YOUNG RACE-HORSES

BY

SIR WALTER GILBEY, BART.
THIRD EDITION

YOUNG RACE-HORSES

(SUGGESTIONS FOR REARING)

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Sir WALTER GILBELY, Bart.

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I trust that my practical experience as a breeder of most descriptions of stock may be held to excuse me for offering an opinion on so important a subject as the rearing and feeding of blood stock. I should not venture to put forward the suggestions in the following pages had not its application to horses and cattle been productive of strikingly beneficial results.

The history of the horse, including the race-horse, has been my study for many years. I have also carefully watched the success which has attended the horses of certain studs from the days of Mr. Bowes, Lord Glasgow, Mr. Merry, Sir Joseph Hawley, Lord Falmouth and the Hampton Court Stud down to the horses bred and raced in more recent times.

Whenever large breeding studs have been established, I have found in every instance
that after a period the animals have failed to maintain their original standard of excellence. I am convinced that their deterioration has been due to the overgrazing of the land whereon the dams and young stock were pastured—overgrazing or "staling" of the land reacting unfavourably on the horses; and that soundness, bone, muscle and stamina depend very largely upon the treatment of the dams and young animals which, above all things, need fresh and untainted grazing.

Elsenham Hall, Essex, July, 1898.
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WRITERS ON THE SUBJECT.

The art of breeding, rearing and training race-horses has been the theme of writers both numerous and well-informed; the books on the subject would of themselves form a considerable library; but it is strange that of all these authorities, among whom we include the celebrated writer C. J. Apperley—"Nimrod"; C. Bindley—"Harry Hieover"; R. S. Surtees; Captain F. W. Carlton,—"Craven"; and other contributors to the old sporting magazines, with their exhaustive knowledge, not one has fully grasped the significance of the example set by the horse in his primitive state, nor realised the potent influence wrought by natural habit of life on stamina and constitution.

THE HORSE IN HIS PRIMITIVE STATE.

Not one of these writers has touched upon the subject of herbage, on the importance of providing fresh and untainted pastures, or on the evil results of over-stocking. One most
prominent characteristic of the horse in his native wilds has apparently quite escaped their notice, or at least has suggested nothing to them: that characteristic is the singularly wide and continuous roaming of the horse in search of food; a habit which indicates the animal's craving for fresh grazing, for new pastures whereon he may find natural grasses whose luxuriance has supported no animal life, at all events for some considerable time. When we remember that the wild horse chooses his daily, almost hourly, feed over a wider area than does any other beast—is even a greater wanderer than was ever the bison on his limitless prairies—it is impossible to ignore the fact that the primary result, if not the first purpose, of such continuous roaming is to provide the horse with the freshest grazing.

OVER-STOCKING AND CONSEQUENT DETERIORATION.

Omission to appreciate this fact at its true value is the more curious because it is a matter of common knowledge among agriculturists and breeders that over-stocking results in material injury to pasturage. The domestic fowl "stales" or taints the land whereon it runs in such degree that poultry
farming on any considerable scale has invariably failed owing to the disease which the birds have contracted thereby. Pheasants are even more liable to maladies brought about in the same way, but the higher price commanded by pheasants enables the breeder to rent a sufficiently large area of land to afford the birds the frequent changes to fresh soil their health and well-being require. In the days of cock-fighting those who devoted themselves to the sport knew well that fresh ground was essential to the rearing of strong and hardy birds; hence it was the practice in the cock-fighting days to insert in leases a clause to the effect that the tenant farmer should "run a game cock" for his landlord. The system of walking puppies for the Master of the Hounds is a modern parallel which at once suggests itself.

LETTING GRASS LANDS; RESTRICTIONS AS TO HORSES.

