

years since, 39,200 yards, or 22½ miles of thread, were spun from a single pound of wool, and sixty years ago a Miss Ives, at Spalding, spun 168,000 yards, or about 95½ miles of woollen thread from a pound of wool, of a Lincoln ewe. But this seems nothing to the multiplication a fleece now undergoes at Bradford. From the manufacturer who generally buys my 'clip,' I obtained this bit of information. A 20 lb. Lincoln fleece, used as an admixture with cotton in the finest Alpaca fabrics, suffices for upwards of twelve 'pieces,' each piece of 42 yards in length, it might probably be extended to 16 pieces, or a total length of 672 yards, 3 feet in breadth. At 3s. a yard, the sum realized would be £100; and I suppose (though I am not much of a dressmaker) that the crinolines of seventy or eighty ladies are covered with products from a single fleece of wool. When we think of the hundreds of thousands of sheep clipped every season, it is a mystery where all the dresses can go to! I believe that in the production of this valuable lustrous wool, Lincoln sheep have the pre-eminence both in weight and quality. Next in point of merit come the fleeces of the Cotswolds and Leicesters, and the Kent and Romney Marsh wool third.

The Horse.

THE common horse, justly considered as the noblest of quadrupeds, has long been bred in most parts of the earth, for various purposes of war, hunting, parade, the saddle, draught, etc. The mental and physical qualities of the horse, have few equals among the brutes. And among the various breeds there are none who exhibit as much intelligence, quickness of perception, accommodating himself most readily to the exigencies of the moment, avoiding difficulties, and extricating himself from them when encountered, as the thorough-bred. The ability to be vicious or otherwise, may be classed among the moral qualities of a horse, so also honesty, treachery, docility, etc. And whether any, or all of these qualities are developed, depends mostly upon his training, and the men with whom he associates. Physically, in his nature, for every purpose, and in every respect, he is universally recognized as the best of this greatly varying species. In form he excels, as in firmness, and fineness of texture in bone, more tense and elastic in muscle, his frame, and construction in general, more compact. A thorough-bred is descended through a direct line of the English races, from the Arabian, the Barb, and Persian. The English race horse is unrivalled throughout the world for symmetry of form, swiftness of progression, and durability under exertion. Having these qualities, there are others we prize in a carriage horse, or a horse of all work. He is lacking in strength which massive weight gives, and the practical business look desired in a roadster, no less than that we value in a horse for the plough or dray. By blending the blood of the thorough bred with other breeds we obtain an elegance of style and strength—a certain pride of action and beauty of fitness for certain kinds of labour. In breeding it is a general law that the offspring inherit as much or more of the qualities of the sire than of the dam, therefore to develop and refine the good qualities of the dam in the offspring, the more blood the sire has the better. The desirable qualities of a breeding mare are, beauty of form, gentle disposition, and size, together with capacity of barrel and pelvis, also freedom from all sorts of blemishes and defects. Were more attention paid to the selection of sire and dam we should see a more commensurate improvement in our horses, and to affect this result our agricultural societies ought to encourage the use of thorough-bred stallions.—*Rural American.*

Points in Cattle.

THAT eminent agriculturist, Mr. Geo. Hope of Fentobarns, recently read a most able and interesting paper on "Stock Feeding" before the Scottish Farmers' Club. Respecting the "points" of cattle, Mr. Hope is reported to have said:—

"A perfect breeding or feeding animal should have a fine expression of countenance—I could point it out, but it is difficult to put upon paper. It should be mild, serene, and expressive; should be fine in the bone, with clean muzzle, a tail like a rat's, and not ewe-necked; short on the legs. He should have a small well-put-on head, prominent eye, a skin not too thick nor too thin; he should be covered with fine silky hair—to the touch like a lady's glove; he should have a good belly to hold his meat; he should be straight-backed, well ribbed-up, and well ribbed home; his hook bones should not be too wide apart. A wide hooked animal, especially a cow after calving, always has a vacancy between the hook and the tail, and a want of the most valuable part of the carcass. I detest to see hooks too wide apart; they

should correspond with the other proportions of the body. A level line should run from the hook to the tail. Ho should be well set in at the tail, free of patchiness there and all over, with deep thighs, that the butcher may get his second round and prominent brisket deep in the forerib. His outline ought to be such that, if a tape is stretched from the fore-shoulder to the thigh, and from the shoulder along the back to the extremity there, the line should lie close, with no vacancies; and without a void, the line should fill from the hook to the tail. From the shoulder-blade to the head should be well filled up—as we say, good in the neck vein. Thick legs, thick tails, and deep necks, with thick skin and bristly hair, always point to sluggish feeders. In cold weather in the month of May, the old silky coat of the strawyard bullock is of great advantage. If we could get the qualities and proportions I have specified in animals, it would not be difficult to make them fat. It would be difficult only to make them lean when once in condition. A high-standing, want of ribbing up and ribbing home, with the tucked-up flank, always denote a worthless feeder. You must all have observed how difficult it is to bring such cattle into a state for killing. It will take a deal of cake and corn to make them ripe. A great many can never be made more than fresh: it is only a waste of time and money to keep them on."

