Sept. 27, 1927. 1,643,667

E. LEVY

DIVING ARMOR

Filed Feb. 8, 1926

Fig. 1

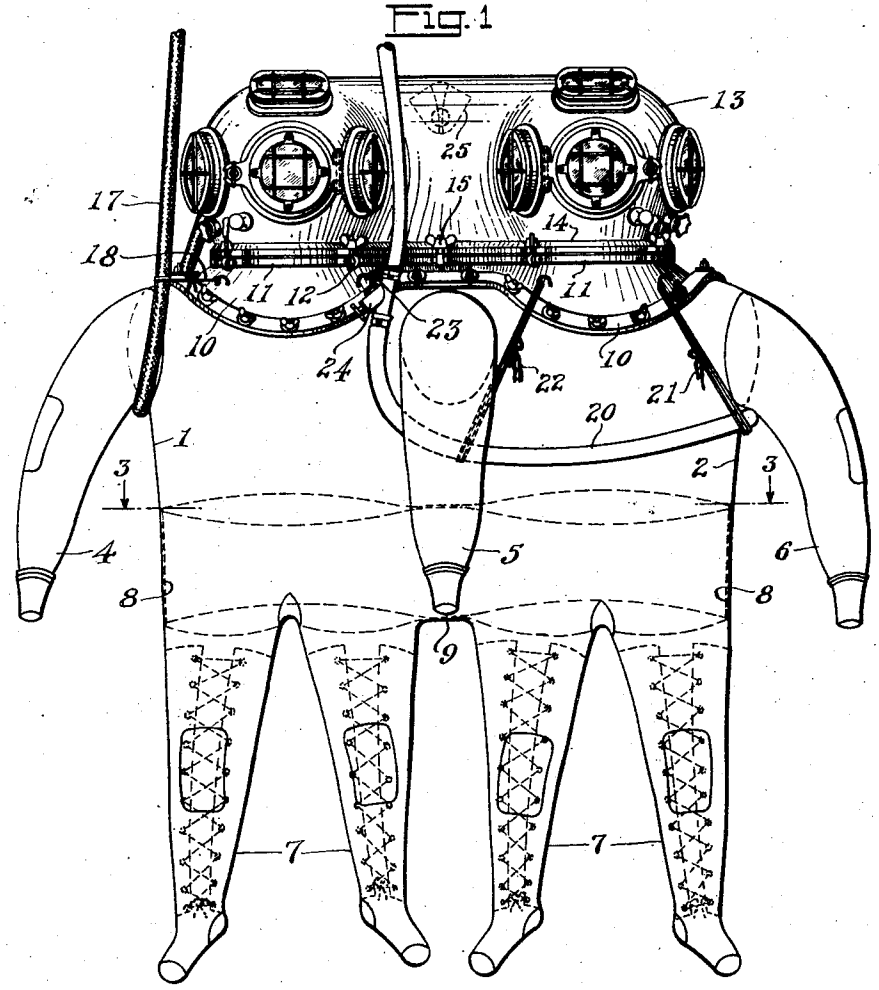


Fig. 2

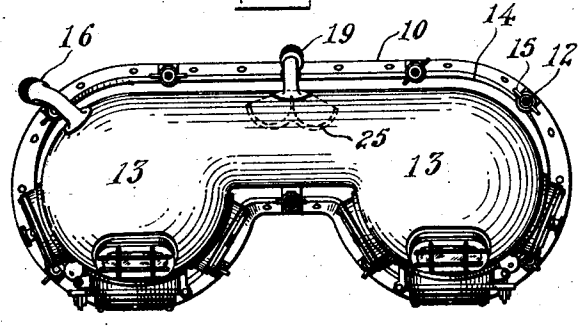
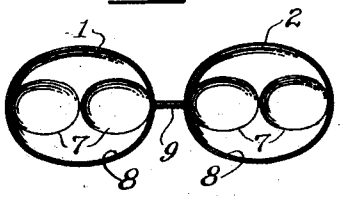


Fig. 3



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EDWARD LEVY, OF NEW YORK, N. Y.

DIVING ARMOR.

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The object of my invention is to provide a diving armor which will enable two divers to descend and work together, and in carrying my invention into effect I construct a double or twin suit having a single helmet and one set of air and communication lines extending from the helmet to the surface.

