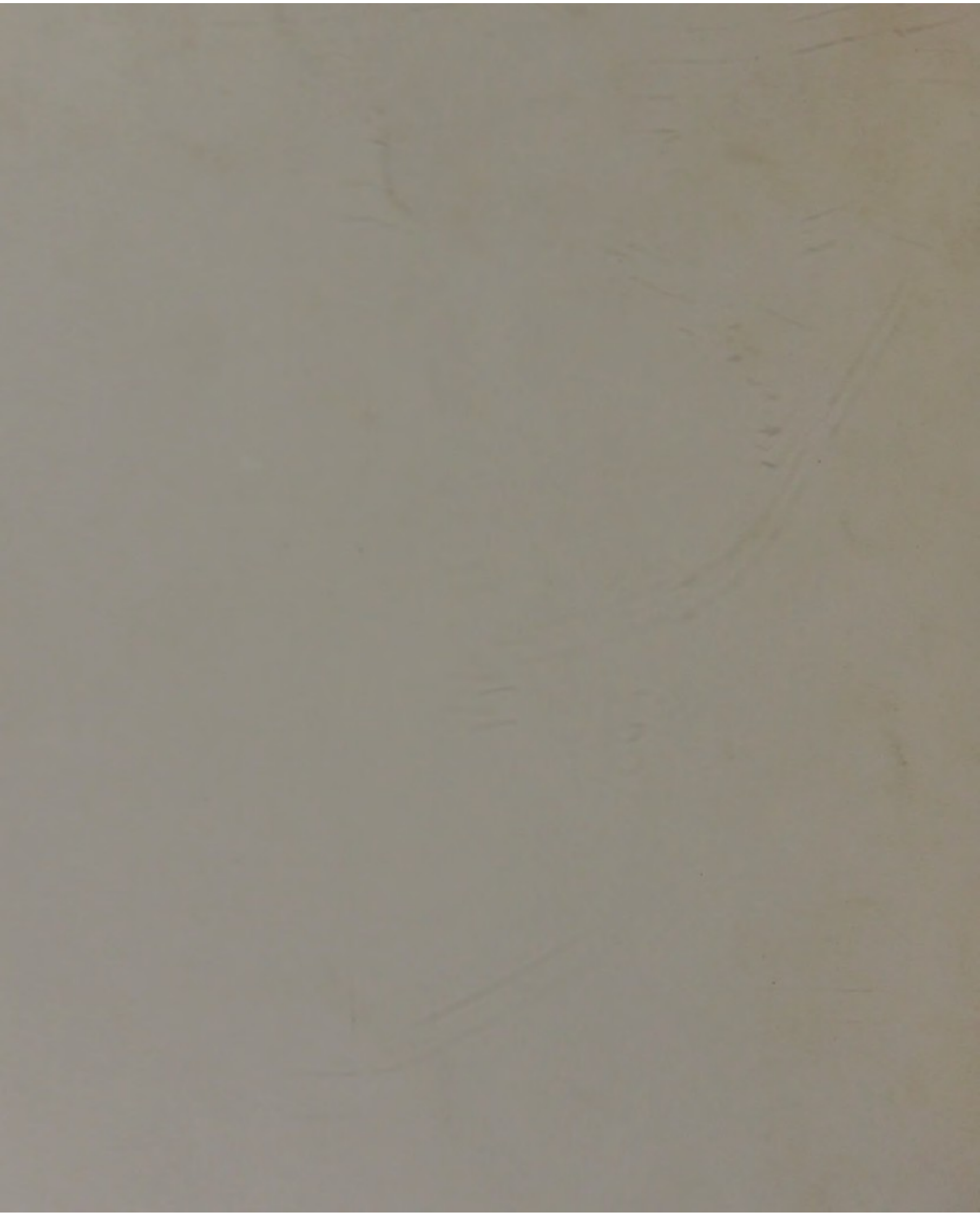
The horses' preservative : or, A treatise on the management of horses, laid open in a plain and practical manner, with the proper method of feeding and driving them : also on the breeding and shoeing all kinds of horses, with the exception of the race-horse / by Francis Beardmore.



THE

HORSES' PRESERVATIVE;

OR,

A TREATISE

ON THE

MANAGEMENT OF HORSES,

LAID OPEN IN A

PLAIN AND PRACTICAL MANNER,

WITH THE PROPER METHOD OF

FEEDING AND DRIVING THEM;

ALSO ON THE

BREEDING AND SHOEING

ALL KINDS OF HORSES,

WITH THE

EXCEPTION OF THE RACE-HORSE.

BY FRANCIS BEARDMORE,
SPOT GRANGE, STAFFORDSHIRE.

ENTERED AT STATIONERS' HALL.

BEMERSLEY:
PRINTED FOR THE AUTHOR, BY JAMES BOURNE.

1832.

PREFACE.

It is with the utmost diffidence that I appear before the world in the character of an author. Having had, from my earliest years, an uncommon predilection for horses, and, since my twelfth year, having been entrusted with the care and management of them, I have thought that a relation of my experience and knowledge, as to their treatment, would be beneficial to that portion of mankind whose interest it is to preserve in health and strength those useful animals. The language I have adopted throughout the Horses' Preservative is of the plainest and most familiar kind, such as I have no doubt will be thoroughly understood by every one of my friends who may purchase this work. I have also endeavoured to compose it in as brief a manner as possible, hoping thereby to render it more useful; for most publications of this

nature, owing to their immoderate length and high-flown language, are rendered tedious, and are often not properly understood by those who ought, and who are anxious to get a knowledge of the subject. By perusing the following pages, I flatter myself the reader will become perfectly acquainted with a useful treatise on the management of draught horses, and on breeding and shoeing all kinds of horses, with the exception of race-horses. I have treated on the manner in which common draught horses ought to be geared, so as to afford them both comfort and power; and also of coach-horses that they may travel with ease, speed, and power. I have also pointed out in a very conspicuous manner, the proper plan by which young horses ought to be shod, in order to get their feet into a proper form; for when they are young, then is the best time to make an alteration in their feet, as it will require a considerable length of time before they are properly formed: therefore, if their feet be crooked they ought to be properly shod when they ha

attained the age of two years, in the manner directed in the fifteenth section, "On shoeing of horses;" and if that advice be followed, there will not be that inconvenience which is often visible when full grown, and at full work. I have also endeavoured to relieve the saddle and harness horses from great inconvenience and danger, though the chief design of the theme is to make them travel safe and well. Ignoramuses contrive the horse something to stand on, as they say; and therefore form his foot as long and as large as they can: nor does this altogether satisfy them; for they mostly have the shoe projecting over the foot, that (as they vulgarly say) he may have something to stand on. This is a very great inconvenience to the horse, for it is not the foot on the ground that he mostly stumbles with, but the foot that is on the move.

If any errors or inaccuracies should appear in this volume, the author trusts to the indulgence of the candid reader, as the bent of his

inclination has ever been more prone to learn the logic of the stable, rather than that of the school-room.

Hoping that this work may tend to reform many of the evils and misconceptions relative to the treatment of the valuable animals on which it speaks, and that it may be realized as a valuable companion to the agriculturist, &c. I subscribe myself,

FRANCIS BEARDMORE.

Spot Grange, near Stone, Staffordshire,
June 1, 1832.

CONTENTS.

THE

HORSES' PRESERVATIVE.

IN the course of nearly thirty years' practice, during which time I have had the management of a number of horses, both of my own and other persons, my great success has encouraged me to publish this work, trusting that by this means I shall be useful to my fellow-countrymen in the same profession. During the whole of the time I never had a blind, nor a broken-winded horse, nor lost one in the whole course of my life; neither have I ever had occasion to employ a Farrier.

I am now capable of proving that I can make any horse that is able, to work well; or any colt, that has not been geared, a free or a slow worker. Therefore if proper attention is paid to this short treatise, I am confident that any per-

son entirely ignorant of horses will be able to make every horse work pleasantly, and preserve them in good health, and avoid that cruelty which is so commonly inflicted on that noble animal.

SECTION I.

EVIL PRACTICES.

In the first place I shall point out the almost universally evil practice that prevails in the management of horses, as it regards their health; and in order that it may be guarded against in a particular manner, I purpose to treat on the Boy and Coach-horse, as well as on Agricultural horses, as some connected with these professions wish to become purchasers of this work.

To proceed,—The evil practice that prevails —When a horse has had a hard day's work, is the more chilly and tender, and probably has not had his water regularly and properly in the course of the day; and even then, it is a very common thing among wagoners, at racking-

time, to turn them out to the water, and in a few minutes leave them for the night: with this treatment, no reasonable person can expect to find them alive and well the next morning: probably the wagoner has no sooner left the stable, than some of them are taken with a tremour or trembling; the blood stagnates about the heart; and if able to retain life he is taken with some incurable disease, and will never be thoroughly useful any more.

I shall therefore endeavour in a forcible, yet plain manner, to guard my readers against that fatal treatment. When a horse comes in from the water, most probably his coat turns the contrary way on his back; but he should not be suffered to remain in that state: all hands should be at work in rubbing him from head to foot, and the extremities, such as the legs, head, and ears, with the bare hands, as they nourish and warm those parts better than any thing besides. The horse should be seen half an hour after this treatment; if his skin feels warm, his coat lies close, and he eats his meat, you may leave him for the night, and expect to find him well the next morning.

It may be proper before I leave this importan point and take the work in rotation, to pursu this subject a little further:—When the hors comes from the water, he should have a littl corn in the manger: this not only warms hi stomach, but puts the jaws in motion, and help to circulate the blood in those parts.

The coach, boat, and every other horse, thoug clothed, are liable to be affected in a similar man ner to the agricultural horses: for custom second nature. As soon as he has had his wate he should have some corn; his legs, and a the parts where the clothing does not exten well rubbed with the hands, in order to war and circulate the blood in those parts. If th horse is seen half an hour after having his wate and this treatment, and his skin feels warm, h coat lies close, and he eats his meat, you ma leave him for the night, and expect to find hi well the next morning.

The next evil practice that I shall point out when they come to a baiting-house, as it called: the first thing they give them is wate then some hay, sometimes in the street or lan probably in a keen draught of wind, there remain for half an hour or an hour.

This is a practice that is very destructive to the horse's health and constitution; but the fatal consequences of this are, in a great measure, warded off by the work he has to do afterwards. If he is able to start, and continue for about half an hour, he may be expected to break out into a profuse perspiration; this relieves him for the present time, but renders him less able to bear the dreadful stroke at night.

With such like treatment it is no wonder so many horses are found dead the next morning, or taken with some incurable disease. These are evil practices that want reforming, and cannot be pressed with too much energy on the mind of every one that has the management of horses.

Before I leave this subject I shall endeavour to point out another evil practice that prevails in the management of agricultural horses.

When they intend going a journey on the road, they provide an extra stuffing for the horses. I had at one time a fine mare brought almost to death's door, with that very thing. It so happened that my corn crop failed, and having abundance of potatoes, I gave them potatoes instead of corn: my order was, to give them the potatoes, new-milk warm, the last thing at night,

and not immediately after their water; but in stead of doing according to my order, my servan had hoarded them up in the coffer for the nex day's journey, and gave them to the horses in sour state the next morning; so that, in conse quence of their being stuffed with the sour pota toes, they could scarcely walk or breathe: w had not gone far on our journey, before one wa taken ill of the belly-ache, and brought, as I sai before, nearly to death's door, as might be ex pected; but with proper treatment she recovere

Before I proceed to the next section, it ma not be improper to name a conversation tha occurred between myself and a wagoner abo feeding horses: his was a miller's team. H said, if he did not water his horses the first thin in a morning, they would have the belly-ach it is dangerous to give a horse a great quantity bran or clammy stuff, and then a great quanti of water, as it is sure to lie heavy on bran or d mill stuff. I answered, this is no reason wh horses should have their water on an empty ston ach; if they are allowed no corn, they shou have some good hay; the oily qualities of a litt good hay or corn fortifies the passages of th stomach against the chilly effects of the wat

and it is rendered much richer and less dangerous.

SECTION II.

ON FEEDING.

I SHALL now endeavour to point out a treatment hat will preserve them in good health: the same reatment I have observed for nearly thirty years, nd the great success I have had in the course of hat time, justifies me in thinking it a good foun- lation to build upon.

To begin the day's work, they should have ome good hay the first thing in the morning; nd as they are more subject to refuse their meat n a morning, than at any other time in the day, is proper to rack them up at night with the orst, and provide the best for the morning: nough they would eat the bad hay in the morn- g, it would be improper to give it them, as it more hurtful on an empty stomach than at any her time: moreover, when they have eaten a oderate rack of hay, or at least ate hay for half

an hour, and then a considerable portion of thei
corn, (I mean, if they have a full allowance o
corn,) they may have their water, and the re
mainder immediately after; but the corn shoul
always be given in small quantities at a time i
the manger.