More than this, we find in the agreements relative to the letting of grass lands in certain counties stipulations that prove recognition of the fact that horses cause peculiar damage to pasture. In Norfolk, Lincolnshire, Cambridgeshire, Huntingdonshire, and Denbighshire, and doubtless in other parts of England,
it has long been customary to restrict the number of horses which may be grazed on any given area. The following details are taken from the schedule of the auctioneer's bill for the letting of "Crow's Marshes" in Norfolk last year:

<table>
<thead>
<tr>
<th>Lot</th>
<th>Names of Marshes</th>
<th>Contents</th>
<th>Head of Horse Stock Allowed</th>
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<tr>
<td>1</td>
<td>Big Thurston Marsh</td>
<td>26 3 9</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Thurston Hill Marsh</td>
<td>18 1 9</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Thurston Fifteen Acre Marsh</td>
<td>14 3 7</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Two Marshes over Brick-Arch</td>
<td>34 0 9</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Bill Thurston Marsh</td>
<td>23 1 36</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>Fowler's Marsh</td>
<td>19 0 35</td>
<td>4</td>
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The above shows that on an average not more than one horse may be grazed on about six acres. It is to be remarked also that while the "stipulations" as to letting contain the clause "The hirers will be restricted to the number of horse stock as stated in the particulars to each lot," there is no restriction concerning the head of cattle which may be grazed thereon. Other documents of the same character show that on some of the best and richest pastures in Lincolnshire horses are not allowed at all. One such bill containing particulars of twenty-four paddocks and fields aggregating over 218 acres specifies four fields measuring about thirty acres in all, as lots on which horses may be grazed.
Stale pastures unfavourable to horses.

Horse breeders have not grasped the fact that this deterioration of the horses' food reacts unfavourably upon the animals themselves; or if they have done so none of the writers on breeding and rearing have referred to it. The only statement bearing on this point that some considerable research has revealed was that made by Lord Charlemont, who, as the largest breeder of all sorts of horses in Ireland at the time, gave evidence before the Select Committee of the House of Lords on Horses in 1873. Lord Charlemont, referring to his establishment, Charlemont Fort, said (answer to Question 652), "I may say that I have three or four farms for the purpose of changing about. I am satisfied that horses, like any other animals, eventually soil the land, and they require to be removed and shifted from one place to another to preserve their health and soundness."

Failures with young stock.

From the first selection of the foundation stock, whether the mare be one which has been running faithfully for her owner, or was selected for stud purposes, the occupation
of breeding young horses is a source of pleasure both immediate and in anticipation; and whether it be undertaken as a means of profit or otherwise, the one object in view should be to breed the best, especially in days like these when the standard of merit required to attain success is raised so very high.

It has been well said that a great majority of our race-horses at the present day are carefully as well as expensively bred, also they are reared with care, abundantly fed, and when put into training or sent to the sale ring are as handsome as they can possibly be made. Up to this point their breeders can regard them with unmixed satisfaction.

Unfortunately, this is only the threshold of the young race-horse's career; and too often his claims to public notice begin and end with the price his sire's reputation obtains for him under the hammer. The animals which succeed on the Turf, after realising a long figure in the sale ring, are very few in number; how few is not generally recognised, and in this connection it will be interesting to refer to an article on "Blood Stock Sales in 1897," which was published in the Times of 27th December last:—
"There has not been quite such a rush to pay high prices for yearlings which are either related to horses that have distinguished themselves on the Turf or are promising in appearance, as buyers are gradually becoming alive to the fact that yearlings sold for a 1,000 guineas or upwards are nearly always failures. No more striking illustration of this could be had than in connection with those sold in 1896 for a total of 51,250 guineas. These were thirty-two in number, ranging from a filly by St. Simon—Dart, who cost 5,100 guineas and has run once without success, to Meldola, a filly by Melton—Fame, who has been beaten each time she ran. These thirty-two yearlings are represented by two winners of five races, Florio Rubattino and La Veine, who have contributed about £2,000 to the total cost; and there is not, so far as can be known, a single one of the remaining thirty with any prospect of making a race-horse. It may be said that Mr. Wallace Johnstone's Disraeli should be included in the computation, as he was sold by Sir Tatton Sykes for 1,000 guineas, but this was not at the hammer. He may, however, be included for the sake of argument, and the 1,005 which he won at Derby may be added to the total. Even so the return is a very poor one, and it is the same with the yearlings which fetched high prices in all the preceding seasons, no matter how far back the search is carried. Thus in 1895, twenty-two yearlings were sold for 46,200 guineas, and they won three races worth £1,080 last season, and one worth £100 this; while the twenty-two sold for 34,850 guineas as yearlings in 1894 have not, though their racing career is in nearly every case over, earned one half of what they originally cost, their only winning representative this season having been Knight of the Thistle, who secured three races worth about £3,000. If the calculation is carried back as far as 1883, when these high prices became frequent, the general result will be found to be the same."
The smallness of the percentage of even tolerably successful horses out of the prodigious number bred at an enormous outlay should convince owners that a youngster must possess attributes other than good breeding and good looks if he is to be worth training, much more become a classical winner.

