and social history." By the end of the eighteenth century, wheat was firmly established as the universal bread grain in England, at a time when the commoners of other northern races still ate rye.

The main transition to wheat took place during the eighteenth century, and though in earlier times, wheat, rye, barley, and oats were all used as bread corn to some extent, the chief competition always lay between the two former. It is clear from the old records, both civil and ecclesiastical, that wheat and rye bread early became the symbols of social position, rye being the staple food of the commoners, wheat that of the aristocracy or overlords. In some cases bread of different grades was used as currency in payment for services rendered, wheaten bread being given only in very special circumstances.

In England the change in the balance from rye to wheat was much influenced by the interest in the land taken by the lords of the manors. This led to such improvements in agricultural practices as marling and liming, which needed capital expenditure, and steadily improved the land and rendered it more fit for wheat growing. It took centuries, however, for wheat to become the ordinary food of the whole nation. In northern continental countries where the land remained largely in the hands of peasant proprietors, rye growing held its own, and even at the present day forms a staple part of the food of the community.

The rivalry between wheat and rye has always been entirely a question of supply rather than one of cost, because in the early days the price of bread did not affect the bulk of the nation to the degree it now does, as most bread was baked at home. With short supplies, wheat early became a mark of social distinction, and with increasing ambition among the populace, and increasing supplies, it gradually attained the position it now holds as the staple bread corn of Great Britain.

The Soils of Cuba. By H. H. Bennett and R. V. Allison. Pp. 409. (Washington, D.C.: Tropical Plant Research Foundation, 1928.) 6.25 dollars.

A COMPREHENSIVE survey of the soils of Cuba has been undertaken by H. H. Bennett and R. V. Allison, and the results published in book form. Cuba is still the greatest sugar-producing country of the world, and every effort is necessary to maintain this supremacy. The point of the survey was to investigate the possibility of lowering the cost of production of the raw material in the fields by the use of more modern agricultural methods and the better adaptation of the varieties to the soils on which they are grown.

A general description is given of the various soil series found throughout the island, with complete chemical analyses and physical measurements of some of the more representative types, followed by a detailed survey of middle, eastern, and western Cuba and the Isle of Pines. Some areas are handicapped by the presence of large amounts of soluble salt in the soil, which is so detrimental to sugar cane that the mortality and retarded growth is in some cases severe enough to cause the fields to be completely abandoned. Furthermore, the cane juices obtained from salty areas are of inferior quality for milling purposes. The opinion is expressed that better results would accrue from more intensive cultivation of sugar cane on smaller areas, the poorer and less suitable soils being put down to grass or timber.

The influence of soil is of paramount importance in the Cuba cane fields, and emphasis is laid on the importance of cultivators understanding their soils and learning how to treat them to get the best results, as the behaviour of the soil and subsoil has definite peculiarities in many cases. A large-scale annotated soil map is appended, with brief descriptions of the quality of the soil, the best methods of cultivation and treatment, together with the most suitable crops. W. E. B.

Die europäischen Schlangen: Kupferdrucktafeln nach Photographien der lebenden Tiere. Von Dr. Fritz Steinheil. Siebentes Heft. Herausgegeben von Prof. Lorenz Müller. Tafel 31: *Vipera berus berus* (L.); Tafel 32: *Vipera berus berus* (L.); Tafel 33: *Vipera berus berus* (L.); Tafel 34: *Vipera ursinii ursinii* (Bonap.); Tafel 35: *Vipera ursinii macrops* (Mehely). Pp. 17 + 5 Tafeln. (Jena: Gustav Fischer, 1927.) 6 gold marks.

AFTER an interval of more than twelve years, a further part of Dr. Steinheil's beautiful photographs of European snakes, with the appropriate letterpress, has been published. The issue of the work was interrupted, after the appearance of the sixth part, by the outbreak of the War, and favourable conditions for the continuance of publication did not present themselves until 1926. In the spring of that year, Dr. Steinheil resumed his work, but a return of an old malady necessitated an immediate operation, from which he died in April 1926. His friend, Prof. Lorenz Müller, has undertaken the completion of the work as an act of duty and esteem, and, in a foreword to the present part, pays an eloquent tribute to the memory of Dr. Steinheil and to the value of his work. Dr. Steinheil left behind all the photographs necessary for the completion of his book, and Prof. Müller will write the descriptive text. The seventh part, which is now published, deals with *Vipera berus berus*, *Vipera ursinii ursinii*, and *Vipera ursinii macrops*, and is accompanied by five beautiful copper-plate reproductions of excellent photographs of these forms. This part maintains the very high standard of its pre-War predecessors and, now that publication has been resumed, we shall look for a speedy completion of this valuable work, which Prof. Müller has undertaken as a memorial to his friend.

Introduction to the Calculus. By Prof. William F. Osgood. Pp. xi + 449. (New York: The Macmillan Co., 1926.) 12*s.* net.

IN this revision of the author's "First Course," the sets of examples have been improved by the addition of more difficult examples. Even these should be well within the reach of most serious students. The tendency in England in the past