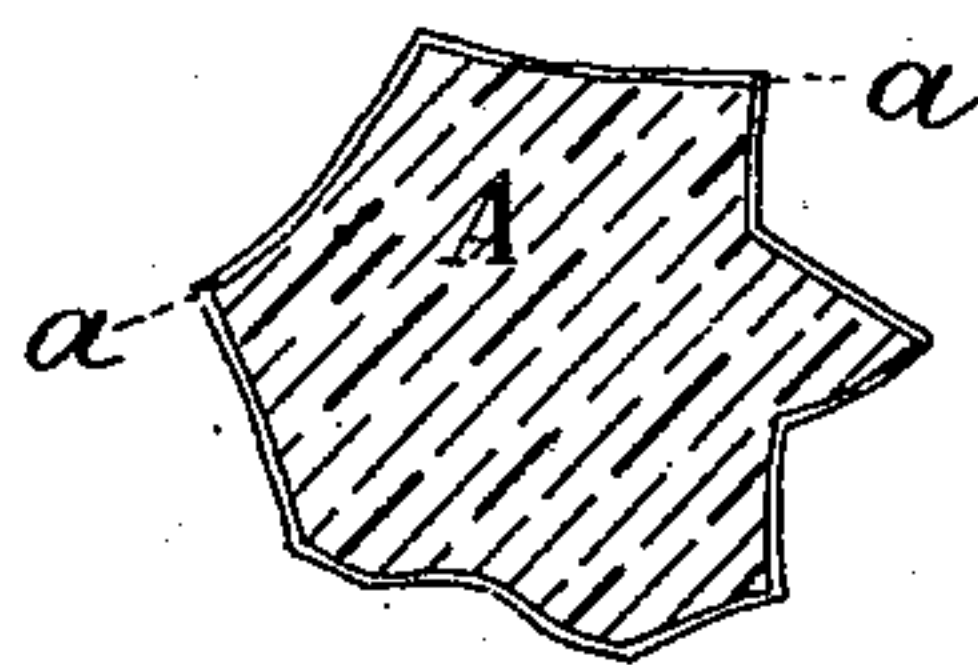
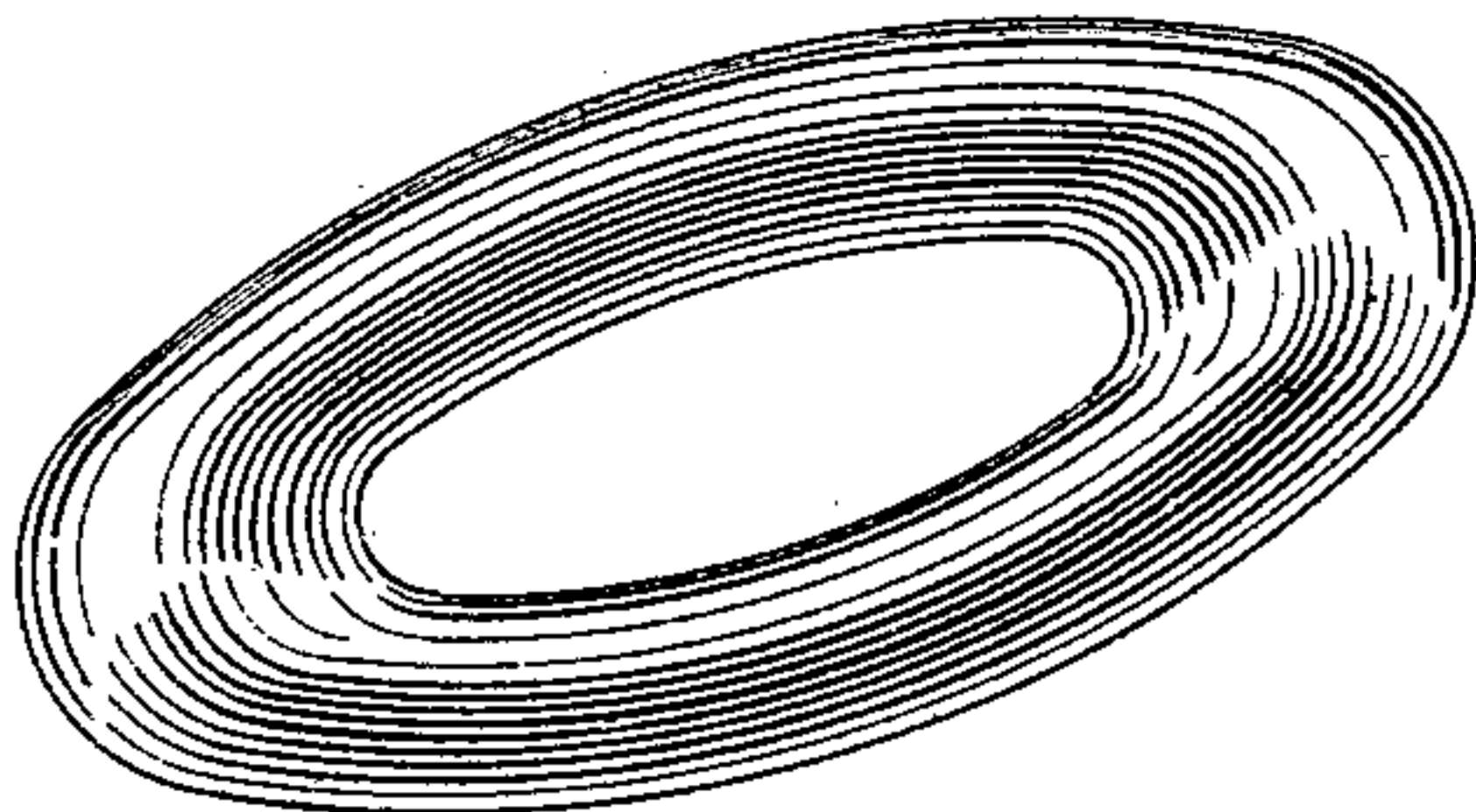


