

fusiform. It spreads over the solid medium freely as a rather thickish film of radiate, lichenose structure and broadly lobate margin.

It multiplies very freely in the blood of insects, doubtless producing there a toxic substance which kills the host, very commonly within two or three days of the first infection. This interpretation of its action is based on the promptly fatal effect produced on small insects by a watery infusion of agar cultures of this bacillus. Young chinch bugs perish in such an infusion in less than a minute, and adults in two or three minutes, while medium-sized caterpillars (*Datana*) dipped into it for ten seconds have begun to writhe and roll in evident distress within two minutes, dying within five or six.

Chinch bugs are readily infected by simple exposure to squash bugs dead with this disease, and die under this infection more promptly, more rapidly, and in larger proportion than if exposed to inoculation with *Sporotrichum*. S. A. FORBES.

CHAMPAIGN, ILL.

SCIENTIFIC NOTES AND NEWS.

THE 16th and final volume of the first series of the *Index Catalogue* of the library of the Surgeon General's Office of the United States army has now been published. As is well known this is practically a complete index of medical literature, the library now containing 116,847 books and 191,598 pamphlets. The present volume includes 12,759 author titles representing 4,857 volumes and 11,613 pamphlets. It also contains 8,312 subject titles of separate books and 13,280 titles of articles and periodicals. The subjects in the present volumes having the greatest number of entries are water(s), women and wounds. Owing to the large increase in the library since the publication of the index was begun, a second series is needed and the manuscript has

been prepared which will probably make five volumes of the same size and style as those already published. The present volume is probably the last that will be issued under the personal supervision of Dr. John S. Billings, to whom both the catalogue and the library itself are in chief measure due.

ACCORDING to reports in *The British Medical Journal* the milk supply of London is unusually bad. Of fifty samples of ordinary milk examined by Mr. Cassal, twenty-four were found to be below the lowest standard and ten more below the standard requiring 3.5 per cent. of fat. Boric acid preparations had been added to more than one-fourth of the samples. The bacteriological examination made by Mr. Sidney Rowland is still more serious. It showed that every sample examined contained fecal matter, fully 90 per cent. of all the micro-organisms discovered being *bacillus coli communis*.

THE *Revue Scientifique* states that M. Zacharewicz, professor of agriculture at Vaucuse, has cultivated strawberries under colored glass with the following results: (1) The best and earliest fruits were obtained under ordinary glass. (2) Orange glass increased the leaves but injured the quantity, size and earliness of the fruit. (3) Violet glass gave more berries, but they were small, inferior in quality and late.

MR. DAVID T. DAY, Chief of the Division of Mineral Resources of the United States Geological Survey, has issued a bulletin on the mineral products of the United States for 1885 to 1894. The total value of metallic products during 1894 was \$218,168,788. This shows a decided decrease, the products during 1890, 1891 and 1892 having been over \$300,000,000 in value. The non-metallic mineral products for 1894, of which coal is by far the most important, are valued at \$308,486,774, which is also a decrease compared with the immediately preceding years.

THE cable despatches state that the meetings of the *British Association* opened at Ipswich on September 11th. In the absence of Lord Salisbury, Sir Douglas Galton, the president, was introduced by Lord Kelvin. Sir Douglas is stated to have fainted while reading his address. On his recovery, the remainder of the address was read by Sir John Evans.

MR. H. C. MERCER, editor for Anthropology of the *American Naturalist*, writes in the September number: "I asked the Bishop of Yucatan the question propounded by Mr. Otis T. Mason in *SCIENCE* for August 2, 1895—whether the sandal now in common use among the Mayas, strapped across the instep and fastened further by a single round thong between the first and second toes, was an inheritance from pre-Spanish times. He was unable to answer the question more particularly than to show me from his collection the foot of an earthen statue from Izamal, moulded with a sandal fastened by two toe thongs instead of one. These passed between the first and second and third and fourth toes to reach a strip on the instep. I question whether the existing sandals have been attentively studied in Central America. Some Indians may wear the double toe strap still, but given the existence of the sandal with double toe straps in ancient America, we might reasonably suspect that the old Mayas sometimes used the simpler single thong between the first and second toes, now so common."

THE numbers of the *Lancet* and of the *British Medical Journal* for September 7th are educational numbers being almost entirely filled with accounts of the medical courses in the English universities, schools and hospitals.

Nature states that Prof. John Milne has established a small station at Shide Newport, Isle of Wight, for the study of earthquakes having their origin in distant locali-

ties. Communications respecting the *Transactions* of the Seismological Society and the *Seismological Journal* should be made to Prof. Milne at the above address.

