No. 728,745. PATENTED MAY 19, 1903.

W. N. MORRISON.

LIFE PRESERVER.

APPLICATION FILED MAR. 7, 1903.

NO MODEL.

FIG. I.

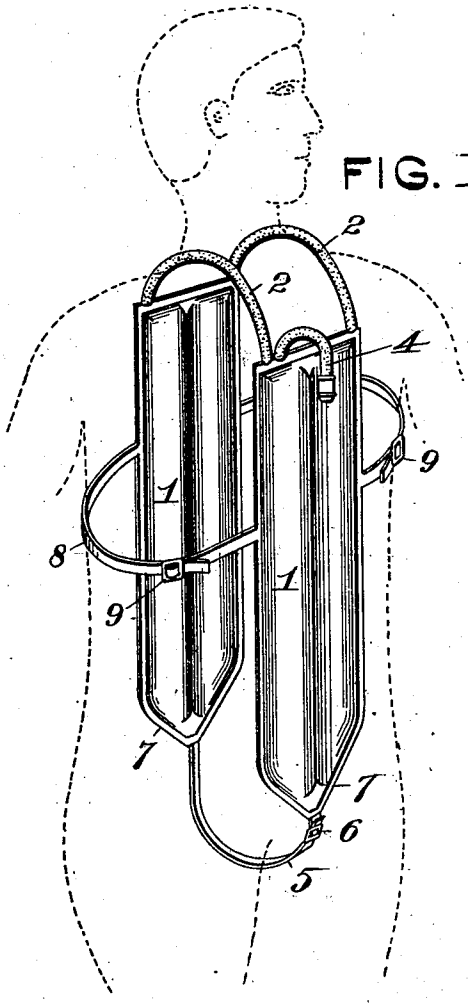


FIG. II.

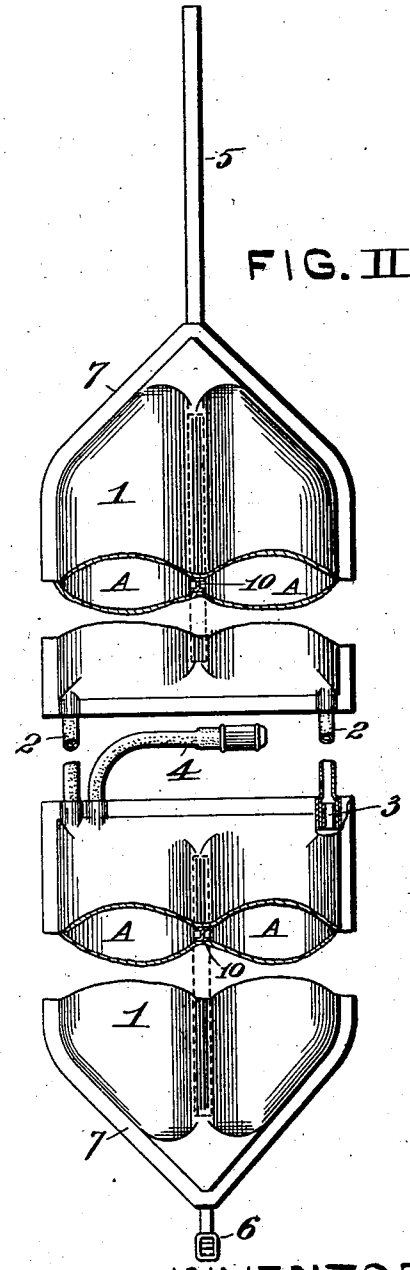
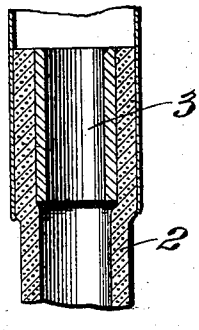


FIG. III.



ATTEST

A. J. McCauley.

A. V. Alexander

INVENTOR:-

Wm. N. Morrison:

BY Knight Bros.

ATTYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 728,745. Patented May 19, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM N. MORRISON, OF ST. LOUIS, MISSOURI.

LIFE-PRESERVER.

SPECIFICATION forming part of Letters Patent No. 728,745, dated May 19, 1903.

Application filed March 7, 1903. Serial No. 146,660. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM N. MORRISON, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Life-Preservers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of life-preservers composed of inflatable sacks adapted for application to the body of the wearer to provide buoyancy for the support of the wearer.

The invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a perspective view of the preserver illustrated in the position assumed on the body when in use. Fig. II is an enlarged view, partly broken away and partly in section, of the preserver. Fig. III is an enlarged section of the end of one of the connecting air-tubes with the distention-tube therein.

1 designates front and rear inflatable sacks, designed to be disposed, respectively, upon the front and back of the wearer's body, as illustrated in Fig. I. These sacks may be made of rubber or any other suitable material impervious to water or air. The sacks 1 are united for interior communication with each other by flexible elastic air-tubes 2, that enter the upper ends of the sacks and extend across the wearer's shoulders to support the sacks longitudinally of the wearer's body. The tubes 2 are made of very elastic rubber, so that they will stretch to a considerable degree. In the ends of the tubes 2 which enter the upper ends of the sacks 1 are the stiff distention-tubes 3, which serve to prevent compression and consequently closing of the passage-way through the ends of the tubes to communicate the air from one sack to another in equal proportions at all times.

4 is a valved mouth-tube leading into one of the sacks 1, through which air is introduced into the sacks by the wearer placing the nipple end of the tube in the mouth and blowing therethrough sufficiently to inflate both of the sacks 1 to render them buoyant.

5 is a connecting-strap joined to the lower ends of the sacks 1 and passing through the crotch of the wearer's legs, as seen in Fig. I. This strap is rendered adjustable through means of a buckle 6. The lower ends of the sacks are of V shape, as seen at 7, in order that they may extend into the crotch between the wearer's legs when the strap 5 is adjusted in applying the preserver to the body, thereby drawing the preserver downwardly to the full length of the body for its complete and efficient support in the water in which the wearer may be swimming or floating. The connecting-tubes 2 being of very elastic material, the sacks may be drawn as tightly to the body as may be desired by the wearer, and at the same time sufficient yielding action by said tubes is furnished to render the preserver comfortable to the body by reason of the tubes yielding to a sufficient degree to permit free action of the wearer's limbs without discomfort.

8 designates a belt connected to the sacks 1 and extending around the wearer's body to hold the sacks snugly thereto, the said belt being furnished with buckles 9, by which it may be adjusted to any desired degree.

In order to maintain the sacks 1 in a flat condition, I introduce thereinto stays 10, that extend longitudinally of the sacks, as seen in Fig. II, and divide the sacks centrally into two compartments A, that preferably have communication at each end of each sack. These stays are preferably of I form in cross-section, as seen in Fig. II, and are preferably of cloth or other pliable material. By the use of the stays 10, located centrally of the width of the sacks and extending longitudinally thereof, I provide for the contraction of each sack throughout its longitudinal center in a manner to prevent distention of its central portion, so that the sacks will be always retained in a flat condition, as seen in Fig. I, instead of bulging outwardly into rounded contour, as they would in the absence of any medium for preventing such bulging when the sacks are inflated. By producing inflatable sacks of flat form described I furnish wide and flat supports extending over a very considerable expanse of the wearer's body and prevent the necessity of the wearer carrying a breast of water in the act of swimming, thereby lessening the impediment to a

swimmer in the water, such as occurs in the use of inflatable sacks having a pronounced degree of bulging surface against which the water may strike in swimming. The preserver being applied to the body of the wearer in upright position at the front and back of the body and securely held in such position, it will be seen that the wearer's arms are not in the least interfered with. It will also be seen that the entire body is adequately supported, so that the wearer will be buoyed up in the water without the least effort on his part; also, that by reason of the sacks 1 lying compactly to the body at front and back they do not in the least impede or interfere in the act of swimming, but dispense entirely with the necessity of effort on the wearer's part to support himself, thereby allowing the wearer to use his entire energy in swimming.

I claim as my invention—

1. In a life-preserver, the combination of a pair of inflatable sacks having communication with each other, and stays centrally positioned within said sacks and extending longitudinally thereof, substantially as set forth.

2. In a life-preserver, the combination of a pair of inflatable sacks, communication-tubes connecting said sacks and distention-tubes located in the ends of said communication-tubes, substantially as set forth.

WILLIAM N. MORRISON.

In presence of—
E. S. KNIGHT,
N. V. ALEXANDER.