■ PONIES , ASSES, and
MULES

I. C. S. Textbook

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JOHN A. SEAVERNS

International Correspondence Schools

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with Examination Questions

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Ponies, Asses, and Mules
By I. C. S. Staff

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ADVICE TO THE STUDENT

You learn only by thinking. Therefore, read your lesson slowly enough to think about what you read and try not to think of anything else. You cannot learn about a subject while thinking about other things. Think of the meaning of every word and every group of words. Sometimes you may need to read the text slowly several times in order to understand it and to remember the thought in it. This is what is meant by study.

Begin with the first line on page 1 and study every part of the lesson in its regular order. Do not skip anything. If you come to a part that you cannot understand after careful study, mark it in some way and come back to it after you have studied parts beyond it. If it still seems puzzling, write to us about it on one of our Information Blanks and tell us just what you do not understand.

Pay attention to words or groups of words printed in black-face type. They are important. Be sure that you know what they mean and that you understand what is said about them well enough to explain them to others.

Rules are printed in *italics*; they, too, are important; you should learn to repeat them without looking at the book. With rules are usually given *Examples for Practice*. Work all of these examples according to the rules, but do not send us your work if you are able to get the right answers. If you cannot get the correct answer to an example, send us all of your work on it so that we can find your mistakes. Use one of our Information Blanks.

After you have finished studying part of a lesson, review that part; that is, study it again. Then go on with the next part. When you have finished studying an Instruction Paper, review all of it. Then answer the Examination Questions at the end of the Paper. It is not well to look at these questions until you have finished studying and reviewing the whole Paper.

Answer the Examination Questions in the same order as they are given and number your answers to agree with the question numbers. Do not write the questions. If you cannot answer a question, write us about it on an Information Blank before you send in any of your answers.

Remember that we are interested in your progress and that we will give you by correspondence all the special instruction on your Course that you may need to complete it. Remember, too, that you will get more good from your Course if you learn all that you can without asking for help.

[1½]

INTERNATIONAL CORRESPONDENCE SCHOOLS

PONIES, ASSES, AND MULES

PONIES

GENERAL REMARKS

1. The distinction between ponies and horses is made almost entirely on a basis of size of the animals. In general, all horses, regardless of type or breed, that are less than $14\frac{1}{4}$ hands high are classed as ponies. The small size of ponies may be attributed largely to the adverse climatic conditions, the scanty supply of feed, and the inbreeding to which the animals were subjected for many generations. Distinct types of diminutive horses, or ponies, are found in almost all countries. Thus, in the western part of Asia, there are the Arab and its near allies, the Turk, the Barb, and the Persian ponies; in the eastern part of Asia, the Mongolian, the Japanese, the Korean, the Burma, and the Manipura ponies; in the northern part of Europe, the Russian and the Scandinavian, or Norwegian, ponies; in the British Isles, the Shetland, the Welsh, the Exmoor, the Dartmoor, the New Forest, the Scotland, the Galloway, and the Connemara ponies; in Iceland, the Celtic pony; and in America, the broncos that were originally found in the southwestern part of the United States and the northern part of Mexico, the Indian ponies, found originally in the northwestern part of the United States and the western part of Canada, the Creole ponies of Louisiana, the Sable Island ponies, and the ponies of the South Atlantic States. Besides these regional breeds, or types, of ponies, there is a general class of ponies being developed for use in playing polo that are known as polo ponies. Only those ponies that are of most importance in America, namely, the Shetland pony, the Welsh pony, the bronco, and the Indian pony, will be discussed in this Section.

FIG. 1

BRITISH ISLE PONIES

SHETLAND PONIES

2. Nativity of the Shetland Pony.—The native home of the **Shetland pony** is a group of about one hundred and twenty islands known as the Shetland Islands, which are located from 150 to 200 miles north of Scotland. Although these islands are rather far to the north, the climate is tempered by the Gulf Stream, in the course of which the islands are located. However, the winters are long and severe, the wind blows almost constantly, and dense fogs, mists, and cold rains are much in evidence. Some of the islands are uninhabited and offer only scant pasturage for the few sheep or ponies that are pastured on them and that, from the earliest history of the islands, have been known to exist there. The severe weather, the scarcity of feed, which consists only of hay and pasture, and the fact that but little if any shelter is ever given to the ponies may account largely for the small size, the enduring qualities, and the heavy coat of fine hair of the Shetland ponies.

