July 21, 1953 O. KLABUNDE 2,645,791

FLOATING BELT

Filed Nov. 16, 1950

Fig. 1.

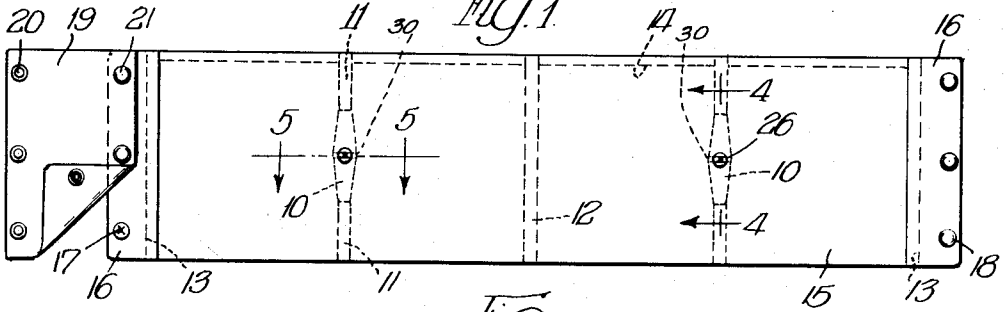


Fig. 2.

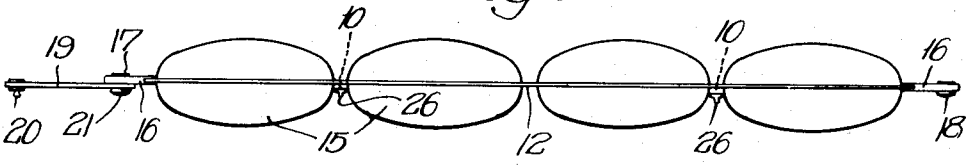


Fig. 3.

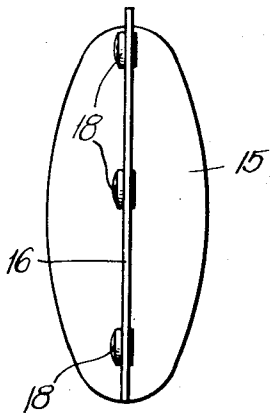


Fig. 4.

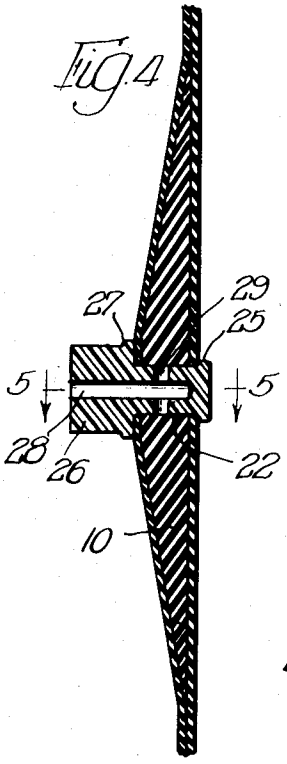


Fig. 5.

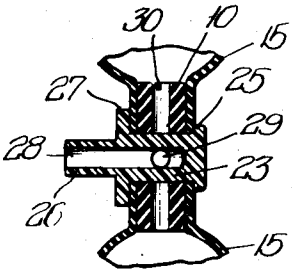
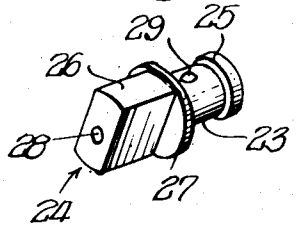


Fig. 6.



INVENTOR.

Otto Klabunde,

BY B. Pressbowitz

Atty.

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FLOATING BELT

Otto Klabunde, Chicago, Ill.

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2 Claims. (Cl. 9—17)

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The present invention relates to floating belts of the type having a plurality of inflatable compartments arranged in a mutual longitudinal relation in a form of a belt to fit around the waist of a person to sustain him in water.

The principal object of the present invention is the provision of a suitable valve through which a pair of adjacent compartments may be inflated or deflated.

Another object of the present invention is the provision of a comparatively stiff insert in the casing of the belt and between a pair of adjacent compartments for supporting a valve stem in a transverse relation with the insert, whereby a pair of adjacent compartments may be inflated or deflated.

With the above general objects in view and others that will appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the appended claims.

In the drawing forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views;

Fig. 1 is a face elevational view of the present invention;

Fig. 2 is an edge elevational view thereof, with the several compartments in an inflated condition;

Fig. 3 is an end elevational view of the present invention;

Fig. 4 is an enlarged cross sectional view through the valve and through the insert in a longitudinal direction of the latter, the view having been taken on line 4—4 of Fig. 1;

Fig. 5 is a cross sectional view through the valve transversely of the insert, the view having been taken on line 5—5 of Figs. 1 and 4; and

Fig. 6 is a perspective view of the valve.