It is proper to mix a little cut straw or ha
with the corn, as it makes them chew it muc
better. It is the plan of some to cut the whol
of their hay; but, in my opinion, this is com
pletely throwing away the advantages which th
infinite wisdom of Providence has manifested i
the formation of the hay; for it is formed wit
joints, which no doubt were so ordered for th
very purpose of preserving its virtues; also it
formed so as to admit of no air through it: bu
that is not the case when cut, for then there is
free course for the wind through it, which mus
of course, very much diminish its virtues; for
a short time it will become as a dried stick.

It is also the opinion of others that there
less waste of it when cut; but if the rack is ma
properly, and the hay given to them in sm
quantities at each time, no doubt remains, b
that there is less waste of its real qualities, wh
given to them in its natural state, (and they w

chew it better in that state,) than when cut. I know of nothing better than a little sweet wheat straw, well cut, mixed with their corn; for it causes them to chew it better than any thing else beside; and I believe it is very healthy, for it keeps the corn light on the stomach.

I shall now proceed with the other part of their living—that of water, as the health of the animal depends, in a great measure, how it is given to them.

It is very common for agricultural horses to be turned out to a pit of standing water, which, I believe, is the most healthy; but this is not always the most preferable; for in very severe weather it chills them too much to turn them out of the stable at night and morning; therefore it is better to water them in the stable with the best spring water, if it is convenient, in very severe weather, as it is less chilly. They should always be well rubbed down immediately after having their water, and have a little corn in their manger in order to circulate the blood. Also it is proper to keep them eating two hours at least: when they are on full feed, it is best to divide the feed into two equal parts, and give them the

water in the same way, that is, at twice,—pa
just before they leave the stable.

It is not always convenient to give them a fe
of corn in the middle of the day, but always pr
ferable where there is a full allowance: of cour
they must have some hay, and if it is not co
venient to put them into a stable, they may
allowed to stand and eat hay for twenty or thir
minutes, and have some water just before th
start. Some say that they will not eat witho
having water first; but this is a mistake; u
them to it, and they will not look for it. Gre
care must be taken that they are not suffered
stand in a draught of wind, as there is not
much danger of their standing a little lon
to eat.

It is always advisable for wagoners to ha
cloths for their horses, that have to stay at
ferent places; as for instance:—If a team is s
to a coal-pit, or a lime-kiln, it is uncertain h
long they will have to stay; and those pla
being generally in very cold situations, it is th
proper to put on their cloths; but they sho
never be allowed to work in them, if so, it cau
them to be tender and chilly when they com

e taken off at night; and therefore more liable
o take cold.

It is better for them to have neither hay nor
ater, than to have the water first and stand
ng afterwards. Also, if it is convenient, water
em by the road side, and proceed on the jour-
ey, (I mean, besides night and morning, as
ey can hardly be watered too often,) for when
ey have been without water a long time, then
the most danger. If they have had water
ice, or an hour or two before they come home,
hich is always the best,) there will be less
nger at night: when they have been treated
is way through the day, there will be nothing
t of the common way required at night.

It is a bad practice to take them into a pond
water to wash their legs, when they are warm,
night. I have known horses killed with this
d nothing else: I believe it is better to have
em all over dirt, than to wash their legs when
y come home warm at night. When they
put into the stable, of course they must be
geared, and have some hay; and when they
e done steaming, and begin to cool, it is
essary to clean them well all over, and not to
ry them too much, but make use of a brush,

or wisp of straw, and by this time it will b
proper to give them some corn and water; bu
invariably they must be rubbed down. Afte
having their water, and seeing them half a
hour afterwards, if their coat lies close and fee
warm, and they eat their meat, there is no dan
ger in leaving them for the night; but if the
are chilly and tremble, all hands must be em
ployed in rubbing them from head to foot-
their head, ears, and legs with the bare hand
and their bodies with wisps of straw, as nothin
warms and nourishes those parts better (I mea
head, ears, and legs) than rubbing them with th
bare hands: if the weather is dry and fine aft
this treatment, it will be proper to put a cloth
them, and walk them sharply about, or trot the
if thought better: any thing to promote persp
ration is proper. When they are brought in
the stable again, give them a mash of scald
bran or oats, a little more than new-milk warm
repeat the rubbing as before, and then clot
them again: if they are not restored by th
means, it will be proper to bleed them; and,
thought necessary, give them a cordial drink a
warm water, and mashes for two or three days.

It is proper when horses are at dry meals to give them a mash of scalded bran, or warm potatoes, once or twice in the week at least; and that should be given new-milk warm, the last thing at night. If horses are treated in this manner, they will seldom require bleeding or physic; but if horses are kept a considerable part of the year on dry meat, they should have some powders in their mash or moistened corn, which I have prescribed in another part of this work. With such like treatment you will be able to see them safe through the winter season.

SECTION III.

ON THE GRASS SEASON.

I SHALL now proceed with the other seasons, as they are properly divided into two—winter and summer, or dry feed and grass; I shall also point out a few dangerous practices in commencing the grass season.

I have known horses killed by giving them a great quantity of grass in the stable, or by turning them into a full pasture of sour grass; there-

fore it is always the safest to turn them into a moderate pasture of pure grass, after the dew is off, and fetch them up before it falls at night; the next night they may lie out with safety. If it is not convenient to turn them out to grass, they should have a little of the purest grass that could be got, (I mean, such as grows in the sun, which should be got when the dew is off,) and mixed well with some hay for about two days, increasing the quantity of grass, and reducing the hay. If this method is pursued for about two days, it will be then safe to give them altogether grass; it will be safe, too, and advisable to give them some hay in very wet weather, as it checks the griping qualities of the grass.

The same precaution must be taken in the season as the former, with respect to the watering of horses. It is not always convenient to water agricultural horses in the middle of the day, although that time is the best; but they should be watered when they come home, after having something to eat; if turned out to the water they should be brought to the stable again, rubbed over as in the winter season, and in about twenty minutes or half an hour, if they are right, and their coat lies close, they may then go to the

pasture. It should be observed, if horses have been without water a longer time than usual, they should not be suffered to have their fill the first time they go to the water, but in a little time afterwards.

In the beginning of the grass season I recommended a short pasture, but this has sometimes a bad effect on the horse's head; for sometimes it will cause his head to swell behind the ears. If this is the case, he should not remain in the pasture too long at a time; but ought to be fetched from the pasture, and have something to eat in a rack of considerable height, and giving him a little at a time, it will keep his head up; by which means the swelling will probably go down without farther trouble; but if his head is inclined to swell still more, it will be proper to give him a considerable quantity of meat in the rack, as before prescribed, until his head is settled.

Sometimes it affects the eyes. When that is the case, the head ought to be kept up as before directed, and the eyes and upper part of the head well bathed with cold spring water, especially about the temples, and the sockets of the eyes. The eye-lid should be lifted up with the finger

and thumb, that the water may stream through the eye: a clean linen rag is a proper thing to bathe the eyes with, or a sponge may be used. If the eyes are much inflamed they ought to be bathed at least twice a day. If the inflammation does not abate in the course of a few days or a week, recourse must be had to bleeding: but bleeding should be avoided, if it is possible. It is always proper to bathe the head and eyes with cold spring water, when the latter are inflamed.

SECTION IV.

ON WORMS.

As most horses are more or less troubled with worms, it may not be improper to observe, that I have always found it greatly relieves them by giving them some hemlock in the spring of the year. When they come from their work they will eat as much as will completely cleanse their body from worms. This is a very important part of the treatment of horses that are troubled with the worms, for they never work well nor look well, when troubled with that complaint. The

will grow amazingly after their being cleansed from the worms.

Hemlock very much resembles kedlock: if the value of it was fully known, it would surely be sought for as a hidden treasure.

It may be proper also to notice, that in very hot weather it is refreshing to the horses to wipe them down with damp wisps, a few times in the day. This treatment is sufficient for agricultural horses; but coach and other horses, that are constantly on the hard road, should have the gravel and dirt properly spunged or rinsed out of the cavities of the feet and heels; the latter should immediately be wiped dry, in order to promote the perspiration in those parts. Urine is the best thing to wash horses' heels with; and it is highly necessary, when these sort of horses have had a hard day's work, to have the chill taken off their water at night, and have a good and dry bed.

It is very improper to suffer horses to remain in a keen draught of wind, in order to get them dry. The coach and other horses may remain out of doors for eight or ten minutes, or at least till they have done panting. It is a very common practice for wagoners to put their horses in the farm-

yard, and as much in the sun and wind as pos-
sible, on purpose, (as they say) to get them dry
before they go out; but it would be better to
turn them out into an open field all sweating and
steaming, than to keep them stationary in the
sun and wind for any length of time.

Horses ought always to be put in the stable in
the middle of the day, when not at work; they
will rest much better, in hot or wet weather, in
the stable: this should always be observed, as
when they are teazed with the flies, they are con-
tinually stamping and moving about, and thereby
injure themselves and the pasture very much. In
the wet weather they will be very glad to have a
little dry straw to lie down upon, which they will
mostly do in a few minutes after they enter the
stable.

It is not my intention in the least to treat upon
farriery; but it may not be amiss to mention a
few external applications which will mostly re-
lieve a horse when it is taken with the belly-
ache, particularly if it so happens that drugs have
to be fetched from a great distance:—

In the first place, it is proper to bleed him, and
endeavour to make him break wind by tickling
him about the fundament. Secondly; try

make him stale: (mares will mostly stale by putting a little ginger or salt under their tails in the usual way; but salt is the best: and horses by taking them into the stable and putting plenty of litter under them.) Thirdly; put a large quantity of straw about him, and let him roll about for a considerable time; then clothe him and keep him warm, in order to promote perspiration. When he rises from rolling about, spread a dry and warm empty sack under his belly, and a person should stand on each side of him, and have hold of the corners of the sack, and saw it well across his belly for a considerable time,—fifteen or twenty minutes; then he may roll about again, or lie down awhile; then saw the sack again across his belly: his legs, head, and ears should be well rubbed with the hands. If the weather is fine aud dry, it will be necessary to walk him sharply about, or trot him easy, still keeping him clothed, in order to cause perspiration. It is necessary that these external applications should be applied immediately, as they generally have the desired effect. I have known horses relieved by forcing tobacco smoke up their fundament; this will mostly cause them to break

wind, which is the most essential thing for their relief.

If these applications do not give them ease in the course of half an hour, it will be necessary to call in an experienced farrier. But if strict attention is paid to this short treatise, there will be but little occasion for one; for, if paying a due attention to their meat and water has a tendency to keep them in strength, so also it is likely to prevent them from having the belly-ache.

When horses are a considerable time at dry feed, it is indispensably requisite that they should have some powders in their mash, or moistened corn, at night: take equal quantities of nitre, cream of tartar, flour of sulphur, and antimony; a table-spoonful may be given the last thing at night; and they may have their water in the usual way: if this treatment is strictly persevered in, they will seldom require bleeding or purging; the former should always be avoided except in cases of inflammation, for if it becomes customary, it will be a difficult thing to get through a year without it.

SECTION V.

ON GEARING.

ır is astonishing to see this part of the treatment
f horses so much in the dark in this enlightened
ge. When we look at the form of a horse, and
ıe manner in which he is geared, we seldom see
m, geared or in harness, but his hames are
ınging down his breast, and outside of his
oulders. This is completely throwing aside
e advantages which the wisdom of Providence
s given us, in the formation of the animal. If
person will lay a heavy weight upon the point
his own shoulder, and then place it close to
neck; he will find it much lighter. It is
very same with horses; and nature seems to
ve given them a great superiority, in forming
ir necks so advantageously: for in the very
t where it is proper to attach the burden,
re is a cavity in the neck, which was, no
bt, so formed for that very purpose: there-
, if the burden is attached lower than the
om part of the cavity, the horse cannot lift
his knees and feet as he otherwise would do
he burden was attached to the proper part of

the shoulder. The horses of heavy burden ough not to be geared lower than the bottom part the cavity; and the harness horses a litt higher. It is not in the least surprising tha so many horses are drawn out of form, and the knees broken, when the burden is attached the lower part of their shoulders; this cann fail to draw the shoulders out of form, an disfigure their necks.

The hames are a very important part of t harness or gearing; and as all horses' necks a somewhat of the same form down by the sho ders, therefore one plan will do for both hor of heavy burden, and horses of speed; with t exception that the latter should be geared little higher, that is, the staple that the wei is attached to should be a little higher the hame; by that means, they will be be able to get the shoulder points forward, a lift up their knees and feet in a proper man

Horses being improperly harnessed and skilfully shod, together form one of the princ reasons why there are so many with bro knees; therefore as they are two very impor points, I shall treat upon both of them, first upon the form of the hames.

SECTION VI.

ON THE FORM OF HAMES.

r may very easily be understood that if the ames hang down the point of, and outside the oulders of the horse, it very much impedes his eed, and diminishes his strength: I shall, erefore, proceed to point out an advantageous d proper method of forming the hames, both r horses of speed and strength.

