nominated by the Universities of Oxford, Cambridge and London; the Royal College of Physicians of London; the Royal College of Surgeons of England and the Society of Apothecaries of London published a report on the medical curriculum which stressed the need for a continuance of the general education of intending medical students of post-school certificate stage, and therefore recommended that "the Licensing Bodies consider the possibility of allowing an encouraging exemption from the first M.B. examination by means of a higher school certificate examination conducted by any recognized examining body in which, in addition to the three principal scientific subjects, a subsidiary non-scientific subject be taken."

The higher school certificate examination is the normal objective of the post-school certificate student in public and secondary schools, and *Nature* points out that if the licensing bodies would recognize for the purpose of exemption from the second examination stated in pre-registration requirements those subjects in which a student has passed a higher school certificate examination, they will impart to the higher school certificate examination a value which has been questioned in the past by intending medical students. The recognition would also lead to greater uniformity in the education of post-school certificate students in the schools and would go a long way towards removing the evil of segregation of intending medical students from the rest of the school.

THE CONTROL OF FOREST FIRES

FOR the past fourteen years the Forest Service has been assimilating weather data that makes it possible for the ranger to determine to a certain extent the hazard of forest fires at all seasons of the year. With this information at hand and a variety of instruments he is able to estimate the probability of fires in his particular patrol and is prepared for emergencies.

According to H. T. Gisborne, senior silviculturist of the Northern Rocky Mountain Forest and Range Experiment Station, the principal factors contributing to forest-fire danger, aside from careless and indifferent human actions, are as follows: The character and volume of common forest fuels; topography, which influences the exposure of fuels and the rate of spread of fires; lightning, the one weather element that causes fire; wind, which often controls the rate of spread of fire, and current moisture content or inflammability of the fuels, which is determined principally by precipitation, temperature, humidity, solar radiation and soil moisture.

Mr. Gisborne states that the first two factors vary little from year to year, but that the third, fourth and fifth factors vary decidedly each season, even from day to day; consequently these three require daily measurement if the development of critical fire danger is to be estimated correctly, the character of each fire season rated accurately and the efficiency of the fire-control organization judged on the basis of fire danger.

Standard meteorological instruments are used in measuring weather factors by all fire-stations. This work is carried out in cooperation with the Weather Bureau. In the measurement of precipitation the standard Weather Bureau gauge, as well as a smaller Forest Service gauge, is used.

In addition to precipitation, humidity, wind and lightning, there are several other weather factors which need careful observation and accurate reporting. Haze, mist and smoke often prevent prompt discovery of fires at distant points from the lookout station. Another is the moisture content of the forest duff—the mat of dead leaves, twigs and other vegetation. The duff hygrometer, an instrument for measuring moisture content in dead vegetation, gives an accurate check on the inflammability of the material. It is possible for the forester to make a complete integration of all information from the various instruments—rain gauge, thermometer, thermograph, psychrometer, hygrothermograph, anemometer, meteorograph and duff hygrometer. From this information he can form an accurate fire-danger chart which has three major uses: (1) As a basis for localizing weather forecasts, (2) as an index of current fire-danger and (3) as a basis of fire-danger comparisons.

Mr. Gisborne points out that the value of these measurements may be offset to a great extent unless there are coordinating fire-protective regulations. In the Rocky Mountain region, such measurements are now the basis for deciding when smoking shall be forbidden within national forests, when all national forest visitors shall be required to register and obtain permits and when certain areas within national forests shall be completely closed to entry. It is desirable also that spring and fall slash burning be regulated on this basis.

THE FOSSIL CYCAD NATIONAL MONUMENT

To the two national monuments left by nature and now protected and preserved as illustrations of ancient plant and animal life, the Dinosaur National Monument of Utah and the Arizona Petrified Forests, has been added a third, the Fossil Cycad National Monument of the Southern Black Hills, of South Dakota, as a result of the work of Professor G. R. Wieland, of Yale University.

This site, in the neighborhood of the "Stratosphere Bowl" and Mount Rushmore, where the great rock carving is being carried on by Gutzon Borglum, was recognized by Professor Wieland some twenty-five years ago. Here in formations 120,000,000 years old

or more are petrified forests of cone-bearing or "flowering cycads," ancestors of present-day ferns and palms and whose solitary modern-day relative is the rare Chinese maidenhair tree.

