

from Praxagoras of Cos, although, as the anatomy of the earlier Greek school had been derived from Egypt, it was but returning to the mother-country the traditions of culture derived therefrom. It was in Egypt Democritus of Abdera studied, and so was fitted to teach anatomy to Hippocrates, the father of medicine. The three pithy and graphic letters on anatomy (which are extant), which it is supposed Democritus sent to Hippocrates, may well have been the result of his Egyptian training. At a later period it was at Alexandria that Galen pursued his study of anatomy under Heraclianus, and the anatomical school of Alexandria survived until the Mohammedan invasion of Amru in A.D. 640.

That much even of the earlier Greek medicine, anatomy, and pathology was derived from Egypt, we learn both directly and indirectly. Most of the vegetable drugs in use in Greece were natives of Egypt; and Galen, speaking of one prescription called 'epigonos,' tells us that it was obtained from the adytum of the temple of Ptah, at Memphis. He quotes it, and other Egyptian prescriptions, from the book *Narthex*, written by Hera of Kappadokia.

Medical colleges of far greater antiquity than that of Alexandria existed in the priestly schools of Memphis, Heliopolis, Sais, and Thebes. These were much more faithful exponents of the purely Egyptian system of the art of physic.

Of the ancient medical literature of Egypt, two nearly complete treatises are still extant, and six or seven fragments of others. These vary in date and in perfection. The most complete are the Papyrus Ebers and the Medical papyrus of Berlin. The fragments which are noteworthy are, the British museum papyrus, formerly the property of the Royal institution, the Papyrus VI. of Boulaq, the Magical papyri of Turin and Paris, the Coptic medical manuscript in the Borgia library, and the Greek papyri 383 and 384 of Leyden.

ECONOMIC STATISTICS.

THIS volume is another of the *handbuchs* which the Germans of this generation are diligent in compiling. Encyclopedic in character, it deals with the statistics of production and consumption of economic goods in all countries where numerical data can be obtained. The germ of the work is discovered in a volume published by the same author in 1867, which presented certain commercial statistics collected during an extensive voyage around the earth. Since then two similar world-

tours have been undertaken, while official reports have been ransacked to yield up their treasures. The result is this book, containing a mass of statistical information in regard to almost every conceivable commodity which nourishes man, or which enters into manufactures as raw material. The scope of the work embraces the statistics of minerals, mechanical forces, machinery, steam-power, electricity, money (both paper and metal), waterways, railroads, postal service, telegraphs, marine cables, and telephones.

To illustrate the plan pursued, the section treating of grains is here analyzed. At the outset is given the proportion of the area of Europe which is devoted to the culture of the several cereals during successive decades in different countries. The condensed tables reveal the wheat situation at once. Unfortunately, however, in such a work as this the picture cannot be a late one, and is useful in large part only for purposes of comparison.

No figures are apparently given for any year since 1883; but the author, in arriving at averages, has been careful to choose periods of legitimate length to be used in such comparison. The tables are re-enforced not only by summaries of the crops produced, the exports and imports, and the consumption, both total and per capita, but also by historical and descriptive matter. One table shows us the source of English wheat in successive years. Five pages are set apart to the statistics of the United States, while the South American grains receive their share of attention. This is finally all summarized in one short tabulation, presenting the total world-production of wheat, rye, barley, oats, and corn, in hectolitres and centimetres.

There is little attempt to generalize from these census wastes of figures; but no one can pick his way through this interlacing of exports and imports, as here interwoven, without reflecting upon the immense fact of the internationalism of trade. But a century ago the total of the world's export trade in corn was but eleven million hectolitres, while now it annually reaches five hundred and fifty millions.