It is requisite that not only the collar should the horse's neck, but the hames also. If e collar was made a little more elastic in the le, than it generally is, it would allow the mes to fit better into the cavity of the neck. hen hames are made in a proper form, fit se, and are put on well, they will be a means preventing the collar from injuring the shoul- of the horse. They should be made some- at stronger about the cavity of the neck, finer downwards: by this means they will much closer.

believe no horses experience greater dis- ntages in regard to hames than the coach boat-horses, for which I shall endeavour

to point out a remedy :—If hames are mad
of one size, (which I believe to be the cas
with those of the coach-horse,) and the hor
happens to be smaller than the usual size, an
no means of taking up the hames, they,
course, must hang down the horse's breas
but this could be remedied by having a sma
noose, three or four inches from the top of t
off hame, to put a necking through to clasp ov
the other hame: the near hame to have a noo
a little lower down, to admit a strap to cla
the necking, which will hold the hames as tig
as if they were fastened at the top; and by th
means keep the hames up in the proper pla
The noose will be of no disadvantage to
hames of the coach-horse, when not requi
to take them up, as they can be fastened in
usual way, providing they are not too long
the horse they are intended for.

SECTION VII.

ON THE BRIDLE, &c.

It is needful that the bridle should fit easy,
the weight of it rest in the cavity between

pole-bone and the ears.—The next thing of importance is the reining of them up. This is commonly carried to extremes, either too slack or too tight:—if too tight, it stretches the tendons of the neck too much on the pole bone; if too slack, it does not support the head in that easy and sufficient manner it otherwise would do, if done in moderation; as either extremes are very improper.

With respect to the temper of horses, some will bear reining up much tighter than others; but this depends wholly on the form of the head and neck, and as such, it should always be done in that manner as appears most comfortable to the horse; it being only necessary to give a sufficient support to his head.

The next subject of consideration is, the backrupper, which is mostly rendered very hurtful by the bad judgment and neglect of the wagoner, in allowing the horses to be uncruppered; when that is the case, they are obliged to have the hip-straps so tight, as to cause a great weight to rest upon the top of the rump. There is generally a bulk, or pad, put on that point, which helps to increase the weight on that part. Cruppers are better without pads, even if the stitches

are rough; but if saddlers would lay the stitche
smoother than they generally do, it would be
great improvement. The cart-saddle cruppe
should have a pad and remain uncruppered, a
the breech-band will prevent the saddle fro
getting too forward, if it is in its proper place
indeed if it is not, the horse cannot go down hi
as he ought to do; if it is too high, he has n
the power he would have, if it was about th
centre of his body: if it is too low, the hors
will be afraid to go down hill: if much too lo
it will completely take his legs from under hi
and after that he will always be afraid of goi
down a hill, and then he is not fit for shaftin

When the chain-horses have pads on the
cruppers, and go uncruppered, and have the hi
straps tight, which is necessary when uncru
pered, the weight that it causes, and the frictio
together, will make that part bald as long
they live, and make them look old, when th
are young. But if the crupper is made properl
without a pad, the horses cruppered, and t
hip-straps a little slacker, seldom will there
a hair frayed. Many evils arise in consequen
of allowing horses to remain uncruppered; th
get a trick of slacking from their work, a

flinging the collar forward, which not only frays their necks, and causes a chilliness about their shoulders, but puts the collar in an improper form for starting again. When horses are allowed to start with the collar off the top part of their shoulders, it not only strips off the mane, but very often the skin also: when that is the case, it may easily be conceived what misery the poor animals are in, either when at work or not.

It is of the utmost consequence that the collar should fit the horse's neck; if it is too big he never works easy; and it should not, on any occasion, hang down below his neck. There is a great inconvenience attending a lean horse that has a large head: it is with difficulty that a collar can be made to fit him, his neck being too small for the collar that his head will pass through; but this might be remedied by having the wale made more elastic, which would allow the hames to fit better into the cavity of the neck, and be of great advantage.

The belly-band should be moderately tight when horses are at work, in order to prevent the collar from choking or hanging them; this is requisite both for harness as well as draught horses.

SECTION VIII.

ON DRIVING.

DRIVING is one of the most important point belonging to the management of horses, as no thing tends more to promote their health an strength, than to avoid distressing them in thei work, for it is possible to drive and whip horse, till he will, in a manner, stand still.

I have lately offered a wager, that my tea will plough an acre and a half in ten hour when at grass and no corn, or moderate kee in the spring, without whipping a horse, scarcely a word being heard, and with le number of horses than is generally used in th part of the country.

I think it a most absurd practice to use regular course of whipping and words; as it an infliction of punishment when not merite and a waste of breath, because of no use wha ever. But this is not wholly the fault of t driver, for some masters are not content witho hearing the incessant cracking of the whip, a the noise of angry words from morning till nigh and very likely not one word in a hundred h

the effect of making the horses perform their work better. I never saw a team which was subject to regular infliction of punishment, that could or would work better for it. Very frequently it happens that the punishment they receive does them more harm than their work otherwise would do; as nothing tends more to damp their spirits and diminish their usefulness than this cruel treatment; in consideration of which, it is highly necessary for the driver to study the horses' temper and sagacity; because, in this respect, I believe they are seldom behind their driver, or master, that is set over them; for which reason they ought to be driven with knowledge and judgment.

I shall also point out an absurd custom in driving that prevails in some counties:—If they want the leader to come a little towards them, they say, "Wo-back;" and if they want him to come right back again, they say the very same word. Now, if he knew what to do, I think he must have more sense than his master; and if he does not know what is meant, which cannot reasonably be expected, he must have an unmerciful lash with the whip across the head and neck, which is contrary both to humanity

and reason, and cannot fail to make them un ruly.

I shall now endeavour to point out a rule fo the driving of horses, as a regular rule is much needed; particularly when they are continuall changing the drivers.

The drivers should have one peculiar wor when they want them to come right back again and it should never be used at any other time or they will not know when and how to obe it. If this regular rule was adopted, there woul not be that inconvenience in driving which so very perceptible when a fresh driver is ap pointed over them: then again, when they wa them to turn back again, it would be propo to say, "Wo-o-come-again," or "Gee-again There must be other words used when they a wanted to come a little nearer the driver, a "Come-hither," if a little from the driver, "Ge off:" if these words were always properly us there would be very little trouble in getting the readily obeyed, every time they are spoken.

It is requisite to have a side, or safety re to the first horse, extending from the bridle the top of the hip-straps, hanging along his si It is impossible to teach a horse to lead we

in a little time, without one. This rein may be held in one hand, and the whip in the other, in order to make him understand what the words and the whip mean. This rein may with propriety be called a safety rein; for if it was always attached to the first horse, it would be a means of preventing much damage. The steadiest horse is liable to be frightened so as to turn right back again, and endanger the lives of every one near him. Now if there was a side, or safety rein, it would mostly be in the power of the driver to get hold of it and prevent much of the damage that otherwise would probably occur. When a horse is much frightened, and turns right back again from the driver, (which is generally the case,) it is then almost impossible to get hold of his head to stop him, before much injury is done.

The advantages of this safety rein, if generally adopted, would be numerous. That there is a want of management and science in the driving of horses, must be visible to every gentleman who travels on the public roads; for the heavy carriages are mostly on the wrong side of the road, and it is with the greatest difficulty they are got to the right side; even then the passing

carriage very frequently comes in contact with the first horse: this might easily be prevented by the side rein. Again, when the carriage is kept level on the centre of the road, it goes much easier than when on one side, and if the side rein was kept rather tight, it would keep the first horse in the middle, or on the right side: if in the middle, there would be not that difficulty in bringing them out of the way, as there otherwise would, if they were on the wrong side; as, in that case, the whole of the road must be crossed, before the carriage could pass, which would require an additional exertion of strength on the part of the horses. Therefore by keeping the wagon, or heavy carriage, in the centre, or right side of the road, the driver would avoid much inconvenience himself, as well as leaving sufficient room for the passing carriage.

If the wagonner would refrain from whipping the horses on the near side, and have a safety rein to the first horse, there would be but little difficulty in making him go straight and bold in the middle of the road; the peculiar words being generally understood by the other horses are quite sufficient for the driver to use. For instance—"haw," if he wants them to come

oward him; or "ait," if a little off or from im. These words may be coupled with the orse's name, or "ait, my lad," or such like xpressions; but the whip should be ready to hake them obey, and then, in a little time, here would be nothing wanted but the usual ords, to make them do their work in a proper anner.

Another important part is, the being able to ake them work freely and pleasantly together, d to obey every word that is spoken to them, fore a colt, or young horse, can be put into e team with any advantage; therefore, when e wagonner wants them to start, he should ver speak but once to them, and then in as easant a manner as he possibly can: "gently" a word that might be used, and is quite suf- ent to start them. It is necessary that every rse should distinctly hear the word; and, at same time, the eyes of the driver cannot be strictly upon them; and, if possible, he uld stand in such a situation as to be able ouch any of the horses with the whip, which uld be immediately done, if they do not in- tly obey the word of command; and, if it n requisite, hit them rather severely on a

tender part; but he should not be in sight c
the horse that he applies the whip to, if he ca
help it. He should never stand in front of th
horse to whip him, for that is sure to make th
animal watch him, and never more work free
with the other horses. When this system ha
been persevered in for a short time, there will l
nothing wanted but a pleasant word, to sta
them off as they ought to do, the moment th
word of command is given: when this is t
case, there is little difficulty in putting a you
horse into the team, and making him work w
in a short time; but if, on the contrary, it
quires a considerable time of driving to st
them, during which, the young horse has ma
several starts and cannot go; by which mea
his temper is so ruffled, that he defies all mana
ment for a considerable time; and frequen
he is thereby completely spoiled: therefore it
requisite that they should start the moment th
are spoken to.

Before I proceed with the young horses
is necessary to complete the work of the
When they are started, the work is not finish
the eye cannot be kept too strictly upon th
and if any horse does not perform his work

e ought to do, he should be touched with the hip rather lightly; if this has not the effect, e should have it more severely, and on a tender art, if thought proper. But the driver should ot be within sight of the horse: and likewise, e should have a whip of considerable length drive a long team with, in order to whip on her side, as appears most proper, for if they e always whipped on the nearest side, they ll get a trick of hanging off from him. To their work with ease to themselves, they ght to go on as straight as possible; for that son, it is very improper to whip them always the near side.

Another absurd practice prevails among wag-ners, which is, if a horse is too free at work, y rein him up tighter in order to keep him k: this greatly contributes to ruffle his tem- and make him freer; then they put the whip re him, and caress him; or, in other words, him, and give him encouragement: all this quite the contrary effect. Now if a horse nclined to be too slow, he should have all encouragement given him that is possible. robably will be necessary to give him the a little severely; but the moment he does

more than his share of the work the whip shoul
be put before him, and encouragement give
him: by this means he will become more free
The free horse should have as little notice take
of him as possible, and, if convenient, kee
before him: by so doing, he will soon be broug
to work well and freely with the other horse
When this is the case, there will be but litt
trouble in breaking in a colt, or young horse

It is a usual thing with some wagonners to p
ceed entirely up a hill without once stoppi
the horses. If it is a long hill and a heavy lo
it is very proper to stop them sometimes, t
they may gain their wind, and the musc
their strength. There is certainly an inc
venience attending the stopping of horses
heavy ground, in their not starting togeth
when they do this, it must, of course, distr
those that have to start the load again; but
on the contrary, they start together, (which t
will do when they are thoroughly used to
then it is best to stop them, and scotch
wheel, before they have spent too much of t
strength, which will make them start fr
Again, when the word of command is given
them to stop, it is very essential that every h

hould distinctly hear it, or they will soon get
trick of stopping of their own accord, which
hould never be allowed. When horses work
vell together, and start together, they will take
reasonable load up any hill; but it sometimes
navoidably occurs that they ought to draw at
standing pull, or what is called a staw-heft.
his seldom occurs, or at least ought not fre-
uently to occur with agricultural horses. But
orses that draw timber and other heavy weights,
re frequently obliged to draw at a standing
ull, and whenever this happens, the horses
ught to stand at the stretch of the chains as
ear as possible, and then you may bid them
art; but this cannot be done in too mild a
anner; the milder the wagonner is with them,
e oftener they will draw: all that is required
to stand and watch them, and as soon as
ey have bended together, they ought to be
mediately stopped, (for it is useless for them
continue drawing after they have had a long
ll), and to stand a minute or two to recover
eir strength, and to prepare themselves for
better pull, which they will mostly do: but
t is seen that the horses do not exert them-
ves, they may be bid to go in the same mild

way as before, and as soon as they have commenced drawing they should hear the whip, which will mostly be sufficient to make them do their best, if they are driven in the manner as before directed; but if it is seen that any horse does not his best, he should have the whip given him rather severely; and when they have had a fair pull, they must be stopped as before. If after doing their best, and trying three times successively in this way, and it is evident that they cannot go, it will be useless to try them any more, as they will get weaker every time: and if horses are drawn too often at those standing pulls, they will mostly get false way of drawing.

