

had been previously done, and the importance of this formation in Iowa, a fact that we are just beginning to appreciate, is still further brought out.

W. H. Norton, 'Certain Devonian and Carboniferous Outliers in Eastern Iowa,' pp. 117-133. Both these formations are represented east of their main areas, but whether the outliers have or have not been cut off by erosion is still undecided.

J. L. Tilton, 'Geological Section along Middle River in Central Iowa,' pp. 137-146.

C. R. Keyes, 'Glacial Scorings in Iowa,' pp. 149-165. The paper describes and tabulates striæ in all four quarters of the State. The general directions are between south and east.

W. H. Norton, 'Thickness of the Paleozoic Strata of Northeastern Iowa,' pp. 169. This important paper is based on well records obtained from holes sunk both for water and oil or gas. These valuable records are usually so evanescent that to have so many preserved is a matter of congratulation.

C. R. Keyes, 'Gypsum Deposits of Iowa,' pp. 259-304. This report is a welcome addition to the scanty literature of an important industry. Iowa is now fourth among the States as a producer of plaster and has great reserves of the crude rock for the future.

C. R. Keyes, 'Geology of Lee County,' pp. 307-407. Lee county forms the southeastern corner of the State. The paper reviews its geology with thoroughness and with good illustrations.

C. R. Keyes, 'Economic Geology of Des Moines County,' pp. 411-492. This county adjoins Lee on the north. After an introductory geological sketch, the building stones, clays, coal and other minor economic minerals are taken up.

The typography and general style of the volume are excellent and reflect credit on the management of the Survey. Since its issue Dr. C. R. Keyes has become State

Geologist of Missouri, and H. F. Bain has become Professor Calvin's chief assistant, making thus some recent changes of personnel in the staff. J. F. KEMP.

HYGIENE.

Annual report of the Department of Health of the City of Chicago for the year ended December 31, 1894. ARTHUR R. REYNOLDS, M. D., Commissioner of Health, Chicago. 1895. 268 pp., 8°.

Dr. Reynolds remarks that "the phenomenal healthfulness of the city continues to be the theme of incredulous comment by less favored localities." When a death rate of 15.24 per 1,000 is reported for a city of a million and a half of people it is very apt to be the subject of incredulous comment by statisticians, who are skeptical about municipal death rates of less than 17 per 1,000, knowing that there are several ways of lowering death rates besides the primitive one of reducing the number of deaths. It is clear, however, that there were but 23,892 deaths reported in Chicago during the year 1894 as against 27,083 in 1893; 26,219 in 1892, and 27,754 in 1891, and that, therefore, the death rate must have been comparatively low last year, as it was in almost all large cities.

The account of the small pox epidemic is interesting. 2332 cases were received in the city small pox hospital. 993 of these had been vaccinated after some fashion, and of these 161, or 16.2 per cent., died. 1339 had not been vaccinated, and of these 485, or 36.2 per cent., died. The difference was most marked in the children under 6 years of age, in whom the mortality of those vaccinated was 12.5, and of those unvaccinated 44.0 per cent. The chronological summary of Chicago mortality from 1851 to 1894, with diagrams, is interesting and valuable. The report, as a whole, contains a vast amount of information and is highly creditable to the department which issues it.

Handbook of Sanitary Information for Householders. By ROGER S. TRACY, M. D., 114 pp., 16°. New York, D. Appleton & Co. 1895. Price, 50 cents.

This little book is intended especially for the information of householders in the city of New York, and is, in most respects, well adapted to its purpose. The section on house plumbing is the fullest and best. The section on disinfection is behind the times by about 12 years; sulphate of iron is not now considered to be a disinfectant, but merely a deodorant, and no allusion is made to the disinfectants now most relied upon, viz.: chloride of lime, mercury bichloride and carbolic acid.

The warning against inhaling the breath of persons affected with diphtheria and consumption is unnecessary, and diverts attention from the real source of danger, which is correctly stated to be the discharges from the throat, nose and lungs. There are no bacteria, specific or other, in the expired breath in ordinary respiration.

SCIENTIFIC JOURNALS.

THE AMERICAN GEOLOGIST, JULY.

Remarks on the Genus Nanno, Clark. By ALPHEUS HYATT.

This interesting genus of cephalopods was first described by Professor J. M. Clarke (Am. Geol., Oct., 1895). The present author has made a more extended and detailed study of the type specimens, which were from the Lower Silurian of southeastern Minnesota. The paper is accompanied by a half-tone plate showing several sections of the fossils.

Steps of Progressive Research in the Geology of the Lake Superior Region prior to the late Wisconsin Survey. By N. H. WINCHELL.

This paper is the fifth in a series entitled 'Crucial Points in the Geology of the Lake Superior Region.' Beginning with the Canadian Geological Survey, the vari-

ous steps of progress are traced down to the commencement of the Wisconsin Survey. Among other things the origin and use of the term Huronian is explained and some misapplications of that term are noticed.

Actinophorus Clarki, Newberry. By E. W. CLAYPOLE.

The discovery of another specimen of this fossil fish by Dr. Clarke, of Berea, Ohio, after whom the fish was named, has furnished Professor Claypole with data for a more complete description than was possible when the type was first described by Professor Newberry.

Camptonites and other Intrusives near Lake Memphremagog. By V. F. MARSTERS.

Quite a number of dykes, both granitic and lamprophyric, have been found on the shores of this lake. The following lamprophyre dykes are described: Diabase, camptonite, augite camptonite, monchiquite and fourchite. An important feature of the paper is a summary of the literature on other occurrences of monchiquite and camptonite.

The Kame-Moraine at Rochester, N. Y. By H. L. FAIRCHILD.

The Pinnacle hills, at Rochester, with which this paper deals, have long been known to glacialists, but no detailed description of them and of their origin has before been attempted, except by Mr. Warren Upham, who regards them as of the nature of eskers. Professor Fairchild has lately investigated these hills, and the present paper is a rather complete abstract of the results of this investigation, which will be published in full in the Proceedings of the Rochester Academy of Science. He regards these hills as constituting a kame series forming part of a frontal moraine.

Under 'Editorial Comment' a considerable review of the present status of the feldspars is given, and the results of the recent optical work of Messrs Michel-Lévy and La Croix is brought forward. Under 'Corre-