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THE TORPEDO VESSEL, DESTROYER.

Captain Ericsson's new torpedo boat, which is shown in the accompanying engraving, was recently launched from the wharf of the Delamater Iron Works into the Hudson. This boat has several novel and peculiar features. Its bow and stern are exactly alike, terminating in very sharp wedges. The length is 130 feet, depth 11 feet, beam 12 feet, extreme. The rudder is wholly unconnected with the visible part of the stern, being attached to a vertical wrought iron post welded to a prolongation of the keel, just aft of the propeller. Its upper part is nearly four feet below water line. The tillers consist of thin plates of iron riveted on opposite sides of the rudder, a few inches from its bottom; they are operated by straight rods connected to the pistons of horizontal hydraulic cylinders of five inches diameter attached to the sides of the keel. Accordingly the steering gear will be placed ten feet below water line, while the top of the rudder only reaches within four feet of the water line. This vessel is so far impregnable that in attacking bow on, it can defy the opponent's fire, offering absolute protection to the commander and helmsman, as well as protecting the base of the smoke pipe.

The hull is provided with an intermediate curved deck extending from stem to stern, composed of plate iron strongly ribbed and perfectly water tight. This intermediate deck sustains a heavy solid armor plate placed transversely to the line of keel 32 feet from the bow, inclined at an angle of 45°, and supported on the aft side by a wood backing four feet six inches deep at the base. The steering wheel is applied behind this wood backing, a wire rope extending from its barrel to a four-way cock near the stern, by which water pressure is admitted alternately to the hydraulic cylinders at the stern, the motion of whose pistons actuates the rudder. The lower division of the vessel is supplied with air for supplying the boiler furnaces, by powerful blowers drawing in air from above.

During attack the Destroyer is intended to be as deeply

immersed in the water as the monitors; but a deck house or cabin 70 feet long, composed of plate iron, is riveted water-tight to the upper part of the hull. As this cabin, which has no opening in the sides, virtually forms part of the hull, it would be safe to run with the upper deck considerably below the water line. Owing to the peculiarity of construction, the builder says that the new torpedo vessel will live at sea in any weather, more particularly since its stiffness is most extraordinary, an advantage resulting from the circumstance that the body must be heavily ballasted in order to insure deep immersion, there being no other weight placed between the two decks than cork and inflated air bags.

Captain Ericsson declines furnishing for publication a description of the torpedo or the machinery of the boat, but we are promised a full account of these appliances at some future time, when they will be laid before our readers.

The Art of Prolonging Life.

Persons living in marshy districts, says the Baltimore *Underwriter*, who are necessarily exposed to miasmatic exhalations, will find that lime juice mixed with water and taken freely as a beverage, will prove an excellent preventive of malarial fevers. Those who are suffering from intermittents will find that the antiperiodics, which are cheaper than quinine, the great type of the class, will answer as good purpose if taken in the only proper way, that is, a full or even heroic dose one hour before the expected recurrence of the chill. When distributed throughout the intermission in very small doses their effect is lost, and disappointment follows.

