square. The single ureter was greatly enlarged throughout its whole length, and the opening into the bladder was of corresponding size. The bladder itself exhibited but little change from the normal, being but slightly distended, the coats neither hypertrophied nor atrophied.

The next step was to endeavour to find the cause of the hydronephrosis. As only one kidney was present, it was not possible to say whether the cause was one which was producing an *unilateral* hydronephrosis, or whether it would have had a similar effect on the other kidney had that organ been present. Proceeding, therefore, by a process of exclusion, nothing was found in connection with the ureter to account for the condition. There was no sign of calculus, contraction after an injury, stricture of any kind, or pressure of any growth upon the ureter. There was no twisting. It was therefore obvious that whatever was causing the backward pressure of the urine and obstructing its out-flow must be either in connection with the bladder or the urethra. No obstruction of any kind was found in the bladder. The urethra only remained. This in itself was normal, but it was found that the prostrate was considerably enlarged. Nothing more was found to account in any way for the condition, which must therefore be ascribed to the prostatic enlargement pressing upon the urethra.

Remarks.—The case was obviously one of *acquired* hydronephrosis, the dog being, I was informed, eight years old. The single right kidney had apparently performed the function of both without any obvious difficulty for a long time. The prostatic enlargement was probably of recent development, indeed must have been so. The congenital absence of the left kidney reminds one that in a considerable proportion of all cases of hydronephrosis there is some associated congenital deformity, either in the kidney or elsewhere in the body. The difficulty of diagnosis is great unless the kidney forms a palpable tumour, and, as a rule, pain is not conspicuous except in very acute cases. Moreover, hæmaturia is by no means common, the urine more frequently being normal in amount and constituents. In this particular case one cannot easily see that the *post-mortem* threw much light on the clinical history of the dog, and one is rather driven to conclude that the actual cause of the diarrhœa escaped observation. I had the kidney photographed as soon as possible by Mr Swan Watson, of Edinburgh.

AN ACUTE CASE OF ROARING.

By WILLIAM ASCOTT, M.R.C.V.S., Bideford.

THE following is an account of an acute case of roaring which occurred in a half-bred mare, seven years old. The animal was purchased in June 1902, after I had examined her for soundness, by a client (whom I will call client No. 1) for coaching and general harness work. She did her work very well indeed, and was never sick nor sorry during the five months she was owned by client No. 1. She was shown in harness at our local horse show on August Bank holiday, when the going was very heavy, owing to the previous heavy rains on a newly-made ground; and she won first prize in a class of twelve competitors. She was such an exceedingly nice mare that at the end of the coaching season both client No. 1 and myself

recommended her to a mutual friend (client No. 2), who had also known the mare well for about two years previous to client No. 1 buying her. Although not a huntress, she did a day's hunting on 6th November very well, and on 8th November client No. 2 bought her. I examined her again on that date, and considered her to be sound. I think, therefore, having regard to the history thus far, viz., the examination in June, the horse-show test in August, the day's hunting on 6th November, and the re-examination on 8th November, we may fairly consider the mare was sound in her wind up to this date.

She went on very well at first with client No. 2, but on 28th November the groom called for some powders for her, as he thought she had a cold. A week later he called again to say he couldn't make the mare out at all. Some days she went and seemed to be perfectly well; other days she went without any life, and he almost thought she made a noise like a roarer, but it was only noticeable down hill.

On 10th December she was driven in ($2\frac{1}{2}$ miles) for me to test. I drove her, and found she was distressed against hill, and made a noise, but this was much more pronounced down hill and on the level. As she was much upset, I sent her home, and arranged to see her in the stable the next morning. There, at first sight, she appeared to be in perfect health, appetite very good, temperature and respiration normal, but pulse only 32; and when she tried to neigh to another horse we noticed she had lost her voice. She was taken out in the afternoon for a little gentle walking exercise, but when only about a quarter of a mile from home she began to make so much noise that the groom took her back. I saw her again the next morning, and found her just the same as before. On the afternoon of the same day the groom took her out again, but when only about 100 yards away she began quite suddenly to make a noise like a cow (the groom said), and fell down, apparently choking. After a while she got up and staggered back, falling once on the way, and again after reaching the stable.

I was sent for immediately, and found her as follows: Temperature, 101°; pulse, 56; respiration hurried, but no roaring. These symptoms quickly subsided, and on the following three days, *i.e.*, Saturday, Sunday, and Monday, the temperature and respiration were normal, but pulse only 30. The appetite continued to be very good, and she ate all her food on Monday night, but was found dead on Tuesday morning, having apparently reared, fallen backwards, and died without a struggle, the straw being undisturbed.

I made a *post-mortem* examination the same day, and was assisted by Mr James C. Erskine and Mr R. E. L. Penhale. With the exception of the larynx and pharynx (which we sent to Professor M'Fadyean for further examination), and the diaphragm, all the organs, including the brain, appeared to be healthy. The diaphragm was badly ruptured, and the bowels pressing through the rupture into the pleural cavity. This, however, we considered occurred when the mare fell, being of opinion that she reared and fell back during a spasm of the larynx, which, together with the pressure of the bowels through the ruptured diaphragm, caused suffocation.

Professor M'Fadyean reported as follows regarding the larynx and pharynx:—

The mucous membrane of the throat and pharynx was normal except for small hæmorrhages, which probably occurred at the time of death. On the other hand, the left crico-arytenoideus posticus was distinctly paler than the right, although there was no recognisable difference in the bulk of the two muscles. On comparing muscular fibres from the two muscles miscroscopically, it was found that degenerative changes were already recognisable in the fibres of the left muscle. The fact that the left muscle was not visibly wasted was considered conclusive evidence that the paralysis was of comparatively recent origin; and, although he could not pretend to speak very precisely on the point, he thought it very probable that the condition had not been in existence for more than a month.

The case is obviously of considerable interest, in view of the attempts which have sometimes been made to hold veterinary surgeons legally responsible when horses passed by them as sound have a month or two afterwards been found to be confirmed roarers.

AN OUTBREAK OF HUSK AMOUNG ADULT CATTLE.

By WALTER WESTERN, M.R.C.V.S., Bracknell.

THE occurrence of "husk," among calves and young cattle is, unfortunately, only too common—so common that the condition is one of little professional interest. In the following instance, however, the age of the animals attacked was so very exceptional as to make it worth while to record the occurrence.

In the autumn of 1901 I was called to see six cows which had within the past few days developed symptoms of illness. On arrival I found that the whole six cows were in-doors, that four of them were very ill, and the other two similarly affected, but to a less alarming degree. All of these animals had a husky cough, which in the worst cow was almost continuous, and accompanied by hurried respiration. The appetite was diminished or suppressed, and the temperature varied from 102° to 105·3°. The symptoms entirely agreed with those usually seen in calves affected with husk, but the rarity of the disease among adult cattle, and the fact that ten heifers and four calves belonging to the same stock appeared quite healthy, made one hesitate to diagnose that disease. However, as it appeared likely that one of the cows would soon die, it was killed and the lungs were forwarded to Professor MacFadyean (who had previously seen the affected animals with me). He reported that the disease was undoubtedly husk, the bronchi containing large numbers of the strongylus micrurus. The only lesions present in the lungs were bronchitis, with much frothy exudate in the tubes, and some areas of collapse.

One of the remaining cows died ten days later, but the others gradually recovered.

It was ascertained that up to the time when the cows were attacked they had been at grass during the day. There were four meadows altogether, and both cows and young stock had grazed on each of these during recent months, but never at the same time.

Finally, I may add that the disease is hardly ever seen in this district.