



**A COLLIE.**

A Light Brown Dog With a White Collar and Blue Blood.

A collie of what is said to be the perfect type is here shown. He is light brown in color. This beast has probably won more prizes at dog and other shows than any other collie now living.

He is an imported dog and has the honor of being the sire of one of the



CHAMPION COLLIE.

most beautiful collies on the English queen's farm. He now belongs to a well known show kennel in Philadelphia.

In this handsome animal's face, brute though he is, are more life, kindness and intelligence than in some people's, and we would rather live with him. A good collie on a stock farm is invaluable, and a bad one is worse than a bad boy.

**A Horse's Leg.**

The measurement of a horse's leg below the knee is no correct indication of the size of bone in that region any more than it is of its general quality," says a correspondent of the London Live Stock Journal. "In large, coarse draft horses this is particularly the case, and the coarser they are the more deceptive is their measurement. A leg clothed below the knee with a thick skin and an abundance of subcutaneous tissue will girth considerably more than another of equal and even larger bone. Many Shires beneath their long, silky feather have remarkably clean legs, and the fineness of the feather is generally indicative of clean limbs underneath. Large knee joints are highly prized, and rightly, because large joints are evidence of large bone beneath them. Each joint has a relative proportion to the bone immediately below it. In quality it is admitted that bone differs greatly—that the bone, for instance, of a race horse, although smaller, is of greater density than that of a dray horse. The cannon bone of the antelope is almost as solid as ivory, while the ponderous wild mammalia have leg bones of considerable porosity. Thick skin, a large amount of subcutaneous tissue on the legs and coarse hair from the knee downward usually denote a sluggish lymphatic temperament and vulgar blood ligaments, and as to 'flat bone' it is a misnomer, but flat legs are desirable, for to approach this form the back tendons must be well developed, whereby strength and durability of muscle are assured at one of the weak points in the exterior of the bone."

**Dyspeptic Hogs.**

The acidity of the stomach, which is the result of feeding hogs exclusively on corn, may be temporarily corrected by feeding charcoal. But in this case, as in most others, prevention is better than cure. The hogs fed with a properly balanced ration, including some fine wheat middlings and a few roots each day, will not be troubled by acid stomach. Acidity is a sign that fermentation has progressed to its second stage, the first being alcoholic. It is not possible to cause food to ferment in even the slightest degree without some waste of its nutrition. When fermentation progresses so far as to make acidity of the stomach, the loss is much more considerable. This is in addition to the loss by impaired digestion, of which mention has before been made.

There is no reason why hogs should be troubled by poor digestion. The power of the pig to get nourishment out of all food given it is greater than that of any other animal. If pigs were never, even in fattening, kept on concentrated food, they ought always to keep the perfect digestion with which the young pig nearly always begins life. We say nearly always, for it is one of the most serious facts in pig breeding that by feeding a breeding sow mainly on corn or other concentrated food her pigs will be stunted even before their birth, and, if we may use the word, predestined to runhood during their entire natural life.—American Cultivator.

**The Shire.**

The Shire horse, the descendant of the Lincolnshire black, is bred for the most part in Yorkshire, Lincolnshire, Berkshire and Oxfordshire. The horses bred in these counties differ from one another in size and character, each county, perhaps owing to differences of soil, possessing its own peculiar type, yet although such is the case they are all true specimens of the Shire horse and exhibit the distinguishing characteristics of this breed in their size, form and great growth of hair about their heads. They usually have large heads, good muscular shoulders, wide chests, short backs, with well developed pelvis and thighs.

These animals are bred to the highest perfection in the fens of Lincolnshire, some growing to 17 hands high before their third year. From this fact it would seem that soil had some effect in producing size. Youatt, who wrote upon this subject 50 years ago, will not give the land the credit for such development, but considers that certain situations are better suited than others for the various kinds of farming and the breeding of different animals, and "that it does not depend on the soil or pasture." It may be, however, attributed to the moisture of the soil and the invigorating atmosphere which pervades this country.—Nineteenth Century.

**THE CHICAGO SHOW.**

Fat Stock and Horse Exhibitions Will Be Held Together.

