quantities. The urine had an appearance very similar to linseed oil, and when allowed to stand for a few hours a thick coagulum formed in the lower third of the vessel.

On the 17th of December a pint of urine was withdrawn and forwarded to Professor Bayne, Royal Veterinary College, for examination. The following is a copy of his certificate of analysis:—

Colour	Orange Brown.
Sp. Gr. @ 60° F.	1041'5.
Urea	10'22 grammes in 1 pint of urine, or 2'16 per cent.
Albumen	Slight traces.
Sugar	Traces.
Blood	Negative.
Bile Pigment	Present (very marked).
Potassium	Present in large quantities.

Acting on the advice of Professor M'Fadyean, 2 dram doses of iodide of potash were administered twice daily, this treatment being commenced on the 29th of December. The skin was dressed daily with alternate dressings of warm salad oil and watery solutions of creolyn.

By the middle of January a considerable improvement was manifest and the skin dressings were reduced to three weekly. The horse had improved in condition, and the skin had become more healthy. There was still considerable shedding of epithelium, but the vesicles had practically ceased to be formed, the swellings of the limbs had disappeared, and the body was covered with a short thick coat of hair.

The iodide of potash was discontinued on the 12th of February, as were also the skin dressings. At this date the horse's coat was very dry and scaly, and of a considerably lighter colour than it was previous to this affection. From this time onwards the horse had a splendid appetite and put on flesh rapidly; his coat became more glossy, and his urine appeared to be normal. He was discharged from the Infirmary on the 7th of March.

AMPUTATION OF THE PENIS.

By O. G. BARROW, F.R.C.V.S., Dorchester.

THE subject was a cart gelding, the property of a farmer; his age, according to the owner, was twenty-eight years. The animal had been subject to small growths on the penis for some years, and was first seen by me on 7th March 1891, when I cast him and removed a small tumour, and dressed the part with a strong caustic. The second operation was on 25th January 1892, when the tumour was about the bulk and shape of a medium-sized orange. After removal this was forwarded to Professor M'Fadyean for examination, and he kindly wrote back saying the growth was "a beautiful specimen of cauliflower papilloma, not rare in the situation named, and usually recurrent."

Since this date the growth has been removed three times; each time it has been larger and much more rapid in development. The third

operation was on 6th December 1894, and on this occasion the growth extended all over the end of the penis and for an inch or so up the shaft. It was removed in pieces by the ecraseur and clam and cautery, to the weight of about 1 lb., and the roots were well dressed with the actual cautery and cupric acetate. The owner was advised that amputation of the penis would be the only remedy when the tumour reappeared, and that this, owing to the age of the subject, was very risky. In a few weeks the tumour had grown again to such a size that the penis could not be drawn into the sheath, and, the horse having great difficulty in making water, it was decided to operate.

On 24th January, in company with my assistant, Mr F. J. Thornton, M.R.C.V.S., I went over. We had proposed casting the horse in the field, but a very heavy cold shower coming on just as we arrived put this out of the question, and a load of straw was thrown down in the barn. The animal was cast with his head to the open door, and chloroform exhibited by means of Huish's chloroform cap. When anæsthesia was complete a double suture was passed through the centre of the shaft of the penis, about $4\frac{1}{2}$ inches from the end, and securely tied above and below. Another suture was passed through the shaft behind this, and was held by the assistant, to prevent the penis being withdrawn after removal of the tumour. We had intended to pass a catheter into the urethra, to cut down upon it and remove the penis, leaving a piece of the urethra projecting to divide and sew to each side of the stump (as recommended by Professor MacQueen), but it was found impossible to pass the catheter at all, the mouth of the urethra being completely lost in the portion of the tumour. A large probe-pointed bistoury was now taken and the penis divided with it at one stroke, about 3 inches from the end; this was followed by profuse hæmorrhage, arising principally from vessels at the base. A strong ligature was placed around this part, and the actual cautery was freely applied over the rest of the cut surface, care being taken to avoid the urethra. The ligatures in the shaft of the penis were now removed, and we were somewhat relieved to find that the bleeding, though considerable, was not alarming.

The horse took half-an-hour to sufficiently recover from the chloroform to be allowed to get up, but we were not surprised at this, as he was rather a stubborn subject, and had taken 12 ounces of chloroform in all. He was quietly walked to the tap, and instructions were given to play a cold hose pipe on the sheath for half-an-hour; but on seeing the animal in twenty minutes we were pleased to find that the blood was only dropping away and in another ten minutes he was taken to the stable, where he promptly devoured a bran mash. Strict injunctions were left to the effect that the cold hose was to be reapplied in the case of much bleeding. The only after-treatment was daily walking exercise, and the patient seemed to experience little or no trouble from the operation; he never went off his feed, and has now been at work again for some little time. When making water, the stream of urine is thinner than usual, and the act takes longer than it naturally would do; in other ways the horse seems to suffer no inconvenience so far.

The weight of the tumour and portion of penis removed, was $2\frac{1}{4}$ lbs.