Fig 6



Witnesses

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UNITED STATES PATENT OFFICE.

ELIZA R. COGSWELL, OF NEW YORK, N. Y.

LIFE-PRESERVER.

SPECIFICATION forming part of Letters Patent No. 270,745, dated January 16, 1883.

Application filed December 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, ELIZA R. COGSWELL, of the city and county of New York, and State of New York, one of the United States of North America, have invented certain Improvements in Life-Preservers, of which the following is a specification.

This invention relates to that class of "life-preservers," so termed, which owe their buoyancy to a filling of cork; and the said invention is applicable not only to "cork-jackets," so called, but to floats and other varieties of what are generally known as "life-preservers." Cork life-preservers as heretofore made, no matter what their forms or detail of construction, have been subject to inherent defects which have impaired their usefulness and reliability. Cork in its ordinary condition, whether granulated or in what may be termed its "solid" or "natural" form, slowly deteriorates by the combined action of air and moisture, especially where the air is not only damp, but closely confined, as is ordinarily the case in places where life-preservers are stored, as on ship-board, &c. Furthermore, where life-preservers are filled with "granulated" cork, so termed, this deterioration increases in rapidity in proportion to the greater surface exposed to the action of air and moisture, and although the buoyancy of a given weight of granulated cork is commonly believed to be greater than that of an equal weight of cork in its ordinary or solid condition, yet this increased buoyancy is due to the presence of air confined between the interstices of the granules of the material, and when in the use of the life-preserver water has access to the granulated material the air is displaced and this artificial buoyancy of the cork is destroyed, thereby impairing the buoyant power of the life-preserver, so that in fact a life-preserver filled with granulated cork of the ordinary character has a delusive and misleading buoyancy, which is in itself a source of danger instead of a means of safety to those depending upon them for aid in the event of accident. Furthermore, all cork, as ordinarily used in life-preservers, is liable to absorb more or less of water when immersed in the latter, and to a corresponding extent become "water-logged," and thereby less buoyant.

The object of my invention is to obviate in cork life-preservers the objections hereinbefore

noted; and it comprises certain novel means, hereinafter fully set forth, whereby said object is effectually secured.

Figure 1 is a side view and partial sectional view of a cork-jacket embracing the several features of my invention. Fig. 2 is a horizontal sectional view of such jacket, taken in the line $x x$ of Fig. 1. Figs. 3 and 4 are respectively a side view and longitudinal sectional view of certain parts embraced in my said invention. Fig. 5 is a detail view, further illustrating my said invention; and Fig. 6 is a perspective view of another form of life-preservers, which includes in its construction certain features of my said invention.

