

electro-chemistry, and Dr. Richard Goldschmidt, who is now professor of zoology at the University of California.

### A FRAUDULENT ACADEMY OF SCIENCES

THE following communication, signed by Dr. Stephen Duggan, director of the Institute of International Education, appears in *SCHOOL AND SOCIETY* for last Saturday:

A letter signed by Professor Arsenio des Santos Barboza, secretary director of the Academia de Ciencias e Artes at Rio de Janeiro, has been sent to a number of scientific men and scholars in the United States inviting them to become members of the society. The letter addressed to a chemist follows:

As homage to your great technical merits and in gratitude to the services you have contributed to teaching in America, the Congregation of this Academy resolved to confer you a Diploma of Doctor in Chemistry, in *Honoris-Causa*.

We know that the United States is to-day the world's largest producer of chemical commodities and without boasting, the United States now can lay claim to a greater chemical industry than that possessed by any other country. I would be very happy to see you among us and I would also appreciate picture of yourself.

This Directions has confirmed this acts of high justice and has conferred you the Gold Medal of Merit.

Any further reply you may care to send, it will be warmly appreciated and I want to thank you for the kind attention given to this letter.

The communication given below was enclosed in the letter.

Just a few lines to let you know that the cost of graduation with a Diploma, credential and the Gold Medal of Merit is \$10.00 (ten dollars) minimum.

If you can to send some donatif and books written by you for the patrimony of this academy have the kindness to satisfy, I will be very thankful.

No Bill payable on order: SEND AMERICAN BANK NOTES, BY RETURN OF POST.

### ANNUAL REPORT OF THE CHIEF OF THE WEATHER BUREAU

DR. W. R. GREGG, chief of the Weather Bureau, in his annual report for the year ending June 30, points out that an unusually cold winter over most of the country, followed by unprecedented floods in the East, severe drought between the Appalachian and Rocky Mountains, bad dust storms in the Midwest, and destructive tornadoes in the Southeast, brought heavy demands for extra service to the U. S. Weather Bureau. These demands were met with special surveys, forecasts and warnings. The hurricane warning system along the South Atlantic and Gulf coasts was strengthened and the meteorological service for airways was somewhat expanded. At the same time further research work was planned to "enable it to contribute its full share to the development of the nation's economic and social life."

Despite its restricted facilities, the Weather Bureau

advanced its air-mass analysis investigations and the application of the results to daily forecasting. In response to public demand, it is studying and appraising the possibilities of all known methods of long-range forecasting. Without a knowledge of general weather trends that have existed over a great many years, Mr. Gregg explains, it is impossible to draw a pattern that will show the forecaster what may be expected within a month, a week, or even a few days. To this end, weather conditions in the United States and in foreign countries have been surveyed in an attempt to discover relationships between the weather abroad and that at home.

The increasing need for accurate information on conditions in the upper air has inspired the invention of several recording instruments. Those showing most promise of being immediately available are one for getting to the ground radio signals of temperature, humidity and pressure; one for finding and indicating the position of the abnormally warm layer of air several thousand feet above the earth that precedes by several hours the formation of fog; and a better ceiling light projector for ascertaining the height of a cloud layer. Further tests are necessary, however, to prove the trustworthiness of these devices.

The compilation and summarizing of more than 5,000,000 marine weather observations made in all parts of the oceans from 1880 to 1933, and never worked up before because of lack of tabulators, went forward this year as a WPA project. The information obtained will be valuable to navigators of the seas and of the air. It will serve also as the basis for studies of world weather in connection with crop weather and with weather preceding floods. This, in turn, will aid the bureau in improving its forecasts for farmers and its flood warning service.

Of interest to mariners also is the study of mirage at sea, completed this year. The findings—to be printed in the Pilot Charts of the Hydrographic Office—show that refraction phenomena occur not only in local regions where the atmosphere is undisturbed, but over larger areas along the boundary lines of oceanic cyclones and anticyclones. They show further that atmospheric conditions producing fog may produce mirage as well.

### THE SUMATRA EXPEDITION OF THE NATIONAL GEOGRAPHIC SOCIETY AND THE SMITHSONIAN INSTITUTION

AN expedition, under the joint auspices of the National Geographic Society and the Smithsonian Institution, to the jungles of Sumatra, to collect alive wild animals of the Far East for the National Zoological Park in Washington and to make a collection of geo-