symptoms, that on manipulating the abdomen the bladder is distended, tense, and painful when pressed between the fingers. By gently compressing it for a few minutes a few drops of bloody urine may escape from the urethra. The kidneys are felt freely movable, but do not give rise to pain when manipulated. A warm water enema may be injected into the rectum to empty it of its contents and soothe the bladder at the same time; an aperient and sedative may also be administered, yet no improvement in the symptoms is observed. The poor creature becomes indifferent to its surroundings, totters in its gait, or will not rise to its feet. Eventually it becomes comatose and dies in an exhausted state.

On opening the abdominal cavity the bladder is found distended; its walls are bluish or red. After the bladder has been removed a little red-stained serous fluid or none at all is observed in the abdominal cavity. In some instances, where the affected organ touches the parietal peritoneum it stains it a dark red colour. On incising the bladder the contents will be found of a dark red colour, turbid, and containing flakes of clotted blood. In two instances I found 4 ozs. of urine in the bladder. In one case the mucous coat was the seat of hæmorrhagic points varying in size from a pin's head to a threepenny piece, and varying in colour from a bright red to a mulberry red. The mucous membrane was rough in consequence of the catarrh, and the upheaval of it by the submucous hæmorrhage.

SPLENIC APOPLEXY IN ANTHRAX.

By W. ALSTON EDGAR, F.R.C.V.S., Dartford.

IN a former issue of this Journal it was suggested that any authentic *post-mortem* information respecting the above condition would assist in the disposal of the contradictory opinions at present existing in the profession.

Although the controversy probably centres around the subject in cattle, I venture to publish the following notes of three cases of ovine anthrax, which are at least suggestive of anomalies in other animals.

No. 1 Ewe.—Found dead on morning of 25th January 1894. Necropsy at 4.15 P.M. Lying on the right side with under hind leg doubled beneath body. Tympany pronounced, and blood escaping from nostrils and anus; vagina much congested; effusion down jugular furrow; no subcutaneous effusion in abdominal region or in muscles; peritoneum normal; spleen normal both in size and colour; liver normal in size but light yellowish-brown in colour; stomach, all compartments, normal, also intestines; uterus contained two nearly full-term lambs; lungs congested; heart contained coagulated blood.

No. 2 Ewe.—Examined on same date and immediately after No. 1. Lying on left side. Tympanitic; no blood from nostrils. Upon right haunch was a patch of dark effusion about the size of a man's hand. Peritoneum normal; spleen normal in size but dark in colour from *post-mortem* gravitation of blood, structure not friable; a little gelatinous effusion in gastro-splenic omentum at its attachment to stomach; liver similar to No. 1 ewe; stomach normal; uterus contained two lambs; lungs, congested; heart and large vessels contained coagulated blood.

No. 3 Ewe.—Found dead, 1st February, 1894. Lying on right side with limbs rigidly extended; great tympany; rectum protruded; blood escaping from rectum; labiæ widely separated; a trace of frothy mucus from the nostrils; the body was warm; subcutaneous tissue purple but no ecchymoses; peritoneum normal; stomach, all compartments full of ingesta in process of digestion, mucous membrane peeled off; one kidney pale and softened; liver yellow and pale in patches; uterus normal, two lambs nearly full time; spleen, normal in size and colour; lungs slightly congested, pleuræ covered with ecchymoses; heart flabby and empty, excepting a little thin blood in left auricle; endocardium blood-stained but no extravasations; blood in the tissues generally was liquid and very dark; bacilli present in blood from axillary vein. Cover-glass preparations from blood of heart showed anthrax bacilli in large numbers.

Anthrax was first reported on this estate on the 1st August 1893, but animals, both sheep and a bullock, had died before that date. From 1st August to 20th November five bullocks died. In each death anthrax was confirmed by *post-mortem* examination and microscopical examination of blood. On 24th November the remaining cattle, twenty-five in number, were slaughtered to save further loss. From 29th November 1893 to 1st February 1894 four sheep died of anthrax.

There were about four hundred sheep on the farm at the beginning of outbreak.

Deaths occurred in nearly every meadow and field on the place, indicating general infection.

High farming had been adopted, artificial and refuse manure (including hair and shoddy) of all kinds being extensively used.

GLANDERS AND TETANUS.

By W. ALSTON EDGAR, F.R.C.V.S., Dartford.

Subject.—An aged bay cart mare, one of eighteen animals at a fruit farm on which glanders was detected early in January of present year. Eight of the number gave the characteristic reaction, both local and thermometric, to mallein. In the subject of this note the reaction was unusual, as will be seen from the following chart.

1895			Temp.		
Jan. 18	8.0	P.M.	100.7°		
" 19	1.0	P.M.	99.8°	Received 1 cc. mallein	No. 18
" "	7.30	P.M.	100.2°	Local œdema	1½ by 2 inches
" 20	1.0	A.M.	103.2°	" "	1½ by 2 "
" "	7.0	A.M.	103.8°	" "	1½ by 2 "
" "	1.0	P.M.	105.0°	" "	2 by 2½ "
					very flat
" "	7.0	P.M.	104.4°	" "	subsiding
" 21	1.0	A.M.	103.2°	" "	gone
" "	7.0	A.M.	102.6°	" "	"
" "	1.0	P.M.	100.9°	" "	"
" "	7.0	P.M.	101.6°	" "	"
" 22	1.0	P.M.	101.2°	" "	5 by 5 "
" "	5.0	P.M.	—	" "	5 by 5 "

Gradually subsided from day to day.