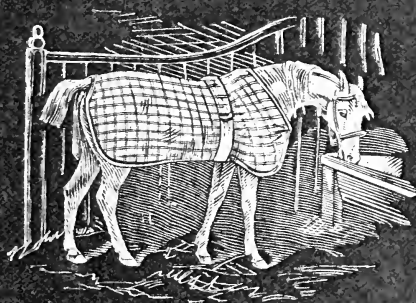


HORSE-KEEPING

FOR AMATEURS



FOX RUSSELL



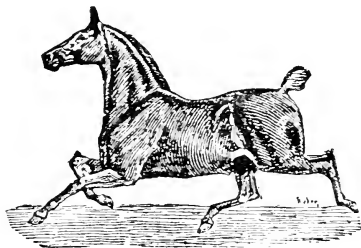
JOHN A. SEAVERNIS

2
F

ABBOT BROTHERS,

EAST OF ENGLAND

Live Stock & Poultry Farms,
THUXTON, NORFOLK.



Breeders and Exhibitors of the Norfolk
Hackneys, Cobs, and Ponies.

Also the LARGEST PRIZE POULTRY BREEDERS in the World.

**Cups, Prizes, and High Honours have been awarded for
Horses at the Wayland and Watton, Mid. Norfolk, North
Walsham, and Norfolk County Shows.**

We have generally ready for sale a few good Hackneys and Ponies, also Match Pairs and Riding Cobs, all Perfectly Broken and Schooled on the Farm before being offered for sale. Veterinary Surgeon's examination and trial of each animal allowed to buyers.

PRICES MODERATE AND SATISFACTION GUARANTEED.

Send for Illustrated Descriptive Catalogue of
all our Stock.

SPRATT'S PATENT (LIMITED)

SPECIALLY PREPARED

CONSTITUTION POWDERS

FOR CONDITIONING

**ABSOLUTELY FREE
FROM POISON.**

HORSES.

YOUR TRADESMAN WILL SUPPLY YOU.

2/- Tin, Post Free, 2/6 ; 1/- Tin, Post Free, 1/4.

These POWDERS are warranted

ABSOLUTELY FREE

from **Arsenic, Antimony, Cantharides**, and every other **Poison**, and are compounded of the most approved Tonics and Stomachic Drugs.

If your DOG ails, consult

PAMPHLET ON CANINE DISEASES.

Sent POST FREE by

SPRATT'S PATENT, Limited.

BERMONDSEY, LONDON, S.E.

HORSE-KEEPING

FOR AMATEURS:

A PRACTICAL MANUAL ON THE MANAGEMENT
OF HORSES,

FOR THE

GUIDANCE OF THOSE WHO KEEP THEM FOR
THEIR PERSONAL USE.

BY

FOX RUSSELL.

LONDON:

L. UPCOTT GILL, 170, STRAND, W.C.

LONDON :

L. UPCOTT GILL, LONDON AND COUNTY PRINTING WORKS
DRURY LANE, W.C.

P R E F A C E.

IN the little volume now submitted to the public, I have endeavoured, without attempting to interfere with the legitimate functions of the veterinary surgeon—to whom recourse must always be had in serious cases—to indicate the course of treatment to be pursued in most of the ordinary ailments that horseflesh is heir to, and to offer such suggestions as may save the amateur horse-keeper the expense of a “doctor’s bill” when the trouble which afflicts his charge is one of a common-place, or, at all events, of a not unusual description. I can, at least, claim that what I have written emanates strictly from a twenty years’ practical—not theoretical—experience amongst all classes of horses, and especially with hunters and steeplechasers, which, by reason of their several vocations, are peculiarly liable to accident, if not to disease.

In treatment of every description, it cannot be too strongly borne in mind that Nature’s tendency is invariably to heal, and it is very often sufficient for man to prepare the conditions under which she can most favourably act. In the third chapter I have ventured to deprecate any non-professional interference in the case of fractures and dislocations, and this should be very earnestly insisted on. Speaking generally, when once a horse has broken a bone, nothing remains but to put him out of his misery without a moment’s unnecessary delay, unless, indeed, he or she be valuable for stud purposes,

in which case, skilful "patching" may sometimes be resorted to with a certain measure of success. Nothing, however, can be done unless the poor brute is first put into slings, and these cannot, of course, be obtained, as a general rule, in private stables.

The remarks contained in the chapter devoted to the subject of feeding must naturally be read by the light of each horse's individual temperament, the old adage of "Where one would starve, the other grows fat," applying with peculiar force here. With some, the apparently trifling circumstance of their having a piece of rock-salt to lick will make all the difference between a healthy appetite and an utter disinclination to feed. Horses are peculiarly dainty feeders, and I have known a horse suffer very severely from thirst before he would touch water offered him in a pail which had been fouled by a dog drinking out of it.