THE EFFECT OF ARTIFICIAL FEEDING.

All young stock must have good food to promote their development, but this should not be strong artificial food which young animals cannot assimilate with their natural stomachic juices. The fatted horse, fed on artificial food, will of a necessity be a source of trouble to his trainer, as before muscle can be put on useless flesh must be worked off to the detriment of his feet and legs; and during this process the proper development of the young horse is retarded if not altogether at a standstill. Thorough-bred foals, like all young highly bred stock, are liable to “joint-ill” and diseases of the joints. These ailments are due to their close confinement in boxes and to the artificial life led by foals. Such diseases seldom or never occur among young horses whose dams are allowed liberty and which are pastured in fields that are not over-stocked.
THE TRAINER'S DIFFICULTY.

The over-fed young animal which has not had natural exercise comes to the trainer in a condition that demands hard work while he is physically incapable of standing it; and the endeavour to give such a candidate sufficient exercise results in most cases in enlargement of the fetlocks and round joints. On the other hand, the young horse which from his earliest days has enjoyed large liberty and has indulged his innate love of galloping comes to the trainer in the best possible condition to be prepared for the business of his life.

The trainer's work is rendered heavier and more difficult by the grossness of condition which too often is the foundation of disappointment to the owner. It is worth remembering that in the old days of four mile heats and heavy weights when the gentleman breeder was the owner of the horse trained under his personal supervision he allowed the youngster plenty of fresh pasturage, and did not "force" him with artificial food as is now too often done.

NATURAL TREATMENT AND FOOD.

Horses, then, should enjoy as far as possible the conditions of life which nature
has prescribed; that is, be allowed ample space over which to roam and graze in imitation of the extensive and perpetual travels of the horse on his native plains which bring him daily to fresh and untouched grazing.

Disregard of this cardinal feature in the life habit of the horse accounts in some measure, as I venture to think, for the multitude of failures which so persistently dog the best and most careful endeavours of the breeder. Adopting a method at variance with the laws of nature, he expects to succeed while actually courting failure; and he can hardly hope to stem the tide of what he calls “bad luck” unless he recognise that pedigree and good looks avail nothing against over-stocked or tainted pasture and artificial feeding.

**TREATMENT OF MARE FROM CONCEPTION.**

Nor will it suffice to reserve natural treatment for the newly-born foal; the dam—and this is a point to which the breeder’s attention may be directed as one upon which it is impossible to insist too strongly—the dam, from the moment she conceives or is known to be in foal, should be grazed only on pastures which for a long period have not known the print of a hoof.
Professor Ewart, in his recently published pamphlet, *A Critical Period in the Development of the Horse* (Adam and Charles Black), makes, though not in this immediate connection, some remarks which point to the extreme importance of following Nature in our treatment of the horse:—

"The question now arises, can anything be done to prevent mares breaking service? In dealing with the horse, the fact must never be lost sight of that he is an extremely high-strung animal, liable in a panic to completely lose the little self-control he has inherited from his wolf-worried ancestors. This nervousness, which was his salvation when in a wild state, has in some respects been increased rather than diminished by the unnatural life it is now his lot to lead. The horse has strong likes and dislikes, and frets often when separated from his companions. This being the case, it will be easily understood that sudden changes—changes of temperature, of food, of companions, changes of his surroundings or environment generally—will greatly influence mares, more especially at the breeding season. . . .

"At the beginning of the breeding season changes of food, of temperature, and of the surroundings generally, should be made as carefully and judiciously as possible; and during at least the first two months after service the mares should neither be over-excited nor over-exerted, neither chilled nor overheated, neither over- nor under-fed, and, in fact, all extremes should be carefully avoided."

It thus appears that in applying natural methods with a view to the accomplishment of one important end we shall be achieving
another, or at least avoiding a literally vital danger.

