

Dec. 6, 1949

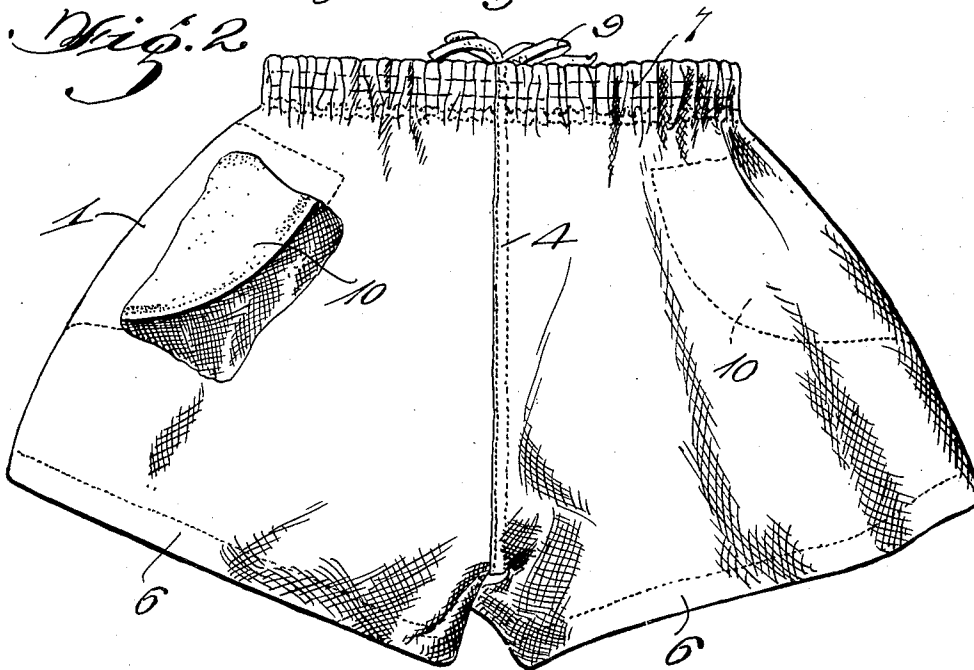
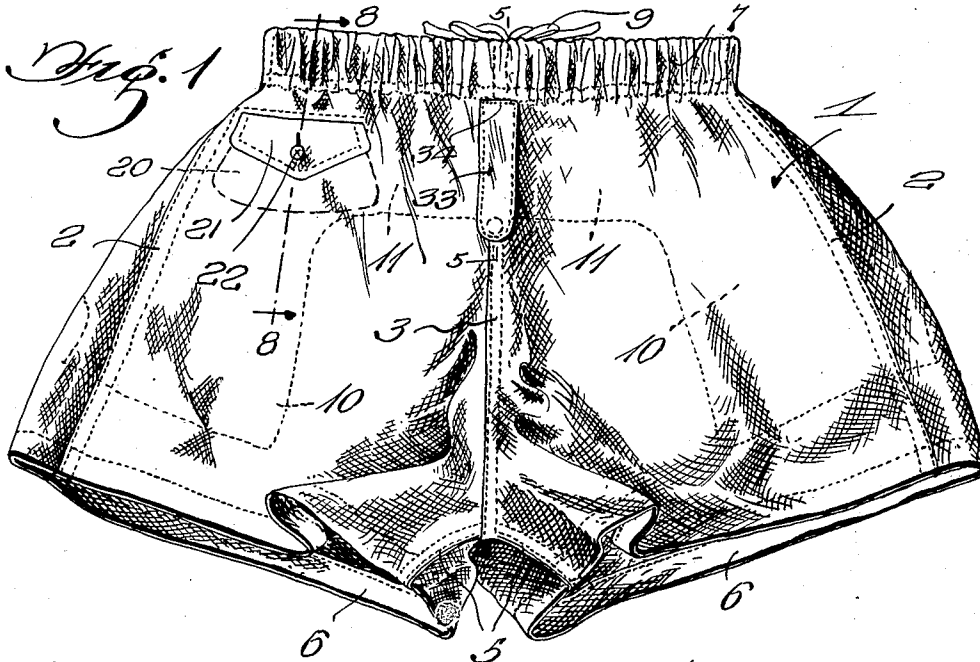
H. SPACK

2,490,556

SWIMMING TRUNKS

Filed July 2, 1946.

