smoke from railway engines we notice that the Southern and Chatham Company were reported no less than 186 times during the year ended March 31st, 1901, the next most prominent offender being the London and Brighton Company which was reported 82 times. During the period under consideration there were 25 fatal accidents from petroleum lamps, involving a loss of 25 lives. In the coroners' courts there were held in all, during the year 1900, inquiries to the number of 8277 and there were held post-mortem examinations, exclusive of those held in hospitals, to the number of 4138. The hospital cases, in which presumably a post-mortem of those held in hospitals, to the number of 4138.

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A RÉSUMÉ from the Governor of the Cape of Good Hope, received at the Colonial Office on August 22nd, states that, for the week ending August 17th, the new cases of plague in the Cape Peninsula number 0; at Port Elizabeth, coloured persons 2, natives 1, all other places 0; there were no deaths. At Port Elizabeth the deaths were as follows: coloured persons 1, natives 1, total 2; all other places 0. The total cases of plague up to August 17th were as follows: Cape Peninsula 375, Port Elizabeth 18; all other places 10. The total deaths from plague up to August 17th were as follows: Cape Peninsula 357, Port Elizabeth 18; all other places 0. The area of infection remains unchanged. The cases of plague in persons under naval and military control number 1—viz., that of a male native from the Remount Camp at Port Elizabeth. With regard to Hong-Kong, a telegram from the Governor received at the Colonial Office on August 23rd, is worded as follows: "Bubonic plague in Hong-Kong not epidemic; clean bills of health issued." In Egypt for the week ending August 18th 6 cases of plague and 3 deaths from the disease have been reported. One case, a fatal one, occurred at Port Said in a native, the other 5 cases were all European.

We regret to announce the death from malignant disease in his seventieth year of Surgeon-General v. Coler, head of the Prussian Army Medical Corps, which took place at Berlin on Monday last, August 26th.

THE CHEMISTS' EXHIBITION.—The seventh annual Chemists' Exhibition, organised by the British and Colonial Druggist, was held at Covent Garden Theatre from August 26th to 30th. In addition to the usual display of drugs, perfumes, special foods, and other appliances incidental to the druggist's calling, there were some interesting novelties on this occasion. Perhaps the most striking was the enormous soda fountain, the ingenious invention of an American firm, which bids fair to become universal. The principle of the fountain may be kept cool by contact with ice. A number of highly-charged soda-water, which, at the same time, various effervescing beverages may obviously be prepared by this means. Another striking exhibit consisted of a great number and variety of sponges representing a value of over £10,000. The floor of the great theatre presented a curious spectacle not unlike that of an Oriental bazaar. There was a good deal to see of interest to medical men, the members of hospital staffs, nurses, and so on. The attendance, however, did not appear to be very large, which is not surprising since the holiday season is just now in very full evidence. It might be thought that the organisers would have deemed it expedient to arrange another and a more suitable time for the exhibition which possesses interest for a wide clientele.
the fallacious inferences which arise from regarding an inoculated disease as a natural infection, and that many things have very little to do with one another, as we know in a laborious work of 40 years.

The tubercle bacillus of man has no hold on the ox, consequences from tuberculosis of one species to another there is a different species! It is the same fallacious inference as Mafucci and Koch arrived at in connexion with the difference of the bacteria of mammalian tuberculosis and avian tuberculosis. These bacteria really show in their cultures distinctive differences or long and thorough adaptations to varying conditions. Occasionally in birds (pigeons; Nocard also observed it in the horse).

And now Koch wishes us to make an intellectual sacrifice and asks us to believe that the bacteria of man and bovine tuberculosis which culturally stand near together, or, rather, are not to be distinguished, must be regarded as wholly and entirely distinct because they did not act reciprocally in his experiments or anywhere else.

I might perhaps allude to this, that with the bacillus of bovine tuberculosis Koch produced in cattle only tuberculosis, but not the tuberculosis of the pleurs peculiar to the ox. It was no so-called Perlsucht; his experiments, therefore, in the sense of his special interpretation, did not prove even that bovine tuberculosis affects the ox. The tubercles of Perlsucht are something so exceptional that Virchow over and over again enlarged upon their peculiarities; at one time he even did not consider them to be tuberculosis at all.

The histological differences between miliary tubercles in the human subject and the tubercles of Perlsucht in the ox, which differences, however, the majority of pathological anatomists recognise, in the first instance indicate a dissimilarity in the inherent quality of the tissue; but whether this inherent quality will attain its remote or ultimate developments by easy processes or by difficult ones, by the operation of pathogenic agencies of like kind or of unlike kind,—on these points the histological appearances supply no data for the formation of an opinion. Only bacteriological experiment can throw light upon the question of communicability and can explain whether in the course of inoculated disease or natural infection a biological or bacteriological experiment can throw light upon the question of communicability and can explain whether the inherent quality of the bacillus at all, but the parasitic growth-form of a pleomorphic bacillus, which, according to facts verified by me, is not a parasite of bovine tuberculosis. In our case the infecting parasite is the tubercle bacillus of man which, under favourable conditions. Otherwise there is no direct danger to man.

