of consultant, advising them upon the physical aspects of their research problems. Much satisfaction could be derived from putting one's best efforts into such work; for there would come out of it the consciousness of having rendered a valuable service to the cause of science.

Discussion of the question in these pages seems to me very desirable as an aid to the crystallization of ideas regarding it. It is hoped that eventually sufficient interest may be aroused in the idea of making physics more valuable, to bring about the establishment in our colleges and universities of courses along the line which has been pointed out.

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PATENT REFORM PROSPECTS

THE initial patent reform measures advocated by the Patent Committee of the National Research Council (as noted in SCIENCE, April 11, 1919, No. 1267, p. 356) have been introduced by Chairman John I. Nolan, of the House Committee on Patents under the following numbers:

H. R. 5011. Provides for the separation of the Patent Office from the Interior Department and its establishment as an independent bureau. This bill, if made a law, would take the Patent Office out of the position of one of a number of inconspicuous bureaus in a great department, and set it forth in its proper light as one of the really important branches of the government, exercising a vast influence upon the material and industrial prosperity of our people. It is believed this change would greatly extend the activities of the Patent Office with a resultant stimulation of invention in various lines, and that it would open the door to numerous important reforms.

H. R. 5012. Provides for a single Court of Patent Appeals. The purpose of this court is to shorten the processes of patent litigation and to unify the decisions rendered in patent cases.

H. R. 7010. Provides for increases in personnel and in the salaries paid in the Patent Office. This legislaton is shown to be absolutely indispensable, owing to present outside competitive conditions, in order to obtain and retain the services of competently educated men as examiners. Good men

are resigning to take positions with big industrial firms paying large salaries. The Patent Office has long been working without a sufficient force of competent men; its work is consequently in arrears, and the work is done too hastily to be reliable. The bill provides for a considerable increase in the working forces, and fixes a range of salaries for examiners, running from an entrance salary of \$1,800 up to \$4,000 for primary examiners with corresponding increases for higher officers.

Public hearings on the foregoing bill were held, commencing July 9, by the mentioned House Committee. This committee includes at the present time the following Republican members in addition to Mr. Nolan: Florian Lampert (Wis.), Loran E. Wheeler (Ill.), Albert H. Vestal (Ind.), Wm. J. Burke (Pa)., Albert W. Jefferies (Neb.) and John C. Mc-Crate (N. Y.). The Democratic members are: Guy E. Campbell (Pa.), John B. Johnston (N. Y.), John J. Babka (Ohio), Edwin L. Davis (Tenn.) and John McDuffie (Ala.). but not all members mentioned were present at any one session of the committee. Every member that attended participated to a greater or less extent in the asking of questions of the successive speakers, Chairman Nolan and Representative Johnston being especially attentive and active in this regard, frequently giving distinct assistance in the emphasis or qualification of points made.

As secretary of the National Research Council's committee, Mr. E. J. Prindle had perfected the arrangements for these hearings, and by him the successive speakers were introduced. The first of these was Mr. F. P. Fish, referred to as the dean of the American patent bar. The short address of Mr. Fish will long be remembered by those who heard it as a wonderfully candid, comprehensive and convincing general statement of the importance of the patent system, of its decline, and of the utility or intended effect of the remedial measures under immediate consideration.

On the second day of the hearings Mr. Prindle, having interrupted his own remarks on the preceding day in order that Mr. Fish might be heard, completed a general exposition of the bills. He seemed to agree with Mr. Fish in placing a primary emphasis upon

the need for a Court of Patent Appeals—for which he also advocated that shifting personnel proposed by H. R. 5012 and apparently regarded with some disfavor or doubt by the members of the House committee.

Dr. L. H. Backeland, acting chairman of the Patent Committee of the N. R. C., presented the convincing testimony of a successful individual inventor as to both the importance of patent protection and the wastefulness of the present system—or lack of system -in patent litigation. He agreed with the preceding speakers in urging the indispensable importance of better support for the Patent Office. Mr. Backeland was followed by former Commissioner Thomas Ewing, who emphasized the essential distinction between the registration system and the distinctively American or examination system of patent grants. Mr. Ewing pointed out that the effect of inaction on the part of Congress is the slow transformation of ours into a mere registration system, very discreditably camouflaged. He strongly advocated separation of the Patent Office from the Department of the Interior as indispensable to the normal development of the Office and the attracting of strong men to its service.

Mr. Ewing was followed by Mr. Wm. J. Kent, an inventor from the development department of the U. S. Rubber Co., Mr. Milton Tibbetts, Chairman of the Patents Committee of the National Association of Manufacturers, and Mr. Elmer Sperry, whose inventions include many applications of the gyroscope. Each of these contributed materially to a composite but unitary picture of the present deplorable patent situation. There was substantial agreement as to remedies.