3 Sheets-Sheet 1



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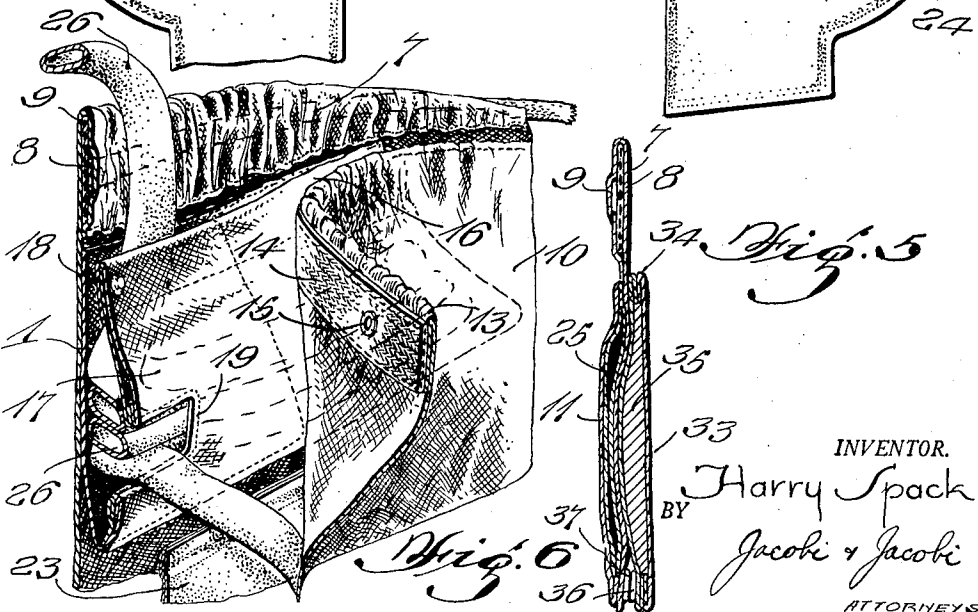
