Should it be Clyde, Percheron, English Shire, or Suffolk Punch.
[By Prof. Brown, Ontario Agricultural College.]

No one but the tyro expects to find perfection in any breed, or even in any individual member of a breed of horses. So that those who are most conversant with horse flesh are content to define a good horse, as one possessing a number of good points, and few bad ones.

Before taking up the specialties of any of the heavy breeds, let us advert to some of the more important points, irrespective of either, as without such an enquiry it is simply impossible to understand what we want.

First, and of most consequence, perhaps, we have the nervous system, the central position of which is the brain and spinal cord, and it also may be termed the fountain from which flow streams of nervous force to the various parts of the body, and on which all portions are dependent not only for their life but also for their power to perform their respective functions. So, of course, the manner in which this nervous force is supplied has an important influence upon the physical ability of a horse. Although their nerve power may be abundantly supplied, it depends upon the intelligence of the individual as to whether it is economized or dissipated, hence if plenty power of this kind is possessed it is of little advantage, if not under proper control. Horsemen are wont to observe the dimensions of the forehead as an index to proper brain development, and although this is valuable, it cannot be considered an unvarying guide as to the amount of intelligence or nerve power. Courage, tractability and good temper can only be determined upon with certainty by making a practical trial of the animal. In order that this nervous power can be generated adequately, the brain, etc., must receive a blood supply of proper quantity and quality. The digestive and respiratory organs co-operate in furnishing this; the former in providing nutrition, and the latter, in a great measure, are accountable for its purity. The volume of the chest is an index of the capacity of the lungs, and it is very important that it should have a full proportionate development. The lighter breeds get this capacity by depth of chest rather than by breadth, for excessive breadth is opposed to the free and rapid action of the blade bones, and consequently speed would be impaired from such a formation. In the heavier breeds, a chest roomy in all directions is desirable, and in addition to depth of chest, the ribs should be well sprung, thus affording breadth and giving roundness to the barrel—a point so often spoken of and admired. A horse so formed is pretty sure to have good wind; but well sprung ribs in addition to decided length of the back ribs has another significance, pointing to the likelihood of well-developed digestive organs being possessed, and consequently of ability to consume and convert nutritious matter into healthy blood.

These points are among the most important, for it is on their perfection that the thrift, vigor and staying power of a horse largely depends, but unfortunately we too often find them coming very far short of what is desirable, so that poor feeding, easily fatigued, unthrifty horses are by no means rare.

We have thus far concluded that a sufficiency of nerve force, properly economized, and regularly supplied by a nervous system that receives adequate material to work with, is essential to an animal machine. In order that this power may be used to the best advantage, the machine upon which it acts should be made up of parts of sufficient strength to endure severe taxing, and that these parts may be so put together, and related to one another as to enable them to take advantage of all motive power.

In looking critically at the points of an animated machine, from a structural standpoint, it is only rational to look first at the framework, and secondly, whether the material of which the bones are composed is good. Texture of bone is of more importance, insofar as durability is concerned, than mere size, for we know that the comparatively small bone of the thoroughbred will stand concussive shocks with impunity, that the comparatively spongy bone of the heavy draught would succumb under. It is therefore desirable, in addition to a sufficiency of weight, that the texture be good in order to form a substantial framework. The external evidence of proper quality of texture is afforded by flatness of the canons bones, so that the nearer these bones approach flatness, the closer approximation there is to perfection. In
addition to flatness and good size of the canons, it is very essential that they shall be short, for this improves the animal's harmony of parts to each other, as the muscular force is economized. Good bone development is further evidenced by prominence of such parts as the point of the elbow, hock and hip, in addition to giving leverage to the muscles acting upon them.

The organs of motion and locomotion called the muscles, are not secondary in importance to the framework, and it is very essential to the judge of horse flesh in the selection of an animal with power to move heavy weights, and to proceed with agility or speed to be able to detect indications of much ability, and to discriminate between muscle and fat. There are several situations to be observed for such indications, as for example, in the forearm, by noticing whether there is a swelling out or prominence of that organ, for in such a situation we don't find fat accumulating to any extent, so that what we do find there can be relied upon as muscle.

By glancing between the quarters, detective muscular development can be detected by the existence of a space in that region—commonly described by saying that such an animal is slat-up, and such a formation is regarded as a sure accompaniment of a lack of staying power.

Narrowness of the loin is sure to be associated with a sparse clothing of muscles, which deficiency is well marked when compared with a well-furnished loin, where the muscles are broad, prominent and well defined.