I have endeavoured to indicate specially the rational treatment to be employed with horses infirm in the wind, both as to feeding and in regard to their mode of doing their work. I have been much in contact with animals so afflicted, and am convinced that, where they are systematically treated with their food, and humanely dealt with in riding or driving, that they last nearly as long, and do almost as much work, as their sounder brethren.

In advocating the greatest care and attention being given to saddlery, harness, &c., and especially with regard to bearing-reins, tight curb chains, and throat-lashes, I feel that I am only giving expression to the ideas of everyone who has ever made more than a superficial study of the requirements of Nature's noblest animal; and if some few of the equine tribe benefit in point of comfort by one of my humble efforts, I shall have been more than repaid for any trouble they have ever caused me in finding out their idiosyncrasies.

In respect to the last chapter of this book—that upon

Breeding—I may, whilst apologising for its exceedingly “bald” appearance—rendered necessarily so, unfortunately, owing to the exigencies of space—assure my readers that, even looked upon from a purely commercial point of view, and putting aside the pleasure derivable from such an interesting and thoroughly rural pursuit, it is quite “on the cards” for breeding to return a fair percentage on the capital required. A short time since, I was going over the farm of a cow-keeper, who showed me a twenty-year-old mare, which had worked almost daily in the milk cart for fourteen years, and from which he had had six foals, averaging over £30 a head at three years of age. This is no isolated case, though, perhaps, one could hardly expect to meet a mare who owed her master so little, every day in the week.

Of course, the present modest handbook cannot hope to be received upon the same footing as such works as those of Youatt, “Stonehenge,” &c., &c. I have aimed solely at making it a handy little volume, published at a “popular” price, which may, I humbly trust, find favour with the amateur horse-keeper.

FOX RUSSELL.

1, GARDEN COURT, TEMPLE.

CONTENTS.

CHAP.	PAGE
I.—A FEW HINTS ON BUYING	1
II.—STABLE MANAGEMENT	6
III.—COMMON ACCIDENTS AND THEIR TREATMENT	13
IV.—COMMON AILMENTS AND THEIR TREATMENT	20
V.—ON THE ROAD	31
VI.—IN THE FIELD	38
VII.—SADDLERY AND HARNESS	47
VIII.—FEEDING	54
LX.—BREEDING	59

CONDY'S FLUID

Speedily Cures

HORSES SUFFERING from

- *
- SORE SHOULDERS,
 - SORE BACKS,
 - BROKEN KNEES,
 - CRACKED HEELS,
 - GREASE,
 - THRUSH,
 - WOUNDS,
 - CUTS AND BRUISES,
 - HARNESS-CHAFE,
 - MUD FEVER.
- *

"Condy's Fluid is a splendid remedy for sore shoulders and backs occasioned by the collar or saddle. A large omnibus proprietor in this neighbourhood is now able to put horses to work again in half the usual time, as the sores heal so rapidly after the application of Condy's Fluid.

"JOHN J. LUNDY, Esq., F.G.S.,
"Member of the Health Committee of
the Town Council, Leith."

"I have been using for some years Condy's Fluid for all kinds of wounds, and find it far superior to the usual carbolic and other dressings. Its astringent and powerful antiseptic properties render it at once what we really require.

"ROBERT PATTERSON, M.R.C.V.S.
"Vauxhall Bridge Road, London."

"I consider Condy's Fluid a boon to the veterinary profession and the sportsman.
"W. H. KENT, M.R.C.V.S., London."

"We are using Condy's Fluid, and never saw anything like it for quickly curing grease in the feet. CLAYTON BROTHERS,
"Town Street, Batley Carr, Dewsbury.
"January 24th, 1895."

"Condy's Fluid is an excitant and deodoriser to caucercous and ill-conditioned wounds, and in the treatment of skin affections. PROFESSOR R. V. TUSON,
"Royal College of Veterinary Surgeons,
"London."

"I found the Condy's Fluid, diluted, effective in restoring the hair on my horse when the place was rubbed to the quick.
"The REV. R. SAUNDERS,
"Tundergarth Manse, Lockerbie, N.B.
"October 2nd, 1894."

Sold Everywhere : Bottles, 8oz., 1s. ; 20oz., 2s.

DIRECTIONS WITH EVERY BOTTLE OF CONDY'S FLUID.

"JEEROL,"

The King of Ointments for Sprains, Strains, Sprung Sinews, Curbs and Splints, Bruises, &c.