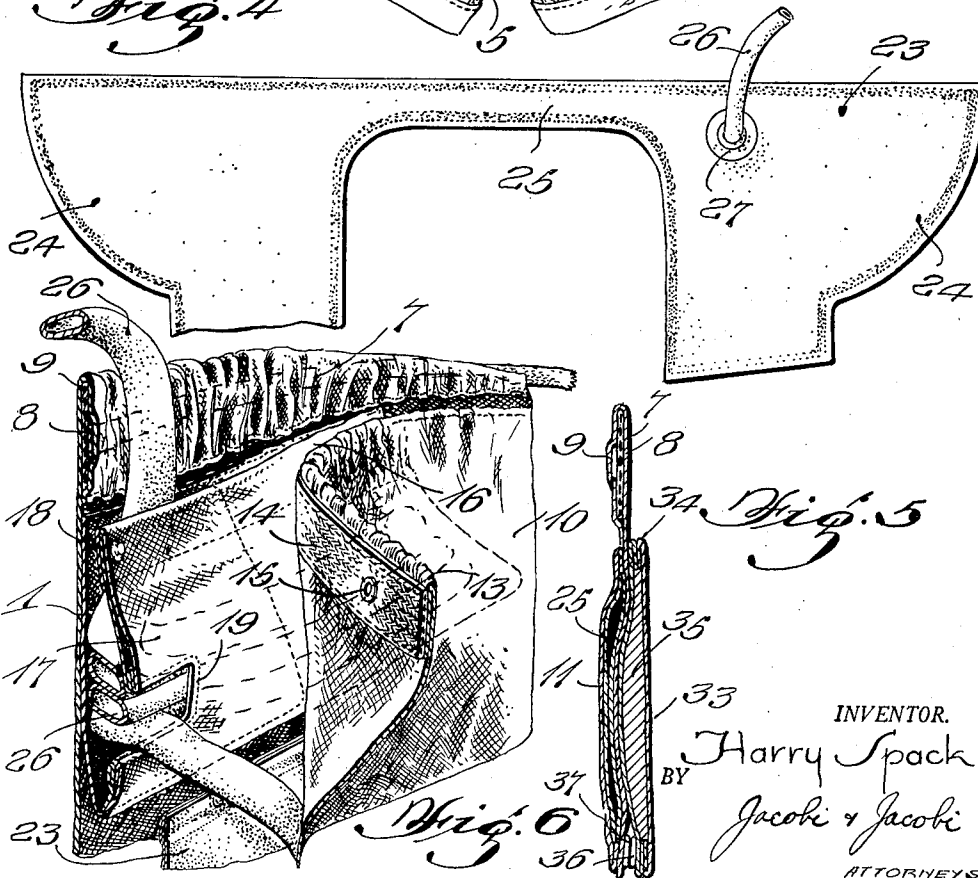
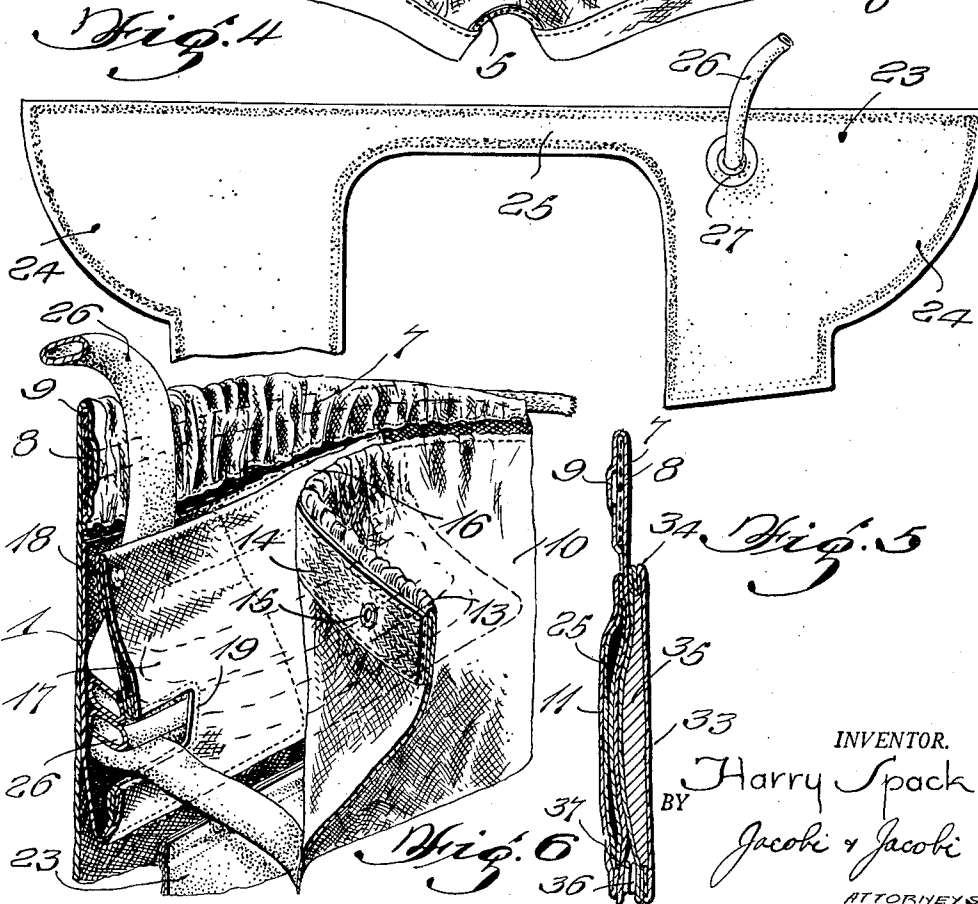