The monument was first set aside by act of the Congress in the latter part of the Harding administration, its first inception being due to Dr. Wieland. His first step had been to file on the area under the homestead laws; his filing fees have been returned to him on the surrender of his equity so that Dr. Wieland is virtually the donor of the monument.

The cost of final development, estimated at $65,000, has thus far prevented the opening of this field botanical museum to the general public. Some excavations were carried on last year by a group of CCC young men under the direction of Dr. Wieland, who found over a ton of specimens. These were exposed to view just as they were left in their last resting place hundreds of centuries ago.

In describing the park Dr. Wieland said:

> The site offers a three-fold interest, geologic, chemical and biologic. The Black Hills are a splendidly interesting mountain knot to the geologist. Directly on the Monument and about it he may study, and students after him, the fine stratigraphic problem of the Jurasso-Cretaceous boundary. Not alone the sight-seer, but the more thoughful student, also will behold the marvelous results of "petrifaction," whereby plants of faraway dinosaur times may be again reintegrated with no detail left out. There we can see, in gemstone beauty, flowers and foliage and mature seed cones that tell much and leave us to wonder about a course of chemical change that could end in such a record. In fact, unless the chemist can repeat those changes in his laboratory he can not know fuller finality in the formation of the oolites, the cherts and the quartzose rocks generally; and he may even miss some organic relations between iron, calcium and silicon.
>
> I have estimated that adequate excavation on the cycad level, followed by development of material and its housing in a field museum, a scientific shrine, built in utter simplicity and taste to stand a thousand long years, may cost $65,000. The plan would fixedly be to house and to illustrate and display only the material in situ, so as to reach a sheer poetic simplicity. There would be reproduced in its actual surroundings a landscape of the past which would again become green and move with life as it did so far back in dinosaur times.
>
> When to take up an educational subject of deepest interest must depend firstly on available funds, and those funds must certainly in turn depend on the wealth of a country and the thrift and intelligence of its citizens. In our own country, accordingly, we find it difficult to believe that when it comes to sheer realities, the things that are surely worth while as seen through the years, we may claim either poverty or the inability to act. Or in other words if we fail to do the fine things we'll find ourselves much poorer. Therefore I urge that the Department of Parks and Monuments neither lose nor delay a single further hour in the development of the Fossil Cycad National Monument.

CHILD NEUROLOGY RESEARCH

WITH a grant from the Friedsam Foundation, a special council, with Dr. Bernard Sachs as director, has been formed to stimulate research in child neurology and allied fields. The council will consist of three neuropsychiatrists, in addition to the director, three pediatricians, one orthopedist and two laymen, who will help to decide problems of a social character. The neuropsychiatrists are: Dr. Louis Hausman, of the Cornell Medical Center and Bellevue Hospital; Dr. Foster Kennedy, of Bellevue, and Dr. Frederick Tilney, director of research of the Neurological Institute. The pediatricians are Dr. Stanley Brady, of St. Vincent's Hospital, and Dr. Howard Reid Craig, of the Babies Hospital and the Neurological Institute. The orthopedist is Dr. Lewis Clark Wagner, of the Hospital for the Ruptured and Crippled. The two laymen are William E. Grady, associate superintendent of public schools of New York, and Nathan Straus.

A statement has been made public which reads:

> With a grant from the Friedsam Foundation a special council has been formed to stimulate research in child neurology and allied fields, so that physicians and other scientists may contribute to the thorough investigation of the many problems bearing upon the care and cure of those afflicted with any of the nervous and mental disorders from birth through adolescence.
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> The research work is to be encouraged by stipend, scholarships or otherwise. It is to be national and international in scope. The results of the work will be recorded in volumes to be issued by the council from year to year. It is hoped that the first volume will appear in the winter of 1937.
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> The trustees of the Friedsam Foundation, of which John S. Burke is president, believe that in helping to develop child neurology research they are promoting the aims of the late Colonel Michael Friedsam, president of B. Altman & Co., who died April 7, 1931, and who was greatly interested in everything pertaining to child health and welfare.
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> They regard child neurology research as one of the major activities of the foundation and have authorized Dr. Sachs and the council to foster original investigations in that field to the greatest extent for the benefit of medical science and the community at large.
>
> The trustees find that neurology and psychiatry have important relations to the early training of children, to development of character and to general medical and home conditions. They further agree with Dr. Sachs that the problems of child health and welfare may be properly considered to be closely allied fields for investigation.