sonal surpluses, and their products and by-products." Acceptance and utilization of donations and volunteer services from non-official sources is also authorized.

A GIFT in excess of $100,000 has been made to Northwestern University for the establishment of a Milton S. Florsheim Heart Institute to conduct research on diseases of the heart. The gift was made by Mrs. Florsheim in memory of her husband, the late Milton S. Florsheim, founder and president of the Florsheim Shoe Company. The agreement with the university provides that the income of the gift shall be expended "in the employment of technical and research personnel for studies in heart diseases, in the purchase of equipment and supplies for such studies, and in the publication of the results thereof."

FARM properties, with equipment and stock, valued at approximately $1,000,000, have been given by Charles E. McManus, poultry dealer, to the University of Maryland for experimental work in agriculture. It consists of 276 acres known as the Spring Hills Farms, about eighteen miles north of Baltimore. The only condition made by Mr. McManus is that the property shall be utilized solely for the benefit of agriculture.

THE Carnegie Corporation of New York has granted to the Rochester Athenaeum and Mechanics Institute the sum of $15,000 for further investigation and development of the anecdotal record in relation to the problems on mental hygiene.

DR. GEORGE D. FULLER, professor emeritus of plant ecology at the University of Chicago, has been authorized to establish in the Illinois State Museum at Springfield a herbarium of about five hundred of the more common plants of Illinois.

THE Maryland State Conservation Commission plans to build a new dormitory at the Chesapeake Biological Laboratory at Solomon's Island at a cost of $25,000. Plans for the building have been completed and the commission is prepared to purchase land on which it will be built. The legislature appropriated funds for the building in 1937.

THE Iowa State College Agricultural Foundation has been established through an anonymous gift to the Iowa State College. The foundation has received a gift of nine farms in various counties of Iowa, on which various aspects of farm operation will be intensively studied, as well as funds for the work. The articles of incorporation provide for: (1) developing practical, economical and profitable methods of cultivation and management of ordinary or family-sized farms; (2) determining the crops best adapted and most profitable to be grown in the various sections of Iowa; (3) determining the types, breeds and classes of live stock to be produced and used on the farms of the various sections of the state, including care, breeding and feeding; (4) conserving and building up the soil and natural resources of such farms; (5) developing the social, educational and religious environment of those engaged in agriculture in the localities where such farms may be located; (6) improving the conditions of social and family life; (7) publishing and disseminating the information and the results obtained. The board of trustees of the foundation consists of President Charles E. Friley; George W. Godfrey, secretary of the board; Dean H. H. Kildee; Extension Director R. K. Bliss, all of Iowa State College; and Deane W. Trick, of Des Moines; C. R. Musser, of Muscatine, and J. H. Anderson, of Thompson.

DISCUSSION

THE LOG OF PALMER'S DISCOVERY OF ANTARCTICA[1]

ANTARCTICA, fifth in size among the seven continents, both Australia and Europe being smaller, was discovered on Saturday, November 18, 1820, by Captain Nathaniel Brown Palmer, of Stonington, Conn. The hour was 4 A.M.

This is proved by the logbook of the sloop *Hero,* now in the Library of Congress, and from 1820 to 1927 continuously in the possession of its author, his brother (Captain A. S. Palmer), his niece (Mrs. Richard Fanning Loper) and his great-nephew (Mr. A. P. Loper), all residents of Stonington.

Acknowledged since 1821 throughout the world, the fact of Captain Palmer's discovery is now known to rest upon first-hand evidence—the logbook itself—rather than upon secondary sources.

Recognition of this great achievement by explorers, by governments and by scientific associations includes those of (a) the Russian Admiral Bellingshausen, who bestowed the name *Palmer Land* in or soon after 1821; (b) the British Admiralty, which published the name in 1822; (c) the French government, which published the name in 1824; (d) the United States government, which made the name obligatory in 1912 on all appropriate federal maps, charts and other official publications; (e) the American Geographical Society of New York, which unveiled a bronze plaque

[1] Abstract of a paper read before the American Philosophical Society at Philadelphia, on November 26, 1937. The full paper will appear in the *Proceedings* of the society.

in its house at Broadway and 156th Street in 1914 in commemoration of Captain Palmer's achievement; (f) the National Geographic Society, the Franklin Institute, the American Philosophical Society, and so forth.

