had other opportunities of becoming leprous. The cat was vaccinated three times from three different lepers, and the fowl was vaccinated once, and, in addition, was fed on a quantity of leprous material. On no occasion was any vaccine vesicle observed. It would appear that cats, fowls, and guinea-pigs are insusceptible to the virus of cow-pox. As to the fowls which were fed on leprous material, far from suffering from it, they became plump and in good plumage. Inoculation with scrapings from leprous ulcers gave equally negative results, the scarifications drying immediately and scabs forming.

So far, then, I have been unable to find even the localised growth of leprosy-tubercle described by Neisser, much less any general infection after inoculation.

I have a number of animals still under observation, and I hope to extend these experiments further by the aid of cultivation.

THE DISTRIBUTION OF THE LEPROSY BACILLUS.—This paper is based on 420 observations made without selection on 185 lepers who have been under my care in the past two years. The condensed results are given in three tables. To preserve uniformity, for the sake of comparison, the same method of staining, a modification of Ehrlich's, was pursued throughout; magenta being used, without a contrast stain, in order to save time. Table I gives a general analysis of the occurrence of bacilli in the total number of slides examined. It will be seen that they were numerous in fifty-six, generally diffused in twenty-one, and few in twenty-three; or, in short, that they were found in one hundred out of four hundred and twenty observations, or nearly 24 per cent. In fourteen observations they were doubtful, and in three hundred and six observations none were found.

Table II is arranged to show the relative occurrence of bacilli in the various forms of leprosy occurring in the one hundred and eighty-five patients examined. A great preponderance of bacilli in tuberculated cases will be observed. Thus, of the sixty-two patients in whom bacilli were found, forty-one were tuberculated; in twenty-eight of these the bacilli were numerous. In sixteen more the disease was mixed, in thirteen the bacilli being numerous. This leaves only five anæsthetic cases in which bacilli were found.

This is still further borne out in Table III, which shows the material in which bacilli were found. Out of one hundred successful searches, in fifty-nine observations the bacilli occurred in the juice squeezed or scraped from fresh tubercles. In this connection it may be noted that twenty-seven observations on material taken from vaccine vesicles, or pustules in lepers, tuberculated, anæsthetic and mixed, failed to show bacilli in any of them. This is a point of interest with reference to the alleged communication of leprosy by vaccination.

Thirty-four observations were made on the blood in the different forms of leprosy, but in no case were bacilli found. In twelve of these observations the blood was examined during the fever accompanying a fresh outbreak of tubercles, but these observations were equally unproductive. Next to tubercles, the femoral glands and larynx were most fruitful in bacilli, the former showing them in thirteen cases, the latter in eight. In the testes they were only found twice, as also in the median nerve.

I do not wish to claim these observations as being in any way conclusive. Errors of experiment are so easily made, that one series of observations is not enough to decide the localisation of bacilli in leprosy. The figures may, however, give a rough idea of the distribution of bacilli in the different forms of leprosy and in the various tissues and organs. If bacilli are as common in the viscera as some writers seem to think, they are, at any rate, much harder to find by the ordinary methods; for whereas magenta showed them very frequently in juice scraped from tubercles, it never undoubtedly showed them in scrapings from kidney, liver, spleen, or brain. In the four cases in which bacilli were found in phthisical lungs and sputum, it may fairly be doubted if they were not tubercle bacilli. This point I hope to be able to decide by cultivation in similar cases in the future.

TABLE I.—Showing the Proportion of Observations which yielded Bacilli to the Total Number of Observations.

Numerous	..	..	..	..	56
Generally diffused	..	..	..	..	21
Few	..	..	..	..	23
Doubtful	..	..	..	..	14
None	..	..	..	..	306
Total	..	..	..	..	420

Present in 13%, or nearly 24 per cent.

TABLE II.—Showing the Proportion of Patients in whom Bacilli were found, to the Total Number of Patients examined.

	Tub.		Anæsth.		Mixed.		Total.		Grand Total.
	M	F	M	F	M	F	M	F	
Numerous	19	9	—	—	10	3	29	12	41
Generally diffused	5	2	3	1	1	—	9	3	12
Few	4	2	1	—	2	—	7	2	9
Doubtful	2	—	5	—	—	—	7	—	7
None	15	6	60	22	8	5	83	33	116
Total	..	..	..	..	..	..	..	..	185

Present in $\frac{1}{4}$ %, or $\frac{1}{2}$ of the patients examined.

TABLE III.—Showing the Relative Occurrence of Bacilli in the various Fluids and Tissues which yielded them.

	Numerous.								Generally Diffused.								Few.								Grand Total.								
	Tub.				An.				Mix.				Total.				Tub.				An.					Mix.				Total.			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		M	F	M	F				
Juice of tubercle	18	8			7	2	25	10	5	7			1	6	7	6	3			2		5	3					59					
Discharge from suppurating tubercle		1			4		4	1																				5					
Discharge from ulcer					1		1				1			1		1								1				3					
Discharge from pustule					1		1													1		1						2					
Scraping from larynx	1				3	1	4	1	2		1			3														8					
Scraping from femoral gland	1	2			3		4	2		1		1		2	1		1	1	2		4	1						13					
Scraping from phthisical lung					1		1											1	1		1	1						3					
Phthisical sputum																		1						1				1					
Scraping from exuberant granulation-tissue					1		1												1		1							2					
Scraping from testes					1		1				1		1															2					
Scraping from median nerve									1				1						1					1				2					
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	100					

OUTBREAK OF ENTERIC FEVER IN AN ISOLATED CLUSTER OF HOUSES AT MEXBOROUGH.

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THE following history is, I think, interesting, because it supplies: (1) some data as to the time required for the development of the effective enteric poison in excrement; (2) a good example of an outbreak of the fever traced to faecal exhalations alone; and (3) an example of modification in the type of the disease, when caused by air-pollution only.

The following is a rough plan of the houses affected.

Up to November 26th there had been no cases of enteric fever in these buildings for six months. On that date, No. 13 (marked with cross in plan) hitherto unoccupied, was taken by E. D., a collier, aged 26, who was not feeling well at the time. He had come from the house of a brother-in-law in a neighbouring village, where he had