In tins at 1s. 2d. and 2s. 8d. each, Carriage paid, from

CONDY'S FLUID WORKS,

67. TURNMILL STREET, LONDON, E.C.

HORSE-KEEPING FOR AMATEURS.

CHAPTER I.

A FEW HINTS ON BUYING.

Horse-dealing a Temptation to Roguery—Where and How to Obtain a Horse—Colour a Non-essential Point—Trying a Horse—Feel of the Mouth—Professional Assistance in Buying—Examining the Fore Legs: Bony Enlargements, Splints, &c.—Straining of the Back Sinews—Windgalls—A Golden Rule in Buying—Trying Hunters—Trying Harness Horses: Shying and Kicking; Bad Mouths.

PERHAPS the most difficult thing to buy in the world is a horse. Nothing lends itself, however unwillingly, to fraud and chicanery so readily; and a great writer once observed, "There's something about horse-dealing that makes a man a blackguard, in spite of himself." Without entirely subscribing to this theory, the fact remains, that men, otherwise "straight" in their business and social transactions, will occasionally be found straining a point in order to sell some worthless brute as a good horse. *Certes*, the temptation to "get out" of a bad one is great. What can be more distressing than to find oneself with a horse that is never well two days running, a confirmed jibber, or, if you are a hunting man, a wretch that will never face his fences, and whose heart dwindles down to mouse-like proportions on seeing a sheep hurdle? To avoid the temptation of "letting in" some hapless fellow-creature for such a beast, let us, then, exercise

all our powers of discretion in the original selection and purchase, and, above all, let us take our time and wait our opportunities. No one can recommend you *where* to go; there is no growing ground for horses; neither can we get them made for us, even at Birmingham. I have picked up horses in the most unlikely places, and at all sorts of prices, but, on the whole, am inclined to think that the amateur will do better to consult the advertisements in such high-class journals as the *Field*, the *County Gentleman*, &c., and interview one or other of the gentlemen who announce horses for sale in their columns. Having found something of the stamp you want, do not be too particular about his colour, or the length of his tail—"a good horse is never a bad colour," remember, and it is as impossible to get one that exactly suits you in all respects, as it is for mortal man to attain complete happiness on earth.' Again, do not be too exacting about the conditions of a trial, such as the owner's natural desire to be present at it, &c. If the animal is a hunter, you must see him over fences; if a hack, trot and canter him along the hardest road you can find; then, if you can get any soft going, gallop him steadily. In this way you can find out whether his paces are easy, and suitable to the work you have in contemplation for him, and you will also ascertain whether his wind is clear. Pay special attention to the feel of his mouth; and then, having satisfied yourself that he is about the style of horse you want, your functions, as rider, end, and those of the veterinary surgeon begin. Now comes the question as to whether you will employ one of these professional "aids to buyers," or whether you will undertake the duties yourself. It is difficult to lay down any rule upon this point, but I may say that I have, from beginning to end, purchased a very large number of horses, and never in one single instance had recourse to professional assistance. This by no means, however, proves that it is a safe plan to dispense with a veterinary examination, nor is it any guarantee that I, personally, may not be fairly caught at the very next venture. Assuming that you have determined to examine for yourself, as far as your abilities allow, into the soundness of the proffered animal, you will find that your eye will naturally fall, in the first place, upon the fore legs. Any child can, of course, tell whether these are straight or worn; but it takes a clever man to judge how long they are likely to remain straight, and without

showing signs of wear. Pick up each leg in turn, and look at the foot; is the frog sound and clean, or does it carry an odour, not of sanctity, to the olfactory nerves? If so, look more closely to it; ascertain whether thrush, &c., exists; then satisfy yourself as to the heels, which should be open, and not contracted, that is, when the foot narrows in the quarters, and the sole gets more concave than it should be; and bear in mind that Youatt tells us that "one pair of good feet is worth two good pairs of legs." Now as to these latter: Run your hand carefully down, from immediately below the knee, to the fetlock joint. Is the leg cool, flat, and clean? Let your digits make search for any bony enlargement, splints, &c., and, "When found, make a note of!" The particular note you have to make is this: *Whereabouts* is the splint? If situated on the bone, and not very close to the knee, it will probably never interfere with either his action or his usefulness; but, on the other hand, if on or near the ligaments or tendons of the leg, be shy in the extreme of him, for a day's work may leave you with a cripple on your hands.

If the leg, instead of being flat, is rounded, and apparently fleshy, it will probably be found that the back sinews are strained, and, as an intending purchaser, you had better have nothing to do with him. In this state, a good gallop will be as likely as not to produce what is known as breakdown—*i.e.*, the extreme case of strain of the sinews, for, as a matter of fact, the tendons themselves are very rarely strained. Generally speaking, the injury is one to the sheath, or else some of the fibres attaching to it are broken.