If the wagonner has any suspicion of a horse turning restive, he should take care that he does not start first; if he does, he will generally refuse to draw any more. When a horse of this description will start first, it is a safe plan for the wagonner to take hold of his head, and hold him steady till the other horses start, and then he will draw with them. And also he should be mindful to stop this horse as soon as he has had a pull. A horse of a restive disposition should never be whipped, nor cherished much

when he draws; for both have a tendency towards making him refuse to draw. When he refuses to draw, the wagonner may give him a severe lash with the whip, when the team is stopped; after which he should not be suffered to draw till the other horses have commenced drawing. If the wagonner can start the other horses without whipping them, and without the restive horse starting first, it would be better for him not to lay hold of the restive horse: little or no notice should be taken of him, but particular care should be taken that he should be stopped when he has had a pull, (as I have before observed) by so doing, the others generally will stand and draw a great number of times; in fact, it is possible to train a horse to almost any thing.

When a very restive, or spirited horse, is going to be put into the team, it should be done when not overloaded, or the cure will be uncertain; therefore he should be put in when the others are able to go without him. I have seen it necessary to draw an unruly horse along for a considerable time, and afterwards he has become as good a drawer as needs be. It is utterly useless to whip him while he is in that

stupid state; it is better to put him in when the wagon, or cart, is empty; or when at plough, and learn him to walk with the other horses; when he has found out their step, and his stupid temper is gone, if he does not perform well, that is the time for him to feel the whip of the wagonner, rather lightly; if he performs well, cherish him. But if he is too free at work, the wagonner should not, by any means attempt to keep him back, for that would be sure to make him a random worker.

When it is intended to break in a colt, or young horse, it is necessary to handle and tame him a little before he is geared, and also to put a bridle, or breaking-tackle on him, and lead him about a few times, in order to make him understand the bridle: it is also proper to gear him a considerable time before he goes to work, perhaps twenty minutes or half an hour, and let him continue eating; if he refuses hay, he should have some corn. It will tame him very much to let him stand eating, with the gears on, for a considerable time. When he is put into the team, the wagonner should recollect to carry the whip on the wrong, or off-side of the horses: if carried on the right, or near side

t mostly causes the in-colt to hang from him
or a great length of time, and, in the case of
ome, will never forget it; therefore the wagonner
hould strictly guard against it. If it is in the
ower of the wagonner, he should never allow
colt, or young horse, to start before the other
orses; if they start together, he will generally
o on without any further trouble. If he turns
tupid, it is right that the wagonner should wait
little till his passion cools, and start them
gain. If he turns stupid the second time, the
hip may be moderately used; but still keep
oing on with the other horses, even if obliged
drag him for a while, as it is best to wait
l his passion is over, before he has the whip
verely. If he is inclined to be too free, no
ndeavour should be made to keep him back;
t if any attempt is made, it is sure to make
m an unsteady worker. This is the best time
r him to find it out how to work with the
her horses, as they are sooner tired when first
ared, than any other time. If the wagonner
rceives that he is inclined to be too slow, he
ould not whip him much, if any, the first
y or two; but let him find out the step of
e other horses, and then the wagonner should

endeavour to make him answer the whip b whipping him on a tender part. The best tim to commence this treatment, is a short tim before the horses leave off work; then th wagonner should endeavour to make him work or perform well, and cherish him as much a possible; by which means, when he comes t his work again he will expect to perform th same as before. If a slow colt was kept a work for any great length of time after thi treatment, the good effect of it would be lost but by pursuing the before-mentioned treat ment, he will soon be made a good and fre worker.

If the driver thinks the colt is inclined to l too slow, he should, the moment he perform his work well, put the whip before him, an pretend to keep him back. In this instanc horses very much resemble the human specie they are prone to be stubborn, and are most inclined to do that which they ought not. Th driver should not, therefore, let the colt kno that he wants him to do more work; but on to do his own part with the other horses. Th sagacity of horses is beyond conception; f which reason they ought to be driven with

much caution as if they were so many human beings; and then they will soon be made to work well and freely together; and there will be no need of the usual waste of words, and continual lashing with the whip, which is nothing less than unnecessary cruelty.

When a team is thoroughly broken in, and every horse perfectly understands the driver, then a plough might be held by gentlemen, even of the highest rank, for a few hours in the day. Where there is old and dry turf to be ploughed, the exertion, with a wheel plough, is not more than most gentlemen can bear; with the exception of running it round at an end: in fact, it is easier than walking upon even ground, and at the same time it employs both the eye and mind, and circulates the blood in the extremities, without putting the body out of form, or hanging the head in the least. This, coupled with the surprising effect of the fresh soil continually being turned up, renders this wholesome exercise better calculated for a thinking mind than any other. Moreover, when nothing is required but pleasant words to drive the team, there will be no reason why ladies of rank should not enjoy the salutary effects of

a newly-ploughed field: when the ground i sound and dry they might ride or walk nea to the furrows, and inhale the fragrance of thei mother earth. Such exercise, I believe, woul have a better effect upon the health and con stitution, than resorting to watering-places gene rally has.

If the beneficial results of this employment in a field of good aspect, were fully known such fields would undoubtedly be crowded t excess by persons of the highest rank in th kingdom: and would likewise tend to excit an emulation in the peasantry to excel in th noble science of agriculture.

SECTION IX.

ON

DRIVING THE COACH-HORSE

THERE is a great advantage in the method o driving the coach-horses, as the whip is alway behind them; consequently there is not so muc skill required, as in driving a long team, as i regards the horses' tempers; but neverthele

ey ought to be driven with judgment, and
ith as little waste of their strength as possible:
eir strength is the principal thing with which
ey have to perform the journey in a certain
ne; therefore the less waste of that the better.
hen they start, the coachman's eye cannot
too strictly upon them, nor the whip too
ady to touch any horse that does not start
the same time, or regularly with the other
rses. Indeed his eye ought to be employed
a two-fold manner; the road ought to be
nsidered as well as the horses; and their
engths made use of according to the state of
e road. If this part of the driver's duty is
perly attended to, their pace can be changed
thout ruffling their temper, or distressing
em in the least; and it will very much relieve
em by changing their pace, when it can be
ne without wasting their strength too much.
Coach as well as other horses ought to start
soon as the word of command is given; and
a young, or fresh horse, is put with the
ers, a person ought to stand at his head, in
er to prevent him starting before the others;
n it will be ascertained that he will stand
good pull. If a restive horse is allowed to

start first, it generally ruffles his temper so muc as to make it difficult to get him to go off; there fore it is necessary for a person to have ho of his head at starting, and lead him rath gently, till they are all come together, and the they will mostly go off without any furth trouble. It is the best to be as still as po sible in the driving of these horses; the e cannot be too strictly upon them; and if a horse is inclined to be too slow, he should touched with the whip, and if he does not mo faster, the whip should be again applied, a on a tender part, but as seldom as possible. the horses together are not performing as th ought to do, the word of command should given, and if this is unheeded, it is necessa to crack the whip just over their heads, so th they can hear it; but these mandates shou never be given at a wrong time, or they w become vague and useless. If they do not ob when the word is spoken, it is the best to gi them the whip on a tender part, immediate after the command is given.

If this system of driving is strictly pers vered in, there will soon be no occasion for t use of the whip: and the punishment whi

so frequently inflicted upon them will be oided, as it not only makes them worse in eir temper, but actually does them more harm an their work possibly can do.

When the coachman approaches the foot of a g hill, it is proper for him to put the horses a greater degree of speed, and to continue t speed a considerable way up the hill; n he should change their speed; but this uld never be done without a motion of the ns, or they will soon get a trick of stopping mselves, which should not be allowed. The l should be entirely mounted before the rses are put to their usual speed again, as it l be a means of wasting their strength to no rpose; the proper time of starting the vehicle ng when the hill is sufficiently mounted, or en nearly on level ground.

When the horses are to go off in their usual ed, it is necessary either to stir the whip, or e the word of command; if either of them not immediately obeyed, then it is proper give them the whip rather severely; and it not be too ready to touch the horse that is kward in starting. If this point is strictly owed, a word will, in the course of a short

time, be quite sufficient to start them off at fu
speed.

There is generally too much strength waste
and too much pain caused to the horses, b
stopping these vehicles with too much forc
When once horses get into a trick of stoppi
all of a sudden, they will seldom, if ever, lea
it off; therefore coachmen cannot be too ca
tious in stopping them, nor too easy in pulli
them up. Indeed it is even better to allo
the vehicle to stop almost of itself, if possib
than to pull the horses up with too much forc
for if they are pulled up in such a mann
they will be in danger of having the pole evi
and never fail of being habituated to that i
curable trick of wasting their strength, wi
stopping all of a sudden; therefore it cann
be too strictly guarded against, and the coac
man should slack their pace, or pull them
easy, a considerable distance before he arri
at the stopping place.

If a horse is inclined to waste too much
his strength with stopping the vehicle, wh
him severely at the first effort, and, if possib
never allow him to acquire this injurious hab
It is essential to give this kind of horses thr

r four mouthsful of water, a time or two in
he stage; but they should never be allowed to
tand after having drank the water.

Coach-horses should be reined up rather
ghter than the horses of heavy burden, as they
re mostly made neater about the head and
eck, but no tighter than appears comfortable.
he hames should be put on tight, and be geared
little higher than the horses of heavy burden,
that will allow them to lift up their knees
d feet much better. The belly-band should
moderately tight, in order to prevent the
llar choking them.

A great inconvenience is experienced in con-
quence of the hames of coach-horses being
ade all of one length; thereby the small horse
obliged to have his hames, or collar, longer
n what is necessary, and consequently he has
t the power he otherwise would have, if his
lar and hames fitted well.

Nothing can be more improper, than to have
collar, or hames, hanging down the breast
l outside the shoulder; therefore it is the
erest of every one that finds horses for the
rpose of running in coaches, to be mindful
t the collar and hames fit the horse properly;

for that reason I have, in my pattern for hames
explained in as plain a manner as possible, th
manner in which hames ought to be made an
put on: of all the different parts of harnes
that require strict attention, this is the mos
particular, as it affects both the power and th
speed of the horse.

SECTION X.

ON

DRIVING THE BOAT-HORSE

THE driving of the boat-horses is nearly th
same as the coach-horses, with the exceptio
of the reins; and consequently there will
but little room for comment on the driving
them; at the same time it is but justice to the
that the driving and management of boat-hors
should be as perfect as possible, before they a
thrown out of their present kind of work
the introduction of their powerful opponent
steam—as there are some persons who are pu
posing to use it instead of horses. Also it
perfectly right that every possible improveme

hould be made: generally speaking, I believe hat there are no horses worse driven, or more hamefully ill-used and beaten than boat-horses. I shall endeavour to point out a system of reatment, which will be a means of that punshment being avoided, the infliction of it doing hem more harm than their work.

A boat-horse has a certain quantity of work do, and a certain portion of strength to perrm that given quantity of work; that strength no more than his frame and constitution will low; therefore the less waste of that strength e better, as over-exertion will sometimes hurt s constitution past recovery. One very improper ractice is, wasting his strength with starting e boat with too much force out of the locks, stead of which the driver should take hold of s head, and hold him till the boat is cometely afloat, and then let him hear the whip, word of command for to start: if he does not mediately obey, lash him with the whip rather verely on a tender part: if he does not then rform better, repeat it in the same place, till performs as he ought to do. But he should ver be whipped when he performs well, or he ll become sluggish, and it will accustom him

to bear any infliction of punishment rather tha do the work; for it is not in their nature t bear both for any length of time.

With this kind of horses, as well as all other drivers cannot be too still with them; and th eye is not so much employed, as there is gen rally but one horse, yet it is necessary to l watchful of him, and if he slacks from his wor let him hear the whip, or word of comman the former is preferable. If he does not obe touch him with the whip, then, if he perfor as he ought to do, he should be encouraged patting him, and giving him cheering word This may be done as he goes along with o hand, and the whip carried in the other, to ke him up to his work; but he should neither he nor feel the whip while he is performing work well: a little encouragement wonderfu revives his spirits, and causes him to work mu freer than he otherwise would do.

SECTION XI.

ON

GEARING THE BOAT-HORS

It is a usual thing for the proprietor of

oat-horse to find the bridle and the collar; nd the captain of the boat the remaining part f the harness; consequently it has to be changed very time he has a fresh horse; which is gene- lly done in such a hurry, as not to allow suf- cient time to adjust and fit on the hames in a roper manner. As this is the most important art belonging to the gearing of boat-horses, would advise the owner of every boat-horse find hames, collar, and bridle for the same; the same time having the hames geared a ttle higher than those of the slow horses, or orses of heavy burden, and fitted on well. If ery owner of boat-horses was to find this rt of the gearing, it would allow sufficient ne for the hames to be fitted on as they ought be; also it will require less time in changing rses. The hames ought to fit into the cavity the neck, as I before directed in the draught- rses' gears. I refer my readers to the shop Mr. Thomas Beardmore, Burslem, Stafford- re Potteries, for a pattern of hames.

