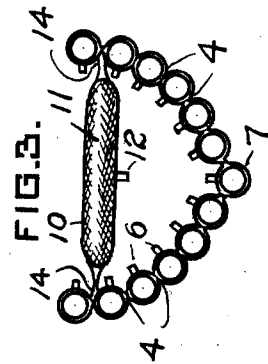
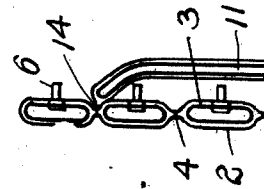
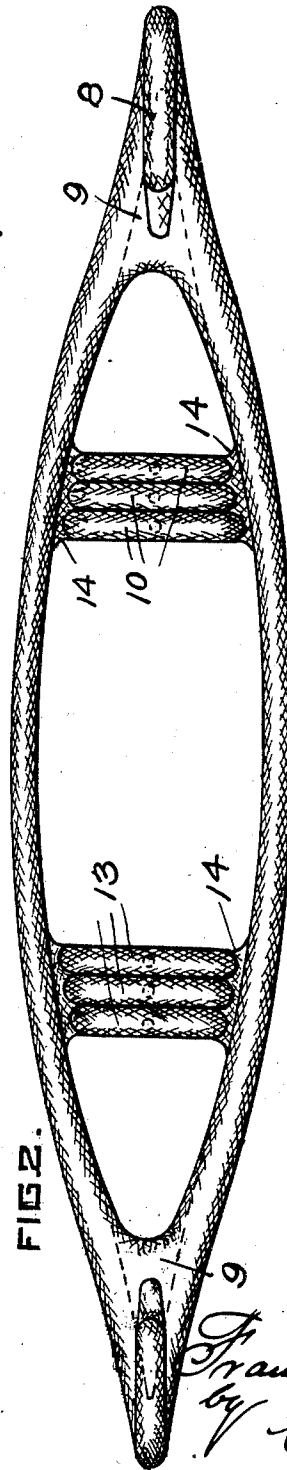
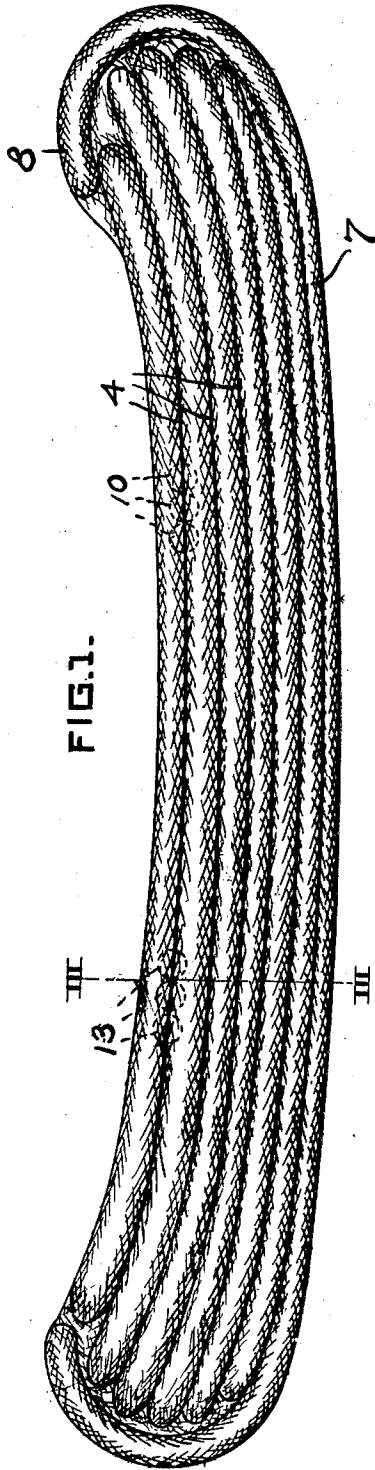


1,372,528.

Patented Mar. 22, 1921.



INVENTOR

Frank Marcovsky
 by *C. M. Clarke*
 atty.

UNITED STATES PATENT OFFICE.

FRANK MARCOVSKY, OF DUQUESNE, PENNSYLVANIA.

COLLAPSIBLE BOAT.

1,372,528.

Specification of Letters Patent.

Patented Mar. 22, 1921.

Application filed March 11, 1920. Serial No. 384,924.

To all whom it may concern:

Be it known that I, FRANK MARCOVSKY, a citizen of the United States, residing at Duquesne, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Collapsible Boats, of which the following is a specification.