Horses with bull necks are generally hardy ones, and this thickness is due to bulky muscles, but the seeming excess of volume is rather the result of shortness of the organ, a formation which certainly does not add to a horse's appearance and cannot be compared in this respect with one of moderate length, but clean cut and with a feeling of firmness.

There is another factor in the locomotor apparatus which is by no means to be ignored, if full benefit is to be derived from proper bone and muscle, and that is the joints. If an animal is to possess freedom and elasticity of motion, with plenty of surface for the attachment of muscles, the joints should be large, which does not necessitate roughness, the usual accompaniment of large, round, spongy bones.

We have so far discussed some of the more important elements in forming horse perfection, but there are, of course, many minor ones which it is not necessary to handle at present. You will allow me to touch upon one of these, however, as it bears strongly upon the subject of my paper. I refer to hair on the legs.

I ask of what benefit is a superabundant growth of hair on the lower parts of the legs? In answer, I can only quote the reason assigned for desiring it by the most ardent admirers, that it adds to the appearance. If this can be called a good and sufficient reason for the cultivation of this feature in breeding, it can hardly be held to counterbalance the disadvantages its presence entails: a profusion of hair pre-supposes a coarse skin, and a coarse skin means a corresponding decrease in vitality, and consequently a greater tendency to diseases, such as grease, thick legs, and cracked heels. Bushy hair is also a splendid harbor of dirt, and being very retentive of moisture it leads to excessive irritation and itching. It is doubtful, however, where horses are bred for weight at any expense, whether such a feature could be bred out, for the whole tendency is to grossness of constitution, but, where 1500-pound horses are required—and they are surely heavy enough for general purposes—it is quite possible to breed without long coarse hair. It seems strange that hairy legs should be looked upon as a point of beauty in heavy draughts and its absence equally pleasing to the eye in the thoroughbreds.

The heavy breeds to which the attention of the farmer is most given in this country are the Clyde, English Cart or Shire, and Suffolk Punch and Percheron. We have no authentic date with regard to the origin of any of these breeds, which is evidence that they all had an existence at a somewhat remote period. The Suffolk has perhaps retained his characteristics since the earliest recorded accounts, with fewer modifications, than any of the other breeds. He has always been described as the "chestnut," and the chestnut he still remains, although there are half a dozen shades of that color. Other characteristics he has retained with equal tenacity, showing that he belongs
to a source of some purity. The reason for this uniformity of the breed is attributable in a great measure to one district only producing them, where no variety of soil exists, and where their breeders have never brought in any outside blood.

The Suffolk is remarkable for endurance and long life, which is no doubt due to their middle piece, as it shows strong evidence of plenty of breathing capacity as well as developed digestive organs. Their contour is more calculated to impress one favorably with hardihood and utility than with symmetry and stylishness. They belong more to the agricultural class than the heavy draught, but during twenty-three years when Clydes, Shires and all comers were shown in one class at the Royal of England, fourteen first prizes were carried off by this breed. They are frequently found fault with for not showing enough bone, but it is evident that what they do possess is of pretty good quality, for they are unusually sound bred and very free from bone diseases. There is a marked absence of the long hair on the limbs which is so prominent a feature in the English Cart horse and Clyde, and a proportionate freedom from skin diseases of the extremities. The Suffolk is a remarkably unexcitable horse, but with plenty of pluck, and there is no homester drawing animal in the world.

In the English Cart and Clyde we have specimens of, perhaps, the best draught horses known, as they possess the great weight and consequent ability to move heavy loads that entitles them to be put in the first rank. Neither breed taken as a whole can boast of great purity of blood, for there is not that uniformity of color and other features that would allay all suspicions of the introduction of some other blood at no very remote period, and that inter-breeding between the Shire and Clyde had been indulged in from time to time. I think it would puzzle some of the best judges to say to to which stud book some registered animals belong—by appearances. The Clyde certainly possesses greater regularity of features, there being a large number of them of the same bay color, and although some modification is noticeable in different localities, as for example the Galloway and Kintyre breed, yet there is nothing like the variety seen in England, for nearly every country has its own style of the same class. Of the two breeds, the English horse is on the whole the heavier, and consequently less active; he possesses a very upright shoulder, which gives him greater power in the collar, but less freedom of action than the Clyde.