The Illinois state board of agriculture has drafted the prize list for the American horse show, which exhibition will be resuscitated at Tattersalls of Chicago's big horse mart Nov. 22 to Dec. 1. The fat stock show will be held in connection with this exhibit, but it is not probable that this show will be of an extent that will encroach seriously on the space for horses. The prize list is quite comprehensive, including classes for thoroughbreds, standard breeds, Cleveland bays, French coaches, German coaches, hackneys, Morgans, roadster stallions, gaited saddlers, Shetland ponies and all the draft breeds, together with rings for four-in-hands, tandems, carriage pairs, hunters, jumpers, etc. Each breed named is given three rings—4 years old or over, 3 years old and 2 years old—in both sexes, and prizes are uniformly \$25 for first, \$15 for second and \$10 for third. It is greatly to be regretted that the rings for yearlings and foals have been omitted. The accommodations at Tattersalls are limited to 330 stalls, and Superintendent Pace states that he could not possibly figure out room enough for the youngsters, and solely on this account rings for the yearlings and foals are not provided. There are no stables in the immediate vicinity to accommodate an overflow, and it is thought that the stall room will be taxed to care for the older horses which will be shown.

We fear this omission will militate greatly against the show of draft horses, and it is to be hoped that after the entries give some idea of the numbers room may be found to accommodate the young things in the exhibition of which our breeders take such great pride. In view of the limited number of stalls at the disposal of the board, it will doubtless be well for exhibitors to file entries immediately, as late comers may have to be rejected for lack of room. The board has been compelled to adopt a rule that not more than two entries in any ring will be accepted from any one exhibitor.

A total of \$15,000 in prizes is offered, which amount exceeds by about \$2,500 any previous offering at this show. The prizes are not large, but it must be remembered that the chances for gate money are not nearly so good as when the show was located on the lake front. A guaranteed fund of \$10,000 has been subscribed in this city, and every effort will be made to bring out a crowd. Special attractions will be arranged for the evenings, and over \$7,000 of the total prize money has been set aside for light horses, in the hope that the entries and support of those who drive and ride in this city may be enlisted. The exhibition is undertaken under disadvantages, but if horsemen give it hearty support it will doubtless lead in time to the erection of a building in this city which will be in every way suitable for the holding of the greatest horse show in the world.—Breeder's Gazette.

**Horse Evolution.**

The largest pair of horses shown at the cart horse parade, remarks the staid London Spectator, were two bays that stood 18 hands and probably weighed at least a ton each and were capable of drawing a weight of over four tons in addition to their driver. Compared with the average size of the nearest approach to the wild horse existing, the tarpan of the Kibiriz steppes—for the animal which Prejvalski claimed to have discovered in the highlands of Gobi is too like a wild ass to be accepted as the primitive ancestor of the horse until more evidence is forthcoming than is at present available from such remote and inaccessible regions—these mammoth horses show an increase of about one-third in height and three-quarters in bulk and weight as the result of human effort directed mainly to the increase in size in just proportion in a particular animal. The natural inference from this fact is a doubt whether the limit of size which nature seems to have set to the growth of particular species is really as fixed and arbitrary as might appear from the experience of ages, even in cases where the conditions are more favorable to their perfect development than are the Asian steppes to the growth of the horse. The general weight of what is called "paleontological" evidence seems to favor the last supposition.

**Live Stock Points.**

At the St. Louis fair the live stock that made the poorest showing was the horses. There was a mule race, though. The celebrated running mule of the editor of the Arizona Kicker ought to have been there, but he wasn't.

To put flesh on an old or thin animal Professor Stewart says: "Dissolve a pint of molasses in a gallon of water. Mix 3 pounds clover hay, cut to half inch lengths with 2 pounds buckwheat flour and 2 pounds of wheat bran. Wet this with the sweetened water. Feed this amount three times a day, giving a little less for the first day or two."

Cows that are handled by rough and violent drivers and stablemen are much more subject to abortion than those treated gently. A man in Pennsylvania kept a dairy in which the cows were continually aborting. They were tied in stalls so short that it was with great difficulty one cow could squeeze behind another. They crashed and injured one another in passing into and out of the stalls. Besides that the boys who took care of these unfortunate cattle used to raise a great hullabaloo and crack wagon whips over their heads to rush them into the stable. Then the farmer wondered that his cows gave birth to dead calves.

In building a cow stable be sure to make the doorways wide enough so that cows near to calving time may pass through without crowding or crushing their sides against the doorway. This is sometimes a cause of abortion. Yet another cause is horned among cattle. Pregnant cows should not be allowed in yards where cattle hook one another



**WINTERING BEES.**

Causes of Failure—Requisites to Success. Wintering on Summer Stands.