My invention consists of an improvement in collapsible boats, preferably of the canoe type, and has for its object to provide a device which is capable of erection by inflation, and of being collapsed for compact packing or storage, by deflation. The vessel as a whole is composed of a double wall of suitable fabric, as canvas, connected at intervals, with intervening individual inflatable tubing, constructed and operable in the manner hereinafter described.

Referring to the drawings showing one form of embodiment of the invention,

Figure 1 is a view of a canoe in side elevation, constructed in accordance with my invention;

Fig. 2 is a plan view;

Fig. 3 is a cross section on the line III—III of Fig. 1; and

Fig. 4 is a partial sectional detail view, showing the wall and a part of the seat member, collapsed.

In carrying out my invention, I cut the fabric to suitable shape so that when connected and inflated, it will expand to the erected shape of the boat or canoe, as shown in the drawings. The main walls comprise a continuous water tight outer fabric member 2 and a similar inner member 3, these members being connected by seams 4 longitudinally of the boat from end to end. In the intervening spaces are series of individual rubber tubes 5 closed at each end, and each provided with a nipple valve 6 whereby to fill each with compressed air by a suitable pump. A similar keel member 7 extends along the central bottom and up around each end, terminating at the top, as at 8, and with the fabric merging into the general covering 9 at bow and stern, suitably shaped to the usual form of an ordinary wooden canoe. By this construction I provide a central tubular rib, of substantially the same diameter as the side tubular ribs, which forms a continuous central keel member with extended prow and reinforcing portions at each end.

One or more seat members are provided, as shown, consisting of a plurality of tubed cross members 10, also made of upper and lower fabric, with individual inflatable closed end tubes 11 each having a nipple 12 for inflation.

The inclosing fabric for the seats is connected between the tubes by seams 13 and is connected to the inner member 3 at 14 at opposite sides, restraining them from undue expansion and providing, when the entire canoe is inflated, a firm seat. The inflating nipples of the seat members are on their under sides, and the nipples for the longitudinal tubing forming the sides and bottom are preferably located beneath the seat, to avoid any risk of injury.

When deflated, the entire device may be very compactly folded and packed into a comparatively small space. When inflated, the canoe becomes quite rigid and will retain its shape and stiffness largely because of the internal air pressure, restrained by the shaped fabric when properly made. The larger cross section of the air filled walls greatly adds to its buoyancy, and also renders the boat non-sinkable in case of capsizing. By reason of the great number of individual inner tubes, the puncturing of one or more of them will not seriously impair the usefulness of the craft, although for best results, all of the tubes should be tight and inflated to substantially the same degree.

The number of the tubes, their arrangement, and various other features of the invention, may be variously changed or modified by the skilled mechanic, but all such changes are to be considered as within the scope of the following claims.

What I claim is:

1. A collapsible boat composed of a continuous outer and inner wall of suitable fabric having series of longitudinal connecting seams joining the outer and inner walls with intervening longitudinal tube cavities, and individual inflatable closed end tubes incased therein providing side rib members each having an air supply valved nipple, and a similar continuous individual keel member extending centrally lengthwise along the bottom and upwardly around and over the ends, and spaced beyond the sides and ends of adjacent side rib members by intervening seams connecting the outer and inner wall portions.

2. A collapsible boat composed of a con-

tinuous outer and inner wall of suitable fabric having series of longitudinal connecting seams joining the outer and inner walls with intervening longitudinal tube cavities, and
5 individual inflatable closed end tubes incased therein providing side rib members each having an air supply valved nipple, a similar central keel member, and a connecting cross seat member formed of similarly
10 seamed and spaced fabric joined with the fabric of the inner wall immediately between adjacent cavities thereof and containing a plurality of inflatable inner tube members each provided with an air supply valve
15 nipple.

3. In a collapsible boat of the class described, the combination of continuous outer and inner walls of suitable fabric shaped to provide bottom and side portions converg-
20 ing toward each end, series of longitudinal

seams directly connecting the fabric and providing tube receiving cavities from near one end of the boat to the other and seamed around their ends, a central similarly seamed keel cavity extending at each end upwardly
25 around the ends of the longitudinal cavities and reversed inwardly to provide prow portions with the fabric merging thereinto in approximation of canoe form, a connecting cross seat member formed of similarly
30 seamed and spaced fabric joined with the fabric of the inner wall between adjacent tube cavities thereof, and inflatable inner tube members contained in said several cavities each provided with an air supply valved
35 nipple.

In testimony whereof I hereunto affix my signature.

FRANK MARCOVSKY.