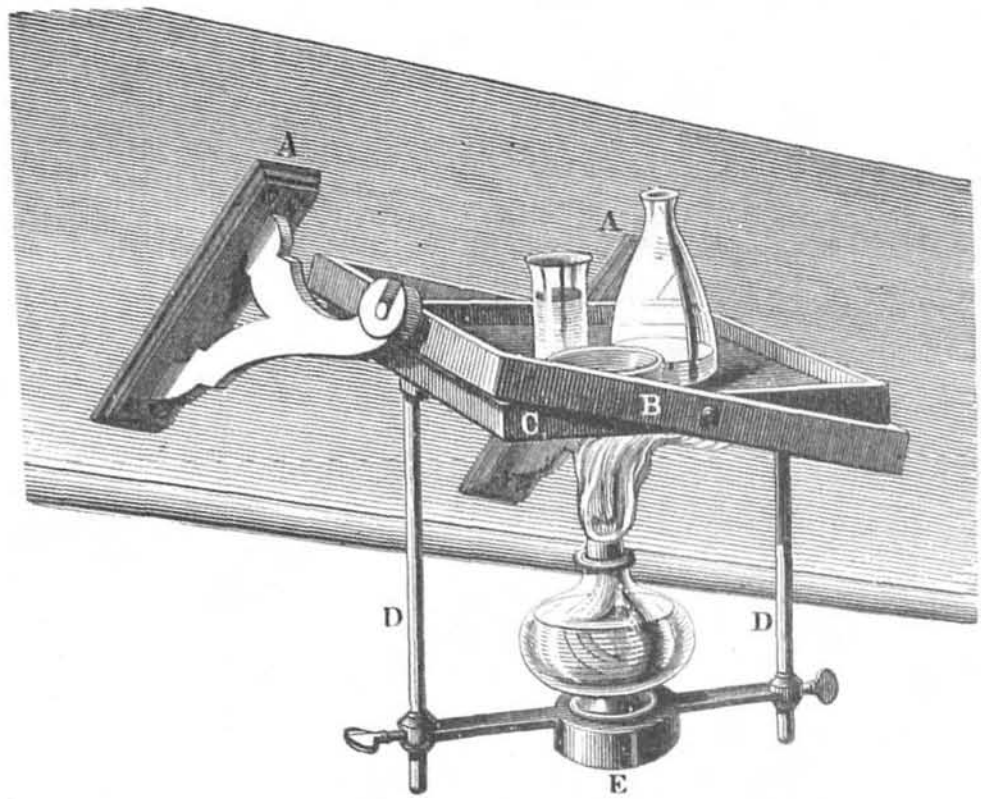

FIG. 9.—Sea-going Sand-bath.

For evaporating or heating in flasks or beakers, a small sand-bath suspended on gimbals has been found very useful. . . . A, A (Fig. 9) are iron brackets screwed to the ship's side; B is the outer frame, made of cast-iron, and moving on an axis parallel to the ship's length; C is the inner frame, also of cast-iron, and moving on an axis at right angles to that direction. The size of the iron frame was arranged so as to receive one of Bunsen's thermostats in ordinary use in laboratories, and was furnished with a cast-iron plate when used as a sand-bath, with a piece of strong copper-wire gauze stretched over a frame for boiling purposes, and with two cast-iron plates with large holes to receive water-baths. The half-inch iron rods, D, D, are fixed to the lower side of the inner frame, and the leaden counterpoise E is movably attached to them by screws.

For collecting water from the bottom we use a water-bottle, originally, I believe, the invention of a Swede, but which was first suggested for use in the *Challenger* by the visit of the German North Sea Expedition to Leith, a visit which we have to thank for numerous other most useful hints.