by their modesty and self-effacement, but in their shrewd appraisal of other people in whatever walk of life and in their quiet dry sense of humor. About this there was nothing boisterous, but I have known them to save with Lincoln-like readiness many an awkward situation by an appropriate story more often turned on themselves than otherwise.

Lincoln of course was pitchforked out of his native environment in the old Northwest into a position of responsibility he could not refuse. So the Mayos were ready to serve when called, as they did during the war; but they very much preferred their own countryside with its comparatively simple life despite the ever-increasing responsibilities and laborious routine of their professional work. They felt only an amused pity for those who thought they were wasting their talents in a small town and who ventured to offer them positions elsewhere of supposedly wider influence.

W. J. once said to me, "When Charlie gets so busy on his farm he forgets to have his shoes cleaned, he takes a night sleeper to Chicago knowing that he will find them well polished under his berth in the morning." Had he been encountered by some traveler on the train who with Mid-West informality asked his occupation, he would have replied, "A Minnesota farmer." Had Dr. Will been similarly asked who he was by some chance companion, he probably would have replied: "I'm C. H. Mayo's elder brother."

After Charlie's death, their friends knew the separation could not be for long. There is a tradition among surgeons that they are likely to meet their end by the same malady in the treatment of which they have themselves specialized. So it was entirely consistent that "Dr. Will" when nearly eighty should calmly submit to an operation whose difficult technique he had not only perfected but countless times had successfully carried out on persons of younger age who still survive to bless him.

The modern world is all too accustomed to gauge success in terms of net income, and thus measured the returns from the Mayo Clinic exceeded the dreams of avarice; but when in 1915 the Mayo Foundation was established Dr. Will simply stated: "We never regarded the money as ours; it came from the people and we believe, my brother and myself, that it should go back to the people."

HARVEY CUSHING

THE SCHOOL OF MEDICINE,
YALE UNIVERSITY

RECENT DEATHS AND MEMORIALS

DR. HENRY SMITH PRITCHETT, president emeritus of the Carnegie Foundation for the Advancement of Teaching, died on August 28 at the age of eighty-two years. Before becoming president of the foundation in 1906, Dr. Pritchett had been professor of astronomy at Washington University, St. Louis; superintendent of the U. S. Coast and Geodetic Survey, and president of the Massachusetts Institute of Technology.

THE death is announced of Professor L. Lévy-Bruhl, professor of philosophy in the Sorbonne from 1899 to 1927, president of the Institut française d'Anthropologie during 1927–30, aged eighty-two years.

The British Medical Journal reports the death of Professor M. B. Krol, director of the clinic for nervous disorders at the All-Union Institute of Experimental Medicine. Born in 1879, Professor Krol was chief physician at the Kremlin Hospital from 1934 to 1938, and in 1935 he was chairman of the Soviet delegation to the second International Neurological Congress in London.

ON the eleventh anniversary of the death of Dr. Hideyo Noguchi, of the Rockefeller Institute for Medical Research, in Accra, West Africa, where he had gone for work with yellow fever, a memorial hall was dedicated at his birthplace in Okinajima, Japan.

SCIENTIFIC EVENTS

MARINE ENGINEERING AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

THE prospect of expansion in naval and merchant ship-building during the next ten years and a demand for naval engineers of exceptional qualifications has led to the establishment at the Massachusetts Institute of Technology of an advanced course in marine engineering. The course will last for one year and will lead to the degree of master of science. While it is designed primarily for graduates of Annapolis, and arranged with the cooperation of the Navy Department, it will be offered also to a group of selected civilian graduate students. It is expected that ten experienced officers of the United States Navy will be detailed to the institute for this course and that five civilians will be admitted.

The naval building plans call for replacement of a large part of the present fleet, including battleships, cruisers, destroyers, submarines and various service ships, while the Maritime Commission is planning construction of 500 ships for the merchant marine. This program requires engineers with special training in the design and construction of marine propulsion machinery, for the major ships involved in both the Navy and merchant marine programs must be designed to give the utmost in economy of operation and reliable service. The training is designed to prepare engineers

for solution of essential problems of marine engineering, including the use of marine power plants operating at high pressures and temperatures. There is also the problem of the application of Diesel engines with hydraulic, electrical or gear drive, the solution of which involves familiarity with its thermal, metallurgical and mechanical limitations.