THE 23d Annual Meeting of the American Public Health Association will be held at Denver, Col., October 1st to 4th.

La Nature states that the municipal administration has taken an important step in the development of meteorological study in the district surrounding Paris. M. Joseph Jaubert, founder and director of the Observatory of Saint Jacques, will also undertake the directorship of the Observatory of Montsouris. The observatories will now have increased facilities for coöperation in observing meteorological phenomena. The observatories are 5 kilometers apart, and are connected by telephone.

LONGMANS & Co. have in press the 'Life and Letters of George John Romanes,' prepared by Mrs. Romanes. The book contains many of Romanes' letters to men of science and to private friends, and correspondence between Romanes and Charles Darwin.

ON May 1st of next year an industrial exhibition will be opened in Berlin. The time has been chosen to coincide with the 25th anniversary of a united German Empire.

AT the meeting of the British Dental Association held recently at Edinburgh, under the presidency of Mr. W. Bowman Macleod, the report of the committee on the condition of the teeth of school children showed that in all 11,422 had been examined. The investigations indicated that the teeth of children of the rich were more prone to decay than those of children of the poor.

THE first meeting of the recently organized and incorporated Binghamton (N. Y.) Academy of Science after a vacation of two months was of unusual interest and enthusiasm. A revised constitution drafted by the Executive Council was adopted and ordered printed, together with a list of the

active, associate, corresponding and honorary members, which altogether now number over one hundred. The Society has enrolled in its membership the leading men of science of Binghamton, and is rapidly becoming a potent force in the city. Its object is 'to promote scientific study and research.' Two twenty-minute papers were presented on Saturday evening, one by Rev. J. H. LaRoche, rector of Trinity Church, on 'Christian Socialism;' the other by Arthur T. Vance, of the *Commercial Traveler's Home Magazine*, on 'Professor Huxley: a Biographical Sketch.' The Academy meets in the science room of the high school building on the first and third Saturday evenings of the academic year. At the next meeting Dr. Jack Killen, an oculist and optician, will give a paper on 'Refraction and Lens Making,' and Norman M. Pierce, chemist of the Manhattan Spirit Co., will discuss 'Earth Dust and Star Dust.' The officers of the academy are: President, E. R. Whitney; Vice-President, Herbert J. Jones; Secretary, Willard N. Clute; Treasurer, Fannie Webster; Corresponding Secretary, Dudley T. Greene; Executive Council: the President, the Secretary, Addison Ellsworth, Norman M. Pierce, Arthur T. Vance.

CHAPMAN & HALL will hereafter publish in Great Britain the important scientific and technical publications of John Wiley & Sons.

DR. JOSEPH F. JAMES, formerly Assistant Pathologist in the United States Department of Agriculture, has resigned his position and will in future practice medicine.

THE North Carolina Experiment Station has published a report of the weather in 1894. It describes the work of the State weather service and its several agencies, the meteorological observing stations, the signal display stations and the crop reporting systems. The latter dis-

tribute weekly the weather crop bulletin, the signal stations display flags to note the coming of cold waves and frost warnings and changes in the weather, while the observing stations furnish observations for securing a correct record of the climate and weather. People living on the low grounds of certain rivers are warned of the approach of floods. The number of places supplied with weather forecasts is nearly 500. The crop correspondents reporting for the weekly weather crop bulletin number 350 from all of the 96 counties. The meteorological observing stations number 73 in all parts of the State.

GINN & Co. have in press *Problems in Differential Calculus*, by Professor W. E. Byerly, of Harvard University.

THE first part of an *Encyclopedie Therapie*, edited by Professor Oscar Liebreich with the coöperation of Drs. M. Mendelssohn and A. Würzburg, has been published by August Hirschwald, Berlin. The works will be issued in nine parts, making three volumes.

THE third French Congress of Medicine will be held at Nancy in 1896, under the Presidency of M. Pitres, Dean of the Faculty Medicine of Bordeaux.

THE New Maryland Asylum, for the colonization of the incurably insane of the State, will be located in Springfield.

UNIVERSITY AND EDUCATIONAL NEWS.

MAXEY HALL, a new dormitory at Brown University, was opened by a reception given by President Andrews on the afternoon of September 13th. The hall contains, in addition to 36 students' apartments, 8 recitation rooms and rooms for the Herbarium.

THE *Medical Record* states there were 19,048 medical students registered in Italy in 1894-95. The number of universities is twenty-one, and the number of students registered at the various universities varies