One word as to windgalls. These puffy enlargements, which are more often found on the hind than the fore legs, are not of serious import unless they become of great size, which is extremely rare; and a horse should not be rejected on this ground alone. They usually arise from the horse being rattled about, and gradually disappear with steady work.

Always remembering that it would be quite impossible to indicate any golden rule by which to avoid disappointment in the choice of a horse, one may say, roughly, that your intended purchase should stand true on his feet all round; the pasterns should be sloping; the bone from the knee downwards not too light, nor the leg too long; the thighs should be muscular, the hocks big and clean, and the body well

ribbed up. Especially in the horse for saddle work should the oblique pastern be sought. If this joint is upright or stilted, discomfort will be experienced by the rider, and the horse himself will always be more or less liable to diseases of the feet and legs; the jar of the hard road is much more felt by the upright or short joint than by one that slopes naturally.

The shoulder should slant more with the hack or hunter than the harness horse; the latter, having to oppose his weight to that of the vehicle he draws, is rather better for a shoulder which, although it should be by no means upright, is yet considerably straighter than that of the animal destined for saddle work.

Few men selling hunters will consent to giving you a trial with hounds, and so the next best thing to do is to see them over fences, and, if possible, to *ride* them over yourself. Plenty of good, free jumpers are so rough that they would jolt nine men in ten out of the saddle. Even supposing you have done this, it is not certain that you have secured a pleasant mount, as many that will jump temperately and safely in cold blood, go almost wild with excitement when they see hounds, and rush at their fences in a most un-business-like way. Should you, by chance, happen on such a one, be not dismayed; nearly every case is curable with a little patience and courage, and most horses will come quiet after awhile.

A horse for harness purposes should, to my mind, undergo a severer trial, of his docility in especial, than any other. A horse has far more power over you, when drawing you behind him, than when you are perched comfortably upon his back. In the latter case, you have got *him*, whilst in the former he has got *you*! If he has the least suspicion of jibbing, backing, &c., decline him *instantly*; it is so simple to say—in print—what to do with one of these brutes, but wait, oh my reader! for that awful moment when, having deliberately chosen the sharpest part of a stiff hill, your horse begins an Irish progression in the direction of a plate-glass shop front! Shying is also a nasty fault in a harness horse, and kicking worse; the former vice, however, “comes lighter” in a two-wheeler than in a four, as there is no under carriage to get locked, and thus bring about disaster. Another important point to look to is the mouth. Although equally

unpleasant, it is not equally dangerous, to have a horse with a bad mouth in the saddle as it is in harness; one that is not readily "steerable" will prove a terrible nuisance, if nothing worse, in driving. There are dozens of other things, which experience alone will teach, to be looked to in the choice and selection of horses, and I have only attempted the roughest outline in these hints, feeling that it would be courting failure to go into such a matter at any greater length.

CHAPTER II.

STABLE MANAGEMENT.

Importance of Good Stabling—Prejudices of Stablemen—Heated Stables Prejudicial to Hardiness—The Middle Course Recommended: a Warm but Well-ventilated Stable—Draughts to be Avoided—Drainage—Loose Boxes v. Stalls—Feeding—Oats—Beans—Quantity of Food to be Given—Bran-mashes—Hay and Chaff—Bad “Doers”—Maize—Green Meat—Water—Clothing—Bandages—Clipping—Singeing—Treatment of the Feet—Shoes: The Charlier Principle Explained—Washing the Legs After a Journey—The Stall: Dimensions and Fittings—Paving the Stable—Litter—Vices: Crib-biting; Eating the Litter; Kicking and Biting; Wind-sucking; Slipping the Head Collar; Gnawing the Halter; Weaving; Kicking the Stall.



It will be apparent to everyone, that in the secret of stable management there is much that goes to the root of the well-being of our horses. Just in the same way that a man well housed, properly fed and cared for, can, with certain success, compete against him who has none of these blessings and advantages, so does the judiciously fed and stabled horse live far longer, and do infinitely more work, with less trouble to himself, than the pampered animal on the one hand, and the ill-treated one on the other. Let us begin on the subject of the stable itself. If left to his own sweet will, depend upon it, your groom, unless he be quite free from the ordinary prejudices and failings of his class, will keep your horse too hot. The reason of this is obvious. He wishes him to carry a good coat, and will sacrifice anything to that object. Now, it is perfectly clear that the horse that is boxed up in a place