The boat-horses ought to have water two or ee times in the course of the stage; the fly- t horses not more than six or seven mouths- at a time, the slow-boat horses a little more.

It is necessary to give them a little hay, or corn about the time of watering; but as boat-horses are generally upon a full allowance of corn, it is highly essential to give them a feed of corn in the middle of the stage.

Boat-horses have no need of cloths, as they are seldom delayed long on the road; but if it should so happen that they are obliged to stop for any length of time, they should be covered with something, or they will soon take cold, which should always be avoided, if possible.

The heels and feet of these horses, as well as of the coach-horses, should be kept clean: the best time to wash them is as soon as they come from off their journey, and before they go into the stable; but their heels, in every instance, should be wiped dry immediately. Their heels and feet ought to be washed at least once a week with urine, as it toughens and strengthens those parts very much. Their legs should never be washed, except they are immediately rubbed dry; yet they may be wiped all over with damp wisps in the hot weather, and well rubbed afterwards.

The same rule may be observed in the feeding of these as of other horses.

They should never be allowed to have their ater the last thing at night. It is also neces- ry that they should have a bran or potato ash, about new-milk warm, the last thing night, three times a week at least. If a ble-spoonful of the powder before prescribed, given to them in their mash at night, a few w times in the week, towards the spring of e year, it would be of great benefit to them, ey may have their water in the usual way) d it would clear their skin, and cause them do more work.

SECTION XII.

ON POLLING OF HORSES.

is necessary to pull a considerable quantity the hair called the mane off coach and boat- rses, as it keeps them much cooler; but it uld never be cut off, as some do, where the lar and bridle rest. By so doing, they take protection away which nature has given m. When the mane is cut off from under collar, it becomes so hard and stiff, that

the weight of the collar soon makes the horse' neck sore; instead of cutting it off, it should b carefully turned all one way under the colla which will greatly protect the neck from th injuries the collar is apt to cause. The sam may be observed in regard to the part where th bridle rests upon, for we often see horses dis figured about that part as bad as if they had th pole-evil. Now if the mane was suffered t remain on that part it would greatly protect th pole against the pressure and friction of th bridle; therefore, it is very wrong to cut an part of the mane off, of any horse, as they loo better, and may be disposed of to greater ad vantage with it on than off.

It is a very common custom with some snip or singe the hair completely out of the ears; this never should be done, neither in wi ter nor in summer: in the latter it gives th flies liberty to get into their ears and tea them in such a manner, that they are cor pletely ungovernable, particularly in very wa weather, when the flies are brisk. It is equal blameable to deprive them of this protecti in winter as in summer, as a heavy storm rain or hail renders them equally ungoverna

the flies. But these are not all the disad-
ntages attending this absurd practice, as it
so gives the cold winds free access to their
eads, which will frequently occasion them to
ave colds. Yet it is proper to singe or snip
e long hair from off the jaws of coach, boat,
d agricultural horses in the spring of the
ar, but not in the autumn or winter, as it will
use them to take cold much sooner than if it
as suffered to remain on. Also it is right to
ave a considerable quantity of the mane and
l on agricultural horses, in order to protect
em from the cold in winter, and the flies in
mmer. This is all that is necessary for me to
y on this part of the treatment of horses, that
e at work all the year through; but being
ked my opinion about clipping horses, I have
ought proper to observe that it befits a long-
ated horse better for hunting in the autumnal
rt of the year, but it cannot be expected that
will cast his coat so freely or kindly in the
ring, as if nature had followed its proper
urse.

It is not right to clip the hair from off the
els of draught horses, for when it is suffered
grow it prevents the dirt from getting into

the cavities of the heels, though it sometim hangs considerably in the hair, still it most prevents it from getting into the cavities of th heels, and prevents the cold winds from chillin those parts too much.

Some persons have a great objection to horse that has any quantity of hair about h heels: these objections have been carried such a height in some parts of the country, th if they see a horse with a considerable quanti of hair about his legs, they will not stop to loo at his action. But the action of the horse d pends much more on his shape, than on t quantity of hair he has on his legs: for so of the strongest and most active horses that ever saw had hair on their legs, at least t inches long; and sometimes the fastest walke and trotters have a considerable quantity of ha on their legs: but it is always the most prefe able when it grows neatly down the back pa of their legs.

The most active mares of this description, believe, are the best to breed harness and sadd horses from; and also hunters, providing th they are by a high-bred racer. This kind horses is distinguished by having very lit

no long hair on their legs. It is a very aiseworthy thing to preserve the true breed of th kinds of horses, or the first cross will be mpletely lost, which would be a great disad- ntage, for they of the first cross are generally e stoutest and best, both for harness and the ldle.

SECTION XIII.

ON HE BREEDING OF HORSES.

IEN mares are worn out, either by old age some incurable disease, it is customary with e to put them to the horse for breeding: er these circumstances, how can it be ex- ed that they will bring forth good and stout ; as this is the time, of all others, when th and strength are most needed? It is a rare thing to see a stout horse bred from old or worn-out mare. There can be no ntage in breeding from such kind of mares, ey can generally do no sort of work when ding and suckling; and their offspring is

of little use; and if we look at the extra kee
it takes to support this sort of breed, certainl
the greatest benefit would be derived in ceasin
to breed from this kind of mares, as one hor
bred from a young and stout mare will do
much work as two of the former, and requi
less nourishment. The young and stout ma
will not require more than a week, or a fo
night's rest in the whole time of breeding an
suckling; for it is safest to keep them at regul
work till the day they foal, provided they are n
knocked about in the shafts.

I shall now endeavour to point out the rig
sort of mares to breed from:—Some say, a go
horse is never of a bad colour; but I say, a go
horse of a good colour is better. It is contra
to reason to say that there is nothing in t
colour of horses: they might as well say,
scientific cock-fighter cannot tell whether or
a cock is stout by his colour; or, that a black
white cow gives as good milk as the deep
cow: therefore, as colour is a great considerati
in the value and strength of horses, I will me
tion the good and bad colours:—Some peo
say, that grey is a tender colour; but I ra
the gray horses foremost, if their colour is rig

ch as dark or iron grey, or roan, with dark or
ack legs and mane, and tail of the same
lour; consequently the white, or light grey,
ith white legs, and white mane and tail, is a
nder colour. If there is one colour more ten-
r than another, it is, according to my opinion,
e pale chesnut, with white, or pale-coloured
gs: if there is a white or flaxen tail, and mane,
th this colour, it is very bad; indeed the white
flaxen mane and tail, always denote a tender
rse; but if a horse is of a crimson, or dark
esnut, with dark coloured or black legs and
ne, and tail of the same colour, it is not a
spisable one. The black horses may be classed
xt to the chesnuts. To say that there are
good black horses would be wrong; but still
y are not equal to some of other colours.
e rich brown or bright bays, with black legs,
more preferable than the blacks; but black
ses, with black legs and brown muscles, are
best of this colour; but the white legs and
ite face denote a tender horse. There is a
ddy, brown colour, that is not desirable, pale
oured about the flanks, with legs white, or
the pale colour, denote a tender horse. I
ll conclude this section by observing, that the

iron greys, roans, rich browns, and bright bays, with black legs, rank foremost as it regards colour.

SECTION XIV.

ON THE SHAPE OF HORSES.

A SHORT horse is preferred by many persons but a short horse is not so powerful as one that is lengthy. The long horse, with a short back is most preferable; his neck and quarters cannot be too long, and his shoulder-blades pointing towards the middle of his back, and consequently the shoulder points forward, pointing up towards the neck. The hips should come pretty forward, and point down towards the short ribs. If he is a considerable length from the hips to the rump, it forms a long horse with a short back; he should be well filled up along each side of the back bone, and over the loins with firm substance. If his body is nearly round and thick, and broad across the breast, and his arms and haunches strong, and below the knee the sinews compose half of the leg, this form

what is called by some, flat-bone; the bone, I believe, is intended to be round; but if there are plenty of sinews, it forms a flat leg: all these denote a horse of great strength. If a horse's knees and hocks are pretty near the ground, and there is a considerable length above, it forms a tall horse, with short legs. A very active horse is never seen with his knees and hocks a great way from the ground.

It is the opinion of some, that a horse is not rightly formed without his hips join his ribs, or within an inch or two: but that is too near, for if he is too close in that part, he cannot get his breath so well as the horse that is slack in the loin; but either extremes are wrong, as horses that are tight in that part mostly go broken winded, and if too slack, they mostly trip with the hind feet, and are not so strong as the horse that is of moderate length in that part.

The neck should be a considerable length, deep and strong down by the shoulders, and taper and fine about the pole and opposite jaw-bone, that the head may move easy. The head should hang straight down and move easy every way, and particularly towards the breast. If a horse's head seems fast, and his nose pointing

out, and will not come easy in, he is in dange
of having the pole-evil. The ears should b
fine, and finish with a sharp point at the to
and moving. The eyes should be clear an
bright, the eye-lids clear from wrinkles, an
stand boldly open; if, on the contrary, the ey
lids are all over wrinkles, and it appears tha
he has great difficulty in keeping his eyes ope
it denotes that he will be blind in the cours
of a short time. The jaws should taper and b
fine towards the mouth; and the lower lip shoul
not hang down from the upper; his nostri
rather open and large. The foot should sprea
out from the fetlock gradually down to th
ground, and should be wide and open about th
heel. If, on the contrary, the foot is straigh
down, it does not give way to the more sensib
part of the foot, and so causes lameness. T
this may be compared a person putting on
pair of shoes that are too small for him, f
when he begins to walk in them he will soo
find out the inconvenience of having his sho
too narrow; as when his weight presses on h
feet, the shoes contract the motion of them s
much, as to cause lameness: so also, when th
hoofs are too narrow, they contract the motio

f the feet in a similar manner, and so cause ameness; therefore the foot should spread out, nd the heel be open, with a sound, strong frog.

SECTION XV.

ON SHOEING OF HORSES.

HOEING of horses is at present very much in e dark, for most writers only refer people to a od shoer; and those men mostly know suf- ient (in their opinion,) that they will not be ught any thing; but the man that knows the rse's gait the best, is the most likely man to acquainted with the manner in which he ght to be shod. I shall, therefore, endeavour point out in as plain a manner as possible, advantageous method of shoeing all kinds horses.

First, the young horse,—as this is the best ne to get the foot into a proper form. Colts' t are often crooked, the hoof spreads too much e way, and consequently too little the other, d as they generally tread heaviest on the side ere there is the least hoof, they will, when

they begin to work, if their feet are suffered t remain in that crooked form, soon become lame for which reason, great care should be take that their feet are made perfectly straight whe young. If a young horse's foot is too little on way, the same side of the foot should be pare a little hollow, and the inside of the shoe b raised a little up into the foot, and the outsid be sloped off. If the foot is too narrow at th heel, hollow the foot on both sides, and rais both the insides of the shoe up towards the foo and slope the outsides. (See the patterns fo young horses' shoes.)

This method of shoeing will soon get the foo into whatever form is wished.

The shoeing of coach and saddle-horses is th most important, as these kinds of horses a generally distressed to such a degree, that the are scarcely able to lift their feet high enoug to miss the ground, and thereby frequently hav their knees broken. In a general way, peopl like to keep their horses' feet large and long. the foot is longer than necessary, and ove balanced with a lump of steel at the toe of th shoe, in my opinion, it is impossible for an horse to prevent himself coming down, whe

distressed, and then he is called a tumble-down horse, when in reality, it is the fault of the shoeing smith. Instead of a lump of steel on the toe of the shoe, that part should be sloped off, as directed for coach and saddle-horses shoe; there is a very great difference between having the foot long, and a lump of steel on the toe of the shoe; and having the foot short, and the toe of the shoe sloped off. It is very absurd to keep the foot longer than what is necessary; as it not only weakens it, but makes the horse more liable to sprain the back sinews, and also to come down. If the foot is straight, and the horse goes straight, the shoe cannot be made too level, and also the foot the same. If the horse cuts the heel part of the shoe on the contrary foot, it should be sloped off and not project wider than the hoof; and the hoof kept a little narrower in that part. If the foot is tender in any part, from gravel or any other cause, pare the under part down in order to throw the weight on the sound part of the foot. It is proper that the shoes for agricultural horses be turned up a little at the heel, to prevent them from slipping on slippery ground, but the turn-up should not be sharpened, and it should not be more than

half an inch: the horse of heavy burden in the same way. The draught horses' feet should be kept rather short, as they have considerably more power when their feet are short, than when they are long; indeed, when the foot is properly pared down it grows much stronger and the horse rendered, by that means, more vigorous, more active, and better in every respect.

When a horse is newly shod, the hoof and clenchings should be well washed with stale, or the sock of the stale, as it will greatly strengthen the foot, and cause the clenchings to set fast; but instead of doing so, it is the system of some to grease or oil the hoofs, but this causes the clenching to rise, and very much weakens the foot, as it is of a flexible nature; therefore the oiling renders it too much so, for which reason it is always improper to grease or oil the feet.

