

SCIENCE

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CONTENTS :

<i>The Nobel Prizes for Scientific Discoveries</i>	497
<i>Address of the President of the Anthropological Section of the British Association : JOHN RHYS</i>	502
<i>Camphor secreted by an Animal (Polyzonium) : DR. O. F. COOK</i>	516
<i>Progress in Meteorological Kite Flying : DR. S. P. FERGUSSON</i>	521
<i>Scientific Books :—</i>	
<i>Publications of the Volta Bureau : PROFESSOR W. K. BROOKS. Vanutberghe's Exploitation technique et commerciale des forêts : PROFESSOR B. E. FERNOW. Reinhardt's Technic of Mechanical Drafting : PROFESSOR F. N. WILLSON. Books Received</i>	523
<i>Scientific Journals and Articles</i>	529
<i>Notes on Inorganic Chemistry : J. L. H.</i>	530
<i>Experimental Stations in Hawaii and Porto Rico</i> ...	531
<i>Scientific Notes and News</i>	532
<i>University and Educational News</i>	536

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKeen Cattell, Garrison-on-Hudson N. Y.

THE NOBEL PRIZES FOR SCIENTIFIC DISCOVERIES.*

LAWS AND REGULATIONS.

THE three corporations awarding the Nobel prizes are :

1. The Royal Academy of Sciences, at

* Summary received by the Department of State from the legation of Sweden and Norway, dated Washington, September 11, 1900, inclosing copy (in French) of the laws and regulations relating to the Nobel bequest.

Stockholm, founded in 1739. The King is the protector of the Academy, which numbers 100 Swedish and Norwegian members and 75 foreign members.

2. The Swedish Academy, at Stockholm, instituted in 1786. The King is the protector. The members, exclusively Swedish, are limited to 18.

3. The Carolin Institute of Medicine and Surgery, at Stockholm, established in 1815. The number of professors is 22.

OBJECT OF THE ENDOWMENT.

The Nobel endowment is based on the will of Dr. Alfred Bernhard Nobel, engineer, drawn up November 27, 1895. The stipulations are as follows :

"The remainder of the fortune which I shall leave shall be disposed of in the following manner: The capital, converted into safe investments by the executors of my will, shall constitute a fund the interest of which shall be distributed annually as a reward to those who, in the course of the preceding year, shall have rendered the greatest services to humanity. The sum total shall be divided into five equal portions, assigned as follows :

"1. To the person having made the most important discovery or invention in the department of physical science.

"2. To the person having made the most important discovery or having produced the greatest improvement in chemistry.

"3. To the author of the most important discovery in the department of physiology or of medicine.

"4. To the author having produced the most notable literary work in the sense of idealism.

"5. To the person having done the most, or the best, in the work of establishing the brotherhood of nations, for the suppression or the reduction of standing armies, as well as for the formation and the propagation of peace conferences.

"The prizes will be awarded as follows : For physical science and chemistry, by the Swedish Academy of Sciences ; for works in physiology or medicine, by the Carolin Institute of Stockholm ; for literature, by the Academy of Stockholm ; finally, for the work of peace, by a committee of five members, elected by the Norwegian Storting. It is my expressed will that nationality shall not be considered, so that the prize may accrue to the most worthy, whether he be a Scandinavian or not."

The testamentary stipulations above cited serve as a basis for the regulations relating to the Nobel endowment, together with the explanations and the more detailed provisions contained in the present law, as well as in the deed of compromise, amicably brought about June 5, 1898, with certain of the heirs of the testator, and according to which the said heirs, after an agreement concluded on the subject of a less important portion of the property left by Dr. Nobel, declared that they accepted the will of Dr. Nobel and renounced in all contingencies, for themselves and for their descendants, all claim for the remainder of the succession of the said Dr. Nobel and all share in the administration of the legacy ; they abandoned also all right to protest against the interpretations or additions to the will or other limitations relative to its execution, and to the employment of the capital which might be now, or in the fu-

ture, made by decision of the King or by competent authorities. The following reservations are, however, expressly stipulated :

a. That the common law for all the authorities charged with the distribution of the prizes, and governing the manner and the conditions of the distribution, prescribed by the will, must be drawn up by common consent with a representative delegated by the family of Robert Nobel and submitted to the approval of the King.