like a hothouse cannot be so hardy and indifferent to the weather, as the cooler treated one, especially in standing about at covert-side, or waiting those almost interminable periods which ladies seem to think necessary for their shopping enterprises, in the muddy streets. At the same time, I am no advocate for keeping the stable at so low a temperature that a horse's coat sticks up the wrong way, and he looks pinched and miserable. One system is as wrong as the other. Let your place be warm, but well ventilated; and, should it be one of the many stables I have seen, where there is only the choice of "being suffocated, or else blown right off your seat," as Mr. Justice Denman once observed of the Old Bailey Courts, then let your choice of the two evils fall upon the warmer side of the question; less harm will come of that than the other. Do not permit draughts under any circumstances, and especially any about the animal's head. A point which is continually overlooked is the drainage; this ought to be most carefully attended to, and the drain kept clear by a liberal supply of clean water being sent down the channel every morning. Always put a horse in a loose box in preference to a stall; he will find it far less monotonous to wander round and stretch his limbs than to gaze, without intermission, on a blank wall, and besides this, will rest more comfortably at night. For the tired hunter there is no place like a box for recuperating his exhausted energies. Assuming, then, that your stable is warm, clean, well ventilated, and fairly light, we may pass on to the important question of feeding. For fast work, such as the hunter is called upon to do, old oats cannot be beaten. If a young animal, it is not, as a rule, advisable to give beans; but with older horses, especially when extra hard worked, or in poor condition, they will be found invaluable; let them be split, as in that state they are more digestible, and not so easily bolted. The quantity of food given should vary with each particular horse, but, as a general rule, a couple of bushels of old oats a week, and three to four bushels of chaff, will be found, with a peck of split beans, about the proper amount to keep them in good hard condition. Bran-mashes twice a week—given hot in the winter—are very beneficial, but should never be looked upon as a substitute for hard food. If a good "doer," one truss of old upland hay a week in addition to the foregoing will do no harm; but never more.

If this is given, less chaff should be used. Some animals are most unsatisfactory in their condition; they have outrageous appetites, and yet are always poor. Others, on the contrary, look well and grow fat on half the amount of food consumed by the former class. Most of the bad "doers," however, have poor constitutions, and rarely last long if in anything like hard work. Change of food and stabling may be tried with good effect in these cases. As to the latter, I have known horses that will feed well when with others almost refuse their food in solitude. Of late years maize has come largely into use as an article of food, and for horses of slow draught it is unquestionably useful. I believe the London General Omnibus Company have used it with signal success for some considerable time, and with such a large number of hardworking horses that alone should command attention. At first it has a decided tendency to purge, but afterwards it puts on flesh. I doubt, however, if in that flesh there is anything like the proportion of muscle that is to be got out of a similar quantity of oats. Four times a day a horse should be fed. Digestion is rapid if the animal is in health, and he should always be ready for his meals. At the first symptom, however, of satiety, stop the supplies, and take care he has nothing until appetite returns naturally. Never let a horse blow over his corn, or hay either; though as to the latter, nine stablemen out of ten will leave so much in the rack that a horse gets to hate the sight of it, or else eats so much that he gets heavy and unnaturally distended, and of course quite unfitted for his work. In addition to the staple food of a horse, carrots, and, in the spring, green meat, such as tares, clover, vetches, &c., may be given with advantage. For some unaccountable reason, horses are generally strictly limited as to their supply of water. Now, I venture to think this is a great mistake; of course, I do not mean that, on coming into his stable, after a long, dusty journey, he should be allowed to drink *ad lib.*; but under ordinary circumstances it will do no harm to let him have water always in his reach, and the most convenient way of managing this is to have one of the iron mangers with a fitted receptacle beside it for water. The food of the horse is so dry that frequent recourse to water is necessary, and always having it will free him from the temptation to take too much at a time. If, however, the old-fashioned plan of giving drink at intervals be carried

out, then always let it be given before meals. This on Professor Pritchard's authority. The conformation of a horse's stomach is such that an exact reversal of the rules applicable to man in eating and drinking is requisite. The water should be left standing some considerable time before being drunk, so as to acquire the temperature of the stable. If taken too cold, it often produces colic and shivering fits, or at the least causes the coat to stick up the wrong way, and makes the horse feel thoroughly ill and wretched.

Clothing is the next subject that engages the attention. Light, warm rugs should be used, with double buckled rollers to keep them on. A useful plan is to keep one best rug for day, and an old one for night use, as those used for the latter purpose necessarily get soiled, and look bad in the day time.