It is an axiom among breeders that the mare in corn seldom stands to the horse; for which reason brood-mares are always sent to grass for some weeks before being put to the stallion. In other words, artificial feeding is productive of such influence on the constitution of the mare, that her reproductive powers are seriously impaired and can only be restored by a return to natural food.

MOUTHS OF HORSE AND OX.

The horse and the ox in their natural state are purely herbivorous, subsisting
exclusively on herbage or vegetable food; their modes of grazing, however, differ widely one from the other, and in this difference we discover the reason why the horse inflicts injury upon pasture so much more rapidly and in so much greater degree than the ox. The structure of the mouth of each shows that they must collect their feed in very different ways.

MOUTH OF OX—Showing pad in upper jaw.

The upper lip is lifted to display the pad against which the front teeth of the lower jaw perform their function.

The upper and lower jaws of the horse are each furnished with front or cutting teeth which meet like a vice, evenly and close from corner to corner, and the animal is thus enabled to take so sharp a hold on the herbage that he tears and bruises every stem
that comes between his teeth. He also bites close to the ground thereby bruising and injuring the crown of the plant.

The ox—from its fifth year, when it is said to be “full mouthing”—has eight cutting teeth in the front of the lower jaw and none in the front of the upper jaw to correspond; the cutting teeth in the lower jaw of the bullock work against a fibrous and elastic pad which fulfils the office of teeth in the forepart of the upper jaw. The grass is collected and rolled together with the long flexible tongue of the bullock and held firmly between the cutting teeth and this pad aided by the upper lip, to be torn, not bitten off.

It is evident, therefore, that the stems are less bruised by the mouth of the bullock than by the teeth of the horse. It is hoped that the illustrations will explain this more fully.

The grasses destroyed by the horse take from three to five years to come again, and this is particularly noticeable with the white clover and natural small grasses which form so essential a portion of his diet. Great importance attaches to the quality and quantity of the grasses in horse pastures, because these rather than his artificial food conduce to the growth and development of bone and
It must be added that his droppings differ somewhat in character from those of cattle and lack their fertilising properties.

TO BREED THE BEST.

The breeder wishing to breed the best should therefore refrain from grazing his in-foal mares and young stock on pastures which have been continually and recently grazed by horses; preference must be given to fields in which horses have not fed for at least three years, and for longer if possible. Thus the dams and youngsters will obtain fresh, untainted food. During the past few years much arable land has been laid down in grass and the young herbage on such lands will be found suitable for grazing young horses, being far superior for the purpose to stale and over-fed old grass. It is to be observed also that the rich fattening pastures such as those which will “finish” a bullock without cake are not the most suitable for horses. The object is not to lay on meat which animals grazed on rich lands have a tendency to do, but to gain flesh that will nourish the muscle developed by work. The deer of the mountains and the hare found on downs whose grass is poor rather than rich are proverbial for their activity, the
result of muscular elasticity; and the same animals in parks and on low pasture lands where the grass is rich have neither the same speed nor equal endurance.

The number of animals should be strictly limited in accord with the area of the stud farm, which should be sufficiently extensive to allow periodical changes to fresh land; one yearling to every five or six acres is plenty. On this point my experience in breeding stock, especially horses, has led me to form a very strong opinion.

EXPERIENCE GAINED WITH HEAVY HORSES.

An instance of the benefit derived from the treatment advocated may be mentioned here, though it is an experience gained in breeding heavy horses. The theory of fresh grazing has been tested by placing a certain number of mares, on their return from service by the best sire money could procure, upon land where the pasture was not fresh; in the following year the same number of mares, served by the same sire, under identically similar circumstances, have been placed on pastures which had been freshly laid down, or upon old grass land on which horses had not been grazed for several years. The produce in the latter case have been to
an extraordinary extent superior in bone, muscle and constitution to their brothers and sisters of the previous year. I can attribute their superiority to nothing else than their "nature's" feeding. These tests of the fresh-grazing theory have not been confined to one year, but have run over several years.

Is it too much to assume that a method which has been productive of such strikingly good results in respect of size, muscle and bone with young heavy horses would be equally applicable to young blood stock?

I may say that I have been carefully watching the exhibits of such horses at the various shows, and am convinced the success of many animals is due to the fact that they had been grazed upon land which had not been over-horsed. In some cases the winners came from studs which had been recently established upon land that had grazed only oxen before. I may add that similar examples of show-yard success among sheep could be cited to prove the potent influence for good that is exercised by fresh grazing.