b. That the following principles cannot be deviated from, viz :

1. That each of the annual prizes established by the will must be awarded at least once in the course of every period of five years, commencing with the year immediately following that in which the Nobel endowment shall enter on its functions, and that the sum total of a prize thus awarded shall in no case be less than 60 per cent. of the part of the yearly revenues disposable for the distribution of the prizes ; neither can it be divided into more than three prizes at the most.

2. By the title 'Academy of Stockholm' written in the will is understood the Swedish Academy.

By the word 'literature' must be understood not only works purely literary, but also any other writing possessing by its form and its style a literary value. The limitation of the will declaring that the annual distribution of prizes must be directed to works executed 'in the course of the preceding year' must be interpreted in this sense, that the objects of the rewards shall be the most recent results of research displayed in the departments indicated by the will ; older works will be considered only in the event that their importance shall have been demonstrated in recent times.

3. In order to be admitted to the competition, every written work must have been published by means of the press.

4. The sum total of a prize may be divided equally between two works, if it be judged that each of them has merited the prize. If the work rewarded is the work of two or of several assistants, the prize can be awarded to them in common. Any work the author of which is deceased can not be the object of a prize; however, in case of death after the proposal for a reward has already been presented in the prescribed forms, the prize may be awarded. Each one of the corporations having the conferring of prizes has the right to decide whether the prize may be adjudged to an institution or to a society.

5. According to the plain intention of the will, a work can not be rewarded unless experience or a competent examination shall prove its preponderant importance. If none of the works submitted to the competition possesses the quality desired, the sum total of the prize is reserved for the following year. If, then, the prize can not be distributed, the amount is deposited in the principal funds, unless three-fourths of the persons voting shall decide to establish with it a special fund for the section. The revenues of such a fund may, according to the decision of the corporation, be employed to encourage, otherwise than by the distribution of prizes, the tendencies aimed at in the first place by the donor. Each special fund will be administered with the principal fund.

6. For each section of Swedish prize, the competent corporation shall designate a 'Nobel committee,' composed of three or five members, who shall give their advice upon the conferring of the prize. The necessary examination for the awarding of the peace prize shall be made by the committee of the Norwegian Storting mentioned in the will. In order to be named a member of a Nobel committee, it is not necessary to be a Swedish subject nor to belong to the corporation charged with the

conferring of the prize. The members of a Nobel committee can receive a suitable fee for their work, which will be determined by the competent corporation. In a special case, if it is judged necessary, the corporation can designate a competent person to take part as a member in the deliberations and in the decisions of the Nobel committee.

7. For admission to the competition, it is necessary to be proposed in writing by a qualified person. No attention will be paid to requests addressed by persons desiring to obtain a prize themselves. It is explained further on who are considered qualified. The annual competition considers proposals which have been offered in the course of the year immediately preceding up to the date of February 1st.

8. Every proposal must be accompanied by the writings and other documents upon which it is founded. If the proposal is not drawn up in either one of the Scandinavian languages or in English, French, German or Latin, or if, for the appreciation of the proposed work, the body having to award the prize finds itself, for the most part, obliged to take cognizance of a writing composed in a language whose interpretation would cause special difficulties or considerable expense—in either of these cases, the corporation will not be obliged to proceed to a detailed examination of the proposal.

9. At the solemn reunion, which takes place on the anniversary of the death of the donor, December 10th, the corporations will make known publicly their decisions and bestow upon each laureate a check for the value of the prize, a diploma, and a gold medal bearing the effigy of the donor, with an appropriate legend. The laureate is obliged, unless prevented, to give during the six months following the reunion a public lecture on the subject of the work crowned. This lecture will be given in Stockholm, or, for the peace prize, in Christiania.

10. Decisions in regard to the awarding of prizes are without appeal. It is forbidden to insert a difference of opinion in the *procès verbal*, or to reveal it in any other manner.

