tation on the origin and development of social strata within the group and a plea for human ecology as a science.

It must be reiterated that some of these essays are extremely well done. The chapter on ancient man is a gem. But one has the feeling that the book is a series of blocks and not a building. The author appears to have gathered together a group of special libraries and to have abstracted their contents systematically and accurately, but separately. The result might be called "a contribution toward a source-book for students of human ecology." It hardly is a textbook on human ecology. There is an exhibit of warp and woof of various colors, but they are woven into no fabric. The author deserves great credit, nevertheless, for his philosophical approach to the subject as an organic whole.

It is to be hoped that Mr. Bews will write a second book with this one as a basis. One would like to know just what part has been played by genetic variability. by meteorological factors, by proximity to sea or lowland or forest or mountain, by presence or absence of various plants and animals, by religion and taboo, and by a thousand and one other matters, on the development of the various clans of the human race. Doubtless there would be errors of omission, faulty conclusions, incorrect emphases and other forgivable sins committed by any one undertaking such a stupendous task. What of it? It would be an interesting and stimulating adventure. And at least an introduction could be written without much more of an expenditure of time than Mr. Sarton has taken for his history of science.

E. M. EAST

## SPECIAL ARTICLES

## A NEW TYPE OF ENZYME IN THE INTESTINAL TRACT

There are two different types of peptide linkage in proteins. The majority of amino acids possess an  $\alpha$ -amino group and are connected with each other in proteins by peptide linkages CO—NH, analogous to the linkage in glycylglycine:

$$\mathbf{NH_2} \cdot \mathbf{CH_2} \cdot \mathbf{CO} \textcolor{red}{\longleftarrow} \mathbf{NH} \cdot \mathbf{CH_2} \cdot \mathbf{COOH}$$

However, proline and hydroxyproline have only an α-imino group and are connected with other amino acids by means of a particular type of peptide linkage lacking a peptide hydrogen, analogous to the linkage in glycyl-*l*-proline:

$$\begin{array}{c|c} \text{CH}_2\text{--CH}_2 \\ \text{CH}_2\cdot\text{CO} \\ \text{COOH} \end{array}$$

It was found in 1932<sup>1</sup> that peptide linkages of the second type are split by erepsin, but not by pancreatic juice.

It could now be shown that the action of erepsin on substances like glycyl-*l*-proline is due to a special enzyme. In contrast to the principal proteolytic enzymes of erepsin, dipeptidase and aminopeptidase, the new enzyme is not appreciably inhibited by cyanide.

The fact that in some proteins (collagen, gelatin) more than one quarter of the peptide linkages<sup>2</sup> require

<sup>1</sup> M. Bergmann, L. Zervas, H. Schleich and F. Leinert, Zeits. physiol. Chem., 212: 72, 1932; M. Bergmann, L. Zervas and H. Schleich, Ber., 65: 1747, 1932.

<sup>2</sup> M. Bergmann, Jour. Biol. Chem., 110: 471, 1935.

the action of the new enzyme lends significance to its presence in the intestinal mucosa.

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FOR MEDICAL RESEARCH

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## THE ALCOHOLIC ADMISSIONS TO BELLEVUE HOSPITAL<sup>1</sup>

During the 34-year period of 1902–1935, inclusive, the Psychiatric Division of Bellevue Hospital has recorded 256,755 separate alcoholic admissions. From this average of over 7,500 alcoholic admissions per year a large source of material is available for psychiatric, medical, sociological, economic and public health studies. Data relative to the admissions per annum, the admission rate per capita population, both crude and specific, and the changing proportion of female admissions are recorded in this paper.

The total admissions (Fig. 1) rose from 5,830 in 1902 to a maximum of 11,307 in 1910. In 1911 a downward trend in alcoholic admissions began, and in 1919 7,962 admissions were recorded. War-time prohibition went into effect on July 1, 1919, and the eighteenth amendment became effective on January 17, 1920. In 1920 there occurred a precipitous fall in the number of alcoholic admissions to a low of 2,091, with about the same number of admissions in 1921. From 1922, when there were 4,083 admissions, the trend was upward, reaching 9,542 in 1933, the largest number of admissions since 1910. In 1934, the first

<sup>1</sup> Observations on the admission rate per capita population and the sex distribution, 1902–1935. From the Departments of Medicine and Psychiatry, New York University College of Medicine, and the Psychiatric Medical Service of the Third (New York University) Medical Division of Bellevue Hospital, New York.