

been the aim to avoid them so far as possible. The 'new species' described are scarcely more than a dozen in number. Particular attention is called to the economic value of fossils, a fact which is so commonly overlooked. A successful attempt has been made to present the ancient organisms in their proper light, and it is quite manifest that the emphasis placed on this side of the question has been none too great. In reality the fossils are regarded as labels to the rocks containing them, telling the observer at a glance the age of the beds being worked and providing a most reliable guide in directing the miner and prospector to the layers most likely to contain the minerals sought.

It is stated that the report is the outcome of a widespread desire which has existed for many years among the more enlightened class of citizens who are interested directly in advancing the mineral development of the State. The demand for accurate accounts of the organic remains found in the rocks of the region is shown to have become more and more urgent in the light of the fact that the fossils have such a distinct practical importance. In the attempt to satisfy properly the calls arising in connection with the work, it has been the aim of the author to present as briefly as possible: (1) an index to the fossils of the State, through means of which forms now known to occur within the limits of the region considered may be recognized rapidly without recourse to great libraries; (2) a list of works pertaining to Missouri fossils, in which has been brought together all that has been written on the subject and that is now widely scattered and almost inaccessible; (3) a concise summary of all that has been done up to the present time in this branch of science, so far as it pertains to the State; (4) knowledge to more comprehensive study involving the solution of problems now more or less obscure concerning the arrangement and relations of the various strata. In short, it is a handbook of the fossils of the State adapted to the use of the teacher, student and layman alike.

The general plan of treatment of the different species enumerated has been to give under each a more or less complete bibliography, by reference to which additional information or good illustrations of the forms not here figured may

be found. In the diagnoses the author has endeavored to give a rather full description of some leading representative of each genus, accompanied by a suitable figure, and to make the sketches of the other members of the genus brief and in a great measure comparative. In this way of dealing with the subject it is thought that the characterizations of all the species will be sufficiently ample for intelligent comprehension and for the particular uses to which the work will be put. At the same time the bulk of the report is greatly reduced—to one-fourth at least of what it otherwise would have been. The matter of localization is necessarily rather general, allusion being made to the nearest post office usually, or in a few instances, when the fossil is common and the distribution wide, merely to the county. As a further help there has been appended a stratigraphical catalogue, which is intended for ready reference, and a synonymic index list of all the names applied to Missouri species.

The chief characteristics of this report, as enumerated above, show that in many particulars it is radically different from the usual reports on paleontology prepared by the various State Geological Surveys. That it will be of much practical value to the citizens of Missouri is certain. On the other hand, the report gives a sufficiently complete scientific account of what is at present known concerning the fossil organisms of the State, and opens the way for future work of a more detailed and exhaustive nature.

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GEOL. AND NAT. HIST. SURV. OF MINN.

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