A twin diving armor constructed in accordance with my invention has certain advantages over the present individual armor where two divers operate together. For instance, it permits direct conversation and discussion on observations, thus reducing the chances of error or the overlooking of important conditions in making reports of observations. Also it affords opportunity for an engineer, who may not be a trained diver, to descend with an experienced diver for the purpose of making observations or giving advice and instruction for future operations. Also this form of twin armor is especially adapted for instructing and training new men for this class of work, particularly in the handling of the lines and valves, it being obvious that the experienced diver or instructor is in position to give direct advice and instruction as to the proper time and mode of operating the air valves and to control the ascent. Other advantages are obvious, such for instance as professional divers taking down lay observers as witnesses or for mere sight-seeing, or for general education, amusement or curiosity in the observation of marine growth, etc.

My invention is illustrated in the accompanying drawings in which, Figure 1 is a front elevation of the complete armor; Figure 2 a top view of the helmet, and Figure 3 a diagrammatic view illustrating the cross section of the twin suit on the line 3—3 of Figure 1.

Referring to the drawings, it will be observed that the body, legs and sleeves of the twin suit are made in the form and of the material usually employed in making diving armor, except that the body part indicated by numerals 1 and 2 is made as for a single body with the usual right and left arm-holes and sleeves 4 and 6, but having a third or middle sleeve 5, and four legs 7. The middle sleeve 5 is secured over an arm-hole formed at the front of the body part midway between the right and left arm-holes. This sleeve 5 will be used by either of the divers, and when used by the diver in armor 1, his left arm will be in sleeve 5, and the right arm of the diver in armor 2 will be around the waist of the diver in armor 1. This enables the two to steady themselves while standing and more readily to keep in step while walking. The sleeves are made up with the usual elbow-pads and wrist-bands, and legs 7 are provided with the usual knee-pads and lacing leggings as at present employed in individual armor. For the body part 1, 2, I preferably provide a wide re-enforcing waist-band 8 (indicated in broken lines in Figure 1) extending down to the crotch, made of canvas or other suitable material, and drawn together to form a web 9, Figures 1 and 3. This re-enforcing band is employed to guard against ripping the body part at the web 9 due to difference in stride of the two persons wearing the armor, or to uneven footing or other cause tending to produce a pulling strain at that point.

The helmet plates 10, or breast-plates as they are more generally termed, are made in a single piece in the form of a yoke and attached to the fabric of the body 1, 2, in the usual manner and having the usual curves to fit the chests, backs and shoulders of the wearers without interfering with their arm movements. At the front the helmet-yoke curves upward in the middle over the shoulders to avoid interference with the movement of arm 5, but at the rear the helmet-yoke preferably extends straight across the shoulders with the ends curving upward to meet the curve of the front parts at the outside right and left shoulders. The yoke 10, at the top, is provided with a collar or flange 11 having lugs between which eye-bolts 12 are pivoted. This collar or flange forms the seat for the helmet.

The twin helmet 13 is formed with a straight line rear and recessed front as shown in Figure 2, which corresponds to the contour of the yoke collar or seat 11, and is provided with a shouldered flange 14 to fit seat 11, and which flange has notches to receive eye-bolts 12 for clamping down the helmet by wing-nuts 15. A rubber-fabric or other gasket may be placed between flanges 11 and 14 if necessary. By reason of the recessed front of the twin helmet, I am enabled to provide the usual front, top and side windows, thus giving both divers the fullest range of vision. At 16, Figure 2, is shown the coupling member for the

combined signal and telephone cable 17 which passes under right arm 4, and is held in position by strap 18. At 19, Figure 2, is shown the coupling member for air-pipe 20 which passes under arms 6 and 5, and is held in position by straps 21, 22 and 23. At 24, Figure 1, the air-line is provided with a Y-valve so placed with relation to arm 4 as to be in the best position for right-hand operation. The air-line coupling 19 preferably enters the helmet at the rear center near the top, and on the inside it is provided with curved deflecting plates 25 for directing and spreading the air supply.

What I claim is:

1. A diving armor for two persons having a body section with three sleeves and four legs.

2. A diving armor for two persons having a body section with three sleeves and four legs, a yoke-like breast-plate, and a twin helmet.

3. A diving armor for two persons having a yoke-like breast-plate and a twin helmet with a recessed front and straight line rear, an air-pipe coupling entering the rear of the helmet and a deflecting plate for directing the air current.

This specification signed at New York city, in the county and State of New York, this 11 day of January, 1926.

EDWARD LEVY.