In 1927, heeding at last the signs of waning endurance, Dr. Dean resigned from the curatorship of armor and was made a trustee of the Metropolitan Museum. But his ever creative spirit continued to renew itself. He designed, built and with his own hands decorated a high and noble Gothic hall connected with his residence at Riverdale, N. Y. In this he had begun to install his private collection of armor when the cord of life was snapped. The visitor who stands within this silent hall will be enabled to feel with him the somber but potent magic of old armor, that for so many years had sent him wandering over the earth.

In conclusion we may safely affirm that Bashford Dean was always visualizing ideals in science and in art, but that he was never content merely to enjoy them himself, but labored with consecrated zeal to build them with imperishable art for the benefit of his friends. And his friends were all those with whom he came in contact.

WILLIAM K. GREGORY
AMERICAN MUSEUM OF NATURAL HISTORY

SCIENTIFIC EVENTS

YELLOW FEVER IN AFRICA

DR. AUGUSTE PETTIT, professor at the Institut Pasteur de Paris, who with Dr. Stephanopoulos was sent to Senegal, French West Africa, last winter to study the epidemic of yellow fever, has recently communicated his observations to the Academy of Medicine. The first part of his report, as summarized in the *Journal* of the American Medical Association, is devoted to the memory of the eminent scientists who succumbed there to the disease: Stokes, Young and Noguchi. The death of Noguchi is all the more regrettable because of the fact that the researches that he undertook have been abandoned, while all the monkeys inoculated by him have been allowed to die. They were valued at half a million francs. Furthermore, the government of French West Africa has issued an order prohibiting the inoculation of the monkeys of the colony for fear that they may become adapted to the virus, and that, on escaping, which is a frequent event, they may serve to spread the infection. Dr. Pettit made use of a species of monkey of the genus *Macacus,* brought from India, and carried on his researches at the Institut Pasteur, using a virus from Senegal that was furnished him by Professor Sellards, of Harvard University. His first conclusion is that the agent of yellow fever is not a spirochete, as Noguchi believed, but an invisible filtrable virus. That was the opinion advanced also by the Marchoux mission in 1903. This virus can be inoculated into monkeys, and the sick monkeys are cured by injecting into them the serum of a human being who has recovered from yellow fever. Dr. Pettit succeeded in preparing an attenuated virus that serves as an effective vaccine for the protection of monkeys. He has prepared 600 vials of this serum, which is a genuine protective and curative agent. It remains to be discovered whether the serum of these vaccinated monkeys will serve, in turn, as a vaccine for man. That is the problem with which Dr. Pettit is engaged at present, and in view of the results already secured, he feels that it is probable. His researches have been hindered through lack of monkeys, owing to an advance in price since they have been used in Europe for testicular grafts, and the funds at the disposal of the mission are now inadequate.

THE BRITISH INSTITUTE OF RADIOLOGY

THE British Institute of Radiology opened its 1928–1929 session with an exhibition of apparatus and a presidential address at the Central Hall, Westminster, on November 17.

The London *Times* reports that the exhibition, which is expected to become an annual event, illustrates the rapid strides being made every year in the manufacture of equipment, improvements following each other with such rapidity as to render many forms of X-ray appliances obsolete within a very short period. The bulk of the exhibits are British, and the most notable feature of their latest improvements is the protection now afforded to the X-ray operator, whose risk of injury, it is claimed, has been much reduced. Another device, by using more power with the tube at a greater distance from the film, enables a more accurate shadow picture to be taken. Of new ideas for enabling the doctor to handle a patient with greater facility there are many, including a combined operating and X-ray table, which has recently been introduced into one or two special hospitals.

Dr. G. W. C. Kaye, in his presidential address, said the amalgamation of the institute and the Röntgen Society two years ago had left some minor difficulties to be surmounted, but with patience, good-will and tolerance the institute would presently find itself able to speak with an undivided voice on all things affecting its work and objects. To commemorate the work of its two great founders, Archibald Reid and Robert Knox, the council had named the lecture hall of the institute the Reid-Knox Hall. The membership, now 800, was steadily growing, and he hoped it would reach 1,000 before his term of office closed. The institute's examination attracted an ever-increasing number of candidates, and the "M. S. R." was steadily becoming recognized as the hall-mark of the competent radiographer.

