HEALTH MATTERS.

Suicide among German Children.

A CURIOUS return has been made concerning some 289 instances of suicide by school-children in the German Empire during the six years 1883 to 1888 inclusive, as we learn from the *Lancet* of Jan. 31. The interest of the return centres in the motives assigned for these extraordinary acts. Among the cases which could be so explained, the largest proportion appear to have been attributable to fear of punishment. This, perhaps, might have been expected; nor is it altogether surprising that such extreme terror should be chiefly exhibited among pupils of the elementary schools. The fact that twenty per cent of all the collected cases fall into this particular class should, however, afford food for reflection. It is certain that undue severity has been practised, or at least undue apprehension has been aroused, in every one of these instances, seeing that the little victims were so far thrown off their balance by it as to be driven to the extremity of suicide. It would be unjust to assume that for these exaggerated fears the teachers are wholly or even mainly responsible; but, on the other hand, no really efficient teacher would ever leave upon a child's mind an impression so horrible as to precipitate such a crisis as this. The child who takes his own life rather than face an angry teacher must believe, rightly or wrongly, in the ferocity of the teacher; and it is much to be feared that children of tender years, even when they are not so terror-stricken as this, are apt to nurse a suspicion that most strangers and some friends, the teacher in particular among the latter, are human wolves. To eradicate this mischievous misapprehension ought to be one of the first tasks of a successful preceptor. Among the high-school pupils the suicides are almost exclusively boys, and here the most common motive is dread or disappointment in connection with examinations. Mental derangement and thwarted ambition come next in order, while precocious sentiment claims its share to the extent of four boys and one girl, whose unhappiness is recorded as due to *une affaire de cœur*. It is some satisfaction to be able to add that these emotional young people were all past the elementary school stage.

In the *British Medical Journal*, Oct. 11, 1890, the following additional data are given: —

Of the 289 cases of suicide among school-children in Prussia, 240 of them were boys, and 49 girls. The cases are apportioned among the different years as follows: in 1883 there were 58 suicides; in 1884, 41; in 1885, 40; in 1886, 44; in 1887, 50; and in 1888, 56. In 86, or 29.8 per cent, of the cases, the motive of the deed is unknown; but in 80 the causes were fear of punishment; in 19, disappointed ambition; in 16, fear of examination; and in 28, insanity and melancholia; 5 of the suicides are attributed to love: and 7 are believed to have been half unintentional.

The Action of Koch's Liquid on the Monkey.

The effects of Koch's liquid on a quadrumanous animal so vulnerable to the invasion of the bacillus as the monkey have been investigated recently by Hénocque at the Collège de France, says the *Lancet* of March 7. M. Hénocque states that when his monkey entered the laboratory (Dec. 21, 1890), auscultation yielded no physical signs denoting phthisis. Two days after the first injection a few râles and impaired resonance were noted at the right apex. The third injection determined dulness still more marked, and, in addition, slight dulness at the left apex. From this moment all the symptoms of acute phthisis manifested themselves (cough, anorexia, debility, intense fever); and eight days later the animal died, having lost a tenth of his weight. At the necropsy four tubercular masses of the size of a big pea were discovered in the right lung, the left organ in two-thirds of its extent being the seat of caseous pneumonia. Surrounding the lesions there were zones of red hepatization, with marked exudation of red blood-corpuscles. Two guinea-pigs have been inoculated with portions of the pneumonic tissue, and both animals now present signs of cutaneous and glandular infection. The total quantity of fluid received by the monkey was six milligrams, — a quantity apparently quite capable of determining the onset of acute phthisis.

NOTES AND NEWS.

THE facts derived from the study of soil-absorption at the Purdue University Agricultural Experiment Station, Lafayette, Ind., lead to the same conclusion as the results of the latest experiments on the use of fertilizers,—that, in a system of farming having in view large crops and permanent improvement of the land, phosphoric acid and potash should be used in considerably greater amounts than the crops required, while nitrogen compounds should be used in amounts not greatly in excess of the needs of the crop.

— Professor Ogata of Tokio reports a case of cholera occurring in a dog. The dog had been vomiting and purging for some time, according to the *Medical Record* of March 28, and was brought to Dr. Ogata's laboratory by a police-surgeon. After the death of the animal, several plate-cultures were made of the contents of the small intestine, from which comma bacilli were obtained in almost pure culture. Examination under the microscope, of a thin piece of the small intestine, which had been kept in alcohol and stained with gentian violet and alkaline methyl blue, showed the presence of the comma bacilli, not only on the surface of the mucous membrane, but also within Lieberkuhn's glands.

— The habits of *Brachytrypus*, the huge desert cricket of the Mediterranean region, have only recently been studied by A. Forel, although, excepting the mole crickets, it is the largest known European form. The reason appears, as we learn from *Psyche* for April, in the fact that it is a nocturnal insect, remaining in its burrows by day, and even closing the entrance to the same (although it is three or four centimetres in diameter) to an extent of several centimetres, leaving only a little sand-heap to mark its place. Dr. Forel discovered them by marking the spot where he saw and heard them chirping lustily in the dusk, and the next morning detected the heaps, carefully removing which, the burrows were found. These extended for over a metre in length, and half as much in depth; and digging the creature out was a thankless task. Dr. Forel obtained some by drowning them out, and others in a way characteristic of a myrmecologist. He secured a bag of ants, a species of *Acantholepis*, and, setting them loose before the burrow, they entered it, and soon ousted the occupant.

— In the *Lancet* of Feb. 14, Mr. J. A Wanklyn, in a note on aldepalmitic acid, says that it has long been known that the acids arising from the saponification of butter include small proportions of butyric, caproic, caprylic, and rutic acids. The larger proportion of the acids has, up to the present, been held to consist of palmitic, oleic, and stearic acids, which are non-volatile, and insoluble in water. In the course of investigations with which he has been engaged for a number of years, Mr. Wanklyn states that he has arrived at the very unexpected result that the main acid is not palmitic acid, but an acid quite distinct from palmitic acid, both in composition and properties. On the 19th of January he had the honor of reading a paper on the subject before the Society of Chemical Industry, and in due time the details will doubtless be published. In the mean time it may be of interest to mention that the new acid, which is so abundant as to amount to about half of the weight of the dry butter, differs from palmitic acid by containing less hydrogen, and that its formula is $(C_{16}H_{30}O_2)n$. The melting-point of the new acid is about 50° C., whereas palmitic acid melts at 62° C. The new acid possesses the extraordinary property of consolidating or gelatinizing alcohol. At temperatures below 5° C it gelatinizes more than five times its weight of alcohol. Part of the alcohol is held mechanically by a sponge-like action, and part is retained in chemical combination. Palmitic acid possesses no such property: indeed, no other substance does.

— The following is an abstract of a bulletin of the Ohio Experiment Station, now awaiting publication by the State printer. The oat-crop of Ohio for 1890 was one of the poorest on record: it was quite the poorest at the experiment station, owing to the attack of a peculiar disease which caused the blades to turn yellow when the oat-plants were about six inches high, and stunted their growth throughout the season. Only four out of the fifty-four differently named sorts tested by the station in 1890 yielded so much as thirty-three bushels per acre. Generally, five to eight pecks of