Many years ago I was the first to point out that with the bacillus of avian tuberculosis Koch produced in cattle only tuberculosis, but not the tuberculosis of the pleura peculiar to the ox. It was no so-called Perlsucht; his experiments, therefore, in the sense of his special interpretation, did not prove even that bovine tuberculosis affects the ox. The tubercles of Perlsucht are something so exceptional that Virchow enlarged upon their peculiarities, at one time he did not consider them to be tuberculosis at all.

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In tuberculosis the prospects of artificial immunisation and the preparation of antitoxins are very promising, but the small amount which has been collected on the subject, especially some experiments by Behring, show that even in the sense of mutual antitoxic influence the organisms which excite bovine tuberculosis must be specifically identical with that of the other forms of mammalian tuberculosis.

A natural infection supposes that the infecting parasite meets a susceptible individual belonging to a susceptible species under favourable conditions. Otherwise there is no illness.

In our case the infecting parasite is the tubercle bacillus, which, according to facts verified by me, is not a bacillus at all, but the parasitic growth-form of a pleomorphic bacillus, which, under favourable conditions, might seem to us to be of a matter of little consequence that the bacillus pathogenic to man does not affect the ox, even if this were positively proved for all breeds of cattle and every kind of infection, but conversely it is a more serious thing and the more important fact, that the cattle bacillus affects man. Moreover, the cattle bacillus affects other domestic animals, and from an economic point of view it is in some localities already an economic point of view. In the transmission of a bacterial poison prepared in a state of purity only its quantity per unit is to be considered, if the poison acts at all; but in estimating the virulence of a living
parasite the whole of the tissue change together with the poison must be taken into account. Thereon depends its adaptation, its attainment of a position, its varying behaviour with respect to the varying nature of its host. It would, therefore, be always possible that one parasite might be more dangerous for one particular kind of host than for another, although it forms a smaller quantity of specific poison, an increased power of attack, or a more poisonous or more virulent, or conversely, than the bacillus which is pathogenic for man or to the pig or to the rabbit. That is only one of the contingencies in which an agreement can be come to as regards the things of which we have a comparison, for instance, rabbit as the animal used for the experiment, number of germs, and method of imparting the infection. The mere number of germs is not the effective experiment, number of germs, and method of imparting the infection spread from the mouth (carious teeth, tonsils), of the upper air-passages there was extreme probability that the infection spread from the mouth (carious teeth, tonsils), Weizelmarshusus experimentating by infecting animals in like manner, and he even experimented on himself by drinking milk infected with micrococcus prodigiosus; some time after taking the milk the infective organism could be found in his tonsils. It therefore appears possible that when fluids containing pathogenic organisms are drunk these organisms make their way into the system from the upper passages—say, for instance, from the tonsils—and then the primary focus of the disease is in the region of the air-passages; it is under these circumstances a mistake to suppose that there is an infection of the lung through the respiration. For this reason I have already, in my previous papers, denied the supposed error of attributing the disease to respiration, whereas they ought to be attributed to infection from food, especially milk.

If, as alleged, there is no danger to human beings, who would have the courage to ask for systematic inoculation of herds of cattle with tuberculin for the purpose of freeing them from tuberculosis? As it does no harm all kinds of milk would be sold without more ado, and there must therefore be buyers. Of course, bovine tuberculosis does us no harm! Only aesthetic considerations and not hygienic ones would regulate the sale of the flesh and milk of tuberculous cattle, and the requirement of the most energetic measures of public hygiene, because the inhabitants of towns, especially the workers in manufacturing towns, are quite unable individually to protect themselves sufficiently against it.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 33 of the largest English towns 6326 births and 4750 deaths were recorded, the birth-rate being 224, 22-1, and 21-3 per 1000 in the three preceding weeks, further declined last week to 21-6 per 1000. In London the birth-rate was 22-9 per 1000, in the 32 large provincial towns. The lowest death-rates in these towns were 14-3 in Huddersfield, 14-4 in Bristol, 14-8 in Cardiff, and 16-3 in Croydon; the highest rates were 27-2 in Birkenhead, 26-9 in Oxford, 25-9 in Bexhill, 29-1 in Sunderland, and 30-2 in Gateshead. The 4750 deaths in these towns last week included 1639 which were referred to the principal zymotic diseases, against 1725 and 1630 in the two preceding weeks, of these 1356 resulted from diarrhœal diseases, 83 from measles, 61 from "fever."