technological processes have been compiled with the greatest patience and industry.

At the outset it would be advisable to publish only one monograph dealing with cellulose chemistry. It would be unfortunate if the society published a series of separate monographs on such subjects as (let us say) cellulose hydrates or oxycellulose. If one monograph cannot be made the joint work of two authors (an organic and a physical chemist), it might be well to have two monographs, one on the "chemistry of cellulose," and one on "cellulose as a colloid." Needless to say these books should supplement each other. I can not help feeling that an extended series must lead us into the same difficulties that we have encountered in the past, and I do not think that such a series would prove a good investment. Certainly the details in a number of volumes of an extended series would be obsolete in a comparatively short time. A carefully written volume of 300–400 pages with a properly classified bibliography should serve our purpose better than would an entire series.

I claim no originality for the ideas set forth nor are they Utopian. They form the basis of Heuser's recent "Lehrbuch der Cellulose Chemie." From the standpoint of the organic chemist, Heuser's Lehrbuch is the best monograph in its field. Unfortunately it was published several months too early to include the results of Hibbert's and Irvine's work on cellulose and Haworth's work on cellobiose, and it suffers accordingly. Heuser has written with a clear vision of the requirements of a modern monograph on cellulose. His writing is singularly free from circumlocution and from perplexing detail. He develops his subject matter clearly and logically. He has, however, omitted full reference to the modern work on the colloidal chemistry of cellulose, an oversight that should be corrected in any American monograph.

Summary.—(1) We require a monograph on the chemistry of cellulose that briefly and critically presents the most noteworthy results in the cellulose field. (2) The monograph must be more than a painstaking compilation. (3) It should carefully select the literature dealing with the most important reactions of cellulose as well as the results of the more recent researches on the physical properties of cellulose. (4) It should be written to stimulate fundamental research. (5) It should be free from inconsequential or meaningless terms and hypotheses.

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EUGENICS—THE AMERICAN AND NORWEGIAN PROGRAMS

Dr. Jon Alfred Mjøen, recognized by the Norwegian Government as the leader in eugenic and hygienic reform, issued from the Winderen Laboratorium, May, 1908, the following "Program for Race Hygiene":

Negative Race Hygiene. (*a*) *Segregation* (negative colonization system) for feeble minded, epileptics and similar physically and mentally crippled individuals, obligatory for drunkards, habitual criminals, professional beggars and all who refuse to work. (*b*) *Sterilization.* No compulsory sterilization in general. *Certain types* of criminals who wish to escape segregation should be given an opportunity to be sterilized.

Positive Race Hygiene. (*c*) *Biological Enlightenment.* Education of women in school and university should be changed from the present masculine system to one adapted to the female intellect and mind. Biology (renewal of the family), chemistry (nourishment of the family), and hygiene (protection of the family) should be chief subjects (obligatory), from the preliminary class in the boarding school to the university.—Race biology in school and university institute for genealogical research. State laboratory for race hygiene. (*d*) *Tax-, Wage-* and *Colonization*-system in favor of families, maternity insurance and other protective measures of prenatal kind. Positive colonization system. Regressive tax and progressive wage system for heads of families.

Prophylactic Race Hygiene. (*e*) *Combating racial poisons:* industrial poisons, especially lead and lead compounds; pathological poisons, especially syphilis; narcotic poisons, especially alcohol. (1) Prophylaxis of race illnesses and race anomalies as a state function. (2) Health declaration before marriage. (3) Class-system and progressive taxation for alcoholic liquors. (*f*) Crossings between

distant races should—until we have collected more knowledge—be avoided.

Doctor Mjøen has requested the writer to add his comments and to epitomize the situation in America. The writer has sent the following reply:

In general I approve of the Program for Race Hygiene issued from the Winderen Laboratorium in May, 1908, under Dr. Jon Alfred Mjøen, but I would like to add that there are special aspects of the problem as presented in America.

(*a*) *Education.*—The aspect of the race hygiene or eugenics movement which interests us most with respect to the United States of America is *popular education.* Legislation, both positive and negative, in this country will be of little avail unless supported by widespread popular knowledge and popular sentiment. When we witness the amazing progress that has been made in this country during the last twenty-five years regarding personal hygiene and especially the manner in which the discoveries of Pasteur, of Koch, of Lister, of Dakin, Carrel and others have become matters of common knowledge and practise among the people, we should not despair of creating similar widespread reform in family life through popular education. In fact an excellent beginning has been made in our schools and colleges towards both positive and negative race hygiene. Matters which were not considered proper even to mention twenty years ago are now simply and naturally spoken of as being of very great importance to the future of the race.

(*b*) *State Legislation.*—Many of the American state governments have become suddenly aroused to the fact that money which should be devoted to education, to public utilities, to sound and healthy amusement of our population, is diverted to the humanitarian care of members of society who are of no service to the state and who, unless cared for and segregated, are actually a menace to the state as well as a very serious economic loss.

(*c*) *Immigration.*—The American political principle that all men are created free and equal, while designed to indicate that all men should have equal rights before the law, has been interpreted to mean racial equality in intellectual, spiritual, moral, and physical endowment; investigations made during the World War struck a very hard blow to such American optimism. We discovered, for example, that our people, on the average, had lost two and a half inches in stature since the Civil War; that races like the English, the Irish, and the Scotch, coming from a similar geographic region, show marked inequality in intelligence. At the very bottom of the list stand certain races from central Europe which have been coming to America in enormous numbers. It is facts of this kind, brought by anthropologists to the attention of the American Congress, which have led to a very careful survey and restriction of immigration.