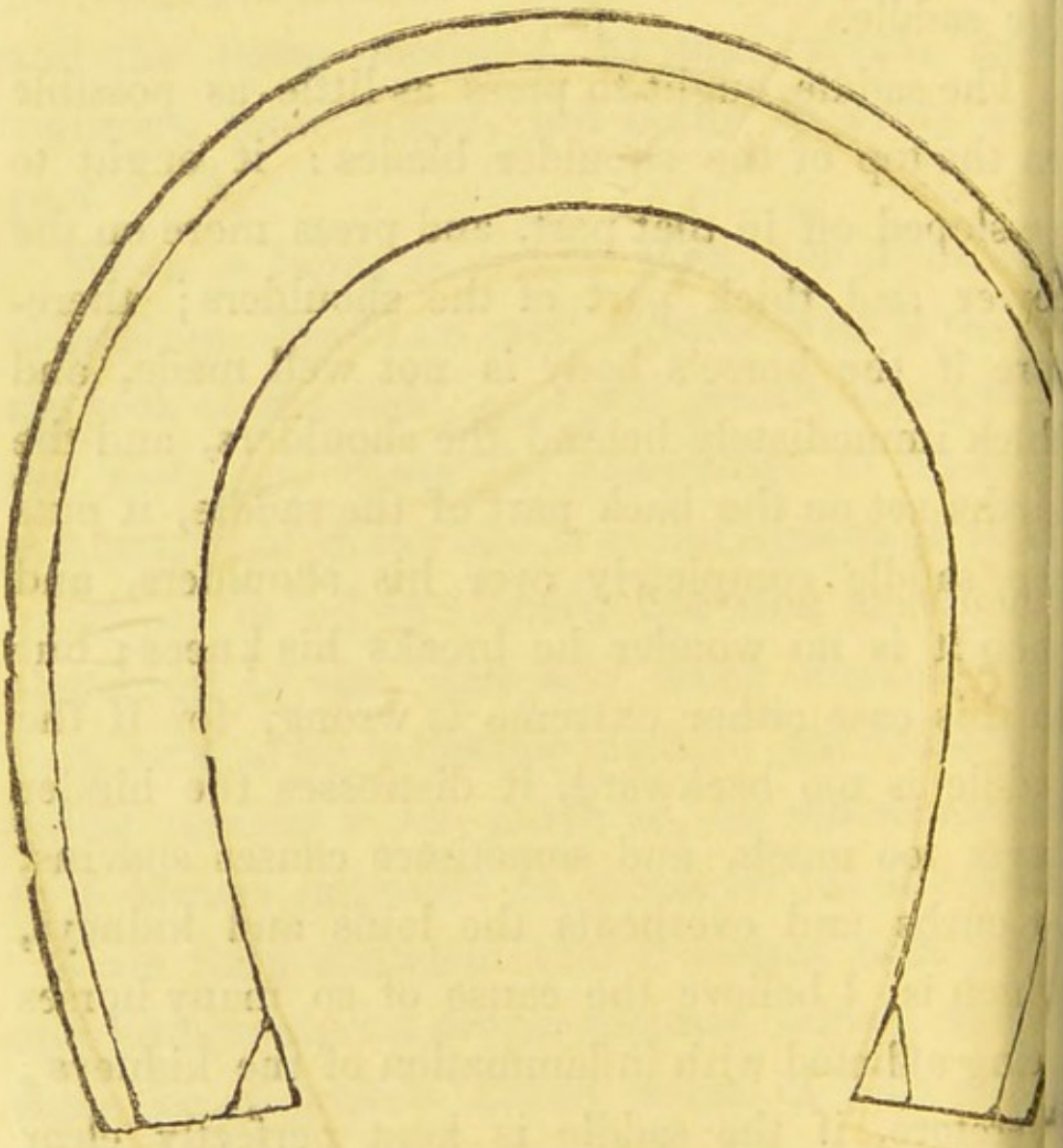
I am fully confident that if horses were shod and harnessed in a proper manner, seldom would there be a broken kneed horse of this kind. But of all horses, the saddle horse is in the greatest danger of breaking his knees; yet if a horse of this kind is shod as directed in the pattern for saddle-horse's shoeing, and his sad-

le made properly, seldom, if ever, will he be in anger of breaking his knees. But the form f the saddle is as equally important as the rm of the shoe; on which account I shall roceed to make some remarks on the form of ıe saddle.

The saddle ought to press as little as possible ı the top of the shoulder blades: it ought to e sloped off in that part, and press more on the wer and thick part of the shoulders; there- re if the horse's body is not well made, and ick immediately behind the shoulders, and the rths set on the back part of the saddle, it puts e saddle completely over his shoulders, and en it is no wonder he breaks his knees; but this case either extreme is wrong, for if the ldle is too backward, it distresses the hinder rts too much, and sometimes causes spavins, curbs and overheats the loins and kidneys, ich is, I believe the cause of so many horses ng afflicted with inflammation of the kidneys; refore, if the saddle is kept perfectly clear m those two points, then it is right.

SECTION XVI.

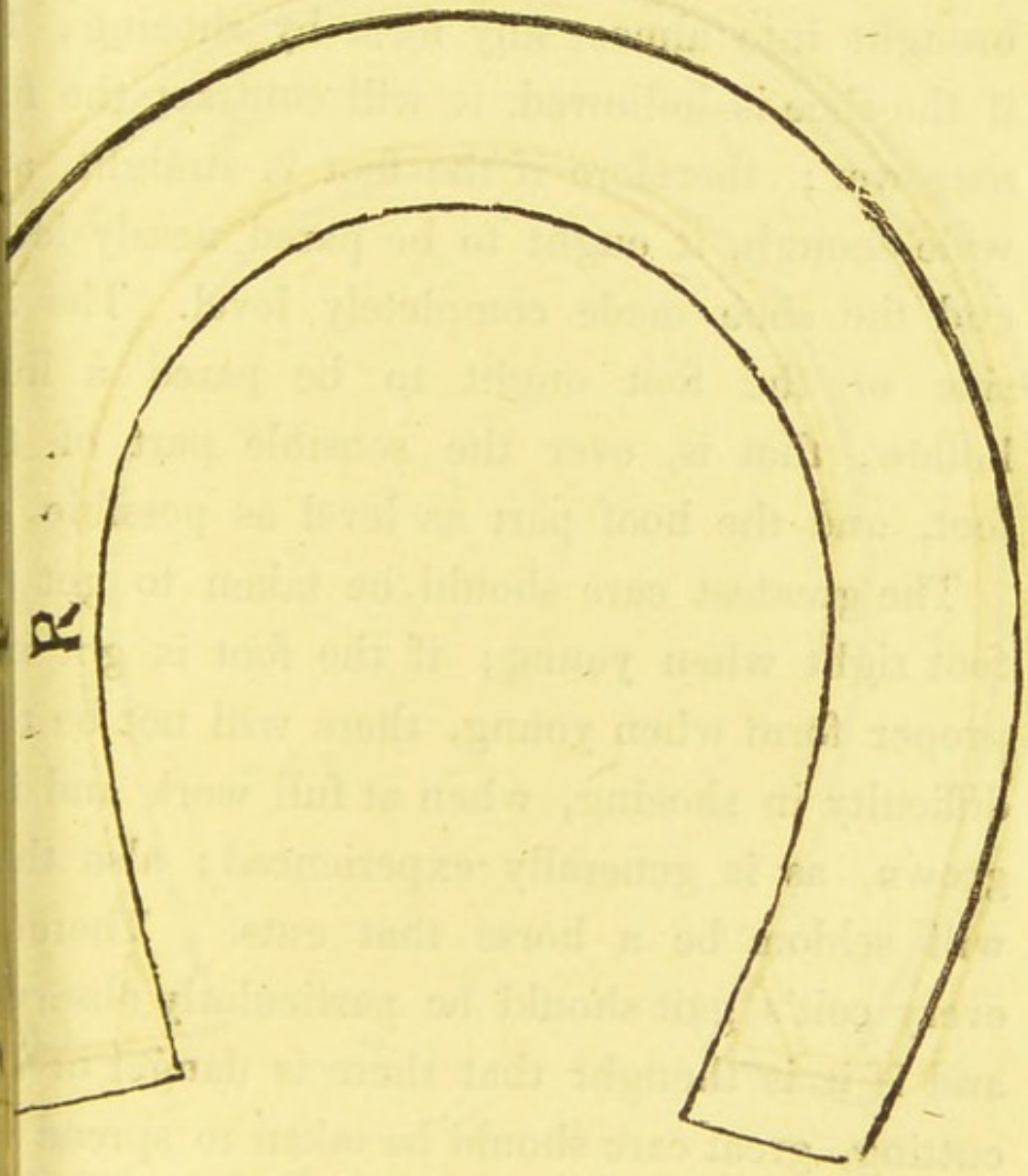
PATTERN OF YOUNG HORSES' SHOES.



It is not proper to slope off the toe part of th young horse's shoe, till he is made a saddl horse, or runs in harness, as the full toe w

ch young horses to lift up their feet much tter, and when they come to have the sloped- shoe they will experience greater advan- e by it.

NSIDE OF A YOUNG HORSE'S SHOE.



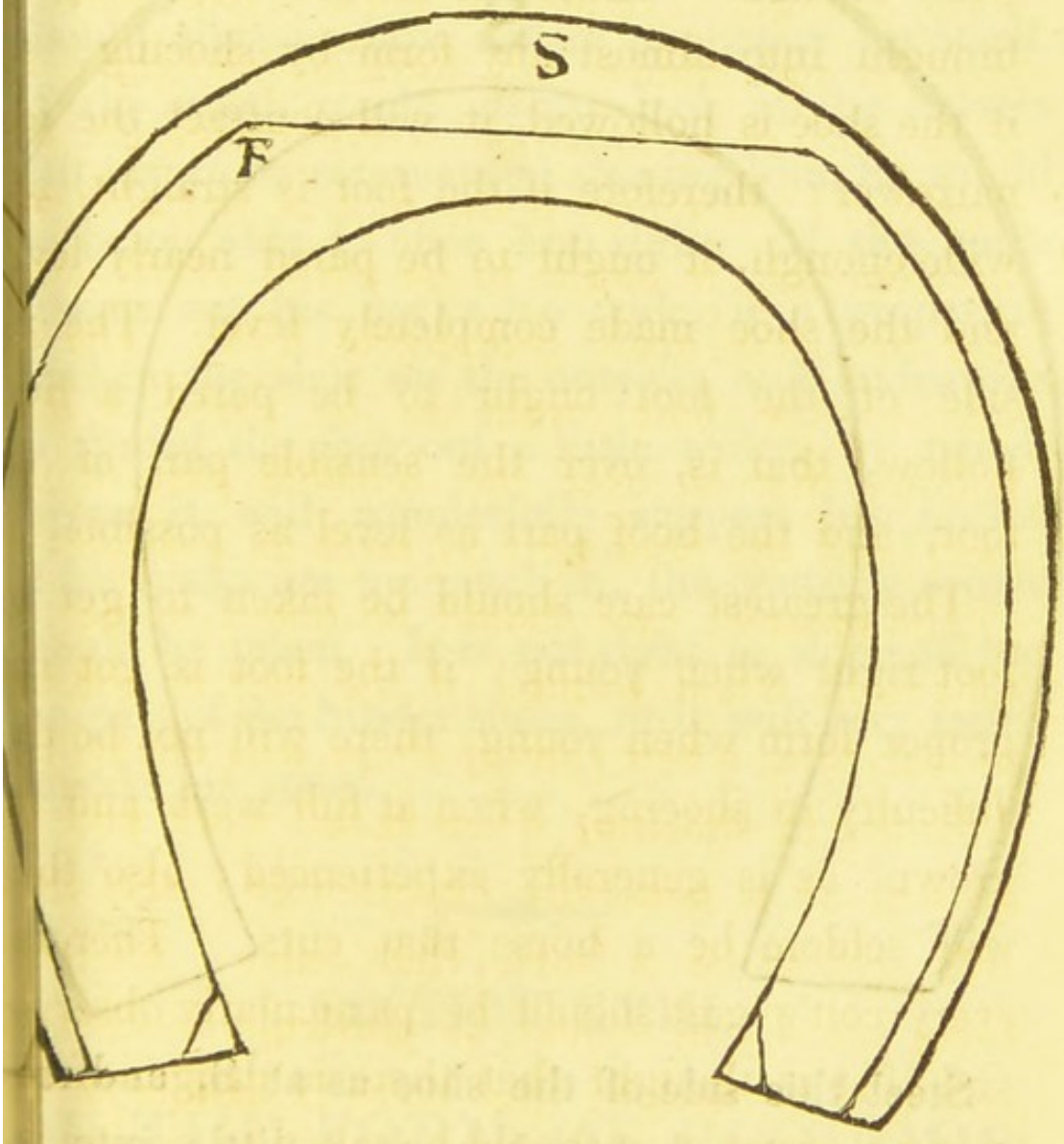
young horse's foot is too narrow on the ide, which is generally the case, hollow that of the foot a little, and raise the inside of

the shoe up towards the foot, as at R, and slope the outside off, as at S. If the foot is too narrow at the heel, hollow both sides of the foot and raise up both sides of the shoe, as before directed, and then the foot will soon spread out wide enough. Indeed a horse's foot may be brought into almost any form by shoeing; for if the shoe is hollowed, it will contract the foot narrower; therefore if the foot is straight, and wide enough, it ought to be pared nearly level and the shoe made completely level. The inside of the foot ought to be pared a little hollow, that is, over the sensible part of the foot, and the hoof part as level as possible.

