

they should be removed in 10 to 14 days. Constitutional treatment consists in administering a laxative of six to eight drams aloes and two drams ginger at first, and feeding lightly on hay or grass and bran. When wounds are treated as above it is seldom that condition known as proud flesh occurs, but should it occur as the result of neglect or other causes, it can be detected by the lips of the wound assuming a dark-red color, and a refusal to heal. In such cases the parts should be dressed once daily, as often as necessary, with equal parts tincture of myrrh and butter of antimony, applied with a feather. "WHIP."

STOCK.

Breeding as a Business.

[Address delivered by Hon. John Dryden, in Congress Hall, St. Louis Exposition.]

To be able to plan and carry to completion a modern city building without a mistake or misfit, or to build one of the great floating palaces now used for commerce on the ocean, are feats worthy of the twentieth century. Scientific knowledge is essential to those who undertake such tasks; and accuracy in every detail of workmanship can alone lead to success. The whole world gives its meed of praise to those who undertake and carry forward such enterprises to completion.

But these men are dealing with dead matter, which can be seen, which can be measured to the closest fraction, and shaped according to the will of the builder. How much more credit, therefore, is due the man who, dealing with living matter, shaped under influences which he can only indirectly control—trying to build what his eyes cannot see, and yet with an ideal in his mind, and working year by year nearer its approach—eventually succeeds in presenting for your inspection a living animal, healthy and vigorous—developing for you thick flesh in the most desirable parts, and, withal, keeping an eye to beauty and symmetry, so that the animal delights you as you gaze upon it. I assert that such a man deserves far more credit, and is, in the highest sense, a more worthy builder than he who deals only with stone and wood and iron.

Especially is this true when it is remembered that the ideal cannot be reached in one generation. A single individual may be produced, but that is but a beginning. What the breeder aims at is uniformity in his whole herd or flock, all being of one type, and that type of the greatest excellence possible.

Let it be conceded at the outset that this will never be reached by accident or in any haphazard way. It must be by carrying out a well-considered course, intelligently planned by one conversant with all conditions with which he has to deal. The man who builds a herd or flock or stud, is in precisely the same position as he who erects a building or a ship. The result or outcome of his work must first exist in his own mind. The chief difference in the two lies in the fact that in the first case the builder will be able, before he commences his building, to place his model on paper, while the latter cannot do so, nor can he perfectly show it to another. But, I repeat, the ideal towards which all his work continually points, must be ever present in his own mind.

I am not setting forth the course of the ordinary breeder, but rather of the man who has, by diligent application of correct principles, reached such results as prove to the onlooker his sound judgment in the selection and mating of his animals. Such men, I admit, are not numerous, but they have lived in the past, and have shown to the world marvellous results. I have had the very great pleasure of coming in contact with a few such men, who have been prominent in successful work of this character in recent years. The late Mr. Cruickshank, of Sittytton fame, was admittedly one such man, working with a definite plan for the perfecting of his Shorthorns. Andrew E. Mansell, had he continued in England, would undoubtedly have proved his right to be classed in the same list, as he perfected his flock of sheep. Others are working along the same lines at the present day, but they have not yet reached their conclusions. The vast majority, however, are working entirely at random. How many men in any given township in your State could give you an intelligent reason why they are using a certain horse, or what they expect to produce by the mating proposed? They hope to produce a living colt, but the precise type is a mere guess. I am not going too far when I say that the vast majority of the breeders of live stock on this continent are following, in part at least, the same happen-chance methods. To some extent good results are seen, but my point is that it is not generally the result of any definite plan. A male animal is selected which happens to be a wonderfully prepotent animal, and the result is satisfactory; but he is probably followed by one which tends to spoil the former success, and it may be years before the owner can happen on another.

I am ready to assert that the results of mating animals together are controlled by certain de-

finite principles, and it should be our constant study to discover what they are. The subject ought to be more frequently discussed, so that by a comparison of ideas from different individuals, wise conclusions may be more rapidly reached. After all you can do, the fact will remain that the most successful breeder must depend on his own judgment and intuition for success. So much must be taken into consideration; such nice balancing of points. For instance: A grand and masculine head against a weakness of the loin, where the choicest of the cuts are obtained; a noble carriage, but a lacking in width of chest;—which ought to be taken? An unlimited number of problems are always facing you, and that close, keen judgment which always chooses the best under the circumstances, is seldom found in one man. It is so natural for most men to see always one or two points, and miss altogether others that may be of greater value. The color of the horn or its peculiar shape, seems to some more important than the covering of flesh, the quality of which they may not feel competent to judge. Others may be enamored of a level rump, while they do not see a narrow chest; and still others with entirely different points, which are always in view while others are unnoticed. Such persons can never reach anything like perfection. The whole animal must be considered, and as none are absolutely perfect, the greatest ability to evenly balance the various points always wins in the result.