11. Corporations have the right to establish scientific institutions and other establishments, in order to secure assistance for the examination which must precede the distribution of the prizes, and to serve, from other points of view, the aim of the endowment. These institutes and establishments, which form part of the endowment, shall be called 'Nobel institutes.'

12. Every Nobel institute is placed under the direction of the body which founded it. They are independent as regards their exterior situation and their finances; consequently, their revenues cannot be utilized by the corporations awarding the prizes, nor by any other institution to cover the expenses of their private budgets. Professors having a fixed salary in a Nobel institute can not hold a like position at the same time in any other institution, unless by special authorization of the King. Corporations may install Nobel institutes on a common site, giving them a uniform organization; they can attach foreigners, men and women, to the institute.

13. One-fourth of the revenues of the principal fund, which each section disposes of annually, is reserved. After the payment of the immediate expenses for the distribution of the prizes, the rest of the amount reserved is employed in defraying the expenses of the Nobel institute in each section. The balance, after paying the expenses of the year, is set aside for the future needs of the institute.

MANAGEMENT OF THE ENDOWMENT FUND.

The board of administration is composed of five Swedish members, one of whom—the president—is named by the King; the others are chosen by representatives of the

corporations. The managing director is chosen by the board from among its own members. Members and substitutes are elected for a term of two years, commencing May 1st. The board of administration manages the endowment fund and all property common to the sections, pays the prizes and the expenses attendant on their distribution, the expenses of the Nobel institutes, engages all employees, determines the amount of their appointments and of their pensions; is empowered to appoint proxies, to prosecute and to answer, to plead and to act in the name of the endowment. The corporations awarding the prizes appoint fifteen representatives for two civil years. The Academy of Sciences chooses six and designates four substitutes; the other corporations each appoint three, with two substitutes. The representatives, called together by the oldest representative of the Academy of Sciences, elect one of their number as president. Nine votes, at least, are necessary to make a decision. A corporation failing to send representatives does not prevent the others from acting. The management and accounts of the board are examined every civil year by five examiners; each corporation appoints one, the King naming the fifth, who acts as president. The report upon the management must be given to the president before the end of February. The examiners must present their report to the representatives of the corporations before April 1st. This report, giving a résumé of the employment of the different funds, will be published in the newspapers. The failure of any corporation to appoint an examiner, or of an examiner to act, does not prevent the other members from proceeding with the examination. Examiners, and also the head of the Department of Public Instruction and Worship, have free access to all books, accounts and documents of the endowment.

All the investments of the fund must be examined and verified at least once a year. The representatives of the corporations have the right to decide, after the report of the examiners, whether the board of administration or any one of its members shall be discharged, or any other action taken against them. The King determines the salary of the managing director. The tenth part of the yearly net income of the principal fund is added to the capital; the interest of the sum destined for the prizes is added to the same fund until the distribution in prizes or otherwise.

TRANSIENT PROVISIONS.

Immediately after the approval of the King of the statute of endowment, the corporations will designate the stipulated number of representatives, who will assemble at Stockholm and elect the members of the board of administration, who will have the management of the endowment fund at the beginning of the year 1901. The executors of the will will take appropriate measures to terminate the settlement of the succession. The first distribution of prizes for all sections will take place, if possible, in 1901. From the endowment resources will be deducted: First, a sum of 300,000 crowns (\$80,000) for each section—that is, 1,500,000 crowns (\$402,000) in all—which, with the interest commencing from the 1st of January, 1900, will be used to cover, in proportion, the expenses of the organization of the Nobel institutes in addition to the sum the board of administration shall judge necessary for the acquisition of a special site destined for the administration of the endowment and including a hall for its meetings.

SPECIAL RULE GOVERNING THE AWARDING OF THE NOBEL PRIZES BY THE ACADEMY OF SCIENCES, ETC.

