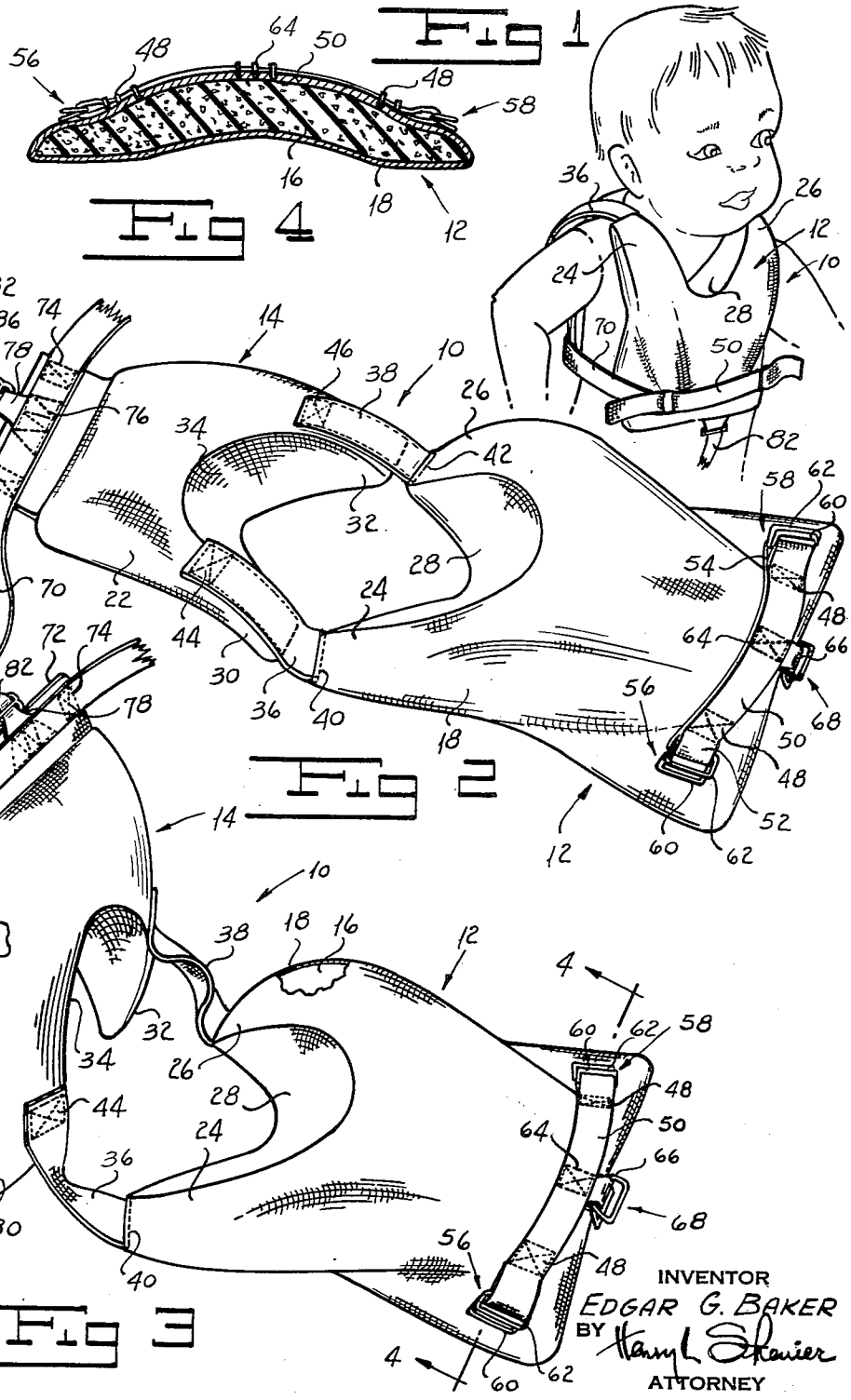
Aug. 28, 1962 E. G. BAKER 3,050,753

FLOATATION VEST

Filed April 28, 1959



United States Patent Office 3,050,753 Patented Aug. 28, 1962

1

3,050,753

FLOATATION VEST

Edgar G. Baker, Carbondale, Pa.