Referring in detail to the present drawing there is shown the floating belt made of an impervious material. Preliminarily the same is made in the form of an elongated tubular casing, with a plurality of inserts 10, positioned in a mutual spaced relation, and transversely of the casing. Said inserts 10 are shorter than the maximum width of the tubular casing. The front and back faces of the casing are cemented to said inserts 10. Likewise said front and back faces, along the portions thereof which are on a continuing line from the ends of said inserts 10, are cemented to each other, as at 11. Inter-

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mediately of a pair of said inserts 10 the front and back faces of the tubular casing are cemented to form joint 12. The ends of the front and back faces of said tubular casing are cemented to form sealed end seams 13. Thereupon the longitudinal marginal portions of the tubular casing are cemented to form sealed edge seam 14.

From the hereinabove description it will be apparent that inserts 10, with the cemented portions 11, joint 12, sealed end seams 13 and the sealed edge seam 14 define a plurality of inflatable compartments 15, arranged in a longitudinal relation and capable of encircling position around the waist of a person.

Affixed to each end seam 13 is flap 16, one carrying ball fasteners 17, and the other socket fasteners 18, whereby the belt may be connected at its ends and maintained in position around the waist of a person. In order to fit the belt around the waist of a person having a large girth extension leaf 19, provided at one of its ends with ball fasteners 20 and at the other end with socket fasteners 21, may be attached to flaps 16 to engage fasteners 17 and 18 of the latter, as is seen in Figs. 1 and 2.

Each of said inserts 10 is made preferably of rubber or other like suitable material. Each of said inserts 10 is oblong, with its central portion much thicker than its gradually tapering ends. The front and back faces of the belt are cemented to said inserts, as hereinabove described, and as best shown in Fig. 4. Through its thickest central portion each insert 10 is provided with a transverse bore 22. The front and back faces of the belt are apertured in alignment with said bore 22, for the purpose of receiving therewithin stem 23 of valve, generally indicated by 24 in Fig. 6.

Said valve 24 is further provided at its one end with an integrally formed flange 25, and at its opposite end with an integrally formed flattened knob 26. Intermediately of its ends said valve 24 has flange 27 of a diameter which is larger than the diameter of flange 25.

Valve 24 is further provided with a longitudinal bore 28, which terminates short of flange 25, and which opens through the free end of knob 26. Transverse bore 29 is made in stem 23 in a transverse communicating relation with bore 28.

Insert 10 is provided with transverse bore 30, each end of which opens into the adjacent compartment 15. In the operative position of valve 24 in insert 10 stem 23 is in a transverse position with bore 30. When valve 24 is rotatably turned by manually grasping knob 26 it is possible to

bring bore **29** in an alignment and communication with bore **30**. When in that alignment compartments **15** which are adjacent to each insert **10** may be inflated by blowing air by mouth into bore **28**. The air of course will pass through said bore **28**, bore **29** and bore **30** and into a pair of adjacent compartments **15** to inflate the latter. When said compartments have been inflated manual turning of valve **24** will shift bore **29** out of alignment with bore **30** until the solid body portion of stem **23** is shifted in path of said bore **30** for effectively blocking bore **30** and thereby preventing the escape of air from the inflated compartments, as is seen in Fig. 5.

Valve **24** may be made of plastic or other suitable material. Its flange **25** being of a comparatively short diameter will readily be forced through bore **22** and the aligned apertures made in the front and back faces of the belt to assume its operative position shown in Figs. 4 and 5.

When in that operative position of the valve flanges **25** and **27** are in contact with the faces of the belt, with said faces and insert **10** interposed therebetween. This prevents longitudinal shifting of the valve with relation to insert **10**, and thereby maintains bores **29** and **30** upon the same plane.

While there is described herein a preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

What I claim as new is:

1. A belt comprising an inflatable receptacle having a pair of opposed sides, each of said sides having an aperture extending transversely therethrough and in substantial alignment one with the other, an insert position within said receptacle and dividing said receptacle into a pair of compartments, said insert having a valve receiving bore extending therethrough and aligned with said apertures, said insert having a second bore formed therein extending transversely of and intersecting said first bore, said second bore being in open communication with said pair of compartments, a valve rotatably mounted within said first bore and having a passage therethrough for selective alignment with said second bore upon rotation of said valve, said valve having a second passage formed therein, said second passage communicating with the atmosphere at one of its ends and terminating at its other end in open communication with said first passage, means on said valve to prevent shifting of said valve relative to the longitudinal axis of said first bore, said last named means comprising a pair of spaced radial flanges engaging against the marginal edges of said apertures formed in said sides of said receptacle.

2. A belt comprising a plurality of connected inflatable receptacles, each of said receptacles having a pair of opposed sides, each of said sides having an aperture extending transversely therethrough and in substantial alignment one with the other, an insert positioned within each of said receptacles, said insert dividing each of said receptacles into a pair of adjacent compartments, each of said inserts having a valve receiving bore extending therethrough and aligned with said apertures formed in their respective receptacles, each of said inserts having a second bore formed therein extending transversely of and intersecting said first bore, said second bores being in open communication with each pair of compartments adjacent their respective inserts, a valve rotatably mounted within each of said first bores and having a passage therethrough for selective alignment with said second bores upon rotation of said valve, each of said valves having a second passage formed therein, each of said second passages communicating with the atmosphere at one of its ends and terminating at its other end in open communication with said first passage, means on each of said valves to prevent shifting of said valves relative to the longitudinal axes of their respective said first bores, each of said last-named means comprising a pair of spaced radial flanges engaging against the marginal edges of said apertures formed in said sides of said receptacles.

OTTO KLABUNDE.

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