The basic objective of the course is to give the student a unified and scientific approach to engineering problems within this field, with special emphasis on investigation of fundamental methods of analysis applied to new problems in marine engineering. Cooperating in the course, in addition to the department of naval architecture and marine engineering, will be the departments of mechanical and electrical engineering. The entire resources of the institute will be available for various aspects of the training.

Professors Evers Burtner, Lawrence B. Chapman, Frank M. Lewis, all members of the staff of the Pratt School of Naval Architecture, will give instruction in advanced marine engineering and mechanical vibration in ships, and Professor Lewis will give special attention to instruction in propeller theory and experimental research in this field. Professor Harold L. Hazen, head of the department of electrical engineering, will have charge of advanced problems in his subject; Professor C. Richard Soderberg, of the department of mechanical engineering, a designer of heavy power machinery, will devote his attention to advanced problems in mechanical engineering; the subject of internal combustion engines, particularly Diesel power plants, will be covered by Professor C. Fayette Taylor, one of the leading authorities in engine design; instruction in heat transfer will be given by Professor William H. McAdams, of the department of chemical engineering.

THE NEW RESEARCH VESSEL OF THE BUREAU OF FISHERIES

AIDED by the commercial fishing industry, the Bureau of Fisheries is about to place in service a first-class research vessel for offshore work in the North Atlantic. Through the cooperative interest of the General Seafoods Corporation of Boston, arrangements are being made for the transfer of the *Harvard,* a 152½-foot trawler, to the Bureau of Fisheries. As soon as the transfer of the vessel has been completed, Public Works Administration funds to the amount of $125,000, allotted late in June, will be made available for the reconditioning and outfitting of the vessel.

Repairs and alterations to the hull and superstructure and installation of equipment for oceanographic studies and experimental fishing are expected to be completed in time to put the vessel into operation on the fishing grounds next summer. Since the *Albatross II* was taken out of service because of lack of operating funds in 1932, the Bureau of Fisheries has possessed no ship suitable for use on the fishing banks of the Atlantic.

One of the most important problems to be studied with the aid of the new research facilities will be that of maintaining stocks of fish on the nearer banks, a day's run from the New England ports. Under intensive fishing, supplies of haddock in the Georges Bank area have been so reduced in recent years that it has been necessary for much of the fleet to operate on the distant Nova Scotian banks.

As a result of several years' investigation of the haddock fishery, William C. Herrington, in charge of the biological fishery investigations in the North Atlantic area, last fall announced a theoretical basis for operating the haddock fishery of Georges Bank at a level that would maintain a stable yield and guard against reduction of the basic stock. With the aid of a seagoing research vessel, Mr. Herrington and his staff now expect to determine the actual poundage that represents the optimum yield for the haddock fishery.

The program of investigations to be carried out includes an annual survey of the fishing grounds from Nantucket Shoals to the Laurentian Channel to discover the localities in which the greatest numbers of fish are concentrated.

With gear to be installed in the new vessel, biologists will be able to make a census of young haddock too small to be caught in commercial nets. Experiments will be undertaken with commercial fishing gear to develop and encourage the use of nets of a type that will release undersized fish without loss of marketable sizes.

Fluctuations in the catch of mackerel, which may vary more than 50 per cent. from year to year, have been shown by past investigations of the Bureau of Fisheries to be closely linked with the fate of young mackerel during the first months of their lives. It is now planned to make definite measurements of the effects of oceanic conditions on the survival of the young; and to make annual censuses of the newly hatched and one-year-old mackerel so that it may advise the industry whether to expect good or poor fishing. Cruises are also contemplated to discover the location of schools of adult mackerel in years when they do not congregate in the usual areas, as happened in 1937. Tagging of mackerel will be done at sea to further explore the movements of the fish.

THE ASSOCIATION FOR THE STUDY OF SYSTEMATICS IN RELATION TO GENERAL BIOLOGY

THE Association for the Study of Systematics in Relation to General Biology has issued, according to the London *Times,* a statement in regard to its aims and constitution. Hitherto its constitution has been as