



**FOR LABORATORY WORK**—A special course has been developed at Brown University to train girls swiftly to become laboratory technicians. These girls are learning how a burette works.

of the Blue Hill Meteorological Observatory.

Three chapters deal with the stars. The southern stars are charted as well as the northern. Special maps were made for this particular volume. The answers to all the ordinary astronomical questions of the traveler by sea are here available, as well as a story on the reckoning of time by hours, days, and years.

For the articles describing the technique of navigation, we have had the expert services of one of the instructors in the United States Naval Academy; and for the story about the islands of the ocean and the variety of shorelines, a well illustrated account has been prepared by Dr. Mather of Harvard.

There are two chapters on the life of the sea that can be seen from shipboard, one dealing with fish and things of that sort, and the other with the oceanic birds.

Two engineers have joined in preparing an account of the modern ship. They talk about Diesel engines, the steam power plant of a ship, the problem of stability, and even the simple problem of why a ship of sinkable materials does not sink.

The book finishes off with the most important part of the ship—the passenger himself. His seasickness is sympathetically treated; also the problems of vitamins and malaria and infection and anxiety. And there is useful comment on

exposure and thirst—all written by Dr. Gerard of Chicago University, an expert in the popular presentation of such human problems.

Did you know that there are fifty kinds of seagulls? Well, there are, but only three of them get far enough from the shore to merit description in this book. And do you know what a noddy is, and a puffin? They also are sea birds, and so is the skua and the phalarope. Curiously enough, the scientists lack a great deal of full knowledge about sea birds, and some keen-eyed soldier or sailor is going to pick up some information new to science, if he keeps notes on his observations. His observation may have something to do with albatrosses, or the phosphorescence of sea water, or the behavior of clouds around some island mountain peak, or the appearance of a comet or nova among fixed stars.

It was from a small ship sailing the many seas a century ago that Charles Darwin made the observations and interpretations which a little later revolutionized man's way of thinking about nature and himself. Let's hope that the soldiers and sailors can also travel in humble fashion some of the heroic paths laid out by Darwin, and improved by a hundred years of scientific exploration; and that they can be intelligently guided in their observations and interpretations by "Science from Shipboard."

In addition to the edition for the American Red Cross, the book, "Science from Shipboard," has been published by Science Service at a not-for-profit price of only 25 cents. If you want a copy of this 268 page illustrated book, send a quarter to Science News Letter, 1719 N St., N. W., Washington, D. C.

Science News Letter, May 1, 1943

#### GEOLOGY

### Japan's Pacific Gibraltar Is a Sinking Island

➤ TRUK, Japan's mid-Pacific Gibraltar, is a doomed island. Unless geologic processes now going on in the earth's crust beneath that part of the ocean are stopped or reversed, it will eventually be drowned. The only trouble is that this won't happen in 1943 or 1944—geologic processes are slow.

That Truk is sinking, while other islands that are now enemy strongholds are slowly rising, was revealed in an address by Prof. William Herbert Hobbs of the University of Michigan before the meeting of the American Philosophical Society in Philadelphia. Prof. Hobbs is one of the few Americans who have seen Truk and the other Japanese-mandated islands since they passed under the Rising Sun flag. He visited there in 1921.

For geologists interested in the story of mountain-building, most unique opportunities for study are offered by the several curving island chains in the Pacific, from the Bonins through the Philippines and Indies and far on to the South Pacific archipelagoes and New Zealand, Dr. Hobbs pointed out. Elsewhere on the earth, whenever a mountain chain has started to grow, it has immediately been attacked by erosion, which cuts it down even as it rises above the general crustal level. These arc-like strings of islands, however, are only the tips of mountain chains now forming as vast upthrust wrinkles from the ocean floor. Erosion therefore plays no part on their long, submerged flanks.

Only on the emerged tips which are the islands have the waves and the weather any chance to do any carving; and this is even a help rather than a hindrance to the geologist. For when an earthquake cycle has boosted the island out of the water another few feet, the waves obligingly carve a notch all around its shores, marking the new level. And if it should sink again, a coral reef forms, indicating the amount of submergence.

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