Bandages are of two kinds—linen of coarse texture, and flannel. The former are useful when it is desired to apply cold-water bandages, or bandages dipped in any lotion or preparation, whilst the flannel ones are used to keep the extremities warm, and will be found very comforting after a long day with hounds. One word before leaving the matter of clothing: Do not clothe a horse at all in the summer; he is far less liable to take cold with nothing on than with the flimsy stuff called summer clothing. Most animals require clipping in the autumn, and some of them will have to be done two or three times before the winter is over. Comb and scissors have quite gone out of use, and given place to the modern clipping machine, by the aid of which any groom can, with a little assistance, do a horse in two or three hours. After this he should be singed, if possible with the gas, failing which the naphtha lamp must be resorted to. To look really well, singeing should be repeated once in ten days or so throughout the winter. If troublesome, one of the horse's fore legs should be held up whilst the process goes on. The scissors may be used to clip the hair out of the heels, &c., but with the nunter it will be advisable to leave the hair on from the knees and hocks downwards, as a protection against the mud.

In this chapter I must not omit to mention the treatment of the feet. These should be kept scrupulously clean, and occasionally oiled on the outer part of the hoof. I am sorry to find myself in conflict with several undoubted autho-

rities on the subject of stopping a horse's feet. I never found any benefit from the practice, and, on the other hand, am convinced that it often does much harm, from unduly softening and rotting the horn. If the foot is abnormally dry, a little damp clay may be used as frequently as is needful; the washing that it gets—or ought to get—in dry weather, and the mud it experiences in its daily work in wet, as a rule supplies ample moisture, anything beyond which is, in my humble opinion, distinctly injurious.

For the hunter and hack I have found no shoe so good as that made on the Charlier principle. It consists of a very light shoe, like a narrow rim, let in almost flush to the horn of the foot. The great advantage of this shoe is that it does not confine the foot, as the ordinary one does, and allows the frog to expand in the natural way. It should be so fixed that the frog comes actually on to the ground, and this will be found to most materially diminish concussion, besides giving a firmer foothold, and, in some slight degree, improving the freedom of a horse's action. The heels do not contract with these shoes, and the fact of the frog coming on to the ground is a strong encouragement to it to grow. Great diversity of opinion exists as to the washing of horses' legs when they come in from a journey. For many years the legs of my horses have not been touched with water—except in the hot summer months—but the mud left to dry, and then thoroughly brushed off. This I have found infinitely preferable to the washing system, as being less likely to produce cracked heels, chaps, and mud fever. Another thing in its favour is the fact that grooms rarely take the trouble needful for thoroughly drying the legs, and especially the heels, after using water, and if this is not done your horse will be liable to all sorts of disorders.

If you keep your horse in a box, let it be as large as possible; if in a stall, it should be from 6ft. to 7ft. in width, and at least 14ft. long. The manger should be of iron, enamelled inside, and containing a receptacle for water, another for corn, and a low rack for the hay; this last is preferable to the high rack, which sends dust into the eyes, nose, and lungs, causing irritation and coughing. There is also considerably more waste of hay in an overhead rack than in one placed on a level with the manger.

The paving of a stable is an important matter. Dutch

clinkers, with bevelled edges to allow of proper drainage, are largely used, and are very good, except for the fact that they are extremely slippery—a serious drawback, as nasty falls may occur in the stable through this cause; and the same objection applies equally to asphalt. On this ground alone I would pass them both over, and take the ordinary brick, set on edge, and laid in sand, on hard, dry rubbish, to a proper “fall,” so as to insure perfect drainage.

In the way of litter, several new kinds have been tried with a certain measure of success, but nothing equals the wheat straw, either for cleanliness, appearance, or comfort, and as far as regards economy it holds its own with any.

Horses are subject to various kinds of what can hardly be called vices in the stable, but which are closely akin to them. I will begin with *crib-biting*, *i.e.*, seizing hold of the manger with the teeth. This is a habit very difficult to deal with; to cure it is, I believe, impossible. A neck strap, buckled tightly on, may do something to check it, but it inflicts considerable inconvenience on the animal without any sufficiently compensating result, and is a fruitful source of horses making a noise; whilst the muzzle, which is sometimes resorted to, is inadequate. The best remedy is to have the manger edge so broad that it cannot be seized, or else remove the manger altogether, and feed in a box, which should be removed after each meal. But when once a horse becomes a confirmed crib-biter he usually loses flesh, and gets a hunted-to-death appearance, although his appetite may never fail for a day. This trick is distinctly catching, and a crib-biter should be at once isolated from his companions.

Eating the Litter may be prevented by using a setting-muzzle, or by bedding the horse on sawdust, an expedient often adopted in racing stables.