3. Description of the Shetland Pony.—The average size of pure-bred Shetland ponies, which are the smallest of ponies, ranges from 9 to 10 hands; although the minimum and maximum heights may be placed at $7\frac{1}{2}$ and $11\frac{1}{2}$ hands. The relative size of a Shetland pony and that of a large work horse is shown in Fig. 1. The limit of the height of ponies that may be registered by the Shetland Pony Stud Book Society of Scotland is 42 inches; the American Shetland Pony Club will register pure-bred Shetland ponies that are 46 inches in height at the withers. The height and weight of a Shetland pony may be increased by giving it better care and more feed than it had formerly received. Thus, a pony brought from the severe climate and scanty supply of feed of the Shetland Islands to the more temperate climate, luxurious pastures, and abundance of feed of the corn-belt region of the United States will, if not too old, increase in size. Also, the offspring of such ponies

FIG. 2

FIG. 3

FIG. 4

have a tendency to become much larger than their parents. The weight for a Shetland of average height will vary from 325 to 375 pounds.

The general appearance of the best specimens of Shetland ponies is that of a diminutive draft horse. The body is deep; the legs are short; the back is short and broad; the chest is deep and full; the bone is fine, smooth, and strong; the neck is short, muscular, and slightly arched; the head and ears are small; and the eyes are prominent. In color, they are usually brown, black, or bay; although dun, chestnut, gray, piebald, and some with white markings are not uncommon. Those with white markings, such as the mare illustrated in Fig. 2, are very popular.

The coat of the Shetland is long and shaggy, especially on an animal under 2 years of age. A striking example of two ponies with long, shaggy coats is illustrated in Fig. 3. During early spring, the coat loses its luster and usually sheds in patches, making a very forlorn looking pony, but after the shedding is completed the pony is covered with a coat of fine, silky, lustrous hair. A fine specimen of a mature Shetland pony stallion is shown in Fig. 4.

4. Uses of Shetland Ponies.—Shetland ponies are very docile, and in their native islands are used as beasts of burden, to carry large packs of dried peat that is used for fuel. These packs often weigh as much as 120 or 140 pounds. A common fall scene in the Shetland Islands of the ponies carrying peat is shown in Fig. 5. The photographs from which Figs. 3 and 5 were made were furnished by Dr. S. B. Elliot, of Markham, Virginia. The women often have charge of this work and make companions of the ponies, allowing them to go into their little huts or dwellings much the same as some people do with dogs.

A large number of Shetland ponies are raised in England and Scotland, where they are used extensively for drawing cars of coal in the mines to the main hoisting shaft. It is claimed that in the mines a pony weighing 350 pounds will travel 30 miles a day and draw, on rails, a car weighing from 1,200 to 1,400 pounds.

FIG. 5

FIG. 6

In America, the Shetland pony is used chiefly by children and for light driving, that is, in such outfits as is shown in Fig. 6. The ponies are easily trained for riding and driving, and are noted for their intelligence, their gentle disposition, and their freedom from the trickiness of some ponies and horses.

For delicate children, whose health would be improved by living out of doors, the companionship of a Shetland pony is an excellent means of inducing them to remain out of doors much of the time; and the exercise that the children take in riding and driving a pony is generally considered to have a most exhilarating and health-giving effect. On account of the gentle disposition of the Shetland, and the fact that it can be easily managed by a child from 9 to 15 years of age, it is conceded to be the animal best adapted for the use of children.

5. Breeding of Shetland Ponies.—Imported Shetland ponies should not be bred until they have become thoroughly acclimated, and, like all breeds of domestic animals, they should not be too fat when bred. A Shetland mare should not be bred until she is 3 years old; but thereafter she may be bred for from 20 to 25 years, or so long as she will produce strong, vigorous colts. The best time of the year to breed the mares is from the first of May to the middle of July, during which time they get an abundance of succulent grass and plenty of exercise. The latter is just as essential, or even more so, for the best condition of breeding stallions as it is for breeding mares.

A pregnant mare should be driven with care up to within 3 weeks of the time for foaling; she should have light driving up to within a few days of the time for her to foal, at which time, unless the weather is stormy, she should be placed in a pasture lot or paddock by herself. If it should be raining, cold, or stormy, she should be placed in a rather large box stall.

6. Care of a Shetland Colt and Its Dam.—For a few days after a mare foals, especially if she foals in the spring or during cold or rainy weather, the colt and the dam should be kept where they can be watched closely, so that assistance may be given them if necessary. If the mare foals during the spring, it is advisable that she and the colt be given shelter at night

at least; but when the weather becomes warm they should be turned on pasture for the following summer and fall.