On July 11, Judge Learned Hand, of New York, presented an earnest plea for the proposed Court of Patent Appeals. He was followed by the inventor Frank Sprague, who related personal experiences of very great interest and significance, and by Mr. W. G. Carr and Mr. D. W. Holden, formerly of the examining corps and now connected respectively with the Westinghouse Electrical Co., and with the office of the Thomas A. Edison Co. All of these gentlemen, in addition to ad-

vocating the bill under consideration, responded to questions bearing upon the alleged practise of suppressing inventions (of which Chairman Nolan presented the striking instance of the automatic telephone) and, also to questions bearing upon a proposal by Mr. Edison calculated to protect an inventor from the complete alienation of his rights.

On Saturday morning July 12, Mr. C. L. Sturtevant, secretary of the American Patent Law Association, presented several specific amendments to H. R. 5011, relating to separation, disbarments and the like, some of these being matters of detail to which the Patent Office Society had previously called attention; and Commissioner Newton presented incontrovertible statistics as to the need of increases in force and salary, mentioning that the rate of resignation had risen to something like 25 per cent. per annum, and that, in response to about one hundred calls made upon the Civil Service Commission, that body had been able to send him only about a half dozen qualified men.

On Thursday, July 17, Mr. Thomas E. Robertson, president of the American Patent Law Association, reviewed the whole situation, and on the day following he gave the committee a "demonstration" of the work of a number of the examining corps. Mr. Bert Russell, secretary of the Patent Office Society, was heard briefly in defense of a compromise proposal regarding the personnel of the Court of Patent Appeals, and in regard to specific features of H. R. 5011, regarded by him as important incidents of the proposed separation.

It is expected that the record of these hearings will shortly be printed as a House Document.

On the whole, the attitude of Mr. Nolan's Committee was felt to be distinctly encouraging, at least as to the reporting favorably of some sort of a Patent Court bill and some measure for the relief of the Patent Office.

No doubt the prospect of an early and favorable report of the bills substantially as advocated, and the prospects of passage when the bills shall be so reported, are still somewhat uncertain—especially since there exists a class

to whom the present low standards and confusion are profitable. It is however felt that inventors, scientists, engineers, manufacturers and others dealing with patents, share the Patent Office desire, and ought to have prompt, reliable service and adequate protection. The officials of the Patent Office have striven and are still striving vainly with inadequate, underpaid, everchanging forces to meet the demands upon the office. The time seems to have come when the public concerned must view the situation as one involving its own interests and proceed as it would in any other matter to secure what is right and just.

In a sense, "patent reform prospects" may evidently be said now to depend very largely upon the action of those "to whom these patents come."

Bert Russell,
Secretary Patent Office Society

SCIENTIFIC EVENTS

MEMORIAL TO THE LATE FREDERICK DU CANE GODMAN

A COMMITTEE has been formed under the chairmanship of Lord Rothschild, F.R.S., to establish a memorial to the late Frederick Du Cane Godman, F.R.S., in acknowledgment of his lifelong devotion to the interests of natural history and in grateful testimony of the many valuable benefits conferred by him, in promoting the study of natural science in Great Britain.

At a meeting of the committee held at the Natural History Museum on April 30 last, it was resolved that the memorial should take, primarily, the form of a bronze tablet with medallion portraits of Mr. Godman and of the late Mr. Osbert Salvin, Mr. Godman's lifelong friend and collaborator in all his scientific enterprises, and that this tablet, with a suitable inscription, should be offered to the trustees of the British Museum, to be placed in the Natural History Museum, at South Kensington.

The committee hopes to be in a position to do something additional to perpetuate the memory of Mr. Godman, by helping to establish a less local form of memorial. It is the inten-

tion of Dame Alice Godman and her two daughters to found an exploration fund in the interests of the Natural History Museum. For this purpose they have offered to establish a trust with the sum of £5,000, the proceeds of which are to be devoted to making collections for the advancement of science and for the benefit of the museum. This fund is to be called the "Godman Memorial Exploration Fund." Dame Alice's project has met with the warm approval of the trustees of the British Museum. The committee, therefore, propose that any amount received by them over and above that required for the bronze tablet shall be added to the exploration fund. They also hope that this may form a permanent basis for future donations and bequests for the same purpose.

Mr. Godman's work is too well known to need any lengthy exposition here. He and Salvin commenced their zoological exploration of Mexico and Central America in 1860, and carried it on for over 40 years. The material so obtained was used in the preparation of the monumental work, "Biologia Centrali-Americana," consisting of sixty-three quarto volumes, which were published between 1879 and 1915. Of these, fifty-two are devoted to zoology, five to botany, and six to archeology. The "Biologia" certainly constitutes the greatest single work in natural history ever planned and carried out by private individuals, and rivals such national undertakings as the "Challenger Report," which, of course, was financed by the British government. whole of the vast natural history collections on which the "Biologia" was based were presented by Messrs. Godman and Salvin, and (after the death of Mr. Salvin) by Mr. Godman, to the nation, unfettered by any stipulations, and these collections are now in the National Museum of Natural History. But Mr. Godman's services to science do not rest alone on the publication of his great work. The value of his gifts to the Natural History Museum, apart from the "Biologia" material, must amount to many thousands of pounds, and he was ever ready to help any undertaking for the benefit of his beloved science.