Filed Apr. 28, 1959, Ser. No. 809,495
4 Claims. (Cl. 9—337)

My invention relates to a floatation vest and more particularly to an improved floatation vest which is especially adapted for use by an infant.

A floatation vest for buoyantly supporting the wearer's body in the water should be firmly secured to the wearer's body so that it will not slip off when, for example, the person wearing the vest jumps or falls into the water. Then too the buoyancy of the vest should be so distributed that it supports the wearer's body in a position with the head up and with the face clear of the water. I have discovered that these two desirable objects can be accomplished by properly shaping the buoyant mass of the vest. I contour the inner surface of the buoyant mass to the shape of the wearer's body to provide a large frictional resistance between the body and the vest. This increased friction serves to hold the vest securely on the wearer's body without the necessity of using straps or the like which either are too tight or do not permit freedom of movement of the wearer's body. I arrange the material making up the buoyant mass of the vest with a major portion at the upper part of the wearer's body adjacent the head so that the body is supported with the head up and with the face out of the water. It is further desirable that the vest be capable of being donned and removed with ease.

The two desirable buoyant vest characteristics, outlined hereinabove, that the buoyant mass be contoured to the wearer's body to prevent the vest from slipping off and that the major portion of the vest material be adjacent the upper part of the body to float the body in a semi-erect position, are of particular importance where the wearer is an infant who cannot help himself to any appreciable degree.

It is well known that infants have heads which are disproportionately large with respect to their bodies. A buoyant vest of the type described hereinabove, which is formed with an opening large enough to accommodate the infant's head to permit the vest to be slipped onto the infant's body, tends to defeat the purposes outlined hereinabove. The opening would be so large that a major portion of the vest material no longer would be located at the upper part of the infant's body adjacent his head. Moreover, if such a vest were contoured to the shape of the infant's body adjacent the buoyant mass of the vest, it would be likely to be forced off the infant's body over the infant's head with relative ease.

I have invented a buoyant vest which is especially adapted for use by an infant. My vest may readily be placed on the infant's body by slipping the vest over the infant's head. My vest accomplishes this result while at the same time permitting buoyant material to be contoured to the shape of the upper portion of the infant's body. My vest may readily be placed on an infant's body in the manner described above, while at the same time assuring that a major portion of the buoyant mass is at the upper portion of the infant's body adjacent his head to support the infant in a semi-erect position with his face out of the water.

One object of my invention is to provide a buoyant vest which is especially adapted for use by an infant.

Another object of my invention is to provide a buoyant vest which may readily be slipped over the head of an infant, while at the same time having a buoyant mass which is contoured to the shape of the upper portion of the infant's body.

2

A further object of my invention is to provide a buoyant vest for use by an infant which may readily be slipped over the infant's head, while at the same time providing a major portion of its buoyant mass adjacent the upper part of the infant's body to float the infant with his head up and his face out of the water.

A still further object of my invention is to provide a buoyant vest for use by an infant which is firmly held to the infant's body, while at the same time being comfortable and permitting a great degree of freedom of movement.

Other and further objects of my invention will appear from the following description:

In general my invention contemplates the provision of a buoyant vest having front and back masses, each formed with shoulder portions providing front and back neck recesses. I provide shoulder straps for securing the shoulder portions of the front and back masses together. I so connect the straps to the shoulder portions as to permit the masses to be separated to provide an opening which is sufficiently large to permit the vest to be slipped over an infant's head. When this has been done, the masses come into engagement with the upper portion of the infant's body to cause the recesses to form a neck opening which is too small to permit the vest to slide back over the infant's head. My vest includes a strap for securing the buoyant masses in a position on the infant's body. I contour the masses to the shape of the upper portion of the infant's body and so dispose the material making up the masses that my buoyant vest supports the infant with his head up and with his face out of the water.

In the accompanying drawings to which reference is made in the instant specification and which are to be read in conjunction therewith and in which like reference numerals are used to indicate like parts in the various views:

FIGURE 1 is a perspective view of my buoyant vest shown in use on the body of an infant.

FIGURE 2 is a perspective view of my buoyant vest showing the arrangement of parts.

FIGURE 3 is a perspective view of my buoyant vest with the front and back masses separated to provide an opening of a size sufficient to accommodate the head of an infant.