The fortunes of some comparatively insignificant commodities are tracked from country to country. Neither pork-packing in Chicago nor the trade in human hair is neglected; and no fact is too minute for this fact-hunter, who carefully informs us that the skilful hair-trader distinguishes between French and German hair by the sense of smell. One of the most valuable tabulations is that on p. 640, summarizing the present condition of the world's trade. Naturally the grand total values of imports and exports do not exactly balance, the former being about ten per cent in excess

Das wirthschaftliche leben der völker. Ein handbuch über production und consum. VON DR. KARL VON SCHERZER. Leipzig, Dürr, 1885. 8°.

of the latter: these are 35,691, and 32,645 million marks respectively. Of this amount, our own country, fourth in the race, furnishes about one-tenth; Great Britain leads with one-fifth; while France and Germany hold the intermediate positions. By such tables the work supplements and often corrects Mulhall's statistical volumes, and is more satisfactory in so far as Dr. Scherzer is more generous in stating his authority for statistics, which are necessarily more or less a matter of dispute. This literary accomplishment is one not yet acquired by Mr. Mulhall. Especially desirable are such references when the statistics of gold and silver are given. Not a little of the confusion of the present discussion concerning the merits of bimetallism is due to the conflicting statistics of gold and silver production; and all writers on the subject should be careful to state their authority when using such figures as a basis for argument. Here Dr. Scherzer follows Neuman-Spallart and Soetbeer. The work is scholarly and painstaking, and will be of service to all students desirous of new statistical conclusions or verification of others' work.

CONN'S EVOLUTION OF TO-DAY.

THIS book is defined by the author as "a summary of the theory of evolution as held by scientists at the present time, and an account of the progress made by the discussions and investigations of a quarter of a century." The book, however, deals chiefly with the evolution of animals. Inorganic evolution is dismissed with some few words about the nebular hypothesis, and, partly in statement and partly by implication, the author expresses the view that inorganic evolution is scarcely worthy of treatment by scientific methods and by scientific men. In so doing, he ignores the entire field of geology. In a manner equally curt, the subject of vegetal evolution is passed over, and the author begins his theme proper, which is a discussion of the nature of the evidence for and against the doctrines of animal evolution. He nowhere gives a clear and comprehensive definition of evolution, though the introduction is largely devoted to a discussion of the term, and to a denial that evolution is equivalent to Darwinism. Throughout the book an evolution of animal forms is maintained, but the doctrines taught by Darwin, as understood by the author, are, in general, though rather vaguely, denied. The reader is made to feel, that, in the author's mind, Darwinism is the name of something wicked that good people must disavow; and,

while the author reaches the conclusion that evolution is probably true, he wishes it to be understood that there is no taint of Darwinism in his beliefs.

The first chapter treats of the mutability of species, in which various facts, arguments, and opinions, *pro* and *con*, are briefly set forth, and an attempt made to derive an average therefrom; as if a mean result of contradictions could be used as a proximate truth, in the same manner that a mean of instrumental observations is used as an approximate determination. The same error, but in a minor degree, lurks in the remaining chapters.

In the second, third, fourth, and fifth chapters, the author reviews the arguments for evolution derived from the principles of classification, the paleontologic succession of forms, the development of the embryo, and the geographic distribution of animals. In these four chapters he skilfully and fairly characterizes four lines of inductive reasoning by which the specialization of a multiplicity of forms is demonstrated, and also, though not quite so clearly, shows how progress towards higher forms results therefrom. This part of the book, which is the body of the work, has great merit as a popular and fair discussion of the subject of the evolution of animals. It is reasonably devoid of technical terms, while broad facts and general principles are happily stated and explained to the understanding of intelligent readers who are themselves not specialists in zoölogy. In this respect the book is timely; and the general reader can gather therefrom a very good conception of the doctrines of animal evolution, and the status of development-opinions among scientific men, and of the new problems connected therewith that are arising through expanding research. The author has made as successful an exposition of this subject as, perhaps, is possible by this method of treatment, which is a characterization of facts and arguments, in lieu of a grand marshalling of the facts themselves,—it being the plan of the author to write for the general public rather than for the smaller body of scientific men.

If the reader of Mr. Conn's book could have a preliminary study of some one order of plants or animals, or of some line of embryologic development, or if he could study the origin and structure of some mountain-range, or the geology of some river drainage-system, so as to be able to fully appreciate the multitudinous facts that are gathered into some simple induction by the patient labors of modern scientific research, the general characterizations of the author would have a profound effect. Perhaps no man may have a very clear comprehension of what the