Kicking and Biting, in some degree, few horses are free from. There is no cure for either, and the only advice possible is to look out for yourself, and always to muzzle the biter before dressing, or to rack him up very short indeed. Holding up a fore leg may be found useful with kickers whilst they are being groomed.

Wind-sucking is something of the same nature as crib-biting, except that there is no noise made, and the nose is pressed against the manger, whilst the animal quietly sucks in the air till he gets unnaturally distended. The same

results ensue as in crib-biting. The only thing to be done is to use a muzzle with very small spikes, which only come into play when the nose is pressed against the manger.

Slipping the Head Collar can be prevented by buckling the throat strap tightly, though care must be taken not to put too much pressure on the head and throat.

Gnawing the Halter is a common trick, the remedy for which is to use a chain instead of a hempen rein.

Weaving, or moving the head restlessly about from side to side, there is absolutely no cure for. Weavers are generally bad "doers," and, if possible, it is best to keep them in a box, so that they may not annoy the other horses by the noise of the rack chain or collar rein, which is kept incessantly on the move.

Kicking the Stall is an annoying habit, chiefly indulged in by idle horses. Some people try fettering the feet with logs of wood, iron, lead, &c.; but the experiment is always a dangerous one, as the animal may injure itself with them. Hard work is the only real remedy; few horses will pay much attention to kicking their stalls after a stiff day with hounds, for instance.

In closing this chapter, I would like to say that the objection to washing a horse's legs, stated above, by no means applies to the washing of his feet; this latter process should never be omitted when coming in from work, and especially after a long journey.



CHAPTER III.

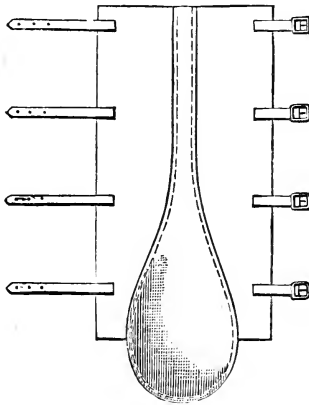
COMMON ACCIDENTS AND THEIR TREATMENT.

Broken Knees—Cutting: Causes of—Boot to Prevent Cutting—Speedy Cutting—Strains: How Caused—Strains of the Back Sinew—Enlargement of the Back Sinew—Over-reach—Abscesses—Galls—Fractures and Dislocations—Falls—Lameness—Quittor—Accidents caused by Spurs.

BROKEN KNEES admit of a variety of treatment, according to the degree of mischief occasioned. When a horse has had a bad fall—such as coming down on a road covered with loose, jagged stones—and cut open the joint itself, professional advice had better be obtained at once. In many cases, the whole Veterinary College itself can do no good, and the animal has to be destroyed; in others, skilful treatment will occasionally work wonders. Assuming that the injury is less serious than that above mentioned, and the skin is cut through, without having exposed the joint, the part should be immediately fomented with hot water, and then constantly dabbed with a cloth soaked in tincture of arnica and water (1dr. of the tincture to half a pint of water). Be careful, of course, to get all the grit and dirt out of the wound as soon as possible. Continue the treatment with the arnica for two or three days, when it will usually be found that the inflammation has subsided. When this stage is reached, apply a blister—Lieutenant James's is one of the best—to the part, which will be found to bring the hair on again in a surprisingly short space of time. Directly the accident happens, give the horse a physic ball, and put him on half rations, with plenty of wet bran.

Injuries very similar to, and requiring the same treatment as, broken knees, are often caused in hunting, as when a horse fails to clear a fence into a road. I once witnessed a very bad fall of the kind, in which the knee and the point of the hip of the horse were both severely cut.* In such a case, no alteration in the treatment is needful from that prescribed for broken knees.

Cutting is where a horse goes so close in his action that one foot strikes the other leg, or fetlock. This takes place from a variety of causes. In some instances, the legs are placed so close together that the animals will probably



BOOT TO PREVENT "CUTTING."

continue to cut all their lives; with others, it only arises from weakness and want of condition, and disappears as soon as strength returns. Again, careless shoeing, whereby the inside edge of the shoe projects too far, may be responsible. Close attention must be paid to the hoof and shoe; the latter ought to be bevelled off as closely as possible, the hoof to project slightly over it, and then be rasped down. The effect of this will be to present a perfectly smooth surface,

* It may interest my readers if I record the fact that, within three months of this accident, I saw the same horse win a steeplechase.

which will then glide off the other leg when it strikes. A boot should always be worn over the part struck or cut, which, with this protection, will heal over, though the horse be kept in constant work. Unless the part is protected in this fashion, the swelling that invariably ensues from the incessant striking will always prevent a cure. I have tried all sorts of boots, indiarubber rings, cloths, &c., for this purpose, but never found any so good as the following, which any saddler can make in an hour or so. It consists of a piece of cloth, about 8in. in depth, fastened by four small buckles and straps, with leather stitched on to the part which presents itself to the blow of the opposite foot (as shown in the illustration). The length of the cloth gives a great bearing on the leg, and prevents slipping round, as is almost always the case with the ordinary short, cloth boot. The lower part of the spoon-shaped leather should be bowed out, so as to fit comfortably over the inside of the fetlock joint. If a raw place has been made, it should be well washed, and a few days will heal it, the boot protecting it from further injury meanwhile.