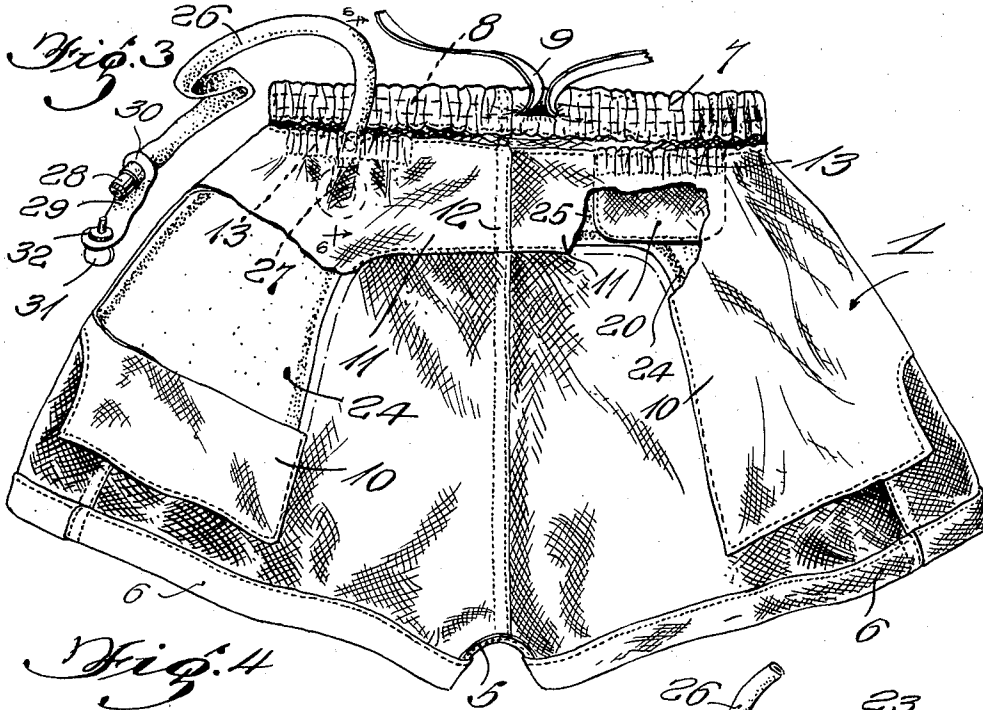
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Fig. 7

