

No. 686,883.

Patented Nov. 19, 1901.

C. BASWITZ.
LIFE SAVING APPLIANCE.

(Application filed Aug. 25, 1898.)

(No Model.)

Fig. 1

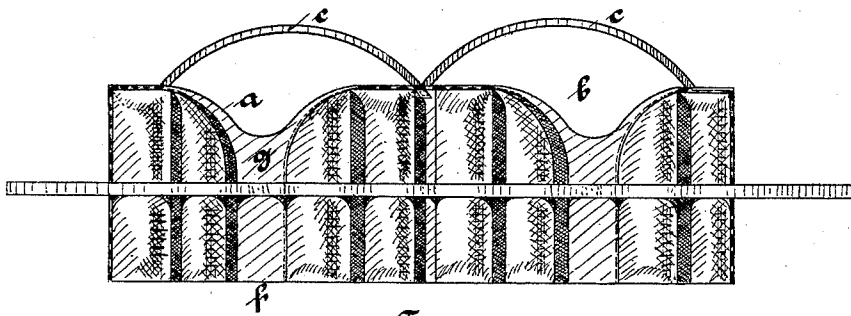


Fig. 2



Fig. 3

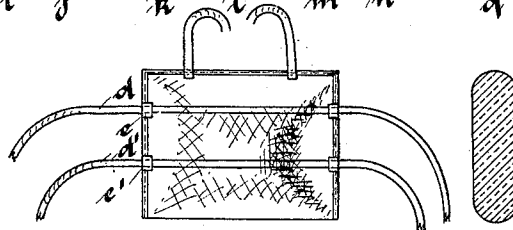
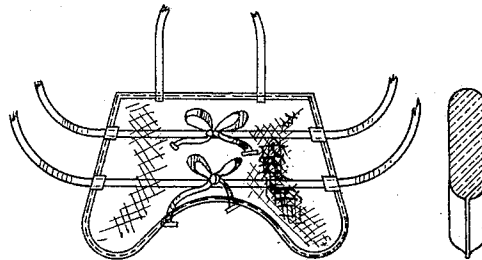


Fig. 4



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES BASWITZ, OF BERLIN, GERMANY.

LIFE-SAVING APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 686,883, dated November 19, 1901.

Application filed August 25, 1898. Serial No. 689,539. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BASWITZ, a subject of the King of Prussia, Emperor of Germany, residing at 91 and 92 Alt-Moabit, Berlin, N. W., in the Kingdom of Prussia, German Empire, have invented a certain new and useful Improvement in Means for Imparting Buoyancy, (for which I applied for Letters Patent in Germany May 10, 1897, and in England October 22, 1897,) of which the following is a specification.

My present invention has relation, broadly, to improved means for imparting permanent buoyancy to all kinds of devices and articles, and more especially for combining this quality of permanent buoyancy with the softness, pliability, and warmth looked for in many common articles and in garments.

My invention is illustrated in its application to two preferred forms of combined life-preserver and garment in the accompanying drawings, wherein—

Figure 1 is a view of a life-preserving jacket extended. Fig. 2 is a horizontal section through the same. Fig. 3 is a face view and section of the back part of another form of life-preserving jacket, and Fig. 4 is a face view and section of the front portion of the same jacket.

Air-chambers afford the lightest possible buoys; but they not only take up a fixed space which is valuable, but their usefulness is easily destroyed by production of a puncture or leak admitting water.

Cork and other wood floats are very inefficient and take up much fixed space.

The desirability of employing soft fibrous materials for imparting buoyancy has long been recognized. If materials of this kind could be made available, a great saving in space could be attained on board ship, since mattresses, pillows, &c., could be relied upon in an emergency as life-preservers, and at the same time storm-clothing could easily be made with buoyant padding, which while affording comfort and warmth would not interfere with free movement of the wearer. A sailor accidentally swept overboard in such a garb would enjoy greatly-increased chances of rescue.

I have discovered that all the essential requirements of a fibrous and soft buoyant ma-

terial for life-preservers and the like are possessed by the substance known as "kapok" and its nearly-related fibers. This is a fiber found in the seed of the bombax and some of its congeners. Kapok is produced principally in Java and the neighboring islands. This material is quite soft and will float thirty times its weight of iron in water. It has practically no water-absorbent power and can be immersed and dried alternately many times without deterioration. I apply this discovery to practice in many ways, many of which will occur to those skilled in the art upon mention of but a few—for instance, by stuffing mattresses, cushions, and pillows on ship-board with kapok fiber or by filling the buoyant compartments of life-boats and the like with kapok, thus permanently excluding water without danger from leaks, which destroy mere air-chambers.

One preferred application of my invention is shown in the drawings, wherein is shown a storm-jacket *a b*, provided with shoulder-straps *c* and with a strap or straps *d d'*, supported in loops *e e'* or otherwise and adapted to be tied in front when the jacket is worn, as shown in Fig. 4. These belts are usually made of canvas or like material *f g* and are provided with pads or bags *i, j, k, l, m, n, q*, and *p*, as shown in Fig. 2. These pads are stuffed with kapok fiber and may be given any convenient or desired shape. The advantage of such a coat as this over an ordinary cork life-belt rests in the fact that the light, soft, pliable, and warm fiber does not interfere with the necessary movements of the body, and the specific gravity of kapok is so low that very little need be used. Consequently its weight does not act as a drag during violent labor.

It is one of the principal advantages of my invention that it enables many well-known articles whose normal use involves softness or warmth to be so constructed as to serve instantly in case of need as very efficient life-preservers and this without detriment to their subsequent normal use after removal from the water, as contact with water does not change the qualities of kapok fiber.

It is evident that the kapok may be used either in its natural shape, as a mass of con-

fused fibers, or it may be worked in any well-known manner and thus used without departing from the spirit of my invention.

What I claim is—

5 1. As a means for imparting buoyancy to life-preservers and other articles, a mass of kapok fiber inclosed in a flexible sack of suitable material, substantially as described.

2. As a means for imparting buoyancy to
10 life-preservers, and other articles, and for

maintaining warmth and softness in the same, one or more bodies of kapok fiber, and a flexible sack or sacks, for inclosing the same, substantially as described.

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

CHARLES BASWITZ.

Witnesses:

HENRY HASPER,
C. H. DAY.