RACE-HORSES IN AMERICA.

The form displayed by American horses of late years offers testimony in support of the theory. It may be urged that it is un-
just to measure American race-horses as a breed by the performances of the few which visit this country, these being the best the States can produce; but on the other hand we have the opinion of the American jockey Sloane, who made so conspicuous a mark here last autumn. In conversation with racing men in this country he is said to have stated his belief that, apart from Persimmon and Galtee More, the English race-horse was not superior to the average American bred horse; and "not superior" can only be read as the polite expression for "inferior."

If Sloane's opinion be correct, the superiority of the American horses cannot be accounted for by any difference in breeding. The imported English sires Messenger and Shark, exported 1786, laid the foundations of the thoroughbred on the other side of the Atlantic, and since that date Americans have been regular purchasers of breeding stock in this country, taking some of our best sires. In 1835, the Earl of Egremont's Chateau Margaux, the only son of Whalebone, was exported and in the same year His Majesty's Tranby was sold to an American purchaser for 7,000 guineas. The names of several great sires which have been sent
over to the United States will occur to every student of Turf history.

May it not be that the superiority of race-horses reared in America, if they be superior, is attributable to the advantages enjoyed by their breeders in possessing immense areas of pasturage in Kentucky and other states? These pastures, thanks to their size, have never been staled or tainted by over-stocking, and to the freshness of their grazing is no doubt due the stamina and gameness that seem to distinguish these American-bred horses.

AUSTRALIAN HORSES.

The popularity in India of the Australian horse, or "Waler," is due not only to his superiority in size and weight-carrying power over Arabs and country breds but to the soundness of constitution and limb for which Australians are famed. The conditions under which these horses are bred tend to produce a sound and useful animal. Some of the best English blood has been imported by Colonial breeders, who have the advantage of a warm and dry climate, and, as in America, vast ranges of grass land over which the horses feed. Furthermore the mobs or droves of horses have an incentive
to travel in the frequent scarcity of watering places; there are localities where at certain seasons the horses may be obliged to travel twenty miles to find the "water hole" or stream whereat they can quench their thirst; and it is obvious that such extensive and frequent travels in search of water must have as a result continual change of pasture.

GERMAN HORSES.

In the memorandum submitted by Major-General Beauchamp Walker, Military Attaché at Berlin, for the information of the Select Committee on Horse Breeding in 1873, already referred to, we find the following remarks on the cavalry horses of Germany. General Walker quotes from a conversation he had held with a general officer of cavalry "who had also had for nearly a year the direction of the country studs":—

"Secondly, he attributed the great endurance of the Prussian horse to the hard and healthy life led by both mare and foal. Sturdy mother, sturdy child. In a great part of these provinces, in Posen and Silesia, the mares and foals, though by no means starved, have to roam over a large extent of ground in search of their daily feed, and necessarily pass the greater part of the time in the open air. This develops muscles and lungs, particularly the former. General ——— assured me that a mare and foal seldom travelled over less than from four to five
LIMESTONE SOIL.

The subject of grazing cannot well be dismissed without passing reference to the subjects of soil and climate, which are necessarily involved therewith. As regards soil, much may be said; there are probably very few soils in England which are unsuitable for horse rearing. Limestone is usually put first in order of merit, exceptional bone-producing qualities being attributed to it; but is it not a fact that limestone soils (provided that the substratum is not of such character as will retain the wet on the surface of the land) produce the best grasses and clovers which in great measure are the
factors, under proper treatment, in the development of the horse? We need not question the bone-producing properties of limestone soil; but recognition of their existence must not blind us to the fact that limestone soil has grass-producing properties to which, perhaps, its merits may with more correctness be referred. Another point in favour of the limestone subsoil is its dryness; it usually gives out into brooks an abundant supply of the good hard water which is essential for animals' drinking.

OTHER SOILS.

The deep soils of the Midlands and Yorkshire have also proved favourable to horse rearing, for, though the subsoil is most generally clay, they are well drained; and although these lands grow herbage less succulent than those produced by limestone, they have compensating advantages in being of wide extent and exceedingly healthy. Where not over-stocked they had served admirably for horse-breeding purposes.