There are some things which, in my opinion, ought to be considered as essential. A horse



A Typical Hereford Head.

which is used to draw or travel, no matter how handsome, is useless without sound limbs and good feet. A cow kept for dairy purposes, with beautiful conformation, but no milking propensity, is utterly useless. A beef animal which cannot be brought to selling-time under four or five years, is but a cumberer of the ground, and gives no profit. The essential points ought always to exist, but if not, then the skill of the breeder must supply them by proper selection and mating, or his breeding operations will prove a failure.

The essential points cannot well be named in this address, for the reason that they differ in different species. For instance, an essential point in a dairy cow is ability to give milk in sufficient quantity and of proper quality; no matter what else exists, this must always be essential. A beef animal must be of the early-maturing kind, in order, in these days, to give profit. This is not essential in the dairy cow, but certainly it is for beef production. It is essential that the horse which is to show great speed, must possess entirely different characteristics to those just mentioned—great breathing power as well as strength of muscle and bone; and so on as to other animals.

Suppose, then, it is desired that we should embark in the business of breeding; how are we to proceed, and what are the principles which govern? (In discussing this matter further I shall use the term "herd" alone, as covering also flock and stud.) The herd consists of two parts, the females, and the male with which they are to be mated. In its commencement, it is well that the proprietor should have a definite

idea of what he wants, and make his selection of the females first, so that in the beginning the herd may show some degree of uniformity. This is specially important where only one male is needed. Then the male may be selected with a view of improvement, and considering the needs or weakness of the females. When the herd is sufficiently large, so that several males are required, a greater opportunity is afforded for complete success. It is said that the male is half the herd. I go farther and say that, if he is of the right sort, he is frequently far more than half the herd, and his selection becomes of the greatest importance, because in this there will frequently lie success or failure.

Suppose you have decided what is needed in conformation in your sire, and you are fortunate to find him, will he certainly fulfil your expectations? He may prove a complete failure, because he does not, when mated with your females, either improve them or reproduce himself. What is the matter? I cannot certainly answer, but I venture to assert that it will most frequently be found in lack of one or both of two characteristics. First, a lack of strength in blood lineage, or, second, a weakness in impressive character, which precludes the possibility of accurate reproduction. In order to discover the character of the blood lineage, it becomes necessary to examine the breeding. This can only be ascertained by a study of the pedigree. Here the young beginner meets another difficulty. The pedigree conveys to him no information. There are some who would improve it by extending it so as to show a more complete lineage. Still it expresses nothing which gives complete information as to the power of the animal to transmit his own excellence. If it is to be of any value, there must accompany the pedigree a statement of the history of the individual animals mentioned in it. An extended pedigree will not furnish this, and to him who is well informed, it is not needed. To a man well versed in modern Shorthorns, the name of "Heir of Englishmen," or "Champion of England," or his son, "Lord Lancaster," "Perfection," "Scottish Archer," and others, is sufficient. The line of breeding as well as the individual characteristics are at once before the mind, aiding in forming a correct judgment. If these ancestors are known to carry the same useful qualities, then it may be taken for granted that the animal being considered will have a much better chance of prepotency than if a diversity of qualities is seen to exist in the ancestry.

But the pedigree is not alone sufficient; the individual character of the animal must be under inspection also. All of us have seen animals carrying a pedigree which could not be questioned, and yet the results from their use were entirely disappointing. It is evident that the individual qualities must first be considered, and if these are satisfactory, then the pedigree may be studied with a view of ascertaining the probable prepotency of the animal as a sire. What I am now seeking to impress on you is that, both in individual character and pedigree, the animal should please you. You will then have a double reason for his use. Yet it is true that occasionally an animal inferior in quality, but tracing to a splendid ancestry, will give greater success than another with less intensity of blood, but much superior in appearance.

I presume that Champion of England was the most prepotent bull among Scotch Shorthorns in recent years. He was well bred, but he was not intensely bred. His appearance, to the practiced eye of his owner, indicated from the beginning his value in this respect. His sons for many years were selected in the same way, then his grandsons, until the blood of every animal in the herd possessed great power to reproduce a similar type.

Someone will want to know what are the marks of such an animal? Can he be always distinguished from his inferior mate? I believe it is impossible to fully and completely describe him. He should be looked at all at once, and not merely point by point, so as to balance the whole animal; defect against strength, and strength against weakness, in the different parts. There is a kind of intuition, developed by experience and observation, which aids in right conclusions, but which cannot well be described. It is no doubt true that a sire cannot be properly selected unless a knowledge already exists of the females with which he will be mated, and it is quite possible that two men standing at the ring-side may purchase two animals, quite different in special characteristics, and yet both be abundantly satisfied.

In a general way, a female should be feminine in character, while the male should be entirely the opposite. He should not be coarse, although he may be large. Experience proves that the very worst results are seen from the service of a large, coarse animal. He should be straight in his lines, with compactness of body; fairly strong in his limbs, but of good quality. He should have a brave, gentlemanly bearing, with clear evidences of intelligence and docility, as indicated by width of forehead, and a short, rather than a long face; a bright, keen eye; a neck not too