

reliable. Young horses are always ridden on a snaffle and without spurs, by our best breakers, and are not asked to go in a double bridle and submit to the irritation of the spur, before they have acquired thoroughly good manners. Even after a school horse has been turned out of the school as thoroughly broken, a lot of work has to be done over again, when ridden on the road, and the behaviour in the school of a horse, is deceptive, as far as his behaviour outside of it is concerned. A lady may ride a horse in a school that would be a very unpleasant animal to ride on the road or through the streets of a town, all this preliminary education, and familiarising with strange sights, which is the best one for making him thoroughly safe and reliable, should be done when he is quite young and before he is even ridden, especially in these days of electric cars, and other horse-disturbing mechanism of all kinds.

To sum up, the best English and Irish breakers aim at teaching the horse manners and giving him a snaffle bridle mouth, so that he will go up to his bridle and bend himself in thorough obedience to rein and leg, before putting a double bridle into his mouth. Not that there is any objection to the double bridle, if judiciously used, and, of course, as a matter of fact and of fashion, it is a rare thing, in the English hunting field to see a horse going in anything else. They start with the assumption that the horse is an intelligent animal, and that young horses are as different in their dispositions as children and should be treated accordingly, very often on quite dissimilar systems. They recognize the fact that all horses are not made in the same way, and cannot carry their heads and necks in the same manner, and that it is quite possible for horses to carry their heads and necks in a widely different manner, and still to carry them well; that the natural manner in which a horse carries his head, as long as he is under sufficient control, is the easiest way for him, and should not be interfered with, and they do not require that that control should be excessive. You will see every day, in the hunting field, horses that jump with their heads held low, others with their heads held high, and both jumping remarkably well, and with perfect safety. They also consider that a large majority of well bred and well made horses hold themselves naturally in a good position and move in the best form, without any artificial education being required to teach them how to do so. You can see any day a thoroughbred yearling, that has never been handled, galloping in a paddock. In fact if a thoroughbred race horse has not got naturally a good style of going, handling and breaking will not do much for him. He is broken merely in order to enable him to be ridden and trained, not to teach him how to gallop, that is his natural pace, and the quality of that should come from his breeding and proper conformation. No true male horse carries himself badly, he couldn't carry himself wrong if he tried. As a modern French writer says, I forget his name: "Je ne veux pas d'un système qui prend sur l'impulsion des chevaux." I find that it was the Duc de Nemours condemnation of the Baucher system, or rather the sentence he pronounced upon it, which we think was most perfectly justified. This, too, was the error of the Duke of New-

castle's system. (1) It is a curious old work, written in French, and interesting to those whom you might call antiquaries on horse literature.

### THE HORSE OF ANCIENT HISTORY.

Size of the horse - His disposition - Use in war - Eastern horses and their build.

In Europe the flesh of the horse was used for food long before he was domesticated. The primitive horse was probably too small to carry a man on his back for any great distance, this would render him practically useless for warfare, except when harnessed to chariots. Hence the Greeks, Egyptians, Assyrians, Celts, and natives of India first used him for this purpose. As soon as the improved conditions of domestication increased his size sufficiently, he was used as a charger in war, and in the chase. The probability that the primitive horse was small is based on the fact that all the wild races (described in the last chapter), from which he was taken, were not more than twelve to fourteen hands high. And also in the fact that bits found in the "bronze" age (very ancient) are hardly large enough for a pony.

In the Bible we find many references to, and some descriptions of the horse. From all these descriptions, as well as those of other ancient writers, we must infer that the horse of that period was much less docile than at present. There can be no doubt that ages of training and working this noble animal have changed his disposition to a great extent, and rendered him much more pliable in the hands of man.

What lover of horses does not remember Job's magnificent description of a war horse of his days:

"Hast thou given the horse strength,  
"Hast thou clothed his neck with (thunder,  
"Canst thou make him afraid as a (grasshopper?  
"The glory of his nostrils is terrible.  
"He paweth in the valley, and rejoiceth (in his strength:  
"He goeth on to meet the armed men.  
"He mocketh at fear and is not afraid (frighted;  
"Neither turneth he back from the (sword.  
"The quiver rattlieth against him.  
"The glittering spear and the shield,  
"He swalloweth the ground in fierceness and rage:  
"Neither believeth he that it is the (sound of the trumpet.  
"He saith among the trumpets Ha! Ha!  
"He smelleth the battle afar off.  
"The thunder of the captains and the (shouting.

In Bible times, the horse was used for war and the chase almost exclusively: although in Isaiah 28, verse 28 his use is mentioned for threshing grain by treading it out. "Bread corn is bruised: because he will not....bruise it with his horsemen."

The Hebrews did not use the horse until the time of David, but soon after this their use must have been quite common, for, in first "Kings" we read that Solomon had 4,000 chariot horses and 12,000 cavalry horses. These he procured from Egypt. He not only

(1) Temp. Car. I

bought them for his own use, but for the purpose of speculation, selling to the Hittites for a profit. In his time, the price of a horse was about 150 shekels of silver. This was also the price of a chariot, and a chariot was a simple vehicle, so horses were comparatively cheap in those days.