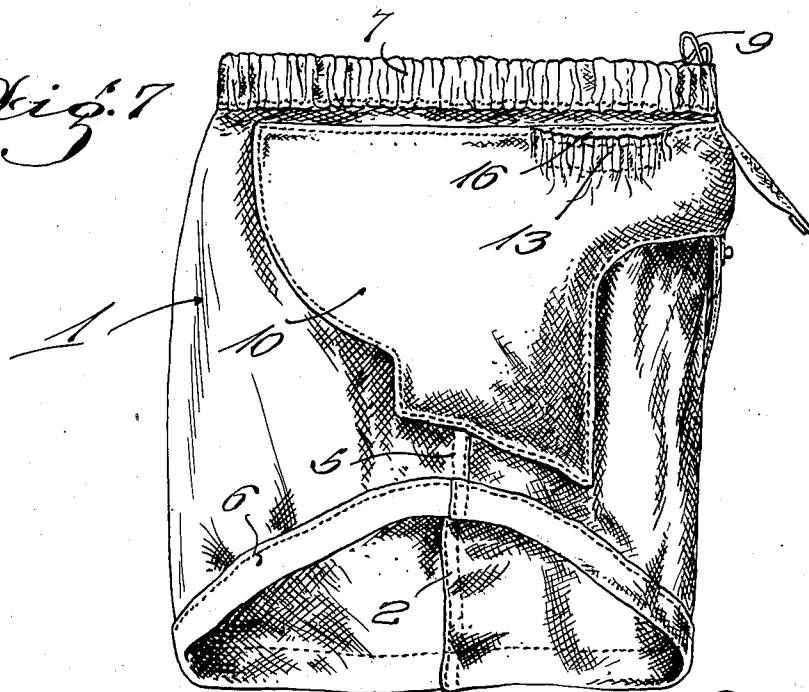
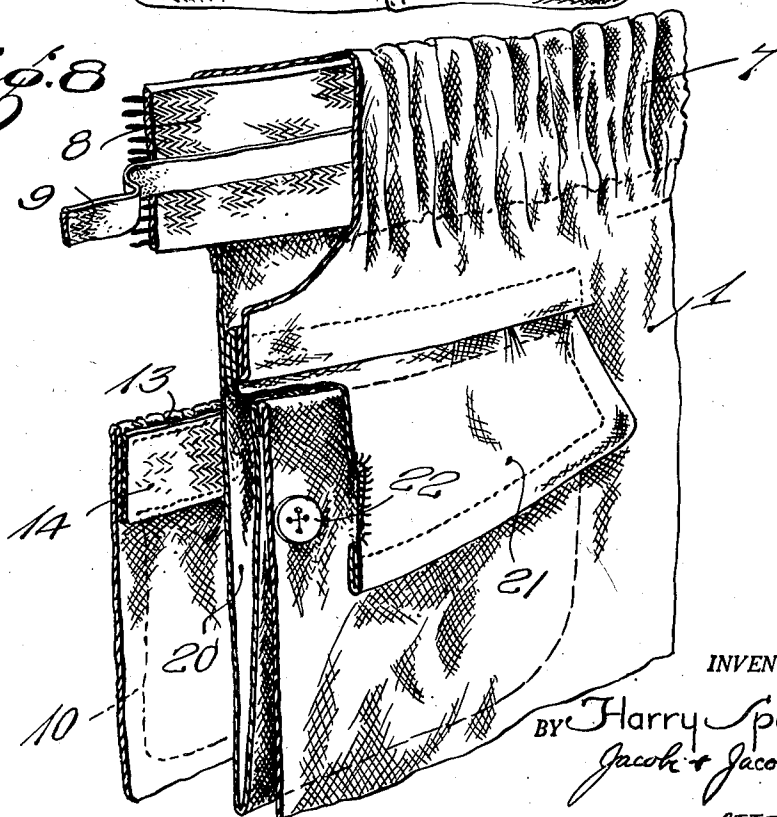