The greatest care should be taken to get the foot right when young; if the foot is got into proper form when young, there will not be the difficulty in shoeing, when at full work and full grown, as is generally experienced; also there will seldom be a horse that cuts. Therefore every colt's gait should be particularly observed, and if it is thought that there is danger of his cutting, great care should be taken to spread the foot out toward the outside, and the outside of the shoe should be made thicker, and it will fling the feet out enough to prevent his cutting

SECTION XVII.

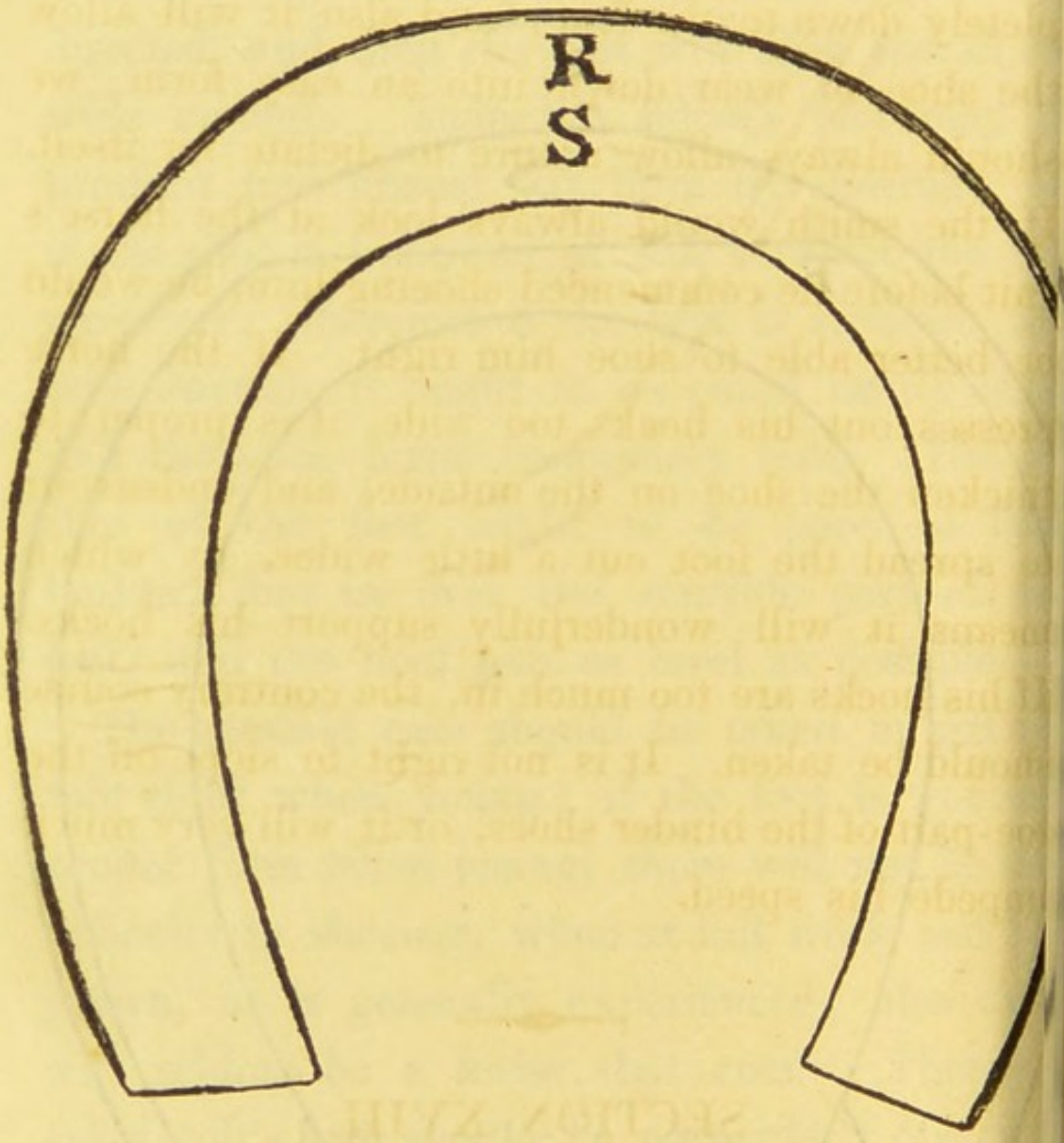
PATTERN OF COACH AND SADDLE-HORSES' SHOE.



E toe part of the shoe should be sloped off, at S, and it should be fullered across, as at line F. The shoe may be fullered or rough

ened in different parts, in order to prevent the horse slipping.

INSIDE OF COACH AND SADDLE-HORSE'S SHOE.



Steel this side of the shoe as at S, and raise the toe part of the shoe up a little into the foot, as at R.

The toe of the foot should be prepared for the shoe by passing a rasp, of half-round form

›r a little more, level, across the toe-part of he foot; and if the steel is put on the inside ›f the shoe, or rather in the middle of the iron, t will prevent the shoe from wearing com-›letely down to the foot; and also it will allow he shoe to wear down into an easy form; we hould always allow nature to dictate for itself. f the smith would always look at the horse's ait before he commenced shoeing him, he would e better able to shoe him right. If the horse resses out his hocks too wide, it is proper to hicken the shoe on the outside, and endeavour o spread the foot out a little wider, by which neans it will wonderfully support his hocks. f his hocks are too much in, the contrary course hould be taken. It is not right to slope off the e-part of the hinder shoes, or it will very much npede his speed.

SECTION XVIII.

N THE FORM OF PLOUGHS.

HAVE no preference either for double or single rses at plough in particular, as this, in my

opinion, depends entirely on the ground tha
has to be ploughed: but if ploughs were mad
in a proper form, and the horses put to them i
a proper manner, there would not be so man
objections to single horses. If the plough-beam
was short, and the end of it higher from th
ground, sloping up in the direction of the foo
chains, it would be a great advantage ove
having the point of the beam near to the ground
Some have expressed their opinion that if ther
was not a long beam to the plough, it woul
not run so steady; but this is a mistake. I
there is any advantage in the length of an
thing, it is in the length of the steering chai
But a long beam is sure to spring and give way
and then it cannot run steady, nor easy, for th
horses. Now, if the beam was short and strong
and a considerable height from the ground, th
steering-chain a moderate length, and the bend
or crank, to allow the foot-chains to hang
little down from the hames to the bend or crank
but not too much so, or the weight will be to
much on the horse's neck. The last horse ough
to be the lowest, and the first the highest, the
the line of draught will be nearly on a level
this, coupled with the horses walking on th

solid furrow, will leave little room for advo-
cating the cause of double horses, if the single
horses were driven as they ought to be: but this,
I am confident, is not the case; for if notice is
taken of ten teams at plough it will be per-
ceived there is not, perhaps, more than one last
horse out of the ten that does any thing to-
wards drawing the plough, except at the end
of the furrow, and here every horse is distressed,
in turns; but the first horse is distressed more
than the others; as every horse is made to draw
the whole of the plough as he comes to the end
of the furrow, and the first horse being the fur-
thest from the plough, it must, of course, dis-
tress him the most, and so on in proportion.
Now if the last and other horses kept regularly
drawing, as the first horse goes up to the edge,
they would go much easier, and with much
more steadiness. The drivers ought to be very
cautious in not whipping the horses much at an
end, for if they are whipped much at an end
they will not go steady up to the edge. The
horses not working together, and being unne-
cessarily distressed at an end, are the greatest
objections to single horses. In these respects,
double horses have especially great advantage;

and more particularly on light and sound land where treading is of service to it; but if the land is heavy and wet, the plough made in a proper form, and the horses work freely and steadily together, (which they will do, if driven as has been previously directed) then single horses are much more preferable for such sort of lands. But to proceed with the form of the plough:—

The greater part of ploughmen have the coulter a considerable distance from the share, and the share four or five inches before the coulter; when this is the case in stiff land, in my opinion, an additional horse will be required; the share going so much before the coulter, it has, of course, to lift up the furrow and the space between the coulter and share must, in consequence, hold the furrow fast. If locked irons were more generally in use, it would be of great advantage; and as few smiths know how to make them, I shall endeavour to point out the plan of what are called locked irons:—When the coulter goes before the share, it should be brought level to the ground, and a small hole made to admit the point of the share into it; and then they are, as it were, locked together,

nd the stiffest ground will not make them give
vay. When the irons are thus locked together,
he plough must, of course, go much more easy
nd steady; and the coulter going before the
hare, gives the furrow liberty to turn without
ifting it up; and the share and coulter being
ttached together, cut the furrow completely
ut, which must necessarily be a great deal
ore easy to the horses, than if the coulter
ere about two inches above the share, and
bout five behind it. When it is in this posi-
on, it certainly requires more strength; and the
cked irons generally cut a more square furrow.
n my opinion, the difference to the horses, be-
veen the two plans, is about one out of four;
herefore if locked irons were more generally
sed, it would be of great advantage, as they
e better for all kinds of lands, with the ex-
ption of ground that is very gravelly, or stony,
d even there and every other place where the
cked irons are not adopted, it is proper to have
e coulter point very near that of the share,
d the coulter to stand in a slanting direction,
it will not work clear and easy.

SECTION XIX.

ON DRAUGHT.

It is not a little surprising to hear men argu that low wheels go easier than the high ones and again, they say that the hinder wheel should be very high, and the fore wheels ver low. It is certainly an advantage to have hig hinder wheels; but if the fore wheels are ver low, the shafts point up, and the fore horse draw down at the last horse's back. Now, if th hinder wheels were ten times higher than th fore wheels, the carriage would remain where i was, without it was drawn by some power; a the weight on the carriage would force th hinder wheels backward, as much as it woul force the fore wheels forward; but wheels of moderate height are the best; that is, the hind er wheels proportionably higher than the for wheels, so as to get the steering pole and th shafts as near as possible in the line of draugh with the chains. Every one that has made us of a lever must know that high wheels go easie than low ones; for from the centre of the axle tree to the ground is leverage, and that is th

ason why a horse can draw more with a wood
kle-tree than with iron arms, as the wood axle-
ee gives a little more leverage.

A great fault is frequently committed by
agonners, in loading their wagons too much
the fore wheels; they attempt to justify it,
saying, It picks forward. But this is a mis-
ke, for it picks completely into the ground;
d if the fore wheels go into a low place, all
e weight goes on them; and having less lever-
e than the hinder wheels, the wagon would
much easier, if part of the weight remained
the hind wheels. And when the weight is
iefly on the fore wheels, it knocks the shaft
rse about much worse than when it is loaded
el, or rather more on the hind wheels. When
ded in this last manner the weight is further
m the horses; but the additional leverage of
hind wheels fully makes up for that disad-
ntage; therefore to load a wagon level, or
her more on the hind wheels, is certainly
best way.

have lately read an account, written by an
hor of some note, which went so far as to
, that a horse could not draw a carriage over
obstacle as high as his breast. Now, I sup-

pose that worthy individual knows more abou
the power of steam, than the form and power
a horse; for if a horse has short legs, his brea
is not far from the ground; and some of thos
horses are a considerable height above, whic
makes a tall horse with short legs. Now a hor
of this description allows the burden to be a
tached to his shoulders about half a yard abo
his breast; and if the centre of the wheels
also that much above his breast, and the hor
has strong haunches, and a good hind quart
altogether, if he will draw his best, there is
doubt but that he will draw a carriage over suc
an obstacle. A two-inch stone is but a sma
obstacle to a wheel about six feet high. Th
author before-mentioned seems to think a ta
horse is every thing. I have no objection to
tall horse; but then I should greatly prefer hi
if his legs were short; for long legs require mo
strength than short legs; even as a long pik
requires more strength than a short one, to li
the same weight.

There are many persons, who are in some d
gree acquainted with the form and make
horses, that have come to a conclusion, th
when a horse has a fine shoulder he is perfe

d right. This is certainly a great advantage r the saddle, and there are no objections to it; t if he is not strong in his hinder parts, he nnot draw a great weight; for when a horse aws with all his force his fore legs scarcely ch the ground, and, consequently, most de- nds on his hinder parts for drawing, and in- d, galloping, or any other pace.

SECTION XX.

N THE FORM OF HARROWS.

ERE is nothing in agricultural implements t demands our serious attention more than form of ploughs and harrows, as it respects bringing into use those implements by means the strength of horses; since steam can never applied in the use of these implements with advantage; therefore if I make any im- vements my labour will not be in vain.