The countries around Palestine used the horse more extensively than the Israelites. As stated before, he was introduced into Egypt by the Hyksos or "Shepherd Kings," as they were called, "who knew not Joseph," and became abundant. The Assyrians and Chaldeans also used the horse extensively about this time. Their cavalry was very formidable and the chargers highly bred, as Assyrian sculpture testifies. They were bred at this time with powerful shoulders, short thick necks and high crests, in order to make them look fierce and terrify the enemy. "The trappings of the Assyrian charger were many and complicated. The bridle was commonly placed over the nose, although some used bits. His head was decorated with tassels and bows, and a collar was placed round his neck. This ornament carried a bell, which swung under his throat. Only one saddle has been seen in Assyrian sculpture, so we may infer that they were not commonly used. In place of saddles many of the warriors covered their horses with embroidered trappings. The Assyrian horse was not shod, therefore hooves "as hard as flint" were of great merit, and were probably sought after and bred for.

At this time, two breeds of horses even used: "Sûs" denoted large heavy horses used for chariots, perhaps these were brought from Susa, and hence the name. "Parash" denoted a cavalry horse which was more active and lighter.

According to sculpture found at Persepolis and Babylon, the Persian gray of antiquity was almost equal in bulk to the heaviest draft horses of today. The statue of a Roman horse of the second century B. C. is large and powerful, with the same general shape and appearance as the Assyrian.

Agriculture was the last use to which the horse was put. The earliest suggestion is seen on the "Bayeux tapestry," which was made in 1066, by the wife of William the Conqueror, to commemorate his conquest of England; in it, a horse is drawing a harrow. But this must have been an exception, as oxen were used almost exclusively long after this event.

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### The Grazier and Breeder.

#### COW POINTS.

The inquiry addressed by Prof. Spillman last week, on page 135, to Dr. G. M. Twitchell, under the caption, "The Score Card for Cows," was in many respects one of the most valuable bits of dairy reading ever laid before a dairy farmer. We say valuable because of two reasons:

(1) It is extremely rare that the dairy farmer ever hears or reads a discussion like that.

(2) Nothing can be of more value to the dairy farmer, if he is worthy of association with good cows, than to be brought to a study of the points or ex-

ternal signs of a good cow, and the principles which govern in the establishing of those points. There is not a trotting-horse man in the world but what would give big money if he could pick out a trotting horse by external signs. Yet we know that slowly the science of breeding and judging is bringing out lots of men who can "guess mighty close" in that particular.

The same necessity applies in a dairyman's judgment of a good cow. In reading the questions and answers, we felt that Dr. Twitchell's reply, excellent as it was, hardly reached the point of a full explanation as to what is meant by certain of the points named. For instance, why do we call for a dished face in a cow? This is the reason: The dishing of the face is caused by the prominence of the eyes on either side. A large, full eye is one of the several signs of a strong decided nervous temperament. By a strong nervous temperament, we mean in one thing, a large supply of nerve force. This is one of the most necessary things a cow must have if she does large dairy work and is strongly supported in that work. Another good indication of the nervous temperament is a strong rugged back bone rising above the withers, with the ribs set wide apart. Such a back bone, taken in connection with the appearance of the head and general lean dairy outline and build, also the bearing and action of the cow, is an indication of an extra large marrow which shall furnish an abundant supply of nerve force to the mammary organs of the cow.

In speaking of the "pelvic arch" is meant the strong rise of the back bone between the hips and the setting on of the tail. Turn to the pictures of nine out of ten of the great performing cows that have lived, and it will be seen that they have a pronounced "pelvic arch." This is essentially a dairy point. Hence a cow of that form has not a "straight back from the horns to the setting on of the tail," as is so stupidly set forth in the scale of points of most of our dairy breeds. This "straight back" business comes to us from the Short-horn breeders. It is a beef outline and has no physiological relation to the function and consequent form of the true, well developed dairy cow. Indeed it is a hindrance to such functions. In the pelvis is contained the organs of maternity. Milk breeding and milk giving, as in these modern times we want them in the modern cow, is simply a large capacity for maternity. There the question begins and ends in the modern dairy cow. We want her constructed, shaped, formed and endowed, physically and mentally, for the large maternal work she must do if she is to be of any profit to us, and as an indication to that end we call for a pronounced "pelvic arch."

On the question of the "touch" or "feel" of the skin and hair, it may be well to say that judgment in this particular can not be told in words. It is something like the sense of taste or smell. No one can describe in words the difference between sweet, sour or bitter, or the difference between the smell of a rose and a poppy. The dairy "feel" must be learned by practice. Take dairy cows and beef cows, side by side, and study the difference in the "feel" of the skin and hair. The "touch" is a strong indicator of vigor of condition.

We trust Dr. Twitchell will pardon our "put in" on this discussion. It is a broad, and as yet, but little explored