There are so many cases of failure that the problem of a successful wintering of bees cannot be too thoroughly studied. The main causes of such failures are: A population too weak to maintain a sufficient degree of heat in the hive; a quantity of food inadequate to the needs of the colony during the winter months; food of so poor a quality that bees living on it cannot remain in good health; a hive which cannot sufficiently protect bees against the cold of winter; a hive so close that the dampness produced by their breathing wets the bees, their comb and their food; a sequestration of bees, too long protracted to allow them to get rid of their feces before they become sick with diarrhoea. To overcome these difficulties beekeepers have tried several ways of wintering bees—on their summer stands, in rooms above ground, in silos, in cellars. Charles Dadant, whose successful operations in the apiary cattle his opinions to consideration, says in a communication to Prairie Farmer:

The first requisite to succeed in wintering bees on their summer stands is a large population. A part of it ought to be young bees. A large population maintains easily the heat inside the hive, and the bees can easily pass from an emptied comb to another containing honey. A colony containing a quantity of young bees succeeds better in its wintering than another with old bees only, because the young bees, who have gone out of their hives but a few times, are more careful and do not rush out far from the hive, as do the older bees.

Honey is the only food necessary in winter for bees on their summer stands, but it is to be noticed that the food is used not only to sustain life, but to produce the indispensable warmth, for it has been often ascertained that a large population has consumed less in winter than a smaller one, whose bees were compelled to eat more to keep warm. It is generally admitted that 25 pounds of honey per colony are not too much to spare the beekeepers all anxiety about the needs of their bees during the winter.

When but a few colonies of an apiary are short of honey, the most simple means is to take from those which have some to spare what the others need. Such an operation is easy with movable frame hives. But when no colony has any honey to spare, and this happens often to beekeepers who use small hives, the best food to give is sugar syrup, fed to the bees in October. This syrup, made with a quart of boiling water and 4 pounds of granulated sugar, to which a pound of honey or more is added to prevent crystallization, is given at evening, when yet tepid, in old tin cans covered with a piece of cotton cloth and inverted on the upper bars of the frames. The bees suck the syrup through the cloth. The Hill bee feeder, made on the same principle, but entirely of tin, is also used and saves much labor. A strong colony can put in the comb in a single night the contents of three or four of these cans. But the insufficient quantity of food is not the only want to be supplied. Its bad quality should also be feared, for honey dew, or dark honey from fall flowers, contains too much indigestible matter.

When the cluster of bees is unable to produce the indispensable warmth during the cold days of winter, they die sometimes partially and often wholly. To prevent such accidents some beekeepers use chaff hives, or hives with double walls, the interior of which is filled with chaff or with sawdust. Some other beekeepers, for winter, lodge every one of their hives in a large box furnished with a passage for bees. We prefer to protect our hives during winter only against the northern winds. Our method is to heap around each hive a pack of dry leaves or straw, which is kept against the hives, on three sides, with rope ladders, each of which is made with about 12 half laths, leaving the front side of the hive free, so as not to prevent the sun from warming the entrance during the few warm days of winter. Before winter we remove the airtight ceiling which covers the top of the frames of our hives and replace it with a straw mat, on which we heap up dry leaves. The dampness produced by the bees passes through the mat and condenses in the leaves which are wet by spring, while the inside of the hive is very dry.

**Husking Corn by Machinery.**

There are corn huskers and fodder cutters with a capacity of 200 to 300 bushels of corn per day and requiring six to eight men to manage the same. An Indiana correspondent of The National Stockman who has had his shock corn handled by one of these machines thus describes it: The large size has a capacity of from 200 to 300 bushels per day, owing to corn and time of year. With low wheeled trucks, two or three hands and teams will deliver the fodder to the machine, one man and team with two wagons will care for the husked corn, and one man with the aid of the 16 foot elevator will care for the chaffed fodder.

The machine has two snapping rollers that mash the stalk, and the four knives tear it in pieces, so that there are no whole sections to hurt the mouths of stock. The husks that are taken off by the husking rollers are not cut, but are elevated with the fodder, and the corn is elevated into the wagon without any hand work. As soon as the corn will keep in small bulk your fodder is ready if you will be sure of one thing—avoid all foreign moisture. The sap that is in the stalk will not injure it if you tramp it down and do not stir it. It will heat, but do not molest it, and it keeps very well, coming out a little dark, but stock relish it as they do silage.

**EGGS IN WINTER.**

How a Small Flock of Mixed Hens Were Made Profitable.