One great disadvantage that most agricultural ses are subject to, is, when there are three rows drawn by a swingle-tree, and the horses ched to each end of it, which is the usual

way, then, in that case, there will be nearl
double the weight for the off-side shoulders
which is, of course, a great disadvantage to th
horses. To remedy this, the cap on the nea
end of the swingle-tree should be a considerabl
distance from the end, (I mean that to whic
the horses are attached) in order to give the off
side chain an additional leverage. When har
rows are attached to a swingle-tree, the off-sid
harrow hangs nearly out of the length of th
swingle-tree, and the near harrow within. Whe
there are three or four harrows drawn by a swin
gle-tree, the effect is nearly the same. For in
stance: if there are three harrows, the outsid
ones are generally broader than the middle one
and as the off-side harrow is drawn by the nea
corner, it hangs nearly out of the length of th
swingle-tree; and as the near side harrow
wider than the middle, and also drawn by th
near corner it flings the two off-side harrows to
much to the further end of the swingle-tree, an
as there is an extra length of chain for the off
side, it causes nearly double the weight for th
off-side shoulders. Now if they must draw equ
there should be as much of the harrows out
the near side chain that the horses draw at,

the other, and a little allowed for the extra stance of the off-side harrows from the horses, hich causes those harrows to lie the heaviest the ground.

There does not appear to be any thing that ffles the skill of agriculturists more than the rm of harrows; yet it is but justice to say, at some very laudable improvements have been de lately in the form of harrows. The best rt is that which draws straight, and not from corner, and the teeth set zig-zag, so as to all the ground. If the harrows draw straight, y will harrow the rains of the field much ter. Four small harrows are the best to row a five-bout but with, the two outside- st being about the same size as the old-fash- ed four-bound ones, and the two in the middle three-bound ones. As small harrows work he rains the best, they ought to be coupled s they cannot ride upon each other. It is ery good plan to have two small rollers be- en each harrow, as it will prevent them cking each other to pieces, and cause them work much better. If the rollers have pins ugh each of them, and a noose above and w the bound of the harrow, and work on

each end of the pins, the straps, or links, from the other harrow to the roller only to have small holes to admit the pin through them, the couplings ought not to allow the harrows to spread wider asunder than the distance from one of the harrows to another, and the rollers between keep the harrows a proper distance from each other, and also from riding one upon another and knocking each other to pieces. There is another excellent way of coupling harrows, and that is, with the two pins through the bound of each harrow in the regular coupling part, those on one harrow to have a hole to admit a small bar of iron; the other harrow, instead of having small holes, to have small bows, to come within the other pins for the bar to work in. The above is a very good way of coupling harrows, as it keeps them a proper distance from each other, and prevents them from riding on each other, and also from knocking each other to pieces.

SECTION XXI.

ON HARROWING.

r is not a little surprising that there is room r improvements on the harrowing part of agri- ltural operation. As it is a very rare thing see it performed in a proper manner, I shall ndeavour to show the right way in which it ould be done.

At the commencement of harrowing a field at is up hill and down, (I mean when one end the field is higher than the other,) it is oper to break the ground in down hill; for stance:—If the commencement is made at e top of the hill, it, of course, breaks the first ound, and the harrows may return up the me place. Again, if the team are harrowing e-bout buts, or buts that the harrows will ch at once, then it is proper to go down a sh rain, and up the one that was first begun then go round two buts at the top of the ld into a fresh rain, and round one at the ttom into the one that was previously har- ved down. If the commencement be made the fifth and side of the field, and the turn-

ing is always made "come again," then the field is done, which is of great advantage, and attended with much more safety, as the harrows will turn better that way than the other; and going round two buts at the top, and one at the bottom, gives the harrows room to turn without any danger or inconvenience. Going over the field in that manner is, what is called—A bout in a place; but that is very seldom sufficient to finish it off; if it is half harrowed first, let it remain in that state for some time, then go over it again, it will work much better than finishing it off as the harrowing is gone on with. It is much easier for the horses to break the ground in down hill; and the ground works much better that way. It is wrong to go over more ground than can be finished the same day; so when a considerable portion of ground has been gone over, it is proper to go to the place where the commencement was made at; and if harrowing over once more in a place will be sufficient, it may be harrowed up one rain and down another. If once is not enough the harrows may go another bout in a place as before, and so on till it is sufficiently harrowed —I have seen men perform cagling, or in other

words, harrowing a rough fallow in a very unskilful manner; for instance:—If the field is hilly, they will sometimes commence up the field and down, and sometimes across the bottom. If they commence across the bottom of the field, the horses will have to walk on the rough ground, or the harrows will not go on any fresh ground; and it is with the utmost difficulty that horses can be kept on the rough ground; nor will the harrows do so much work, if they commenced at the top of the field: the weight of the harrows will be more on the rough clods, and the horses may go on the smooth ground, as the harrows will hang down the field. If one corner of the field is the highest, the commencement should be made there, and work round the hill, in order that the horses may go level and on smooth ground; in that case three horses will do as much work as five, either up and down the field, or across the bottom.

SECTION XXII.

ON THE AGE OF HORSES.

It is necessary that every owner of horses should be well acquainted with their age. It is very generally believed that no one can tell the age of a horse after he has arrived at the age of seven years: indeed, the marks and symptoms whereby a horse's age, after he has attained to seven years, may be ascertained, seem to be kept as a secret among horse-dealers: but I have known horses to have a perfect mark in their upper corner teeth at the age of fourteen. Again, it is very possible for any person to be mistaken a year at almost any age, unless he knew whether the horse was an early or a late foal; for sometimes the mouth of an early foal of three years old will very much resemble that of a late foal of four years old, and so on. Furthermore, an experienced person might be mistaken in the age of a colt of two years old, when he has been worked, and is well filled up, for their corner teeth at that age very much resemble those of five years old, only they are smaller and smoother. The regular time of casting their

eth is, when they are rising three years old; ien they cast the four middle front teeth, two the upper and two on the lower jaw. At ur years old, they cast the four next to them; d at five the four corner teeth. It may be served, that the teeth are hollow at the top, hich is called the mark, and they generally rry the mark in their lower corner teeth till ey are rising eight years old: after that age eir lower teeth become level and even, and, nsequently, after that age, reference must be de to the upper teeth, and there will be found perfect mark in all the front teeth, and those ep filling up in rotation as the others, so when y arrive at the age of thirteen years, their uth is mostly completely filled up. More- r when they arrive at the age of fifteen or teen years, their front teeth become very g; after that age, they begin to wear down rter; and when they arrive at the age of hteen or twenty years, their teeth are gene- y worn completely down to the gums; so h strict observation, any experienced person y never be much mistaken in the age of ses at any time.

SECTION XXIII.

ON FOALING, &c.

When mares have been regularly worked there is seldom any danger at the time of foaling, providing they have a place, or a convenient field, to run loose in; but still it is right to keep a watchful eye over them, when they draw near to the time of foaling, which is mostly known by them waxing at the end of their paps. If they are regularly worked, and in moderate condition, (which is always the safest,) they generally wax a day or two before they foal.

If a mare is in a proper condition, and a convenient place where she can run loose in, nature will mostly perform its own work the best and safest. All that is required, is to prevent the young foal from being smothered in the sheet, litter, or any other cause; but even this should be done as secretly as possible. Therefore, if it is seen that there is no danger, it is better to keep out of the place from her, for much attendance mostly does harm, and the less you meddle with the mare, or foal, the

etter, with the exception of giving proper ourishment to the mare. A mash of scalded ran and oats, about new milk warm, is a oper diet to give her in half an hour after e has foaled; and a little warm water, with small quantity of good hay at a time.

If it is seen that the foal is weak and cannot and, or nearly so, in the course of an hour, may be supported a little time, and then lie wn; when it struggles, it may be supported before. But the person that supports the l should be very careful that it does not ell at him; as in that case, it will not take well to the mare. The best way for a per- to steady a foal is, to keep behind it; but should not, by any means, attempt to push foal forward, as that would cause it to h the more backward.

t sometimes happens that the mare is so enzy and ticklish that she cannot bear the to suck. When that is the case, it is pro- to put a bridle on her, and the person that most capable of mastering her should take l of the paps and draw them pretty well; then she will generally allow the foal to k. If it is found necessary, a twitch may

be put on her nose and ear, which will mostly be sufficient in the worst of cases.

If mares go on well, they may be worked rather easy in about a week after they have foaled. There is an inconvenience in working mares on the road soon after they have foaled as they mostly work too hard towards home; therefore if they can be spared coming home which is sometimes the case with agricultural horses, it is proper to take them out of the team and let them walk behind the carriage, if it is empty; they will generally do all the work and so overheat themselves as to endanger both the lives of mares and foals.

If a mare works regularly when she is suckling, the foal should be taught to drink. Curds are proper nourishment for it, and the best time to give them, is, towards the first, when it is about a fortnight old. If this cannot be done without holding, a strong man may hold it and then a person with some sweetened curds or milk, should endeavour to teach it to drink. The best way for a person to hold it, is, to put one hand under and round the neck, and the other over the back to the flank; and having his own back against a wall, he will be able to

old the foal without the least danger; and
tting his own knees underneath the foal's
lly, will be able to take it nearly off the
ound, and prevent it from straining itself.

When mares work regularly it is highly neces-
ry that the foals should be weaned as early
possible, as it will be much better both for
e mares and foals. A little goose oil is a pro-
r thing to rub a mare's teats with, in order
turn the milk. It is a safe plan to keep the
l up for a few days or a week, or it will be
fficult to keep it in the pasture, which should
a considerable length: after grass, or clover,
proper.

It should be observed that when severe weather
proaches, the foals should have a dry bed to
down on, if it is possible: this should be
ll attended to at every age; for it will cause
m to grow into a more handsome, and much
ter form, although some argue that they grow
ter out of doors. When they are starved out
doors, they may appear bigger, when in reality
is not the case. A little hay and corn is
per for them in the wet and severe weather,
it will be a means, in a great degree, of
cking the griping quality of the cold and

damp grass, and cause them to grow much better. This is the proper time to make a good or bad horse; for if they are not encouraged when young, and taken to regular work at two years old, which is frequently the case; I say, if they are not encouraged till they arrive at that age, they cannot grow into good and strong horses.

If at the time of foaling it is seen that the foal does not present itself in a proper position, it would be advisable to call in an experienced person. The first thing that ought to be done, should be to put the mare into a proper form: the most advantageous position is to drop the shoulder into a hole or low place, and then draw the hind legs gently forward; and in most cases a long-armed man will be able to bring the foal forward in a proper manner. If, however, he cannot reach the foal, or accomplish the desired object, which may be the case if the head is turned back, then it would be right to get a strong wire, well polished, and bent in a proper form, so as it would conveniently hook into the mouth, socket of the eye, nostrils, or any other part of the foal's head, where the hook could be introduced with the most advan-

ge; by so doing the head and neck may be
ought straight; then the fore legs must be
ought forward. In this case, if the hinder
rt presents itself, it will be better to bring
hind legs first than to attempt to turn the
l; as the mare will foal as easy that way as
other, or nearly so.

It sometimes happens that it is necessary to
part of the foal off; but this should be done
a man of great skill and experience; never-
less, every exertion should be made previous
cutting. If the head should be out without
legs, and it is seen that the foal cannot be
ught away safely, the head should be cut
and when the throws are off, the foal should
pushed gently back, so as to enable the
rator to bring the fore legs forward. As
n as the foal is put into a proper position for
raction, the mare should be turned on level
nd, or rather the fore part on rising ground:
position will greatly assist nature in ex-
ting the foal. Indeed nature may be as-
d with moderation, if seen necessary. I
known a man, with a long arm, to bring
al head foremost, when turned back in the
b, by means of a small leaden ball fastened

at the end of a piece of cord; but when this i attempted, the foal must lay in a favourabl position; as it is effected by dropping the bal down the inside of the neck, and then gettin hold of both ends of the cord, and pulling th head forward in the best and most convenien manner possible. If the desired effect can b accomplished in this manner, it would be th best to do so; as it is safer and much more pre ferable than the wire instrument. Placing th mare in a proper position will greatly assist th operator in extracting the foal. When the hea is brought straight, it probably will be necessar to fasten a cord to the upper or lower jaw, i order to keep the head straight, and assist i bringing it forward; but this should be don with the greatest care, and the cord should re on the arm of the operator to keep it from pre sing on any part of the uteras. A cord ma also be fastened to a foot, but the same preca tion should be taken not to wound any part wi the cord, as has been previously mentioned.

FINIS.

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The following paragraph having been omitted its proper place, by the author, it has been eemed necessary to insert it here:—

t must be observed, that if a horse cuts, he ust be shod thicker on the inside of the foot hich he cuts with; and pare the outside of e foot a little more down; for when it is ickest on the inside, when he lifts up the ot it causes it to jerk out, and prevent his tting.

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