The soil and climate of the East are obviously those best suited to the horse. On dry soils and in warm climates he attains his greatest perfection in shape and proportion and fitness for all the highest purposes
for which horses can be employed; and it is therefore reasonable to suppose that in this country sandy or gravelly loams with chalky bottoms are also good; always provided that the substratum is not of such nature as to retain the wet on the surface. Pasturage on these soils must, however, be used with judgment, and required to carry less stock in proportion to their acreage than pastures on limestone or clay.

CLIMATE.

In regard to climate, although England can be placed before any other European country, Ireland undoubtedly claims pre-eminence for the reason that its humid atmosphere so perfectly co-operates with the limestone soil in producing those particular horse grasses to which reference has already been made. Further, it must not be forgotten that up to the present time in Ireland the horse has not over-crowded his pastures; and probably we may attribute something of Ireland's pre-eminence to the greater rapidity with which grasses "come again," thanks to the humidity of the climate.

INCREASE IN SIZE OF THOROUGHBREDS.

Better proof of the suitability of the British Isles for horse breeding cannot be
found than in the steady and remarkable progress which Turf history shows us has taken place in the size of our thoroughbreds. At the beginning of the last century the thoroughbred seldom exceeded a height of 14 hands 2 inches; but from about 1740 to 1770 a compact horse of 15 hands was described as "a racer competent to carry 12 stone." He has ever since been increasing in stature, on an average one inch in twenty-five years, till we now seldom proclaim him a race-horse of the first-class unless he stands 15'3 to 16 hands. In speed, he has far surpassed the Arab stock whence he sprang. The Scale of Weights in Weight for Age, and Weight for Age and Class Races, adopted by the Calcutta Turf Club, shows the difference that separates the English horse and the Arab on the modern Indian Turf; the weight allotted a horse of the former class by this scale is always at least three stone more than that awarded an Arab of the same age when the two meet in the same event.

LUCK, OR RACING UNCERTAINTIES.

When the propositions enunciated in the foregoing pages are applied to facts, do we not find much to strengthen them in the modern history of our breeding studs? We
see well-established and successful studs degenerate, not from any want of capital or energy, but simply from loss of quality in the animals produced; and the waning fortunes of owner or stable are glibly referred to "a vein of bad luck." On the other hand, we see newly-formed studs spring in a season into celebrity by furnishing great winners; this is "a streak of good luck," if we are to believe the public spokesmen of the Turf. In my humble opinion there is no such thing as "luck" so potent in its mystery that the fortunes of one establishment consistently decline while those of another rise without apparent reason or cause. Is it not at least possible that the success of a breeder wanes when his over-stocked and over-grazed pastures, staled by generations of horse-flesh, begin to react upon the animals which fed thereon? Is it not equally possible, too, that the brilliant success which sometimes raises a new stud to fame is in some measure due to the possession by the breeder of fresh, untainted pastures on which to graze his mares and young stock? The temptation to draw examples from the Turf history of the last few years is great.

We all know that the competition maintained in the endeavour to breed successful
race-horses involves the expenditure of an immense amount of capital. It therefore seems a great pity that we should ignore the primary factor in the production of that stamina without which no horse can come to the front.

CONCLUSIONS.

To sum up from this brief paper on the treatment of young blood-stock, the conclusions which it is desirable to bear in mind will, I think, be found as follows:—

First. You must have a sound brood mare, choicely bred, and she ought to be mated with judgment.

Second. From the time of her conception she should be allowed to roam in fresh untainted pastures; if pastures where horses have not been for the last three years, all the better.

Third. After foaling, the same policy should be adopted towards the mare and her foal as regards fresh herbage.

Fourth. The foal from its weaning should be treated in as natural a manner as possible; turned out and fed on pastures where the herbage is succulent, and allowed a free run at his pleasure.
Fifth. Not more than three yearlings should be turned out in any one pasture, and the field should not be of less extent than fifteen acres.

Lastly. In accepting the truism that "like begets like" it should not be forgotten that the adage applies to animals and birds in their natural wild state. Those who wish to breed from Nature's type must bend their thoughts to the horse's habits in a state of nature, because it has been proved that mere size without constitution is useless on a race-course.
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