It is very desirable to have hens lay well in cold weather, when eggs bring a good price. To succeed in this is within the reach of all who keep fowls. It cannot be accomplished without effort, however, which must be kept up as long as stormy or cold weather continues.

Much depends, of course, upon the breed of fowls. An American Agriculturist correspondent, writing on the subject, says:

I am inclined to think that a flock of mixed hens will produce more eggs than any one kind. Not only does my own experience teach this, but observation among other poultry keepers as well. While some breeds may well be called general purpose fowls, the Leghorns are probably unexcelled for eggs. It is useless to look for large quantities of eggs from the heavier breeds. Where one wants both eggs and market fowls it is well to keep more than one breed. An entire flock of uniform color is more pleasing to the eye, but a mixture is more satisfactory as an all around flock.

Last winter I had a flock of 35 hens, ranging from pullets to hens 4 years old. They were a mixed lot. Some Plymouth Rocks, some grade Langshans, a few Light Brahmas and a goodly proportion of Brown Leghorns and their grades. They had been laying well all summer, with scarcely any decrease in eggs production at molting time, as the pullets were then beginning to lay. At the beginning of cold weather their house was lined with building paper and six or eight inches of sand thrown on the earth floor. As long as the ground was bare they were allowed the run of the yard, but were kept shut in on cold and stormy days. The feed was a warm mash in the morning, with a teaspoonful of cayenne pepper in it. This mash is very easily made.

At breakfast time every morning the teakettle was filled with water and put over to heat. By the time breakfast was over the water was hot. It was put into a large pail and stirred with a mixture of bran and middlings as thick as it could be. On the floor we had a quantity of cut straw and chaff, and into this were thrown four quarts of mixed corn, oats and wheat at about 4 o'clock in the afternoon, so that the hens could scratch it out before dark. Fresh water, with the chill off, was before them every day. All the meats scraps from the table and the offal of butchering days, bones with some meat on, all went to furnish animal food in absence of insects. Now for results. On no day through the entire winter did they lay less than half a dozen eggs, and through January and February the average ran from 10 to 20 eggs every day, with occasionally as many as 24. In extreme cold weather they were kept in their house all the time. The house is 16 by 24 feet, and besides the hens there were two cocks and ten hen turkeys kept in it. With eggs from 18 to 24 cents a dozen, it is worth while "to fuss" with hens.

**Select Sweet Corn While Husking.**

The progressive farmer always breeds from his choicest stock and plants seeds selected from the very best of the crop. By this means he overcomes the constant tendency to degeneration and secures strains of varieties and breeds which are best adapted to the soil and climate of his farm. This is especially true of maize, of which only the best filled ears from vigorous stalks should be used for seed. At husking time this selection can be made to the greatest advantage. Whenever a choice ear from a good stalk is found, the husker should throw it into a separate pile or into the front part of the wagon. When unloading, these best ears may be thrown into barrels or boxes, and when resorted may be stored in a dry room for the winter. Such continuously selected seed corn will soon make a neighborhood reputation for yearly improvement.—American Agriculturist.

**A New Departure In Fairs.**

The Farmers' Review calls attention to a novelty in way of fairs reported from Peru, Ind.: The first day of the street fair proved that the exhibition, which continued one week, was to be a complete success. Broadway, the principal business street, was crowded from one extremity to the other with exhibits. It is an attraction somewhat similar to a county fair, but with the exception of being held on the streets and being free to everybody. All the merchants erected booths in front of their stores and displayed their goods, and in the center of the streets the stock and other farm exhibits were shown.

**Agricultural News and Notes.**

Corn is one of the cash crops this year. Considerable waste molasses is produced at beet sugar factories in France and Germany. The latest plan is to mix it with bran, meal or palm nut meal, dry into cakes and use for feeding cattle. It has not given good results with other stock.

Rural New Yorker says that the feeding of wheat to live stock will have a doubly good effect. It will decrease the market supply and perhaps help up the price, and will show farmers the advantage of feeding some more nitrogenous food than corn.

Paris green is made by dissolving white arsenic and acetate of copper separately in boiling water and mixing while boiling. There was once a "boom" for white arsenic alone as an insecticide, but this has died out.

The latest novelty is "artificial cream," which may be used to enrich skim milk or mixed with any other liquid. It is made by emulsifying any suitable oil with a solution of gelatin and diluting with water to the proper consistency.

The largest silo in the world is said to be one built by J. T. Polk of Indiana. It is 150 feet long, 46 wide, 18 deep and has a capacity of 8,000 tons of ensilage.



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