Both breeds have a large quantity of bone, but I am inclined to the opinion that that of the Clyde is in the majority of cases flatter, of better texture, and associated with a finer quality of hair, although it would seem that those who have endeavored by careful breeding to increase the quantity of bone, to meet the never ceasing cry for bone, have succeeded too well, and have produced it to an extent not proportionate to the other parts of the animal. Dark bays or browns are much desired by breeders of Clyde now-a-days, and it will certainly be to the advantage and credit of the breed when they become more common, and take the place of the light bay, so common at present. This light color is certainly anything but pleasing, and it is held by many to be indicative of a want of hardiness. Greys are not favored, but are not objected to so much by producers of the Shire—blacks, browns, or dark bays and greys being the recognized and encouraged colors among them.

Both breeds as a rule show well developed and muscular hind and fore quarters—points so much to be desired—and yet they show prominently the defects of the middle piece, and slender, conspicuous long backs, shallow flat-sided chests, short back ribs and narrow loins. In comparing the two breeds I think the last named imperfections are more frequently seen in the Clyde than in the Cart horse, so that in considering the relative constitutional strength of these two breeds it is to the advantage of the latter.

It is only within the last ten years that our acquaintance with the Percheron has become at all intimate, and during that time they have made a good many friends. It certainly seems to be a breed of some purity, for they present a very uniform conformation, and a very large proportion of them are grey, and a very good grey at that. Their popularity are to some extent owing, no doubt, to the flashiness of their color, but they possess merit of more sterling worth
than mere color, and indeed some think the color their worst point.

They are even lighter than the Suffolk, consequently can lay no claim to be called heavy draught, and are more correctly classed as agricultural, not inappropriately styled "general purpose," being as a rule oblique in the shoulder, most of them are pretty good travellers; they are, however, of rather a dull temperament, which disposition seems intensified in the progeny of a cross with our common mares, endowed with a want of style, ambition, and animation. They are well typed horses but show a marked want of length of neck, which suspends a head of rather an uninteresting character. Although they have very little long hair on their legs the skin is inclined to be thick, and the common bone has a tendency to roundness, with a lack of tender development.

Nine out of ten of our Canadian farmers say that the Clyde horses are not so much for general farm purposes, but have brought lots of money in the American market, and as this demand has fallen off very considerably we are thinking more of what is best for our own use. There is no doubt, whatever, that the Clyde wants stamina and is awkward and clumsy when taken from the plough and driven eight miles an hour to market.

As the record most common in Ontario, I have to tell you that the Percheron has declined in popularity because of a less foreign demand, want of style, too dull, and the half breeds are poor travellers when wanted for such a purpose on the farm; they want range, are poor mowers, and in our experience are less sure at service; the half-breed does not fetch within $40 of others.

You will see then that in Ontario we are in a sort of transition stage between the recent good market on this side for heavy draughts by Clyde and Shire, and what we are looking for as best for farming purposes, or the general purpose horse.

You will not be surprised, therefore, when I tell you that a good many of our cautious, practical men are looking to the Suffolk Punch as the best source of this. There are several crosses of this with the ordinary light mares of the district I come from, and we have them on the experimental farm also. They are active, good walkers, short-legged, plenty pluck, easily kept, and with excellent constitutions. They are a more compact horse, and come nearer the "Roadster" than any of the others we have been discussing.

As we are here to some extent as suggestors, I ask the privilege of inviting discussion on the subject of types of Clyde horses, and what, as Americans and Canadians, we should aim at in breeding them. The subject is not a new one, certainly, but the voice of this meeting may do much good in the present uncertainty among farmers in several districts.

There are in Scotland a larger, and smaller class of Clyde; are these simply irregular variations in general breeding, or are they of particular families, characteristic it may be of districts?

But, having such distinctions from whatever cause, would it not be desirable to advise the owners of unpedigreed American and Canadian mares to patronize the horse of corresponding stamp that common sense, if nothing else, tells us does give less trouble in foaling, and at the same time tend the better to keep up the types referred to.

Then again, if the Clyde advocates claim a share in the production of a general purpose horse, it is obvious that more success would be attained in this line by such a choice in mating, than is possible by the present indiscriminate practice.

Not only so, but systematic work of this kind would save our status as breeders for any market, and corresponding advantages would accrue. Here comes in the value of pedigree and of your place as guardians thereof, for no maintenance of types could safely be entrusted to anything but the true blood, and as the matured size of a two and three-year-old colt is not easily gauged even by the most experienced, those who desire to use such a colt to their mares would have to rely on pedigree as the best evidence of a large or of a small type.

A Blind Boy's Thoughts of Home.

[By J. W. McGalloway, Forest, Wis.]

There is no theme that so stirs one's emotions as this of home. Poets have sung of it in strains most rapturous; orators have given it unequalled eloquence; and there is no form of genius but has deemed it worthy of its most