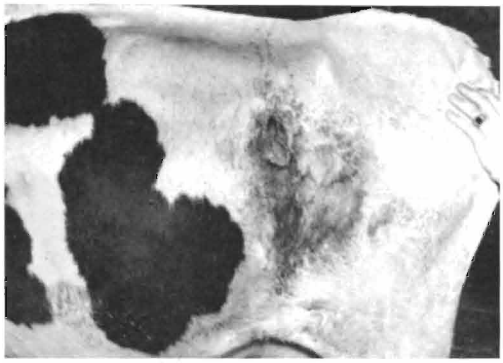
The fistula was enlarged and the necrotic tissue removed. The rumen was dissected away from the abdominal wall for about 4 in. and then it was found that it could not be completely dissected away. The rumen was closed at that point using chromic catgut sutures. A sterile gauze pack was placed between the rumen and skin. The skin was then sutured using linen tape.



Patient with rumenal fistula as presented to the clinic.

Twice during the next 4 days the pack was removed and sterile packs were replaced in the wound. Bipp paste was applied to the wound surface. The cow ate, defecated, and exercised normally.

On Nov. 3 the fistula broke open again. It was thoroughly cleaned with a 1:3,000 solution of potassium permanganate. The contents of the rumen spilled out through the fistula with each rumen contraction.

The treatment for the next 3 days consisted of flushing the wound daily with B. K. solution and applying Bipp paste to the wound surface. On Nov. 7 the stitches were removed from the skin and all necrotic tissue excised. Sulfanilamide powder was dusted on the area. For the next 5 days the treatment was the same, namely cleaning the wound daily with B. K. solution and dusting the area with sulfanilamide powder.

Seventeen days after treatment had begun the patient was discharged. The fistula had not entirely closed but was reduced to about ½ in. in diameter. The owner was told, at that time, that the fistula would probably close entirely. However, if it did not close within 3 months, he was to bring the animal back for further treatment. The 3 months elapsed and the owner did not return with the animal so it is presumed that the fistula closed entirely within that period.

—A. Neumann, '4

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3 **Chronic Proliferative Endocarditis.** On January 27, 1947, a female German Police dog, age 5 years, was admitted to Stange Memorial Clinic.

She had previously been treated by 2 veterinarians for pleurisy and bronchitis. An accompanying letter from one of the veterinarians stated that she had shown some improvement, but she would not eat and she had a persistent dyspnea.

Upon admission the dog's symptoms were: depression, emaciation, dyspnea, and a weak heart action. She was immediately given 1.5 gr. of digifolin to stimulate her heart.

On January 28 she was X-rayed. Little was seen other than a forcing upward of the thoracic organs by some body fluid. Bismuth subnitrate, 15 gr., was given that night, and a number 11 capsule of bismuth subnitrate was administered the next morning. Another X-ray revealed a constriction of the esophagus at the sixth thoracic rib which would not allow the bismuth capsule to pass into the stomach. A stomach tube was passed and the dog was given as aqueous solution containing 3 oz. of dextrose, and 2 oz. of liquid peptone.

The possibility of diaphragmatic hernia was discounted, for if this had been the case, some bismuth would have been entrapped in the herniated portion of the intestine; however, no bismuth was retained in the scope of the X-ray other than in the esophagus.

On January 30, a biopsy was made on the thoracic cavity. The needle was inserted between the sixth and seventh ribs, after disinfection of the area, and 300 cc. of a bloody fluid was withdrawn. A

laboratory examination of this material revealed it to be a transudate with some hemorrhage present together with some large cells which resembled monocytes.

The dog was exercised and 5 cc. of vitamin B complex and liver concentrate was given subcutaneously.

On the fifth day she was fed by stomach ube again. An aqueous solution containing 2 oz. of liquid peptone, 50 Gm. of dextrose, and 1 oz. of Up-John's Caripeptic Water was administered. Her condition was not improving and another aspiration biopsy was made on the seventh day.

The dog died on the eighth day after admission to the clinic.

Necropsy revealed a chronic proliferative endocarditis producing an insufficiency of the bicuspid valve and a considerable number of rough granulations at the tip of the left auricle. There was an acute dilation of both ventricles, and a chronic passive congestion of the lungs and liver. There were several areas of chronic inflammation at the periphery of the lungs. There was also an extreme hydrothorax which forced the thoracic organs upward as seen in previous X-ray examinations. A chronic endometritis and pyometria were also present.

Samples from the lung and heart lesions were cultured. It was found that the lung culture contained a species of *Salmonella* and *Streptococcus uberis* or a similar species. Cultures of the heart valve revealed a streptococcus, not exactly like that found in the lung. The species is uncertain. *Escherichia coli* was also isolated in pure culture from the heart valve.

There had been no previous history of any exudate from the uterus. The diagnosis of pleuritis and pneumonia had been made by 2 veterinarians. She was treated and appeared to recover, but would not eat.

After admission to Stange Memorial Clinic an X-ray was made and the position of the thoracic organs and the constriction of the esophagus was noted. This constriction would not allow solids to pass but fluids could go into the stomach.

As previously stated the possibility of a diaphragmatic hernia was discounted after an X-ray examination.

It was then thought that some kind of tumor was causing the malposition of the thoracic contents and exerting pressure on the esophagus causing the stricture. The presence of fluid as revealed by thoracentesis was somewhat of a surprise as physical examination of the thorax had failed to discover evidence of fluid. Necropsy revealed that no tumor formation was present.

A possible cause of this condition was a metastatic infection due to the endometritis and pyometria. The biscuspid valve became infected, resulting in a chronic proliferative endocarditis with a resulting impairment of the function of this valve. On this basis the congestion of the lungs and liver can be explained as well as the formation of the transudate in the thoracic cavity. The appearance of blood in the first biopsy sample was probably due to the hemorrhage produced when the biopsy needle was passed.

—*A. Neumann, '49*

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4 **An Unusual Case of Bit Shyness.** In the winter issue of *The Veterinary Student* (Vol. IX, No. 2) a clinical case of non-productive alveolar periostitis was described involving the fourth, upper cheek tooth of a 3-year-old horse. The writer of that case report emphasized the fact that the symptoms produced by such a pathological process vary considerably in each individual case. The following case report is presented to further emphasize this fact and to illustrate the steps that may be taken in order to attempt to alleviate such a pathological condition in a highly valuable animal.

On Feb. 13, 1947, a 6-year-old, 5-gaited American Saddle Horse was admitted to the Stange Memorial Clinic for the correction of a condition known as bit shyness. This gelding was credited with having one of the finest show records in the mid-western states. The anamnesis was as