Ordinarily, there should be no concentrate feed given to them during the time they are on pasture; but, if the pasturage becomes very scanty during the summer and both the mare and her colt begin to lose flesh, extra forage, such as oats, rye, or green corn, should be given to them. And, if the mare becomes very thin from suckling the colt, about 1 quart of oats and an equal quantity of wheat bran should be given to her twice a day. If foaled in early summer, as should be the case, the colt will increase in size rapidly and by fall will be a vigorous, rugged, little fellow more than twice its size at birth.

7. Weaning a Shetland Pony Colt.—In the Shetland Islands, as a rule, the colts are allowed to run with their dams the first winter; but some of the most successful breeders of Shetland ponies outside of the Shetland Islands make a practice of weaning the colts when they are from 5 to 7 months old and supplying them with a liberal ration through the winter. In order that a mare may experience no bad effects, such as caked udder, from weaning her colt, the colt should be allowed to go to its dam once a day for 5 or 6 days to nurse out the milk that may accumulate in her udder. The colt and the dam should then be separated permanently and the udder should be emptied thoroughly every 2 or 3 days for a week.

8. Care and Feeding of Shetland Ponies.—In general, the feeding and care of Shetland ponies after they are weaned is much the same as that of horses; but, since the ponies are very much smaller than horses, they require a much smaller quantity of feed. In fact, the quantity of feed required for Shetland ponies is about the same, per 1,000 pounds of live weight, as for draft horses; that is, about the same quantity of feed that is required by a 1,100-pound draft horse will be sufficient for at least three 350-pound ponies. But the quantity of feed required at any time will, of course, vary according to the energy expended by horse or pony.

Colts, until they are 2 years old, should not be worked, and should be allowed all the fine, bright, well-cured hay that they

will eat or have the run of a good pasture. For mature ponies that are under the saddle or in harness for only a few hours each day, and are used by rather small children, 1 pint of wheat bran or of oats or an ear of corn given to each pony once a day will be sufficient. But a pony 10 to 10½ hands high and used several hours a day by adults as well as by children should have from 1 to 1½ quarts of oats three times a day.

Care should be exercised not to drive or ride a pony so long that it becomes very hot and sweats profusely; but in case it does become very much warmed up from exercise, grain feed or more than from six to ten swallows of water should not be given to it until it has cooled off. Under ordinary conditions a pony should be watered before and after eating and in the middle of the forenoon and the afternoon.

9. Registration of Pure-Bred Shetland Ponies.—The interests of pure-bred Shetland ponies in regard to the improvement of the breed, the keeping of records of pedigrees, the transfer of ownership, etc., are looked after in America by the American Shetland Pony Club, which was organized in 1888. This club furnishes the blank forms that, when correctly filled out and accompanied by the proper fee, are necessary for the registration of a pure-bred Shetland pony.

10. Scale of Points for Shetland Ponies.—As an aid to judges, the American Shetland Pony Club has adopted the following scale of points for the Shetland pony:

SCALE OF POINTS	POINTS
CONSTITUTION.—Indicated by general healthy appearance, perfect respiration, and brightness of eye.....	10
SIZE.—Ponies over 4 years old 42 inches and under in height, two points to be deducted for every inch over 42 inches up to 46 inches, fractional portions to count as full inches.....	25
HEAD.—Symmetrical, rather small and fine, wide between the eyes; ears short and erect.....	10
BODY.—Barrel well rounded, back short and level, deep chest, good breast, compact "pony build".....	10
LEGS.—Muscular, flat boned, hind leg not cowhocked or too crooked.	25
MANE AND TAIL.—Foretop, mane and tail heavy.....	10
FEET.—Good.....	10
	<hr/> 100

FIG. 7

WELSH PONIES

11. The **Welsh pony**, as the name implies, is a native of Wales; or at least, this pony has been known to exist in Wales since the earliest history of that country. In general conformation, the Welsh pony, as shown in Fig. 7, resembles the roadster type of horses, instead of the draft type, as does the Shetland pony. The Welsh pony is a sturdy, stockily built animal, has a beautiful head, sloping shoulders, clean, smooth legs, and is heavily muscled. It is larger than the Shetland, ranging in height from 11 to 13 hands. The size varies somewhat according to parentage, the care and the quantity of feed given to them; etc. Ponies from the mountainous regions of Wales are smaller than those from the lowlands, where the natural feed conditions are more favorable than those in the mountainous sections.

The Welsh pony is generally conceded to be more alert and quicker in action than is the Shetland pony. These qualities are due, perhaps, to a cross of Arabian blood at some early time on the native Welsh ponies. On account of the more lively action and the larger size of the Welsh ponies, they are not usually considered to be so well adapted for the use of small children as are Shetland ponies. But where larger ponies than Shetlands are desired, for driving and riding by adults or by children from 12 to 18 years old, Welsh ponies are admirably adapted for the purpose. Also, Welsh ponies are used extensively in playing polo.