To provide the cork filling for life-preservers made according to my said invention, I take cork, preferably in a fragmentary condition. That commonly termed "waste-cork" serves a very useful purpose; but when desired the cork may be reduced to what is usually termed a "granular" condition, the material being reduced by any suitable means to any required or desired degree of comminution. I provide a caldron or other suitable vessel containing paraffine in a molten condition, or, in lieu thereof, paraffine dissolved in any suitable menstruum or solvent. I then immerse the cork in the paraffine or paraffine solution, as the case may be, for a sufficient length of time to coat the surface of the cork with the paraffine, so that when the cork is removed the fragments or pieces or granules thereof, as the case may be, are each severally coated with the paraffine. The cork as thus prepared has air and moisture practically excluded from contact therewith, from which it follows that the cork itself cannot be deteriorated by air or moisture, either or both, and is prevented from absorbing water or becoming water-logged thereby.

Fig. 5 illustrates a fragment of cork thus coated with paraffine, A being the cork, and α indicating the coating or paraffine thereon.

In the construction of that form or variety of life-preserver commonly termed a "cork-jacket" I provide the jacket B itself of any suitable material or of any ordinary or suitable shape or configuration, and provide therein pockets, which, when desired, may be similar to those in which ordinary granular cork has been used. These pockets are represented at

b in Figs. 1 and 2, and may be formed by parallel rows of stitches, which connect the inner and outer fabrics, *a' b'*, by parallel seams, as shown at *c* in Fig. 2. I then provide sacks or
 5 pouches *B'*, of such size and configuration that when distended they will pass readily into the pockets *b* of the jacket. These pouches I make of any suitable material or fabric, itself thoroughly impregnated or treated or coated
 10 with paraffine, so as to form a water-proof pouch. These pouches I fill with the cork coated, as hereinbefore explained, with paraffine, and then seal the pouches as closely as may be to exclude external air. I then insert
 15 the pouches into the pockets *b* of the jacket, and then, by sewing or otherwise, close the pockets to retain the pouches therein with sufficient security.

As thus constructed the life-preserver is in-
 20 capable of deterioration from any of the causes hereinbefore indicated as producing injury or detriment to cork life-preservers constructed as has heretofore been the practice. When desired, the pouches, instead of being filled
 25 with the coated cork in a more or less fragmentary condition, may be filled each with one or more blocks of cork, in like manner coated with the paraffine to prevent access of moisture and air thereto.

30 When preferred, the invention, or certain features thereof, may be embodied in life-preservers of other forms and varieties—as, for example, in the annular life-preserver indicated in Fig. 6, in which a suitable envelope or integu-
 35 ment, itself treated with paraffine, and thereby rendered water and air proof, is filled with the cork, itself coated with the paraffine, as hereinbefore explained, and for the purpose herein set forth.

40 It is of course to be understood that any light woody material having a buoyancy sufficient to enable it to serve the purpose of cork may be used as the equivalent of cork in the practice of my said invention.

45 I do not in this my present application claim broadly a life-preserver or life-preserving mat-

tress, cushion, jacket, or the like containing granulated cork or other woody matter treated with a water-repellent, inasmuch as I make such broad claim in a separate and distinct
 50 application for Letters Patent which I have filed in the United States Patent Office, and which is now pending.

What, therefore, in this my present application I claim as my invention is—

1. A filling for life-preservers, composed of cork coated with paraffine to exclude moisture and air, substantially as and for the purpose
 55 herein set forth.

2. The combination of a filling composed of
 60 cork coated with paraffine and an inclosing integument, itself made air and water proof by coating or impregnating with paraffine, substantially as and for the purpose herein set forth.

3. In a life-preserver, a series of connected
 65 pouches rendered water and air proof by being coated or impregnated with paraffine and filled with cork which is coated with paraffine to exclude moisture and air, substantially as and
 70 for the purpose herein set forth.

4. A life-preserver comprising as its essential elements one or more pouches, *B'*, rendered water and air proof by being coated or
 75 impregnated with paraffine, and inclosing a filling composed of cork in a granular or fragmentary condition, the fragments or granules of the cork being coated with paraffine, all substantially as and for the purpose herein set forth.

5. The combination, with a jacket, *B*, having pockets *b*, of pouches *B'*, made water and air proof by being coated or impregnated with
 80 paraffine and filled with cork, itself coated with paraffine to exclude moisture and air, all substantially as and for the purpose herein set forth.

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Witnesses:

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