stomach on the upper side, and involved in numerous loops of the intestine. There seems to be no doubt that the poison lay in this part exclusively. Changes of size, color, and fatty degeneration were affirmed by Coldstream to exist in the liver when of a poisonous nature, but Dr. Wolff says that none of these changes are sufficiently constant to base a positive decision upon them. The last-named writer does not believe that the poison is due to any foreign substance, such as copper, etc., in the organ, but that it originates there. Virchow has shown the resemblance between the action of this poison and that from fishes, which not seldom occurs; and it is not at all improbable that many cases of the latter are due to the ingestion of the liver.

The symptoms of the mussel-poisoning were of three different kinds, — exanthematous (dermal eruptions), choleraic, and paralytic. On rabbits, experiments only produced paralysis and loss of power, with increasing difficulty in respiration, ending in death.

It is difficult, if not impossible, to determine in any given case whether a mussel is dangerous or not; and Dr. Wolff, therefore, advises that this food should be avoided as much as possible, at least when one does not know whence it is obtained. Under all circumstances the liver should not be eaten. It has further been ascertained, however, that the poison is rendered inert by cooking the shell-fish in a solution of soda.

NEW BOOKS.

'WATER-METERS,' by R. E. Browne (New York, *Van Nostrand*), is one of the well-known science series, and gives a description of certain mechanical devices. The book will be of service to hydraulic engineers. —— 'The preservation of timber by the use of antiseptics,' by S. B. Bolton (New York, *Van Nostrand*), is another of the series, and contains a reprint of a paper read before the English institution of civil engineers. —— 'Rameses the Great,' from the French of F. De Lanoye (New York, *Scribner*), is a history of Egypt thirty-three hundred years ago, and attempts to picture Egyptian life of that date. —— 'The phenomena and laws of heat,' by A. Cazin (New York, *Scribner*), is a popular account of the modern theory of heat, based upon experimental results. The author avoids referring to heat as a mode of motion, or trying to give any conception of what its ultimate nature may be. —— 'The intelligence of animals,' by E. Menault (New York, *Scribner*), contains descriptions of the intellectual manifestations displayed among various insects, fishes, reptiles, birds, and mammals, interspersed with numerous anecdotes of their intelligence. It contains a number of illustrations of varying excellency, and will be of more especial interest to a younger class of readers. —— 'A farmer's view of a protective tariff,' by Isaac W. Griscom (Woodbury, N.J., *The author*), is a farmer's plea for free trade. It is written in a more sober and judicious spirit than characterizes many of the pamphlets belonging to the tariff discussion. He denies that the agriculturist is getting any more for his products than before the civil war. No system of protection can have much influence upon the prices of those staples of agriculture of which the country produces more than it consumes; and the law of equalization of profits will quickly modify the prices of such crops as are supposed not to depend for their price on a distant market. —— 'La photographie appliquée à l'histoire naturelle,' by M. Trutat (Paris, *Gauthier-Villars*), contains an intelligent and fresh account of the apparatus and methods for photography of natural-history objects, illustrated with fifty-eight woodcuts. A number of phototype plates are given, showing both the excellences and defects of photography for the production of natural-history figures. The work lacks conciseness, and contains considerable matter in zoölogy and botany not germane to the subject under consideration. The author, also, is rather too strongly prejudiced in favor of the merits of photography to be an altogether safe guide. —— 'Chemical tables for schools and science classes,' by A. H. Scott-White (New York, *Scribner & Welford*), purports to be a text-book for examinations in which a knowledge of elementary analysis is required. The book is the outgrowth of the difficulty found by the author in having notes satisfactorily taken.

THE German quinquennial census, on the 1st of December last, so far as the published returns reach, gives a decided increase of the city populations. Berlin, especially, shows an unexpected growth. This city, which now numbers 1,316,382 inhabitants, ranks as the third European city in size; and this does not include the close-lying suburbs. Since 1880 the increase has been over sixteen per cent, and within twenty years the city has doubled in size. A few of the other more important cities show the following populations: Breslau, 298,893, an increase of 15,981; Munich, 260,005, with 30,082 increase; Dresden, 245,550, with 24,732; Leipzig, 170,076, with 20,995; Frankfort, 153,765, with 17,934. Some of the middle German towns have grown remarkably, not a few showing an increase of from twenty to forty per cent. Only a single city has fallen off in population, Ausbach, which has a loss of 0.15 per cent.