Ten days later, the cow not improving, I was requested to come and see her.

The animal had an emaciated appearance, and stood with back arched and tail elevated, while the urine constantly dropped from her. I passed the catheter, and finding no urine in the bladder, I proceeded to examine it *per vaginam*. I thus detected a large incompressible tumour, and on passing my finger up the urethra the rugged posterior border of the tumour could easily be felt.

My prognosis was unfavourable; however, I washed out the bladder with a solution of Condry's fluid, and sent my assistant out the following day to do so again with a solution of iodine.

The animal did not improve, and a week afterwards became so weak that she could not rise. The owner, seeing that there was no chance of recovery, resolved to kill her.

The bladder was brought to me for examination, and I found its cavity completely filled by the tumour, which was attached to the whole of its internal surface, save over a small area of its upper wall.

I sent the bladder and tumour, in its entirety, to Dr Limont, Glasgow Veterinary College, but not having yet received a description of its nature from him, I am unable to state, with certainty, what its texture was. It appeared to me, however, to be of a myxomatous type.

A CASE OF TRANSMISSION OF PULMONARY TUBERCULOSIS FROM MAN TO THE CAT.

Communicated to the Société de Médecine Pratique, December 1887.

By Drs FILLEAU and LÉON PETIT.¹

IN the month of June last I had occasion to communicate to the Société de Médecine Pratique two cases of transmission of tuberculosis to dogs from their masters attacked with pulmonary phthisis. The first case was that of a dog which devoured the sputum and the vomited matters of a phthysical person for whom it evinced a most profound affection. The other animal had lived for several months in a close room in which its mistress slowly succumbed to phthisis. The autopsy of these two dogs revealed all the lesions of a tuberculous pleurisy, with invasion of the pulmonary tissue, and pneumothorax in one of the cases. The microscopic examination left no doubt as to the specific nature of these lesions.

This communication gave rise to a most interesting discussion, in which MM. Tison, Boyer, Dujardin-Beaumetz, Leblanc, and Weber took part. Since that time I have devoted myself to the discovery of analogous cases, and I confess that chance has not favoured me, which confirms me in the opinion already emitted, that tuberculosis of the dog is relatively rare.

But here is a new fact to add to the history of tuberculosis in the carnivora, and one which I have had the opportunity to observe along with my fellow-worker, Dr Filleau.

We had in our laboratory a cat that evinced a very marked taste for phthysical sputum. It followed the patients about, and as soon as

¹ Translated from the *Journal de Médecine de Paris*, Jan. 1888.

they expectorated on the ground it greedily devoured the sputum. Gradually this taste became a passion ; the cat watched with interest all the manipulations which were made in the laboratory in the microscopic examination of sputa, knowing well that the refuse from the operation was destined for it.

Submitted to this *regime*, the animal soon became emaciated, its coat stared, its eyes were bleared, it had a muco-purulent secretion from the nose, violent sneezing, and cough sometimes followed by vomition. It crawled with difficulty ; in short, it presented all the symptoms of a very advanced stage of some chronic, grave disease.

I need hardly say that we followed day by day the progress of the malady, and the more so because in the bacillary examination of the nasal discharge, which in reality came from the bronchi, we had on several occasions proved the presence of Koch's bacillus. We waited, then, not without impatience, the natural termination of this pulmonary tuberculosis, in the expectation of an interesting autopsy.

After about two months and a half we were much surprised to see the morbid symptoms rapidly abate. The violent cough became less frequent, the purulent discharge quickly disappeared, the general state improved considerably, the animal's spirits returned, and it seemed on a fair way to recovery. It continued, nevertheless, to consume the sputum with the same avidity. I confess that our first conviction was at this time considerably shaken.

But the cat gradually gave evidence of pregnancy, and at the normal period it gave birth to seven well-developed kittens. It suckled one of these for five months, and did not present any symptom of cachexia ; but a slight, dry, hacking cough nevertheless persisted. Six months after the act of parturition, on account of its contact with a mad dog, the cat was killed as a sanitary measure.