The right of presenting proposals for prizes belongs to—

1. Native and foreign members of the Royal Academy of Sciences.

2. Members of the Nobel committees for natural philosophy and chemistry.

3. Professors who have received the Nobel prize of the Academy of Science.

4. Ordinary and extraordinary professors of natural sciences and chemistry in the universities of Upsal, Lund, Christiania, Copenhagen and Helsingfors, in the Carolin Institute of Medicine and Surgery, the Superior Technical Royal School, as well as to the professors of the same sciences in the Stockholm High School.

5. Incumbents of corresponding chairs of at least six universities or high-schools, which the Academy of Science will select, taking care to divide them suitably between the different countries and their universities.

6. Learned men, to whom the Academy shall judge proper to send an invitation to this effect.

The invitations shall be sent every year in the month of September. Proposals for the prize must be made before February 1st of the following year. They are classified by the Nobel committee and submitted to the college of professors. The Nobel committee decides which of the works presented shall be submitted to a special examination. The college of professors will pronounce definitely on the distribution of the prize in the course of the month of October. The vote is taken in secret; if necessary, the question may be decided by drawing lots.

SPECIAL RULE GOVERNING THE AWARDING OF THE NOBEL PRIZE BY THE SWEDISH ACADEMY, ETC.

The right to present candidates for the Nobel prize belongs to the members of the Swedish Academy, the French Academy, and the Spanish Academy, which resembles the Swedish Academy in their organization and aim; to the members of the

literary departments of other academies, as well as to the members of literary institutions and societies analogous to academies; to professors of æsthetics, of literature and of history in the universities. This order must be published at least every five years.

ADDRESS OF THE PRESIDENT OF THE AN-
THROPOLOGICAL SECTION OF THE
BRITISH ASSOCIATION.

PERHAPS I ought to begin by apologizing for my conspicuous lack of qualification to fill this chair, but I prefer, with your permission, to dismiss that as a subject far too large for me to dispose of this morning. So I would beg to call your attention back for a moment to the excellent address given to this Section last year. It was full of practical suggestions which are well worth recalling: one was as to the project of a bureau of ethnology for Greater Britain, and another turned on the desirability of founding an imperial institution to represent our vast colonial empire. I mention these in the hope that we shall not leave the government and others concerned any peace till we have realized those modest dreams of enlightenment. People's minds are just now so full of other things that the interests of knowledge and science are in no little danger of being overlooked. So it is all the more desirable that the British Association, as our great parliament of science, should take the necessary steps to prevent that happening, and to keep steadily before the public the duties which a great and composite nation like ours owes to the world and to humanity, whether civilized or savage.

The difficulties of the position of the president of this Section arise in a great measure from the vastness of the field of research which the Science of Man covers. He is, therefore, constrained to limit his attention as a rule to some small corner of it; and, with the audacity of ignorance, I have

selected that which might be labeled the early ethnology of the British Isles, but I propose to approach it only along the precarious paths of folklore and philology, because I know no other. Here, however, comes a personal difficulty; at any rate, I suppose I ought to pretend that I feel it a difficulty, namely, that I have committed myself to publicity on that subject already. But as a matter of fact, I can hardly bring myself to confess to any such feeling; and this leads me to mention, in passing, the change of attitude which I have lived to notice in the case of students in my own position. Most of us here present have known men who, when they had once printed their views on their favorite subjects of study, stuck to those views through thick and thin, or at most limited themselves to changing the place of a comma here and there, or replacing an occasional *and* by a *but*. The work had then been made perfect, and not a few great questions affecting no inconsiderable portions of the universe had been forever set at rest. That was briefly the process of getting ready for posterity, but one of its disadvantages was that those who adopted it had to waste a good deal of time in the daily practice of the art of fencing and winning verbal victories; for, metaphoric-ally speaking,

‘With many a whack and many a bang
Rough crab-tree and old iron rang.’

Now all that, however amusing it may have been, has been changed, and what now happens is somewhat as follows: AB makes an experiment or propounds what he calls a working hypothesis; but no sooner has AB done so than CD, who is engaged in the same sort of research, proceeds to improve on AB. This, instead of impelling AB to rush after CD with all kinds of epithets and insinuating that his character is deficient in all the ordinary