

the healthy condition of the animal has been certified after microscopic and macroscopic examination.

#### LYMPH BEFORE OR AFTER SLAUGHTER.

In order to avoid the loss of time, labour, and material which is inevitable when the animal is not found to be perfectly healthy, some operators do not take the lymph from the calf until after its slaughter and examination. This practice has been objected to on the ground that the pustules might be contaminated by all kinds of impurities during the process of slaughter, but where proper precautions are taken these fears are groundless. At the Cologne Institute, for instance, the lymph is taken after slaughter, and the results are unvaryingly good.

#### PREPARATION OF THE VACCINE.

The following quotation from the last (1896) official report of the Karlsruhe State Institute shows the methods in use there, and is of interest too with regard to the much-debated question of degeneration of vaccine.

"Where suitable and healthy animals can be obtained, the purely animal propagation of vaccine lymph presents no difficulties. The method rests essentially on the selection of good-sized animals, on unremitting attention to details, solicitude, on the selection and proper preservation of the best developed pustules for further cultivation and for inoculation before the end of the fourth day, that is before the beginning of suppuration in the pustules, and finally on the inoculation, not of fresh lymph, but of lymph that has lain three or four weeks or longer in glycerine."

"Occasionally of late the best developed pustules have been completely scraped out, preserved in glycerine, and then immediately before use, ground to a fine powder. It seems that vaccine so prepared has remained remarkably effective."

#### A PRIVATE VACCINE ESTABLISHMENT.

Curiously enough, though Berlin has its own State Institute for the production of animal vaccine, the vaccine used for the regiments of Guards stationed in Berlin, and for one or two other regiments, is furnished by a private institute, that of Dr. Pissin. This apparent anomaly finds its explanation in the fact that Dr. Pissin cultivated calf lymph previous to the establishment of the State institutes. He was the first to propose and introduce animal vaccine in the year 1866. He supplies the military authorities with about 40,000 portions of calf lymph annually.

#### GENERAL USE OF CALF VACCINE.

In the German army the employment of animal lymph for vaccination is obligatory. But it is not so as far as private practice is concerned, so that here vaccination from arm to arm is occasionally resorted to. But the advantages of animal lymph are so generally recognised in Germany that its use is almost universal *de facto*.

#### THE "GERM-FREE" LYMPH.

With regard to another much-debated question—the presence of micro-organisms in vaccine lymph—a discussion of interest has just taken place at the Frankfort meeting of scientists. The majority were of opinion that the staphylococcus generally found in the lymph had no deleterious effect whatever, and that there is no special advantage in using the so-called "germ-free" lymph.

### THE REPORTED APPEARANCE OF PLAGUE IN BOMBAY.

ACCORDING to a Reuter's telegram, bubonic plague has broken out at Bombay, and several hundreds of people have died of the disease. Nine deaths, it is reported, occurred on September 29th. There seems too much reason to believe that the report is correct, as the characteristic bacillus has been found. At the same time, the medical officer of health denies the statement that the disease is plague, and the word of so capable an officer deserves all consideration. There should be little difficulty, however, in the diagnosis, as not only have the clinical symptoms been carefully given in detail by Aoyama, Cantlie, and Lowson, but the bacillus is so easily found, so definite and characteristic, that it can hardly be believed that there can have been any mis-

take in diagnosis. Much as we regret the unwelcome news, we are of opinion that bubonic plague does exist in Bombay. From a commercial point of view it is even more grievous than the recent outbreak in Hong Kong. Although Bombay in its harbour tonnage returns does not show much more than one third the amount of Hong Kong, still the city is so central that whether seaward or landward the possibilities of spread are enormous. From a scientific point of view, this sudden appearance in Bombay is peculiar and interesting. Plague has in the past travelled slowly and continuously. It has not broken out sporadically, but it has left the track of its course as it proceeded from one region to another. When it disappeared its retreat was easily followed by the plethora of the graveyards left in its wake. How the disease got to Bombay, therefore, is a question worth following out, and as there is no history of an advance from the land side we must look seaward. Bombay is in almost daily communication with the Far East; steamers from India to China, and *vice versa*, are despatched at frequent intervals. In all records of plague its spread is associated with the death of rats in extraordinary numbers, and it has been proved that these animals are infected by the bacillus. Ships are the chosen home of rats, and the history of their being attacked by, or enjoying immunity from, plague in Bombay, may help to clear up the reputed part rats play in the life-history of plague. Whilst extending our sympathy to the citizens of Bombay, foreign and native, we hope that no time will be lost in advising Dr. Yersin of the presence of the disease, and inviting him to practise his serum injection for the cure of plague. It is the only treatment which holds out any hope of success.

### THE BASFORD RURAL DISTRICT SANATORIUM.

THE new isolation hospital at Basford, Notts, is almost the counterpart of the Heathcote Isolation Hospital, Leamington; it differs from the latter chiefly in minor points of detail in the interiors, in the relative position of the ward blocks to one another and to the administrative block, and in possessing a covered corridor between the administrative and ward blocks, furnished with a mid wall having a paved walk on either side.

The Basford Hospital stands upon an enclosure of six acres, and cost £11,500 for buildings alone; it contains 22 beds. The administrative block stands close to and facing the Hucknall Road. On the right of this entrance, and also close to the road, is the laundry, disinfectant, and mortuary block. From and at right angles to the rear of the administrative block runs the main covered way. The isolation block of 10 beds lies across the far end of the latter, and the other ward block of 12 beds (in two equal wards) lies across the end of a branch way which leaves the main on the right, about midway between the administrative and isolation blocks.

The wards are heated with hot water and open fires, and ventilated naturally by means of open grates beneath the beds, Shorland flues in connection with the fireplaces, and hopper openings at the tops of the windows. The floors of the wards are of narrow, grooved, and tongued pine planks varnished. The walls are lined with painted Parian cement above and salt-glazed bricks below (5 ft. dado). Owing to the heavy colouring of both of these the interiors are somewhat gloomy. The wards are lit with naked gas lights without extraction tubes. The hospital contains accommodation (with 150 ft. floor space and 2,000 cubic feet per bed) for 22 patients, and is intended for cases of all dangerous zymotic diseases except small-pox. The district it is to serve is 75,000 acres in extent, and contains some 55,000 of population. It may be noted that certain populous parts of the district are twelve miles or more distant by road from the hospital.

The drains are flushed by an automatic flusher. The sewage flows, without previous treatment, into the sewer on the Hucknall Road. The hospital enclosure is situated within the Nottingham borough boundary, and about a quarter of a mile north of the isolation hospital, commonly known as Bagthorpe.

The hospital will be open for public inspection during the first fortnight of October.

<sup>1</sup> Local Government Report on Isolation Hospitals.