they are academic rather than practical. They will probably confuse the elementary student and will not be of great help to the advanced student. This painstaking analysis of the subject, however, has resulted in an admirable selection of material and an unusually logical presentation.

Mention should be made of the excellent block diagrams, of which there are more than 100, and of the numerous sections. Many of these drawings are new and are of great value, especially in the presentation of structural geology.

The typographical mistakes and occasional slight errors in statement which seem impossible to eliminate in a first edition will, doubtless, be absent in the second printing. Many who use the book will regret that a fuller discussion of the plane table is not given.

The limp covers, small size and light weight make this a convenient volume to carry about in the field, and both students who have only an elementary knowledge of geology and seasoned geologists will find the book a useful field companion.

HERDMAN F. CLELAND

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The Endocrine Organs. By E. A. Shäfer. Longmans, Green and Company. London, 1916. Pp. 156.

The author has endeavored to compress into this book a great number of observations concerning the organs of internal secretion. He has not published a bibliography, this task having been recently performed by Biedl and by Vincent. As each of the organs is taken up the facts of its embryology and structure are briefly presented. Then we have an account of the properties of the extract and of the conditions produced by excessive and deficient activity, ablation furnishing the limiting case. There are well-chosen plates and tracings to the number of 104.

The attempt to read the chapters consecutively results in an oppressive realization of the magnitude of the subject. During the last

few years emphasis has been increasingly upon the reciprocal relations of the several organs. As each may reinforce, oppose, or otherwise modify the influence of every other, we have here a number of possibilities which increases according to the principle of permutations and combinations. The writer of the book has not neglected this aspect of the matter, but has wisely restricted his discussion to the more striking instances. His condensed account of the work of hormones and chalones (excitants and inhibitors) in the animal economy will give any reader a wide, preliminary view of a field the importance of which we are but just coming to appreciate.

P. G. STILES

RACE HYGIENE IN NORWAY

THE Norwegian government under the lead of Professor Jon Alfred Mjöen, of Christiania, well known for his researches in race hygiene, and on the direct effect of alcohol on the integrity of germ cells, has under way a program of Applied Race Hygiene. As planned by Professor Mjöen this will involve:

A. NEGATIVE RACE HYGIENE

Segregation, optional for feeble-minded, epileptics and other individuals physically or mentally crippled, obligatory for drunkards, habitual criminals and professional beggars and all who refuse to work.

Sterilization.—Professor Mjöen is opposed to compulsory sterilization. But for certain types of crime, there is earnest need of considering methods of treatment more effective than those now in use.

B. POSITIVE RACE HYGIENE

Biological Enlightenment.—The study of race biology in school and university. The development of an institute for genealogical research. A state laboratory of race hygiene.

Decentralization.—Colonization from congested districts.

A regressive tax and progressive wage system in certain conditions.

Maternity Insurance and other protective measures for the welfare of the infant.

C. PROPHYLACTIC RACE HYGIENE

Abatement of Racial Poisons, lead compounds, narcotics, syphilis and especially the use of alcohol.

Progressive Taxation of alcoholic liquors.

Treatment as a state function, of all maladies injurious to the race (alcoholism, plumbism, narcotism, syphilis, gonorrhea).

Health Declaration as a requisite to marriage. Of these maternity insurance and the last three items have been already put into operation by the government.

Under the title of "Race hygiene," Dr. Mjöen has lately published, in Norwegian, an important work setting forth the scientific reasons for each of the lines of action proposed.

DAVID STARR JORDAN

In the tables only original papers have been considered and papers of less than one page were not included. One page of the *Journal of Industrial and Engineering Chemistry* has been counted as equal to three pages of the other journals. The journals selected for comparison are:

American Chemical Journal,
Journal of the American Chemical Society,
Journal of Physical Chemistry,
Journal of Biological Chemistry,
Journal of Industrial and Engineering
Chemistry.

In preparing the data all articles were listed on cards and the cards grouped in different ways to prepare the successive tables.

TABLE I

Total Number of Articles and Pages in Each Journal

	Am. Ch. J.		J. A. C. S.		J. Phys. C.		J. Biol. C.		J. I. E. C.		Totals	
Years	Articles	Pages	Articles	Pages	Articles	Pages	Articles	Pages	Articles	Pages	Articles	Pages
1909–10 1914–15		1,704		2,658 5,003		1,429 1,388	133 402	1,519 3,810		1,915 3,423	796 1,415	-,

Gain

	Articles	Pages	Articles, Per Cent.	Pages, Per Cent.
Journal of Biological Chemistry	204	2,291 1,508 2,345 —41	202 124 60 30	150 78 88 —2
Total	707	6,103	77	66

A CENSUS OF THE PERIODICAL LITER-ATURE OF CHEMISTRY PUBLISHED IN THE UNITED STATES

During recent years there has been a rapid increase in chemical research in the United States. The statistics given in the following tables have been compiled to secure a rough estimate of this increase. In examining the tables it should be remembered that they are of value only in giving a statistical measure of the growth of chemical research and that the details are liable to be misleading. It sometimes happens that a single paper covering a few pages is of far greater value than dozens of other papers which may cover hundreds of pages.

TABLE II

Distribution among Classes of Institutions

	1909-10		1914-15		
	Arti- cles	Pages	Arti- cles	Pages	
A. General Scientific:					
Educational	597	7,235	902	9,165	
Charitable	4	41	21	197	
Research	43	443	133	1,277	
B. Commercial Scientific:					
General	52	528	98	675	
Analytical	4	53	1	6	
Research	6	97	7	57	
C. Government Bureaus, Ex-					
periment Stations, etc	93	827	253	2,247	
	796	9,225	1,415	13,624	