No. 724,279. PATENTED MAR. 31, 1903.

B. GOLDSTEIN.

LIFE PRESERVER.

APPLICATION FILED MAR. 25, 1902.

NO MODEL.

Fig. 1.

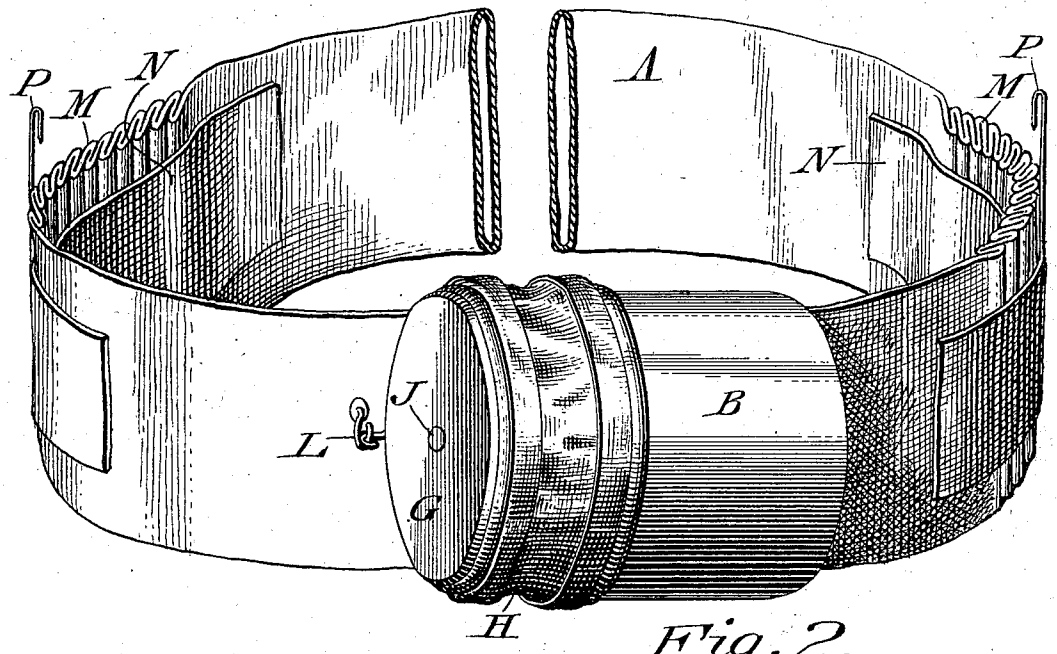


Fig. 2.

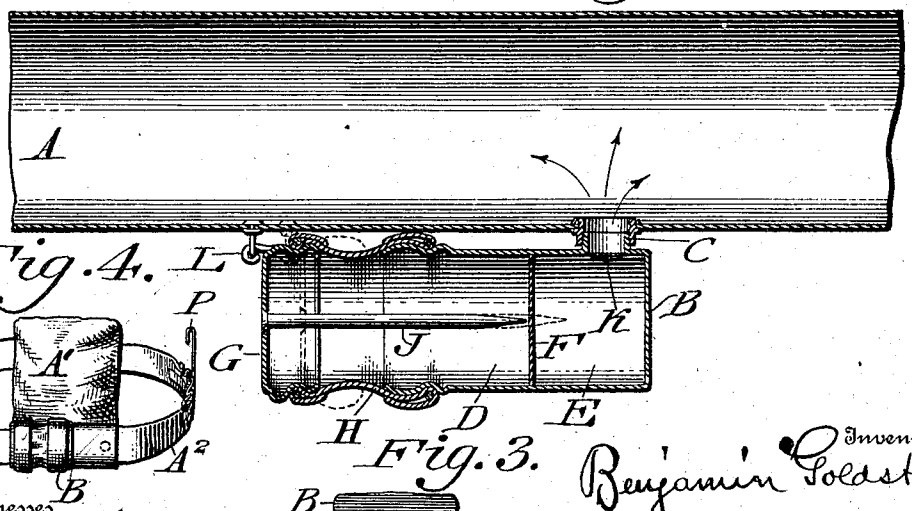
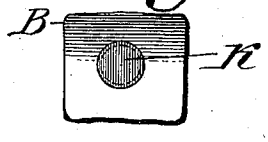


Fig. 4.