After a historical survey, Dr. Kaye turned to recent developments. He said the discovery that X-rays could be totally reflected at fine glancing angles made it possible to use ruled reflection gratings for the production of X-ray spectra, and so gave a new and fundamental method of measuring X-ray wave-lengths. The method, had, moreover, proved invaluable for exploration of the region of wave-lengths occupying the former gap between the ultra-violet and the X-rays. Interest in those long-wave X-rays had also been evinced in medical circles both for treatment and diagnostic work. Low-voltage X-ray tubes with specially-transparent windows were now available. Incidentally, it would be a convenience to have a "handy" name for the "intermediate" rays. He had suggested that the term "W-rays" would complete the alphabetical sequence between "U V-rays" (ultra-violet rays) and X-rays.

At the other end of the scale, Coolidge's recent experiments with cathode ray tubes excited by nearly a million volts were obviously paving the way to X-rays corresponding to the same order of voltages. Several laboratories in the United States possessed million-volt generators, and there was one in Britain at the National Physical Laboratory which members would see at a demonstration. At Pittsfield the General Electric Company of America had attained to voltages of some five million.

The science of radiology was now of world-wide importance, concluded Dr. Kaye. The manufacturer of radiological equipment no longer occupied the position of instrument maker, but had become a fully-fledged electrical engineer.

THE BUREAU OF INDIAN AFFAIRS

TRANSFER to states of the activities of the Bureau of Indian Affairs dealing with education, medical attention and relief of Indians, a proposal made by the Department of the Interior, would be authorized under House Resolution 7031, which the House Committee on Indian Affairs has favorably reported to the House. According to the *U. S. Daily,* the committee says that the measure while not removing federal protection from the Indians would authorize federal and state cooperation.

The bill was introduced by Representative Leavitt (Rep.), of Great Falls, Montana, chairman of the committee, and is similar to H. R. 6075, introduced by Representative Kelly (Rep.) of Pittsburgh, Pa. The proposal has the approval of the Bureau of the Budget.

Its purposes are set out in a letter, made public by the committee, from the former Secretary of the Interior, Hubert Work, to Chairman Leavitt, dated January 13, 1928, as follows:

I have the honor to reply to your requests of December 14 for reports on H. R. 7031 and H. R. 6075, both of which cover proposed arrangements for the transfer to states of activities of the Indian Bureau dealing with education, medical attention and relief of Indians. Inasmuch as the bills are identical in purpose and substantially identical in language, it is felt that both may be covered in a single report.

The principle underlying the proposed legislation is in agreement with my belief that the time has arrived when states directly interested in the civilization and advancement of Indians should begin to assume a greater degree of responsibility for Indian affairs, especially in the matter of directing the activities specifically mentioned in the bills under consideration. In several specific statements, including reports on legislation having the same general objective, introduced during sessions of the Sixty-ninth Congress, and in recent annual reports to the president, I have expressed this view.

A number of states directly concerned have given indications of a disposition favorable to the proposal and there appears to be little reason to doubt that their attitude in the matter be regarded as indicative of a general willingness on the part of the state authorities to assume further responsibility in the administration of Indian affairs.

The proposed legislation has my approval and I recommend that it be enacted into law.

Under date of January 4, 1928, the Bureau of the Budget advised that this report is not in conflict with the financial program of the president.

In its report the committee states:

For a number of years those constructively interested in the welfare of the Indians have been growing in the belief that it should be made possible for such states having considerable Indian population as have developed efficient agencies to deal with health and educational problems and to relieve distress among the indigent to give the benefit of such agencies to their Indian population as well as to the white.

Already some states, notably Minnesota, are giving attention to the health of the Indians, not only for the sake of the Indians but for the protection of the people generally. Dr. Guthrie, the head of the Indian health work and a trained officer of the Bureau of Public Health, has testified to the great value of such cooperation. In many of the states the Federal government has been paying tuition for the education of Indian children in the public schools, this over a sufficient period of years to demonstrate its unquestioned value.

At its last session the Legislature of Wisconsin enacted a law authorizing the government to enter into contracts with the federal government for the education, health, relief of indigency and promotion of agriculture among Wisconsin Indians, thus leading the way for legislative enactments by such states as so desire to enable them to cooperate in like manner.