Fig. 8



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UNITED STATES PATENT OFFICE

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SWIMMING TRUNKS

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6 Claims. (Cl. 9—20)

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This invention relates to apparel and more particularly to swimming trunks, it being one object of the invention to provide trunks having associated with them a bladder adapted to being inflated with air and thus impart buoyancy to the trunks so that a person wearing the trunks and unable to swim will be supported in water and thus allowed to enjoy water bathing and swimming without danger of drowning.

Another object of the invention is to provide improved bathing trunks wherein the inflatable bladder is mounted in pockets formed as a portion of the trunks and disposed internal thereof where it will be concealed from view and thus not detract from the appearance of the trunks and in addition allow the trunks to be worn by a person who knows how to swim if so desired.

Another object of the invention is to provide bathing trunks having associated with them inflatable supporting means consisting of bags connected by a neck from which an inflating tube extends, the bags being disposed within internal pockets carried by the trunks and connected by a throat which passes through the neck between upper ends of the pockets. It will thus be seen that when the trunks are worn and the bladder inflated the bags of the bladder will be disposed at opposite sides of the trunks and very effectively support a person in the water.

Another object of the invention is to provide swimming trunks which are particularly adapted for use by wounded soldiers and others who have lost one or both legs by amputation since the bladder and the pockets in which it is mounted are so formed that the bladder may be readily removed when deflated and thus the bladder and the trunks themselves permitted to be thoroughly cleaned and sterilized before being again used.

Another object of the invention is to provide the trunks with a compartment or pocket in which the inflating tube may be stored when not in use and thus prevented from being liable to be caught and torn and also prevented from interfering with proper swimming movements.

The invention is illustrated in the accompanying drawings wherein

Figure 1 is a view looking at the front of the improved swimming trunks;

Figure 2 is a rear view of the improved trunks, a portion being broken away in order to show a portion of the pocket in which the bladder is mounted;

Figure 3 is a view showing the improved trunks turned inside out, portions being in sections;

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Figure 4 is a view of the bladder;

Figure 5 is a fragmentary sectional perspective view taken along the line 5—5 of Figure 1;

Figure 6 is a perspective view taken along the line 6—6 of Figure 3;

Figure 7 is a view showing the trunks turned inside out and folded; and

Figure 8 is a fragmentary sectional perspective view taken along the line 8—8 of Figure 1.

The improved swimming trunks constituting the subject matter of this invention has a body portion indicated in general by the numeral 1 and formed of sections sewed together by seams 2, 3 and 4 at the sides and front and back of the garment, the seams 3 and 4 extending through the crotch portion of the trunks and meeting at the inner leg seam 5. The short leg extensions of the trunks are formed with hems 6 about their lower edges and at its top there has been formed a hem or waistband 7 through which an elastic waistband 8 and drawstring or tape 9 pass. Ends of the tape or drawstring project outwardly so that they may be tightened and formed into a bowknot and thus cause the trunks to be well supported when worn.

The subfabric has portions 10 having side extensions or arms 11 at their upper ends which are sewed to each other by a seam 12 and sewed along their margin to the inner surface of the front portion of the trunks, the portions 10 forming pockets connected at their upper ends by a neck formed by the portions 11 and extending transversely of the front portion of the trunks just below the waistband 7. At their upper ends, portions of the pockets 10 and their side arms 11 which form the neck connecting the pockets are left free and formed with hem 13 against the inner face of which are sewed elastic strip 14 carrying snap fastener member 15 by means of which entrance openings 16 for upper ends of the pockets are held closed. A pocket 17 which extends transversely or circumferentially of the body of the trunks is sewed into the garment between the upper portion of one pocket 10 and the part of the body, this pocket being opened along the top so that access may be had to the same through the opening 16 under which it is located. A snap fastener member 18 which is companion to the snap fastener member 15 is sewed to the pocket 17 and when these snap fastener members 15 and 18 are engaged with each other the upper end of the pocket in which the bag or end portion 24 is located will be held closed and the bag supported at a point midway its length. Near the bottom of the pocket is

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formed an opening 19 having its edges hemmed, as shown in Figure 6, so that it will not tear or ravel. In front of the other bag there has been provided a pocket 20 in which locker checks or identification tags or the like may be placed by a person wearing the trunks and in order to close this pocket there has been provided a flap 21 secured in a closed position by a button 22.