The breeding, care, and management of Welsh ponies is practically the same as that for light horses.

AMERICAN PONIES

12. The ponies of America are the descendants of horses that were brought to America by early Spanish explorers. It is supposed that some of these horses either escaped or were turned loose and that their offspring formed the herds of wild horses that roamed over the plains of the western portion of the United States, Canada, and the northern portion of Mex-

FIG. 8

ico. These horses, or ponies, were tough, wiry, hardy, and variously colored; some of them were beautiful animals with fine heads showing much character, and they had high-class limbs and feet. A few were domesticated by the Indians, but it remained for the pioneer settlers and cowboys of the plains to catch, subdue, and break these bucking, courageous little animals. There existed two rather distinct types of the wild horses of western America, namely, the **broncos**, which are found in the southwestern part of the United States and in Mexico, and the **Indian ponies**, which were found in the northwestern part of the United States and in the western part of Canada.

BRONCO PONIES

13. Bronco ponies are not often more than 14 hands high and weigh about 800 pounds. They are exceedingly hardy, have good, strong constitutions, excellent feet, strong legs, and usually can endure much hardship. In the best types of the broncos, such as the one shown in Fig. 8, the head is small and clean-cut; the eyes are bright and piercing; the ears are small and attractively set; the neck is of medium length, well crested, and very well carried; and the body is short, deep, and muscular. The bronco is not a particularly swift animal, as ranchmen, astride a good domestic horse, could ride down and capture the bronco in its wild state. However, the bronco has great endurance, as may be judged from the fact that it frequently has been ridden by a heavy man in a 50-pound saddle for several days in succession over rough, rocky trails.

During the pioneering period of the western part of the United States, the broncos were extensively used by the ranchmen as saddle horses; but as the country became more and more developed, there was a decreasing demand for broncos and an increasing demand for larger and swifter horses. Large numbers of grade bronco ponies, that is, the offspring of native bronco mares and domestic stallions, have been shipped to the cities, where they are used for drawing light delivery wagons, for light driving, and as saddle ponies; and a few of the better ones have been used for polo playing.

The breeding of bronco ponies takes place almost entirely on the large ranches in the western part of the United States; but even there they are rapidly being replaced by better, larger horses.

INDIAN PONIES

14. Indian ponies were found in a wild state in the north-western part of the United States and in the western part of Canada; they are slightly smaller, but are more compact of body, have stronger bone, and are more tractable, more intelligent, and display more courage than the broncos. The Indian ponies often have considerable hair on their legs, and heavy manes and tails. This hairiness is not a common character of the broncos, and indicates that the Indian pony and the bronco pony are probably not descendants of the same foundation stock.

Indian ponies are used for much the same purpose as broncos, and, like broncos, they are rapidly being replaced by superior horses.

ASSES

15. General Description.—The ass, or as it is often called, the *donkey*, or *burro*, belongs to the same genus of animals as the horse, although it differs from the horse in several details. The ears are very large and long; the body is short, very compact, nearly round, and is often covered with very long hair, especially during the winter months. The foretop and mane are very scanty and stand nearly upright; the tail bears no long hair except near its end, which is covered with a brush of rather long hair; the quarters lack the deep muscling of draft horses; the bones of the legs are large and strong, the joints are sometimes rather large, and the feet are small and narrow.

In size, asses vary from the small ass, or burro, which is often not more than 9 hands high, to asses 16 hands in height. In America, the prevailing color of asses for mule breeding is very dark brown or black with light points, that is, with a light

FIG. 9

creamy color around the eyes, covering the muzzle, and on the belly. A good specimen of a mule-breeding jack is illustrated in Fig. 9. Gray or blue gray is a common color of the small asses.

16. Uses of Asses.—The chief use of asses in America is that of using the jacks for breeding with mares for the production of mules. The small asses are used extensively as pack animals over rough, mountainous trails. For this purpose the small animals are especially adapted, as they are particularly sure footed, are extremely docile, and bear with much endurance and stability heavy and sometimes bulky packs. In some localities the burro is used for drawing loads of coal and ore in mines from the workings to the hoisting shaft.