The logbook of the *Hero* and associated manuscripts in the Palmer Papers demonstrate three important things. The motive for the voyage was business, namely, the gathering and sale of fur-seal skins and seal-oil. Palmer discovered Deception Harbor, the breached volcanic crater in Deception Island; he explored Yankee Sound [McFarlane Strait] and many other parts of the South Shetland Islands, charting them creditably but not platting his observations into maps. Last but by no means least, the log of the *Hero* specifically demonstrates that various secondary accounts of the adventure are erroneous.

One author, writing only a dozen years after the return of the *Hero,* and writing from Stonington, asserted that Palmer encountered the Russian Admiral on the return from the discovery cruise; obviously he had not perused the log of the *Hero* which proves that the encounter took place some 80 days earlier and in 1820 rather than in 1821. Another author, writing from Philadelphia, said that "only remarks about the weather and the sea are entered [in the log of the *Hero*] during the time in which [Captain Palmer's] exploration was made"; this gentleman did not read the right portion of the logbook; a third author set forth the logbook record of the first one of the seven days of the discovery cruise, and then presented an erroneous digest of the entries for the six ensuing days during which Palmer went to Antarctica and back; if he observed the words that contain the specific latitude of the Antarctic coast and the characterization of its appearance, he did not apprehend their significant importance. And yet this third author wrote a whole book about Captain N. B. Palmer.

Finally it must be pointed out that the Royal Geographical Society's claim, a dozen years ago, that Bransfield anticipated Palmer some nine months in the discovery of the Antarctic mainland, is not based upon any existing logbook, as Palmer's discovery is now known to be. The third-hand record of Bransfield's sighting of a supposed peak, through fog, on January 31 or February 1, 1820, does not necessarily involve a peak on the Antarctic mainland rather than upon one of the islands northeast of the terminus of Palmer Land.

The log of the *Hero* is irrefutable evidence of Captain Palmer's discoveries in November, 1820, near 60° 10′ West Longitude and 63° 45′ South Latitude.

LAWRENCE MARTIN

THE LIBRARY OF CONGRESS

THE WATER CONTENT OF MEDUSAE

THE impression that medusae consist of 99.8 per cent. water appears to have become current among biologists. This idea seemingly originated from Gortner's[1] report that a 500 gram medusa had left less than half a gram dry residue. Gortner's finding was already questioned by Bateman,[2] who quoted some of Krukenberg's[3] data on the matter. Gortner's reply[4] seems to me unconvincing and refers to only one of the several available references on the water content of medusae. The fact that the wet weight of Gortner's medusa was not accurately known is of no consequence, since the error in the wet weight would need to be enormous to make a difference of 3 or 4 per cent. in the water content. The method of drying, however—simply leaving the medusa to dry in air on a sheet of paper—is thoroughly objectionable. In recent observations on medusae (*Aurelia*) left to dry on a sheet of paper, I have found that the medusae soon decompose and the jelly liquefies to a thin watery fluid which inevitably runs off the paper, leaving only a fraction of the original animal behind. I believe this is the reason Gortner's medusa left only a trace of dry matter. There is nothing about his report to indicate that the animal was watched during the drying process (which probably required three or four days) to see that no loss occurred. Some sort of error in Gortner's observation is self-evident, as Hill[5] has already pointed out, for a medusa must at least leave a salt residue similar to the salt content of the sea, which for a 500-gram medusa would amount to 16 or more grams, surely something more than a hardly visible stain on a sheet of paper. My oven-dried medusae, half or less the weight of Gortner's animal, dried to a yellowish sheet, containing an abundance of salt crystals.

The following is believed to be a complete list of the literature on the water content of medusae. Krukenberg[3] reported a water content of 95.4 per cent. for *Rhizostoma,* 95.3 and 95.79 per cent. for *Aurelia,* and 95.75 and 96.3 for *Chrysaora.* Vernon[6] gave the dry. content of *Carmarina* as 0.38 per cent. organic matter plus 4.3 per cent. salts and of *Rhizostoma* as 0.53 per cent. organic matter plus 4.3 per cent. salts, or a water content of about 95.3 per cent. Hatai[7] records a water content of 94.14 per cent. for entire *Cassiopea,* 94.4 per cent. for the umbrellar jelly alone, and 93.8 per

1 *Trans. Faraday Soc.,* 26: 678; quoted in full in SCIENCE, 77: 282.
2 *Jour. Exp. Biol.,* 9: 124.
3 *Zool. Anz.,* 3: 306.
4 SCIENCE, 77: 282.
5 *Trans. Faraday Soc.,* 26: 687.
6 *Jour. Physiol.,* 19: 18.
7 *Carnegie Inst. Wash. Publ.* 251: 97.