(*d*) *The Outlook.*—While we are aware that we are rapidly losing some of the best elements of our old American stock, which is being replaced in some regions by very inferior stock, we do not regard the outlook as discouraging, provided we act immediately, without prejudice, and openly, and make our strongest appeal to national sentiment. America has shown over and over again that she can make any sacrifice, and make it very quickly, if she is assured that the sacrifice is necessary for the preservation of her institutions on which the common safety and welfare depend. Consequently this is no time for discouragement, but the time for a very strong appeal to the patriotism of our people.

At a meeting of the members of the International Commission, namely, Leonard Darwin (President of the first Congress), Lucien March (representative of the French Government), Raymond Pearl (of Johns Hopkins University), Charles B. Davenport (of the Carnegie Institution of Washington, Cold Spring Harbor, New York), in consultation with ten leading representatives from other countries and from the United States, an *ad interim* committee was appointed to continue the work of the Congress until a permanent American committee could be selected by the main International Commission, which has its seat in London. In this connection the following letter was addressed by the writer to Professor Irving Fisher of Yale University:

October the eleventh,
Nineteen hundred twenty-one

You will recall that the Congress authorized the appointment of an *ad interim* committee to carry on the work in America prior to the appointment by the International Commission. I have consulted with Major Leonard Darwin and Dr. Jon Alfred Mjøen on this subject and they agree with me that the wisest choice we could make of a Chairman is Professor Irving Fisher of Yale University. The *ad interim* committee will then be composed as follows:

Irving Fisher, Chairman, of Yale University,
Charles B. Davenport, Vice-Chairman, of the Carnegie Institution of Washington, Cold Spring Harbor, N. Y.,
Harry Olson, Judge of the Municipal Courts of Chicago, Illinois,
Madison Grant, Chairman of the New York Zoological Society,
C. C. Little, Secretary, of New York, Secretary of the Second Eugenics Congress.

We shall thus have different sections of the country well represented; we shall profit by the legislative experience of Mr. Grant and Judge Olson and the expert scientific knowledge of Drs. Davenport and Little. As soon as the Eugenics Exhibit closes at the American Museum, the offices may be transferred to the American Eugenics Record Office at Cold Spring Harbor.

The present executive committee will disband as soon as the costs of the Congress are adjusted and the publication of the volume of papers and proceedings is arranged for.

I have appointed the following Committee on Publication of the *Proceedings* of the Second International Congress:

Charles B. Davenport, Chairman,
Clark Wissler, American Museum of Natural History,
H. H. Laughlin, American Eugenics Record Office, Cold Spring Harbor, N. Y.,
Henry Fairfield Osborn, *ex-officio*.

It is estimated that the publication will cost between $5,000 and $10,000, and I am writing to each of the great Foundations, namely, Carnegie, Rockefeller, and Commonwealth, asking for assistance, as the executive committee still has to raise a considerable sum to cover the expenses of the Congress.

According to the above terms it is proposed to actively disseminate the very valuable information contained in the seventy scientific papers and addresses presented to the congress by leading experts, also to provide for the continuation of the eugenics propaganda throughout the country. The writer retires from further active participation in this work in order to resume other duties. All inquiries should be addressed either to the Chairman, Vice-Chairman, or Secretary of the *ad interim* committee.

Henry Fairfield Osborn,
President, Second International Congress of Eugenics

New York,
October, 1921

SAMUEL STOCKTON VOORHEES

On the evening of September 23, at Portland, Maine, died Samuel Stockton Voorhees, Engineer Chemist of the Bureau of Standards, in the fifty-fifth year of his age. To a host of friends his passing brings personal sorrow because of loss of one endeared to them by his genial and manly qualities and deep regret that the chemical profession should be prematurely deprived of the services of a man so well informed and broadminded, whose conduct was always guided by high ideals.

Voorhees was born at Springfield, Ohio, January 15, 1867, his parents, of old American stock, being John Hunn and Elizabeth Aston (Warder) Voorhees. He studied at Lehigh University, in the class of 1888 without graduating and then took a special course in chemistry at Columbian (now George Washington) University, in Washington, D. C. He married in 1895 Laura Toucey Kase, of Danville, Pa., who with three daughters survive.

His first professional services were with the Cambria Iron Company, at Johnstown, Pa., and the Pennsylvania Railroad, at Altoona, Pa. In the employ of the latter he had the good fortune to be associated with the lamented Dr. Charles B. Dudley, a past president of the American Chemical Society, whom he always held in grateful remembrance. He there also formed lasting acquaintance with men who have risen to prominence in the railroad world. It was with two of them and other friends that he undertook the vacation trip to the north woods of Maine, where an illness from which he had long suffered developed to such an extent that he had to be removed under great difficulties to a hospital in Portland, where within a week he underwent two operations, from the second of which he was unable to rally.

Voorhees's railroad experience was continued during 1896 to 1899 with the Southern Railway Company at Washington, D. C., and Alexandria, Va., and from 1899 to 1901 with the New York Central and Hudson River Railroad, at Albany, N. Y.

The fifteen years of practical knowledge acquired in industrial fields fitted him admi-