Fig. 3.



Witnesses

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BENJAMIN GOLDSTEIN, OF ATLANTIC CITY, NEW JERSEY.

LIFE-PRESERVER.

SPECIFICATION forming part of Letters Patent No. 724,279, dated March 31, 1903.

Application filed March 25, 1902. Serial No. 99,879. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN GOLDSTEIN, a citizen of the United States, residing in Atlantic City, in the county of Atlantic, State of New Jersey, have invented new and useful Improvements in Life-Preservers, of which the following is a specification.

My invention consists of a life-preserver having a belt or chamber which may be inflated by gas created as required.

Figure 1 represents a perspective view of a life-preserver embodying my invention. Fig. 2 represents a longitudinal horizontal section thereof. Fig. 3 represents a view of a detached portion. Fig. 4 represents a view of a modification.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a belt which is hollow and inflatable. B designates a gas-generator which is connected with said belt and is in communication therewith by means of the stud or nipple C, said generator consisting of the chambers or holders D and E, which are separated by the partition F, so as to be primarily placed out of communication.

G designates the head or cap of the chamber D, the same being connected with the body of said chamber D by the elastic connection H, whereby motion may be imparted to said head in the direction to and from the partition F. The space between said cap and said body is closed under all circumstances by said elastic or flexible connection, thus preventing the entrance of water to said body. Within the said chamber D is the pin J, which is secured at one end to the cap or head G and having its other end pointed and placed adjacent to the partition F. On the nipple C is the diaphragm K, made of such material as to fuse or be loosened by the action of the gas that may be generated in the member B, said diaphragm primarily closing the communication between the generator and belt.

The operation is as follows: A suitable gas-producing material, such as calcium carbid, is placed in the chamber E and water in the chamber D. When service of the preserver is required, the head or cap G is pushed in, whereby the point of the pin J pierces the partition F, thus placing the chambers D E in communication. As the water now enters the chamber E and acts upon the carbid, gas is generated, which, being hot in its nature, fuses or otherwise loosens or destroys the closing action of the diaphragm K when the gas enters the belt A and inflates the same, thus rendering the belt serviceable for life-preserving purposes.

In order to assist in retaining the generator B on the belt, I employ in addition to the nipple C the hook and eye L, it being evident that when the latter-named parts are disconnected the generator may be unscrewed from the nipple C, and thus removed.

In order to adapt the belt to the waists of wearers of increased sizes, portions of said belt are folded or made overlapping, as at M, so that the belt may be distended or enlarged. In order to cause the belt to contract on the waist of the wearer, there is secured to the belt at places about the overlapping portions M the pieces N of elastic material, which while yielding create the necessary pressure to cause the belt to remain in position.

In order to prevent any possible slipping or dropping of the belt from its position, hooks P may be attached to the same for engagement with the garment of the wearer.

In lieu of the belt A receiving the gas a chamber A′ may be connected with the belt A^2 or with the generator B, so as to be inflated from the latter and form a float for a purpose similar to said belt A when inflated.

Various changes may be made in the details of construction without departing from the general spirit of my invention, and I do not, therefore, desire to be limited in each case to the same.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a life-preserver, a gas-generator consisting of chambers, a closed partition between the same, a movable head on one of said chambers, a water-tight flexible connection for said head and chamber, and an instrument adapted to open said partition, the same being attached to said head and extending in the adjacent chamber toward said partition.

2. A life-preserver consisting of a gas-gen-

erator, formed of a plurality of chambers, a closed partition between said chambers, a head on one of said chambers, and a discharge-opening on the other chamber, a fusible diaphragm around said opening, a movable head on one of said chambers, a piercing implement within said chamber connected with said head, and a water-tight connection for said head with said chamber.

3. In a life-preserver, a generator for gas adapted to inflate a chamber of the preserver, consisting of holders for materials of gas-producing nature, a partition primarily separating said holders, a device for opening said partition, a head carrying said device and a water-tight movable connection for said head with the adjacent holder.

4. In a life-preserver, a chamber adapted to be inflated, and a generator for gas connected with the same, consisting of holders, a closed partition separating the same, a movable head on one holder, a water-tight flexible head connecting said head with said holder and an implement attached to said head adapted to pierce or break said partition.

BENJAMIN GOLDSTEIN.

Witnesses:
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