FIGURE 4 is a sectional view of my buoyant vest taken along line 4—4 of FIGURE 3.

Referring now more particularly to the drawings, my buoyant vest indicated generally by the reference character 10 has a front buoyant mass indicated generally by the reference character 12 and a rear buoyant mass indicated generally by the reference character 14. The front mass 12 includes a floation member 16 formed of any suitable buoyant material such, for example, as a molded foam rubber. Conveniently, I provide the member 16 with a fabric cover 18 formed from a suitable material, such as a light canvas cut to the proper shape and sewed over the member 16 to provide a cover 18 which closely follows the contour of the filler 16.

The back buoyant mass 14 has a filler 20 molded from a suitable material, such as foam rubber and is provided with a cover 22 made from light canvas or a similar fabric cut to shape and sewed over the filler 20.

I provide the front mass 12 with a pair of shoulder extensions 24 and 26 which form a front neck recess 28. The rear mass 14 has respective shoulder extensions 30 and 32 which form a rear neck recess 34. I provide respective shoulder straps 36 and 38 for assembling the front and back buoyant masses 12 and 14. I secure one end of each of the straps 36 and 38 to the fabric cover 18 adjacent the ends of the respective extensions 24 and

26 by means of rows of stitching 40 and 42. I secure the other ends of the straps 36 and 38 to the back shoulder extensions 30 and 32 at points which are spaced from the ends of these extensions. Conveniently, I employ stitching 44 and 46 for securing the straps to the cover 22 of the back mass 14. As will be explained in detail hereinafter, the distance of the points at which the straps are secured to the rear extensions 30 and 32 from the ends of these extensions is such that the masses 12 and 14 may be separated to provide an opening which is sufficiently large to permit the vest to be slipped over an infant's head. With the vest in position, the ends of the rear extensions 30 and 32 lie adjacent the ends of the front extensions 24 and 26 to cause recesses 28 and 34 to form a neck opening which is too small to permit the infant's head to slip through the opening.

Any suitable means, such as stitching 48, secures a length of webbing 50 to the lower front of the cover 18 of mass 12. This length of webbing 50 forms a part of the vest belt. Respective loops 52 and 54, formed in the ends of webbing 50, carry buckles indicated generally by the reference characters 56 and 58. Each buckle 56 and 58 includes a pair of rectangular metal members 60 and 62. Stitching 64 secures a loop 66 of webbing carrying a buckle indicated generally by the reference character 68 to a point adjacent the middle of the length of webbing 50.

My vest includes a length of webbing 70 forming the remainder of the vest belt. I secure the belt 70 to an extension 72 at the bottom of the cover 22 of the back mass 14 by means of stitching 74. With the vest in position on an infant's body, the ends of the belt 70 may be looped through the members 60 and 62 of buckles 56 and 58 to hold the vest snugly around the wear's waist. Stitching 76 secures a loop 78 of webbing to the extension 72 adjacent the midpoint of the belt webbing 70. Loop 78 carries a fitting 80 to which I secure a crotch strap 82 by means of a loop 84 held in the strap 82 by stitching 86. The end of crotch strap 82, remote from fitting 80, is adapted to be looped around the members of buckle 68 to hold the vest down on the infant's body.

I contour the inner surface of the front mass 12 to the chest and front shoulder portion of the infant's body and contour the back mass 14 to the upper back and rear shoulder portion of the infant's body. In addition, I provide a greater amount of buoyant material in the front mass 12 than in the back mass 14 to cause the vest to support the infant face up in the water in a semi-erect position. In order to ensure this result, I may make the front buoyant mass with an eccentric center of buoyancy to provide a turning moment for rotating the infant's body to a face-up position.

In use of my buoyant vest, when the vest is to be placed on the infant's body, I separate the masses, as shown in FIGURE 3, to provide an opening which is sufficiently large to accommodate the infant's head. The vest is next slipped over the infant's head and the ends of the belt 70 are passed around the infant's waist and secured to the buckles 56 and 58. The belt 82 is passed through the legs of the infant and secured to the buckle 68. With the buoyant masses 12 and 14 of the vest thus held on the infant's body, the front and back mass recesses 28 and 34 form an opening which is too small to permit the infant's head to slip down through the opening to cause the vest to fall away from the wearer's body. Thus my vest has the advantages of fitting closely to the infant's body without discomfort and of supporting the infant buoyantly with his head up and with his face out of the water.