17. Breeding of Jacks to Mares.—The breeding of a mare to a jack does not differ in many respects from that of breeding her to a stallion. Jacks, however, are very timid animals and often refuse to serve under strange surroundings or to serve a mare if they have previously been used in serving jennies. Jacks that are to be used for mule breeding should be raised with horses, for many jacks, if they are raised with asses, absolutely refuse to serve mares; and sometimes a jack that has been trained to serve mares will refuse to continue to do so if it is once allowed to serve a jenny.

A stallion should be used to tease the mares, and when a mare is found to be in heat, the stallion should be removed and all preparations made so that the jack may mount as soon as he is led from the stall. If he refuses to mount, he should not be abused but coaxed and petted. Sometimes a jack may be induced to serve a mare by blindfolding him, and by dampening the tail of the mare with the urine of a jenny. If a large mare is to be bred to a jack, some arrangement, such as a breeding chute or a pit, should be provided so that the mare may be lowered to about the height of the jack.

18. Breeds of Asses.—On account of the fact that the ass has been raised in widely different sections of the world and under varying conditions of climate, care, and feed, there have been developed several rather distinct strains, or breeds. The

jacks that are used most extensively in the United States for mule raising are of the *Catalonian*, *Andalusian*, *Majorca*, *Poitou*, and *Maltese* breeds.

The **Catalonian jacks** come from the northeastern part of Spain. They are black or dark brown with light points, and are from $14\frac{1}{2}$ to 15 hands high. For jacks, they possess unusual style, beauty, and action. Their heads are said to show character; and their ears are rarely droopy. These jacks are wiry and tough, mature at an early age, and are used freely in Missouri, Tennessee, and Kentucky for the production of breeding jacks and large, high-grade mules.

The **Andalusian jacks** come from the southern part of Spain, are usually gray but sometimes black, stand $14\frac{1}{2}$ to $15\frac{1}{2}$ hands high, and have a good quality of bone. Although these jacks are found in various parts of the United States, they are not popular, perhaps on account of their light color.

The **Majorca jacks** come from the island of Majorca, which is off the coast of Spain in the Mediterranean Sea. They stand on an average $15\frac{1}{2}$ hands high. They lack style and action, and, in fact, have a tendency to be sluggish. Their heads and ears are very large; the ears are claimed to be longer than those of any other breed of asses. In appearance the Majorca jacks are large, approaching the draft type of animal.

Although the **Poitou ass** is claimed to be the strongest of any breed of asses, the jacks have not been used by American mule breeders as extensively as the Catalonian jacks. The best specimens of the Poitou jack are black with light points and vary in height from $13\frac{1}{2}$ to 15 hands. The head and ears are very large; the mouth and nostrils are small; the neck is short, thick, and broad; the body is long and deep; the legs are short, straight, and flat, and the bone is large and hard; the hocks are very large; and the feet are large and more spreading than are those of any other breed of asses.

The **Maltese jacks** come from the island of Malta in the Mediterranean Sea; they are black or brown in color; usually stand about $14\frac{1}{2}$ hands; are very lively and active; the head is of good form, with sharp, upright ears; and the bone is finer than that most desired.

19. Care and Management of Asses.—The same care and management that is recommended for draft horses is equally applicable for asses. The latter respond as readily as horses to good care and an abundance of feed; but horses cannot subsist and maintain their strength on so coarse, rough, scanty feed as asses can.

MULES

20. General Description.—A **mule** is a hybrid resulting from the crossing of a jack and a mare. If the cross is reversed and a stallion is bred to a jenny, the resulting offspring is called a *hinny*. The conformation of the mule resembles, in most respects, that of its sire, but in the best specimen of draft mules the influence of the dam is shown in the size of the mule, in the shape of its body, and in its strength and courage. The head of the mule is large, with a somewhat Roman nose; the ears are large and long; the mane is rather scant and stands upright; and the body is somewhat smaller and more round than that of the dam, although the more nearly it approaches the shape of the draft horse the more desirable is the mule. In the best specimens, the legs are well muscled, the tendons are easily distinguished and sometimes are quite prominent, and the bone is large, fine, smooth, and hard; and the feet are narrower and longer than those of the mare, but are larger and more spreading than those of the jack.

In size, mules vary from 600 to 1,800 pounds, according to the size of the jacks and mares used in producing them and according to the care and feed used in raising them. Also, the color of mules varies according to the color of their parents. The common colors are black, brown, bay, sorrel, chestnut, gray, and white; brown and bay are the colors most often seen.

21. Temperament of Mules.—Mules are quiet, patient animals, and for steady, hard pulling they are superior to any class of animals in the horse family. Mules are not nearly so much given to kicking as is generally believed; in fact, persons in position to speak authoritatively on the subject claim that when mules are properly treated they are no worse in this

respect than are horses. But, if mules are abused they kick in self-defense and if kicking proves effective in stopping the abuse, they resort to this method of defense very readily.