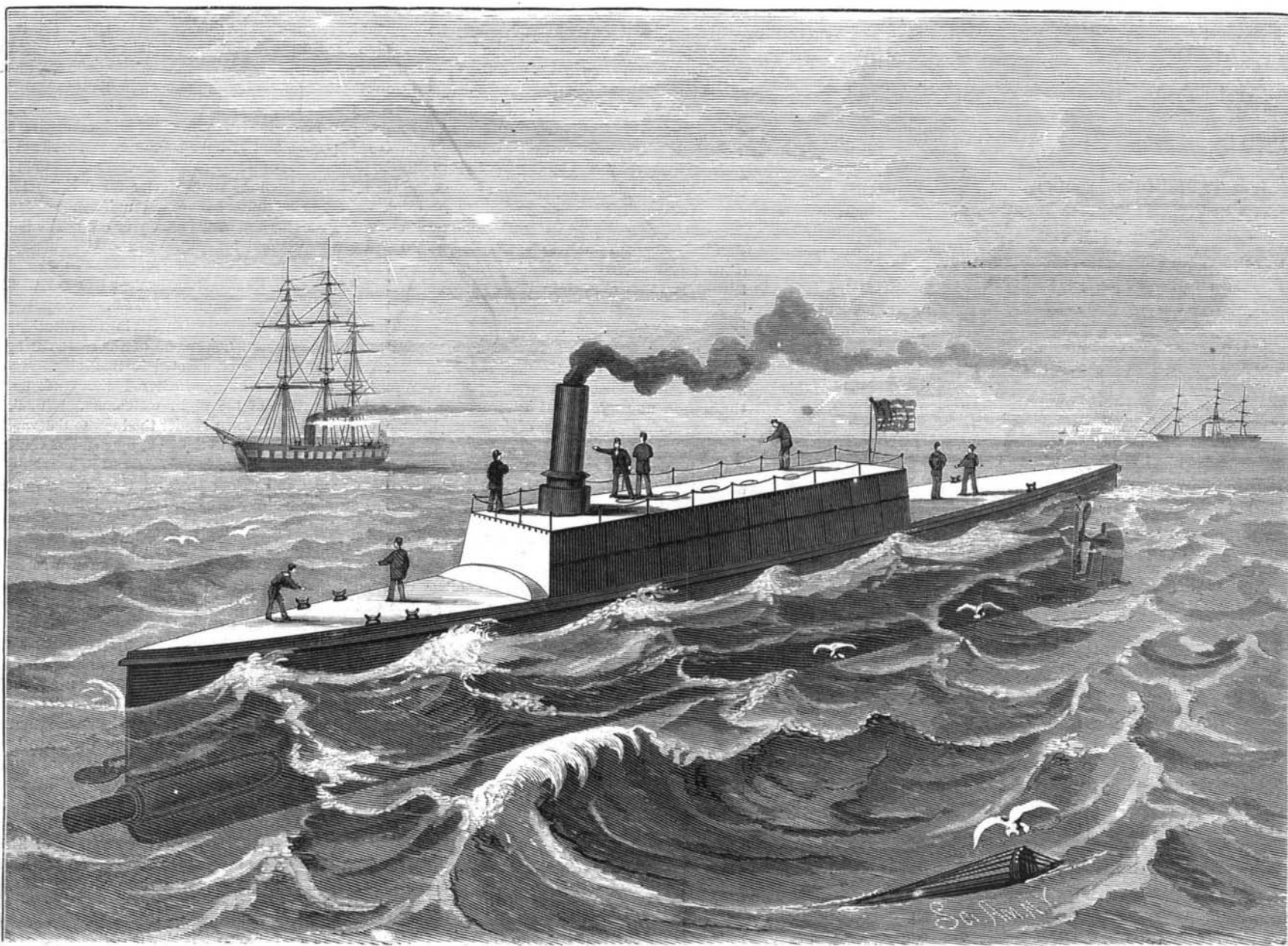
The medical gentlemen who so carefully prepared the tabulated reports of the mortuary experience of the Mutual Life, of New York, have shown in their admirable analysis of the causes of death, that the proportion of loss from consumption has been 19.17 per cent of the total mortality of the company, and 19 per 10,000 annually. Such figures

show the immense importance of more effective methods of treatment, and we are glad to observe in the *Medical Record* the details of a treatment that, so far, has been very promising in its results.

The theory of cure is to clear the lungs by a mechanical effort, chiefly by manipulating the muscles of the throat so as to cause more forcible breathing; second, to establish perfect digestion; third, to promote a process of healing the tubercles, so that they shall become chalky or calcified masses; fourth, to compel the patients to take plenty of fresh air, sunlight, and out-door exercise. To secure perfect digestion, a special diet is ordered in each case, and the food is changed as the power of assimilating it improves.

To promote the calcifying of the tubercles, the salts of lime, which are found in most vegetable and animal food, must be supplied in a soluble condition; the theory is that too much heat in ordinary cooking destroys the natural combination of these salts with albumen, and renders them insoluble to a weak digestion. Out-door exercise is regarded as so important that the patients are instructed to go out in rain, snow, dampness, or even night air or dew, the habit thus acquired neutralizing the danger of catching cold from such exposure. Only strong head winds and extreme hot weather need be guarded against. The patients sleep with the windows open, summer and winter.

A Minneapolis physician, whose cinchona recipe for the cure of drunkards recently attracted attention, recommends this highly carbonaceous mixture in the treatment of consumption: One half pound finely cut up beefsteak (fresh); one drachm pulverized charcoal; four ounces pulverized sugar; four ounces rye whisky; one pint boiling water. Mix all together, let it stand in a cool place over night, and give from one to two teaspoonfuls, liquid and meat, before each meal. The value of this method of supplying a sufficiency of carbon in a form that may be readily appropriated is obvious.



CAPTAIN ERICSSON'S NEW TORPEDO BOAT, THE DESTROYER.