

The Boynton Apparatus

Captain Boynton's apparatus consists of a gutta-percha suit, comprising trousers, tunic and cap. But though impervious to water, the material would not be impervious to the cold or a prolonged immersion, were it not that the garments are made with outer and inner layers between which may be admitted a certain quantity of air. This air serves the double purpose of keeping the apparatus afloat and preventing the chill that would otherwise ensue from a long exposure.

The joints between the components of the costume are quite water-tight. The trousers end in boots with heavy soles, and are clasped at the waist with a metal belt, wide enough to allow free movement of the body. The jacket is fixed inside the belt, and has a solid collar, to which is attached the cap; this is drawn tightly over the forehead cheeks and chin by elastic, leaving exposed only the eyes, mouth and nose.

Several gutta-percha tubes are attached to the jacket to admit the air. This can be regulated to any density, so that a traveler may float upright with the water up to his neck or only to his waist, or he may lie horizontally upon its surface, all the time in perfect safety and with complete freedom of action.

The practical utility of the apparatus has already been demonstrated in a way that does much credit to its inventor. To make it complete there are several other appliances; a waterproof bag slung over the shoulder, and containing various implements; a small pole which can be attached to the foot by a socket, and a small sail like a jib, and a light paddle, which may be used either as an oar or a rudder, according to the circumstances.



'Scaphendriers'

"Soon", Kin-Fo ordered. "My tea!". "Here is is." Said Fry, before Soon had time to say it was impossible.

Again opening his bag, he produced a little appliance which is an indispensable accompaniment to the Boynton apparatus, which serves as a flare at night, a fire when it's cold and a fire when a hot drink is needed. It consists simply of a tube five or six inches in length, furnished with a tap at top and bottom, the whole being inserted into a sheet of cork, like the floating thermometers used in public baths.

After placing it upon the surface of the water, which was perfectly calm, Fry turned on the taps, one with each hand, and in an instant a flame rose from the end of the funnel, enough to give perceptible heat.

There is your stove' he said .
Soon could not believe his eyes.
You're making fire out of water!' he exclaimed.
Yes out of water and calcium phosphate.' Craig told him.

The apparatus was in fact made to utilize a singular property of calcium phosphate which in contact with water generated hydrogen. The gas burns spontaneously, and can not be extinguished by either wind, rain or sea. It is now used for flares on life-buoys; as soon as it touches the water, these emit a long flame, by which anyone who has fallen overboard by night can see the apparatus meant to rescue him.



While the hydrogen was burning, Craig held above it a little saucepan, containing some fresh water which he had drawn from a diminutive keg, also carried in the bag. As soon as the water was boiling, he poured it into a teapot, in which a few pinches of excellent tea had been placed. The whole party then shared the decoction, and even Kin-Fo and Soon, although it was not brewed in the Chinese fashion, had no fault with it; it was a most acceptable addition to breakfast. Now all they lacked was some knowledge of their whereabouts. The Boynton apparatus only needs a sextant and chronometer and then shipwrecked mariners will no longer risk getting lost upon the ocean.

From '*Tribulations of a Chinese Gentleman*' by Jules Verne



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