22. Endurance of Mules.—It is generally conceded that mules can endure hard work for a longer period and subsist on a smaller quantity and poorer quality of feed than can horses. Also, mules are hardier and more able to endure the hot sun than horses, and for this reason are more commonly used than draft horses in southern climates. In spite of the hard work that they usually perform and the indifferent care that they sometimes receive, mules, as a rule, live much longer than horses. It is not uncommon for them to be in working condition at 30 years of age and there are records of mules having lived until they were 40 years old.

23. Influence of Sex on the Salability of Mules.—The sexual organs of mules are incomplete to the extent that these animals do not breed. A few cases have been reported where a female mule has become impregnated and produced young; if authentic, such cases are exceedingly rare. As a rule, female mules are more popular with dealers and feeders and usually sell more readily than do male mules. This is due to the fact that female mules mature at a slightly earlier age, are not inclined to be so angular, and can be fattened more easily when young than the male mules. Although, for certain kinds of work, male mules are preferred.

24. Resistance of Mules to Diseases.—It is often claimed by mule dealers that mules are immune from the diseases and ailments with which horses are commonly afflicted. This claim, however, is only partly true, as careful investigations have shown that, although mules are apparently exempt from certain diseases, they are very susceptible to other diseases. Thus, in certain sections of the United States infested with buffalo gnats, mules succumb to the attacks of these insects more than do any other class of domestic animals. On the other hand, mules are not so subject to disease and unsoundness of the legs and feet as are horses, and the cases of spavin, ringbone, or

sidebone that do occur on mules do not as greatly reduce their commercial value as such unsoundnesses do on horses.

25. Use of Mules.—The chief use of mules is for draft purposes. In the southern and central portions of the United States mules are used extensively on farms and plantations for agricultural purposes; they are also used much more generally than horses by contractors in the United States in the construction of levees and railroad grades; and in coal mines mules are practically the only animals used for drawing cars of coal from the workings in the mines to the hoisting shafts. In fact, almost everywhere that draft animals are required, mules are extensively used. In some portions of the southern part of the United States mules are used as saddle animals, especially by negroes; and, in some sections they are driven, singly and in pairs, as carriage animals and have drawn forth favorable comment on account of their action and speed.

26. Market Requirements for Mules.—The mule market requires sound, shapely, mature young mules, with size and action suitable for the use to which they are to be put; and their market value is rated on soundness, conformation, size, general appearance, condition, quality, age, color, and action.

Soundness is more important than everything else. Mules, like horses, to be useful must be serviceably sound. There is no objection to slight blemishes that do not interfere with the serviceability of the animals; but there is always objection to an unsoundness or blemish that is likely to interfere with the usefulness of a mule in any way. Thus, serious objection is made to wire marks about the feet of mules that are to be worked in the mines, since these marks are easily affected by sulphur or other minerals with which the feet constantly come in contact in mines. However, such a blemish might not be objectionable on mules that are to be worked on farms. The most common unsoundnesses that are objected to and looked for are large spavins, puffs, sidebones, ring-bones, bad eyes, and broken wind.

The conformation of mules should be indicative of strength and endurance, and their size should be suitable for the work

that they are expected to do. Mules that work on city streets usually wear out first in the feet, and because of this fact good, large, feet are an important consideration of the buyer when he is purchasing a mule for city use. For farm use the size of the feet does not command so much attention.

The general appearance of mules is an important market requirement, and is greatly affected by the quantity of flesh that is carried and the quality of the coat. The market demands that choice mules be in good condition and have enough flesh to round out their bodies. Many mule dealers make a business of buying mules that are in thin flesh, or poor, and fattening and then reselling them. The estimated value of the flesh thus put on the mules is 25 cents per pound. The market requires that the mules should show quality, which is indicated by a sleek, glossy coat of short hair, a coat of this description often being estimated to be worth about \$10, and by firm, clean, strong bone.

The most desirable age for mules is determined somewhat by the market class in which a mule is placed; but in most cases the most salable age is from 4 to 8 years.

Color is of secondary consideration as a market requirement; dapple-gray mules are very popular in the draft class; but as a general rule bays, browns, and chestnuts are most desirable; and matched pairs usually sell for more than double the price of single mules. Action, also, is a minor consideration in mules so long as they are not sore in limbs and show vigor and energy in their movements.