In order to impart buoyancy to the trunks, there has been provided a bladder 23 which may be formed of latex or other suitable material capable of being sterilized without deteriorating. This bladder has large end portions 24 which conform to the shape of the pocket 10 and are connected by a tubular portion 25 extended between inner or forward sides of upper ends of the end portions 24. Since the bladder is formed of pliable plastics it may be plugged into the bag or pocket 10 in front of which the pocket 20 is located and then thrust through the neck 11 so that the two end portions 24 will be located within the pockets 10 and the tube 25 passed through the neck 11. An inflating tube 26 which is also formed of latex has one end connected with the bladder by a conventional form of joint 27. This tube is passed outwardly through the opening 19 into the pocket 17 and is of such length that when the trunks are worn and the tubes drawn upwardly out of the pocket 17 the nipple 28 at the outer end of the tube may be placed between a person's lips and air blown through the tube to inflate the bladder. The air which is forced through the tube into the bladder inflates the entire bladder and imparts such buoyancy to the trunks that a person wearing the trunks cannot sink in water. In view of the fact that the bags or enlarged end portions 24 of the bladder are located at opposite sides of the trunks they will cause buoyancy to be imparted at such points that a person wearing the trunks will be well supported at opposite sides and held in proper position for swimming. A tape 29 is formed at one end with an opening 30 through which the nipple passes to firmly hold the tape in engagement with the nipple. A threaded plug 31 is rotatably mounted through the free end portion of the tape and about this plug is disposed a washer 32 so that when the plug is screwed into the internally threaded nipple 28 a tight closure will be formed and air prevented from leaking outwardly through the tube. After the bladder has been inflated, the tube is folded and tucked into the pocket 17 where it will be out of the way.

When the bladder is inflated by air blown inwardly through the tube 26 the two bags or end portions 24 and the tubular neck 25 connecting them will all be inflated and it has been found that when a person is swimming and turns on one side the air will have a tendency to flow from the lower bag or end portion 24 through the neck or tube 25 into the upper bag or end portion. This will cause the bladder to be unevenly inflated and when a swimmer turns from a position on one side to a position for swimming with a breast stroke the unevenly inflated bladder will tend to tilt the person towards one side instead of the swimmer being evenly supported at opposite sides. In order to prevent this there has been provided a tab 33 formed of fabric and disposed vertically midway the width of the trunks. The tab extends along the front seam 4 and at its upper end is secured by stitching 34. Within the tab is provided packing 35 which causes the tab to bulge toward the body portion of the trunks, and from an inspection of Figure 5 it will be seen

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that when the tab 33 is disposed in a depending position close against the body portion of the trunks and its lower end secured by the companion snap fastener members 36 and 37, pressure will be applied vertically across the tube 25 midway the length thereof and air prevented from flowing through this tube or neck from one end portion 24 of the bladder to the other end portion. The bladder will therefore at all times be evenly inflated at all points and a person wearing the trunks will be supported in a balanced manner.

When the improved trunks are in use they are put on in the usual manner and secured about a person's waist by the elastic band 8 and the drawstrings 9. The tube 26 is withdrawn from the pocket 17 and air blown through the nipple 28 until the bladder has been sufficiently inflated. A person wearing the trunks may then swim without danger of drowning. Of course, if the trunks are being worn by a person having one or both legs amputated the attendant in charge will inflate the bladder and then tuck the tube into the pocket 17 before assisting the amputee into the water. The shape of the bladder and the disposition of this enlarged end portion or bags 24 will cause the person wearing the trunks to be evenly supported and prevented from being tilted to a position in which swimming will be difficult. If a person wearing the trunks wishes to use the same merely as a safety suit or life preserver the bladder need not be inflated. If, however, such a person is swimming along the seashore and is carried outwardly by a strong current and finds that he is becoming exhausted and can not remain afloat until a rescue boat reaches him he can withdraw the tube 26 from the pocket 17, blow air through the tube into the bladder to inflate it, and then screw the plug 31 into the nipple 28 to seal the outer end of the tube and retain air in the bladder. The bladder will thus be inflated and impart buoyancy to support the swimmer until he is reached by a rescue boat. Drownings due to a person being carried away from shore by a strong sea current will thus be avoided.

