To all whom it may concern:

Be it known that we, JAN REMBISZEWSKI and EDWARD GRODZKI, subjects of the Czar of Russia, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Collapsible Life-Rafts, of which the following is a specification.

This invention relates to certain new and useful improvements in collapsible life rafts.

The primary object of the invention is to provide a life saving apparatus for vessels in the nature of an inflatable raft structure which is readily collapsed when deflated assuming a compact form for being readily stored adapted for immediate use when occasion demands.

A further object of the invention is the provision of a pneumatic life raft having laterally arranged foldable side braces controlling the form of the raft when either inflated for use or deflated for storage.

With these general objects in view and others that will appear as the nature of 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 drawings, and then claimed.

In the drawings forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views.—Figure 1 is a perspective view of the device in its extended fully inflated operative condition. Fig. 2 is a longitudinal sectional view thereof of deflated and folded for storage. Fig. 3 is an enlarged detail perspective view of a side portion of the device showing the adjustable connection of the side brace sections and, Fig. 4 is a central longitudinal sectional view through one of the adjustable connections for the side brace sections.

The present form of raft broadly consists of a mattress-shaped member 10 formed of any inflatable material such as rubberized canvas, the structure being rectangular in transverse cross-section and having sides 11 and top deck 12 an end 13 designated the foot of the raft, and an enlarged opposite end 14 designated as the head thereof. Reinforcing cords 15 are provided extending longitudinally through the edge portions 16 extending entirely around the raft at the margins of the deck 12 and the mattress bottom 17, the said cords being formed within the body of the material of which the raft is constructed. Rods 18 are carried substantially centrally of the ends 13 and 14 and in close proximity thereto extending through the opposite side walls 11 of the device and having outwardly projecting opposite ends. Opposite braces 19 are carried adjacent the side walls 11, being formed in separate sections 20 slidably attached together by means of adjusting bolts 21, the opposite ends of the end sections being rigidly attached to the outwardly projecting ends of the said rods 18.

The bracing sections 20 are provided with longitudinal slots 22 through which the squared portions 23 of the bolts 21 project and within which slots such portions are slidably mounted preventing the bolts 21 from turning while the adjacent end 24 of the contiguous overlapping section has the cylindrical shaft of the bolt 21 extending therethrough provided with a winged lock nut 25 whereby the sections 20 may be maintained at any desired adjustment, thus regulating the length of the side brace member.

Outwardly projecting eyes 26 are carried by the cords 15 adjacent the mattress edges 16 and at points opposite the sides of each of the bolts 21 when the mattress is inflated and flexible connectors 27 are detachably secured to the eyes 26 at their outer ends and secured at their inner ends to rings 28 carried by the said end portions 24 of the brace sections 20 at substantially opposite sides of the bolt 21. Securing straps 29 are provided at the edges of the deck 12 while the ends 13 and 14 of the mattress are provided with hand hold loops 30.

It will be understood that the raft when stored has the flexible mattress 10 partially folded with the sections 20 slidably arranged overlapping each other as best illustrated by Fig. 2 of the drawings. When desired for use, the wing nuts 25 are loosened and the sections 20 are projected extending the mattress 10 while the latter is then inflated through a suitable air receiving nipple 31 in the end wall 13 thereof. The connectors 27 carry the adjacent portions of the flexible mattress with the same during the folding or unfolding of the brace sections 20 while the wing nuts 25 may be tightened at any desired adjusted position of the said bracing sections, thereby securing the mattress in its desired extended position. The arranging of the squared bolt portions 23 within...
the section slots 22 maintains the side braces in their longitudinal arrangement when the lock nuts 25 are secured which prevents the mattress from flexing or doubling when subjected to great weight upon the deck 12. When the mattress is inflated with air through the nipple 31, the same assumes the appearance illustrated in Fig. 1 of the drawing forming a serviceable folding life raft moved about by means of the loops 30 while persons or articles may be secured to the deck 12 thereof by means of the straps 29. The braces 20 connecting the rods 18 give suitable rigidity to the structure when operatively arranged, thus thereby forming a serviceable life saving arrangement of light weight and one which may be constructed of any desired size while changes may be made in the preferred embodiment of the invention herein illustrated with respect to the minor details thereof without departing from the spirit and scope of the invention.

What we claim as new is:

1. A life raft comprising a flexible inflatable mattress member rectangular in cross-section, reinforcing cords arranged within the edge portions thereof, transverse rods carried adjacent the opposite ends of the device projecting laterally from the side walls thereof, adjustable braces having their opposite ends secured to the outer ends of the said rods and formed in separable sliding engaging sections, adjusting bolts secured between the adjacent sections of the said side braces, and flexible connectors secured between each of the said sections and the opposite edge portions of the mattress.

2. A device of the class described comprising an inflatable flexible mattress having end and side walls, rods arranged transversely through the mattress secured to the said side walls in parallelism adjacent the said end walls and having ends projecting outwardly of the mattress, side braces formed of longitudinal slotted sections with the opposite ends of the terminal sections rigidly secured to the projecting ends of the said rods, adjusting bolts secured to the corresponding end portions of the said sections having squared shanks slidably arranged through the slots of the adjacent sections, eyes carried adjacent the opposite edges of the said side walls at opposite sides of the said bolts when the mattress is extended, flexible connectors between the said eyes and the adjacent bolt carrying ends of the said sections, and an inflating nipple for the said mattress.

In testimony whereof we affix our signatures.

JAN REMBISZEWSKI.
EDWARD GRODZKI.

Copies of this patent may be obtained for five cents each, by addressing the “Commissioner of Patents, Washington, D.C.”