

shown in only nine other cases, is not an excessive number. Had the patients been selected and prepared, and anæsthetised with the purest chloroform administered by skilled anæsthetists, the percentage of fatalities must have been much smaller still.

For general supervision of the students whilst anæsthetising and operating upon the above patients, and for assistance in collecting the records, I must acknowledge my indebtedness to Messrs Woodruff, Peacey, Wooldridge, and Rix, College Tutors.

REMARKS ON THE OPERATION OF CASTRATION.

By E. WALLIS HOARE, F.R.C.V.S., Cork.

I BEG to offer the following remarks on the above subject, having read with interest the article by Mr Reeks in the *Journal of Comparative Pathology and Therapeutics* for December.

There are many methods of performing operations of various kinds, and before we can assert in a dogmatic manner that one method is safer, more surgical, and more convenient than another, we must be prepared to prove our statements in a logical way.

There appears to be a great mystery in connection with the operation of castration, if we draw conclusions from the writings on the subject by so-called experts. But practical experience teaches us that in uncomplicated cases it is one of the simplest and safest operations the veterinary surgeon is called upon to perform. Attention to antiseptic precautions, and a proper method of preventing hæmorrhage are the most important details in connection therewith.

I must confess that I fail to see how Mr Reeks arrives at the first of his conclusions, viz., "that of the only two really safe methods, the clam and hot iron is eventually the most convenient."

This conclusion is somewhat peculiar, when we read further back that on purely theoretical grounds he has not given the operation by torsion a fair trial.

This method, I contend, is a far more surgical method of performing the operation than either of those he mentions; and as to its safety I can vouch from practical experience. Surely torsion of an artery is more in accordance with modern ideas of surgery than the use of the actual cautery for the suppression and prevention of hæmorrhage; because the latter must of necessity injure a certain amount of tissue.

In the operation by torsion we do *not*, as stated by Mr Reeks, "simply grasp the whole of the cord in one pair of clams and twist it off in its entirety with a second." We sever the non-vascular portion of the cord above the epididymis by means of serrated scissors, and then apply a properly constructed clamp to the vascular portion. The torsion forceps are then applied as close as possible to the surface of the clamp, and the vascular portion of the cord is twisted off.

It would be bad surgery to place the entire cord in the clamp, as the effect would be to bruise an unnecessary amount of tissue and cause a slough. The aim in the operation should be to bruise as little tissue as possible, and with the aid of a properly constructed clamp this amount is reduced to a minimum.

With reference to the operation by "clams," one would imagine that in the present scientific age such a method of preventing hæmorrhage would be regarded as one of the relics of the past. The idea of fastening two pieces of wood over a tissue and removing them after a certain time, in order to prevent hæmorrhage, must be regarded as barbarous. Such a method exposes the cord to external influences, bruises it in an unnecessary manner, and must cause pain while left on the cord. Besides, it entails a visit to the colt to remove them, or the usually dirty hands of the attendant must be relied on for this purpose.

In many districts it would be impossible for the practitioner to visit the colt, and in a good many instances the animals are never caught after the operation, being left at grass; and these, in my experience, get on the best, provided the weather is favourable.

The idea of applying a "dressing" to the clams as recommended by some operators is really absurd in the present day, especially so when such dressings are composed of irritant substances.

There is no reason why the operation of castration should not be performed in as surgical a manner as possible, and with strict attention to antiseptic precautions. The details of the latter we certainly cannot carry out as thoroughly as we would desire; but still, much can be accomplished in this respect.

The reason why there are so many "travelling castrators" and dabblers in this branch of surgery is because of the simplicity of the operation, and the wonderful constitutions of many of the animals, who receive often very rough treatment, and who are exposed to septic influences from the hands and instruments of the operators. A paltry fee also, has much to do with the patronage of the "castrators" by the owners of stock.

When cases die as a result of ignorant operators nothing is heard of them, but if a fatality occurs with a qualified veterinary surgeon it is announced far and wide.

It is high time that the public should be made to understand the fact that "travelling gelders" do not possess supernatural powers. One of the first steps in this direction is for the veterinary profession to show their superiority by discarding the use of the actual cautery and "clams" in the performance of a simple operation, and to clearly demonstrate that hæmorrhage can be arrested by surgical methods.

CASTRATION BY LIGATURE.

By G. K. WALKER, M.R.C.V.S., A.V.D., Simla, India.

As one who has operated on several occasions by ligature, I hope I may be allowed to offer a few remarks on Mr Reeks paper in last number of the *Journal*, entitled "A Brief Comparison of the Various Methods whereby Horses are Castrated."

Mr Reeks appears to me to be unnecessarily nervous in regard to ligatures, but I hope he has not managed to convey his obvious nervousness to any of his readers. On the other hand, for my own part, I may have been possessed of the pluck of ignorance, but I never anticipated, nor did I get, any bad results by secondary