Having described my invention, what I claim is:

1. Swimming trunks having a body and leg openings, a sheet of fabric disposed against the inner surface of the front portion of the body and sewed along its marginal edges to the body, the sheet of fabric being shaped to define pockets extending vertically along opposite side portions of the body and a tubular throat extending horizontally across the front portion of the body and connecting front corners of upper ends of the pockets, the pockets being open at their upper ends, and the throat being open at its ends, a bladder having end bags fitting within the pockets and a tubular neck connecting upper ends of the bags and passing longitudinally through the throat, a tab carried by said body and adapted to be secured across the neck of the bladder and compress the same to prevent flow of air through the neck, there being a second pocket mounted in the upper end portion of one of the first pockets, a tube extending from said bladder and into the last mentioned pocket through an opening near the bottom thereof and being of a length adapting it to extend outwardly an appreciable distance from the trunks, and reach the mouth of a person wearing the trunks, a nipple at the outer end of said inflating tube, a tab mounted about said nipple and a plug for closing the nipple carried by said tab.

2. Bathing trunks comprising a body having

leg openings and a waistband, an internal pocket carried by said body and having deep end portions at opposite sides of the body and a neck connecting the end portions and extending transversely of the body across the front thereof, there being an opening along the neck and means for releasably holding the opening closed, a bladder removably fitted into the pocket through the said opening and having large end portions forming bags disposed in the deep end portions of the pocket and a tube extending through the neck of the pocket and establishing communication between upper ends of the large end portions of the bladder, a fastener adapted to be releasably secured across the neck and apply pressure to the tube and prevent flow of air through the tube, a second pocket mounted in the upper end portion of one end of the first pocket, an elongated inflating tube extending from said bladder through an opening in the bottom of the second pocket and of a length adapting it to extend outwardly and upwardly from the trunks a sufficient distance to reach the mouth of a person wearing the trunks, whereby a person wearing the trunks may inflate the bladder by blowing air through the inflating tube, and a removable closure for the outer end of the inflating tube, the inflating tube being flexible whereby it may be folded and tucked into the second pocket, and means for securing the second pocket closed and holding the folded tube therein.

3. Swimming trunks comprising a body having leg openings and a waistband, the body being provided with a pocket having deep end portions at opposite sides of the body and a neck connecting the same and extending across the front portion of the body under the waistband, a bladder fitting into the pocket and conforming to the contour thereof, a fastener adapted to be releasably secured across the neck and apply sealing pressure to the portion of the bladder extending through the neck, and an inflating tube extending from the bladder out of the pocket and of a length permitting inflation of the bladder by air blown through the tube by a person wearing the trunks.

4. Swimming trunks comprising a body having leg openings and a waistband, the body being provided with a pocket having end portions located adjacent opposite sides of the body and a neck connecting its end portions and extending across the front of the body below the waistband, a bladder having end portions fitting into the end portions of the pocket and a throat connecting its end portions and passing through the neck of the pocket extending across the front of the

body, a tab secured at one end below the neck and being foldable upwardly across the neck and having a fastener at its free end for releasably securing the tab in its raised position across the neck for applying sealing pressure to the neck, and means for inflating said bladder.

5. Swimming trunks comprising a body having leg openings, the body being provided with a pocket having end portions at sides of the body and a neck connecting its end portions, a bladder in the pocket having end portions constituting bags located within the end portions of the pocket and a tubular portion connecting the bags and extending through the neck of the pocket, means for inflating the bladder communicating with one bag thereof, a tab carried by said body externally of the front thereof and extending vertically and attached at its upper end, said tab being padded to provide a portion projecting towards the body, and means for releasably securing the lower end of the tab against the body with the padded portion of the tab applying pressure across the neck of the pocket to shut off flow of air from one bag of the bladder to the other.

6. Swimming trunks having a body and leg openings and a waistband, the body having a pocket having end portions at opposite sides of the body and an intermediate portion extending across the front of the body under the waistband, a bladder in the pocket insertable and removable through an opening in the pocket and having end portions filling the end portions of the pocket and an intermediate portion extending through the intermediate portion of the pocket, means for inflating the bladder, a tab carried by the body and movable in to and out of position across the intermediate portion of the pocket, and means for releasably securing the tab in position across the intermediate portion of pocket to compress the portion of the bladder passing through the said intermediate portion of the pocket and preventing flow of air between end portions of the bladder.

HARRY SPACK.

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