27. Market Classes of Mules.—On account of the various purposes for which mules are used, there exists in the leading mule markets an active demand for large numbers of mules of distinctly different description as regards size and general conformation. In the East St. Louis mule market, which is the largest mule market in the world, all mules are sold in one of the five following market classes: *Mining mules*, *cotton mules*, *sugar mules*, *farm mules*, and *draft mules*.

28. Mining mules are such mules as are purchased for use in and about mines. Mules for this purpose must be compact

FIG. 10

FIG. 11

in conformation, have a short and deep body, short legs, strong and heavy bone, large feet, and be rugged throughout. Small mules used in mines where a thin vein of coal or ore is worked are called *pit mules*; their height will depend on the depth of the vein in which they are used. For this reason mining mules range in height from 12 to 16 hands and vary in weight from 600 to 1,350 pounds. The colors most sought in mining mules are dark bay and black. The mule shown in Fig. 10 is $14\frac{1}{2}$ hands high, weighs about 1,100 pounds, is a choice animal, and is typical of the market class of mining mules.

The demand for this class of mules in the large mule markets is strong and constant throughout the entire year and for this reason mining mules usually command very satisfactory prices. Male mules from 5 to 8 years old are more in demand than are female or younger mules, although well-preserved mules up to 12 years of age are readily salable.

29. Cotton mules are such mules as are used on cotton plantations for planting, cultivating, and harvesting the cotton crop. However, many mules that are sold as cotton mules never see a cotton field, but are used for many other purposes, chief among which may be mentioned the drawing of delivery wagons in the cities of certain sections of the United States. These mules show much quality in their general conformation. They have small, neat heads and compact bodies; and, as a rule, they have longer legs, smaller feet, are lighter in weight, and higher in proportion to their weight than are mining mules. In height, they vary from $13\frac{1}{2}$ to $15\frac{1}{2}$ hands; in weight, they vary from 750 to 1,100 pounds. A choice cotton mule $15\frac{1}{4}$ hands high, weighing about 1,050 pounds, and showing a high degree of quality and finish is illustrated in Fig. 11.

The demand for cotton mules is strongest throughout the fall and winter months, young mare mules from 3 to 7 years old being preferred.

30. Sugar mules are such mules as are sold in the mule markets to be taken to the sugar plantations of Georgia, Louisiana, and other Southern States for agricultural purposes.

FIG. 12

They are larger, taller, have heavier bone, and usually have more quality and finish than cotton mules. For this reason the former usually commands a somewhat higher price than do cotton mules. The market—which for sugar mules is strongest during the months of September, October, and November—shows a preference for mares that are from 3 to 6 years of age. Sugar mules stand from 16 to 17 hands high and weigh from 1,150 to 1,300 pounds. A choice sugar mule $16\frac{1}{4}$ hands high, weighing about 1,200 pounds, and possessing much quality and finish is shown in Fig. 12.

31. Farm mules are such mules as are sold to be used for general farm work. Mules of this class lack uniformity in conformation, and do not have the style and finish that are required in all other market classes of mules. The lack of uniformity is due to the facts that farmers differ very widely as to the kind of mules that are best suited for farm work, and that many farmers desire to purchase young, thin mules then after working them for a year or more to fatten and resell them as mining, sugar, or cotton mules. Although farm mules, as they leave the markets, are likely to be rather plain looking and thin in flesh, they usually possess good constitutions, strong, clean bone, and fairly large feet. They usually stand from $15\frac{1}{2}$ to 16 hands high and weigh from 900 to 1,250 pounds. The mule shown in Fig. 13 stands $15\frac{3}{4}$ hands high, weighs about 1,150 pounds, and shows such quality and finish as is found in choice farm mules.

The demand for farm mules is not so great and they usually sell for less than mules of the other market classes. Sex and age do not have as much bearing on the prices of farm mules as these factors have on the prices of other classes of mules.

32. Draft mules, like draft horses, are large, strong, low-set animals with all the weight that can be secured with a draft-horse type of conformation. They are very rugged and well-muscled; the body of a draft mule is short, deep, and broad; the back is broad and short; the legs are large and clean; and the feet are large. They are extensively used for teaming, especially where heavy loads are to be moved; they are like-

FIG. 13

FIG. 14

wise used extensively by contractors for railroad grading, and because of this fact they are sometimes called *railroad mules*. The usual range in height is from 16 to 17½ hands, and the range in weight is from 1,200 to 1,600 pounds; although the latter weight is often exceeded. A large, rugged, choice, draft mule that measures 17 hands high and weighs about 1,500 pounds is shown in Fig. 14.

The demand for draft mules is strong and constant. Mules from 5 to 8 years of age are in greatest demand and there is little difference in preference in respect to sex.