Autopsy.—The inferior parts of both lungs present some traces of congestion. Incisions made into the pulmonary tissue allow a small quantity of very frothy muco-sanguinolent liquid to escape from the bronchioles. At the inferior part of the lower right lobe there is found a collection of small, hard, cretaceous masses, giving to the surface of the section the sensation like sand-paper when one presses the finger on it. These little islets, of a greyish tint, are surrounded by a zone of solidified tissue of a paler colour than the neighbouring parts. There is no lesion in the apices or in the pleura. The peritoneum, the intestine, the mesenteric glands, the kidneys, and the liver are absolutely healthy.

Microscopic Examination.—In sections made at the level of the above-mentioned indurations, there is found, after staining with eosin, some alveoli filled with filaments holding between their meshes swollen and deformed epithelial cells. Erlich's method revealed the presence of numerous bacilli which seemed to us to have dimensions below the normal. These bacilli were all located at the periphery, quite near the hepatised zone. We found, also, some tubercle bacilli, but in small numbers, in the muco-sanguinolent liquid that escaped from the small bronchi.

This observation seems to us interesting, more especially because : (1) It leaves no doubt regarding the tubercular nature of the malady and its origin ; it is evident that there was here a pulmonary tuberculosis contracted by the permanent abode of the animal in a medium

contaminated by phthisical patients, and, above all, by the continual ingestion of tuberculous products of human origin. (2) The capital point seems to us to be the arrest in the development of the tuberculous process coincident with pregnancy; and especially the amelioration continuing after parturition, despite very prolonged lactation, and without the chances of infection having been diminished. Is it necessary to recognise in this result a consequence of the well-known influence of pregnancy on phthisis; or, rather, a proof of the considerable resistance presented by the organism of the cat to the evolution of the malady? It is probable that one ought to make allowance here for both these factors.

From the day when the cat became pregnant, a disease which seemed to evolve rapidly, and ought to have terminated fatally after a brief interval, had been suddenly arrested. On account of this respite the organism, very refractory to tuberculosis, has power to gain the upper hand, the return of appetite can reinforce this resistance, repair in part the havoc produced, and favour a recovery which very probably would be confirmed by the sequel.

It would be interesting to observe analogous cases, and perhaps at the autopsy of the animals that have presented at one period of their existence suspicious symptoms, one might find pulmonary lesions indicating that the tuberculosis had terminated in recovery. For, finally, if the organism of the dog and the cat is as refractory as is generally admitted to the transmission of tuberculosis, it is logical to suppose that it ought to resist not less vigorously the evolution of the declared malady.

PASSAGE OF A FOREIGN BODY FROM THE STOMACH OF A COW—RECOVERY.

By ANDREW REID, M.R.C.V.S., Auchtermuchty.

CASES of death in cattle as the result of a needle or other foreign body passing from the stomach are by no means uncommon. A little experience of such cases enables one, perhaps, not to diagnose with certainty what he has got to deal with, but at least to suspect the presence of a foreign body, with the chances of being right in a large proportion of instances.

It is well known that when wires, nails, needles, and such objects are swallowed by cattle, they almost invariably become, in the first instance, arrested in the reticulum or second stomach. It is thought by some that the situation of this stomach, beneath the gastric end of the œsophagus, renders it extremely likely to become a receptacle for heavy foreign bodies, these dropping naturally into it by gravity. It is more likely, however, that such objects, unless swallowed alone, will, in the first instance, gain the rumen. The active movements to which the food is there subjected may keep the body from coming to rest in that compartment; but as there is a frequent interchange of materials between the first and second stomachs, the body is likely soon to find its way into the reticulum. Here it settles toward the lower part of the cavity, and by prolonged contact with the wall of the stomach inflammation is set up. As a result of this, the reticulum