HIGH BRED STOCK—BREEDING.—We find the following suggestive remarks in a recent issue of *Bell's Messenger*.—A correspondent, complaining of the frequent trouble which owners of high bred stock experience in getting their cows to breed, asks—How is it that this difficulty seldom occurs in ordinary dairy cows, or in those with two or three crosses of pure blood? In assuming that ordinary dairy stock, or stock consisting of cows with two or three crosses of pure blood, may be more safely trusted for regularity of breeding than high bred stock, does our correspondent, in the expression *high bred stock*, exclude or suppose the idea of in-and-in admixtures of blood? If he supposes it, the question arises whether such admixtures are favourable or hostile to fertility, and if the answer be that they are hostile, a reason is at once found for the superior fruitfulness of common or comparatively common stock—assuming, of course, their freedom from the fault charged against the others. But if the idea of in-and-in breeding is excluded, that is, if, by high bred stock he simply means stock bred from the union of families carefully cultivated, though not cultivated with reference to intermingled affinities, it may properly be a subject of inquiry whether the position which he assumes can be supported by facts. Is it a matter of fact that common cows, or common cows emerging from commonness into *gentility*, are more disposed to regularity in producing offspring than cows of established respectability of lineage? There is another point, too, which would require to be considered, and very carefully considered, in estimating the several conditions involved. At this point we have indirectly hinted. On the assumption that excessive interminglings of affinities are adverse to prolificness, it is possible that a cow with only two or three crosses of pure and high blood (those crosses being derived from sources remarkable for infertility) may inherit a propensity to non-fecundity as surely as a cow whose pedigree, similarly characterized, reaches to remoter eras. So that it would depend, not so much upon the length of time during which the family of an animal had been cultivated, not, in other words, so much upon the number of her crosses, as upon the specific kind of elements cultivated. Though these observations establish no conclusion, nor are intended to establish any, they may perhaps be worth thinking about, and our correspondent will be pleased to accept them as a reply to his communication."

Veterinary Department.

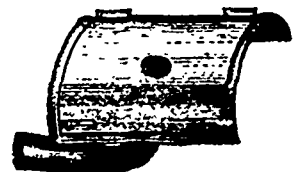
The Operation of Tracheotomy.

TRACHEOTOMY is the term used to describe an operation, of which the object is to admit air into the lungs. It consists in making an artificial opening into the windpipe (trachea) and is one which is often required in veterinary practice. It is, perhaps, the most humane recourse of veterinary surgery, giving instantaneous relief, and thereby allowing an animal to inhale a sufficient supply of diluted oxygen to maintain life. Strangles, influenza, and other diseased conditions of the head of the windpipe (larynx) or enlargements or tumours in that region, by their presence, diminish the calibre of the larynx to such an extent that the quantity of air essential

for the maintenance of life cannot be taken in. In such a case, the only chance of saving the animal is by making an artificial opening into the windpipe (tracheotomy as it is technically called.)



To the practitioner who is conversant with the anatomy of the parts to be cut through, the operation although looking formidable to the casual observer, is easily performed. The part usually chosen for the operation is about the upper third of the windpipe, but some eminent practitioners prefer the opening lower down. An incision should be made through the skin, about two inches in length, exposing the muscles of the inferior part of the neck; then with the finger or scalpel separate two long thin muscles which are merely united by thin cellular tissue, and the windpipe is exposed, which is known by its white appearance and hard to the touch, as it is composed of a series of incomplete cartilaginous rings—in the most of cases, a longitudinal incision will suffice. In other cases, however, it is necessary to excise a circular piece from the cartilages and in so doing, it is advisable to remove the lower half of one ring, and the upper half of the one immediately below it. Care must be taken that the excised part is not drawn into the windpipe by the spasmodic breathing, as such an occurrence would speedily produce death. A tube should be afterwards inserted and secured around the neck by means of a tape or strap. The tube shown in the accompanying illustration



is the one generally used by veterinarians, but it does not always happen that the practitioner has it at his command. The large cut shows the position in which the instrument is inserted in the neck of the animal. If no tube can be had, an opening may be made by excising a piece of cartilage as already described, and a piece of twine or wire passed through the skin on each side of the opening and brought over the neck. By this means the air is allowed to pass in, and temporary relief is afforded. Generally, the operation is only resorted to with the view of affording temporary relief. In cases of roaring in horses, where from the great wasting of the muscles of the larynx, the animal is perfectly useless, an artificial opening into the windpipe may render him serviceable for years.

The above illustration is taken from a case of enlargement of the parotid glands, occurring in a two year old colt, at present under treatment at the Veterinary Infirmary situated in Temperance street, Toronto. Up to the present time the animal is progressing favourably.