33. Mule Raising.—The first essential to the raising of first-class mules is the selection of a good, sound mare with a deep, capacious chest, well-sprung ribs, close coupling, long and nicely turned croup, deep muscular quarters, broad thighs, smooth heavy bone, and large sound feet. If it is intended to raise mining or draft mules, a low-set mare should be used; if sugar and cotton mules are to be raised, a rather tall mare should be used. The more quality, style, and action that is possessed by the mare, the more pronounced these qualities will be in the mules. The theory is advanced by some mule breeders that an unsound mare, when bred to a jack, is more likely to produce a sound mule than to produce a sound colt when bred to a stallion, and, on account of this fact, there is a common custom of breeding unsound mares to jacks rather than to stallions. It must not be understood from this, however, that as good a mule can be raised from an unsound mare as from a sound one, for such is not usually the case. But the unsoundness, if it is reproduced in the mule, is not perpetuated, as might be the case in horse colts.

The second essential in raising choice mules is the selection of a jack that gets good, strong mules. A jack should not stand less than 15 hands high. He should have a large head, a rather heavy jaw, a tapering muzzle, and long ears that are heavy at their base and taper to a point; long shoulders; a deep chest; long, well-sprung ribs; a rather short, straight back; close coupling; a long croup; deep quarters; thick thighs; strong, heavy bones; and large feet.

A young mule taxes the energy of a mare more than does a colt. because the former is always pulling at the dug, or teat. The young mules should be halter broken and handled the same as colts, and as soon as the mules are weaned they should be placed in a pasture by themselves, because they are very mischievous and if placed in the same pasture with calves, sheep, or pigs will worry and perhaps injure them. Mules seem to thrive best if they are not tied up in stalls, but are allowed to run on pasture, and, during the winter months, especially in those sections where the winters are cold, have access to a warm shed or large box stall in a barn and are supplied with grain and hay.

34. Feeding of Mules.—Although the same general principles governing the feeding of draft horses will apply to the feeding of mules, the latter differ from horses somewhat in their habits of eating and drinking. Mules seem to know enough not to eat a large quantity of feed nor to drink too much water at one time or when they are heated by exercise. If a mule has his liberty after working hard all day and has access to feed and water, he will drink a few swallows of water, eat a few mouthfuls of feed, lie down and roll, and, upon getting up will repeat this routine for a dozen times or more during an evening. In this way he will consume a larger quantity of feed and water during the night and will keep in better condition than if tied in a stall at night. As mules consume their grain feed slowly, they should not be hurried at feeding time, and should receive a larger quantity of feed at night than at the morning or noon feed. They should be watered frequently, and as they drink very slowly they should not be rushed when they are drinking. As a rule, mules will not consume more than 1 pound of concentrates and $1\frac{1}{3}$ pounds of roughage per 100 pounds of live weight in a day. In general, the same kinds of rations that are adapted for the feeding of draft horses are suitable for the feeding of mules. A satisfactory ration for mules is 3 parts of corn, 2 parts of oats, and 1 part of wheat bran, if fed in connection with grass, clover, or alfalfa hay. Mules are very fond of corn fodder, and, if they are not worked,

can winter on it alone. Young, growing mules, mules that are being fattened for market, and mules that are being worked should receive concentrates in addition to all the roughage that they will eat. Some mule raisers, while fattening their mules, feed blackstrap molasses extensively to secure a fine coat of hair.

PONIES, ASSES, AND MULES

EXAMINATION QUESTIONS

(1) What is the nature of the winter coat of young Shetland ponies?

(2) Give the differences in the conformation of the horse and the ass.

(3) In what respects does the conformation of a mining mule differ from that of a cotton mule?

(4) What is the maximum height of a Shetland pony that will be registered by the American Shetland Pony Club?

(5) Give the range in height and in weight of each of the market classes of mules.

(6) What is the chief use of asses in America?

(7) Name the principal breeds of asses that are used in the United States.

(8) What is the difference between a mule and a hinny?

(9) Why do farm mules lack uniformity in conformation?

(10) Where were the bronco ponies originally found?

(11) At about what age should Shetland pony colts be weaned?

(12) On what qualities is the market value of mules based?

(13) What is the principal use of Shetland ponies in America?

(14) Why are female mules a little more popular than male mules with mule dealers?

(15) What is the origin of the Indian and the bronco ponies?

(16) Compare the general conformation of the Shetland and the Welsh ponies.

(17) What are pit mules?

(18) Name the market classes of mules.

(19) Give the approximate weights of the Shetland and the bronco ponies.

(20) On what does the size of mules depend?

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