It will be seen that I have accomplished the objects of my invention. I have provided a bouyant vest which is especially adapted for use by an infant. My vest may easily be placed on the infant's body by slipping the vest over his head. While permitting this use, the vest is contoured to the infant's body to prevent it from readily slipping off, and the buoyant material of the vest is so disposed as to support the infant in a semi-erect position with his face out of the water.

It will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of my claims. It is further obvious that various changes may be made in details within the scope of my claims without departing from the spirit of my invention. It is, therefore, to be understood that my invention is not to be limited to the specific details shown and described.

Having thus described my invention, what I claim is:

1. A buoyant vest for use by a wearer having a certain head size including in combination a first buoyant mass, a second buoyant mass formed with shoulder extensions having ends, a pair of shoulder straps carried by said first buoyant mass and means for securing said straps to said second buoyant mass at points spaced from the ends of said second mass shoulder extensions, the length of said straps being such that said straps and said masses define a restrictive neck opening of a size smaller than said certain size when said vest is in position on the wearer's person to prevent the vest from slipping over the wearer's head, said straps being free of said second mass shoulder extensions over the portions of their lengths extending from said points to permit the ends of said second mass shoulder extensions to be swung away from from said strap lengths to form an opening of a size larger than said certain size to permit said vest to be slipped readily over the wearer's head.

2. A buoyant vest for use by a wearer having a certain head size including in combination a front buoyant mass having shoulder extensions forming a front neck recess, a rear buoyant mass having shoulder extensions having ends, a pair of shoulder straps, means securing said straps to one of said masses at points adjacent the mass shoulder extensions and means for securing said straps to the other mass at points spaced from the ends of the mass shoulder extensions, the lengths of said straps being such that said straps and said masses define a restrictive neck opening of a size smaller than said certain size when said vest is in position on the wearer's person to prevent said vest from slipping over the wearer's head, said straps being free of said other mass shoulder extensions over the portion of their lengths extending from said points to permit the ends of said second mass extensions to be swung away from said strap lengths to form an opening of a size larger than said certain size to permit the vest to be slipped readily over the wearer's head.

3. A buoyant vest for use by a wearer having a certain head size including in combination a front buoyant mass having shoulder extensions forming a front neck recess, a rear buoyant mass having shoulder extensions forming a rear neck recess, said shoulder extensions having ends, a pair of shoulder straps, means securing said straps to one of said masses at points adjacent the ends of the mass shoulder extensions, means for securing said straps to the other mass at points spaced from the ends of the mass shoulder extensions, the lengths of said straps being such that said straps and said masses define a restrictive neck opening of a size smaller than said certain size when said vest is in position on the wearer's person to prevent said vest from slipping over the wearer's head, said straps being free of said other mass shoulder extensions over the portions of their lengths extending from said points to permit the ends of said second mass extensions to be swung away from said strap lengths to form an opening of a size larger than said certain size to permit the vest to be slipped readily over the wearer's head and means for securing said masses to the wearer's body.

4. A buoyant vest for use by a wearer having a certain head size including in combination a first buoyant mass, a second buoyant mass having shoulder extensions formed with ends and means for securing said first and second

masses to each other, said securing means comprising a shoulder strip carried by said first mass and means for securing said strap to said second mass at a point spaced from one of said second mass shoulder extension ends, the length of said strap being such that said strap and said masses define a restrictive neck opening of a size smaller than said certain size when said vest is in position on the wearer's person to prevent said vest from slipping readily over the wearer's head, said strap being free of said second mass shoulder extension over the portion of its length extending from said point to permit the end of said second mass shoulder extension to which said strap is secured to be swung away from said strap

length to form an opening of a size larger than said certain size to permit the vest to be slipped readily over the wearer's head.

References Cited in the file of this patent

UNITED STATES PATENTS

1,179,272	Boddy	Apr. 11, 1916
2,177,442	Reed	Oct. 24, 1939

FOREIGN PATENTS

812,781	France	Feb. 8, 1937
466,227	Italy	Oct. 23, 1951