Speedy Cutting is similar to cutting, except that the leg is struck higher up, just below the knee. It is produced by a different action to that which causes cutting, and most frequently occurs whilst a horse is galloping. Sometimes the blow is so sudden and severe that the animal drops, and nearly falls on his head. The only thing to be done is to always use a thick bandage or pad to protect the part struck.

Strains may be either of the tendons, joints, or muscles. So-called strains are usually caused by the actual tearing of the fibres, or, in the case of the tendons, inflammation of the sheath. Beginning with the shoulder, a part which is rarely affected in this way, you may discover whether that is really the seat of mischief, by inducing the horse to put his shoulder forward as far as he can, or by gently drawing it forward yourself. Watch if he gives signs of flinching; again, when he walks, notice if the toe drags on the ground. These are the only reliable symptoms with which I am acquainted for showing strain of the shoulder, which is by no means easy to find out. Having satisfied yourself, however, that that is really what is the matter, make up your mind to give the horse a long rest. If there is much heat apparent, hot fomentations should be used at first. A mild aperient ball may be given

with advantage, green meat, and a general cooling diet resorted to, not forgetting a small quantity of nitre occasionally, in a bran mash. Corn must be knocked off at once. As soon as the primary symptoms have disappeared, a slight blister should be applied, or else some embrocation, composed of equal parts oil of turpentine and spirits of wine, say 3oz. each to 1oz. of camphor, well rubbed into the part affected. If it is a genuine case of shoulder lameness, at least two months' rest will be required, though during that period the horse should be quietly led about for exercise; under no circumstances allow anyone to get on his back.

Strains of the hip joint and of the stifle joint are more frequent than shoulder strains, and the treatment for them all is the same.

Strains of the back sinew are mostly caused by the severe exertions made by the racehorse and hunter. If the strain is slight, and it is taken in time, one need not despair of effecting a complete cure. A large, egg-shaped swelling appears on the tendon, about midway between the knee joint and fetlock, and this may be unaccompanied by absolute lameness. In this condition, the next sharp gallop will probably produce actual breakdown. When the breakdown is a very severe one, the fetlock joint actually comes on to the ground. In treating these injuries, the animal's system should first be cooled by means of purging medicine, his corn taken away, and green meat and bran-mashes substituted. No exercise at all must be given. Cold bran poultices, and, in the more severe cases, ice, must be constantly applied to the leg until the inflammation be reduced, after which a cold-water bandage should be kept on for about a month. At the end of this time, the limb must be blistered, and, for this purpose, a very useful blister may be made from cantharides, mixed with lard and resin. Neat's foot oil, applied over the blister the following day, will allay the irritation, and prevent the skin cracking. The oil should be applied twice a day afterwards until the scabs peel off. Instead of a blister, a charge may be used. This consists of a plaister put on hot to the leg, and covered (whilst still hot) with pieces of tow. A common recipe for the charge is as follows: Burgundy pitch, 3oz.; tar, 5oz.; red lead, 3oz.; beeswax, $1\frac{1}{2}$ oz. The lead must be added after the pitch, tar, and wax have been melted and mixed together. A little oil may be added, to

bring it to the proper consistency, and care taken not to put it on too hot. This will be found an admirable support to the damaged limb. In the very worst cases of breakdown, the limb must be fired; but, of course, be it thoroughly understood, in every instance, that neither embrocations, blistering, nor firing should be resorted to until long after all heat has been removed by cooling the horse—internally by feeding, and externally by lotions, cold-water bandages, &c., as recommended above.

An old enlargement of the back sinews may be reduced by painting with tincture of iodine daily, until the outer skin peels. When this takes place, leave off the painting, and do not resume it for a week.

Over-reach is caused by the horse bringing his hind feet too quickly under him, to give the fore feet a chance of getting away. Another way of over-reaching is when, in landing over a jump, or in galloping, the hind toe strikes into the heel of the fore foot. On the road, a horse with a tendency to over-reach will "click" his fore and hind shoes together in trotting, and this becomes especially noticeable when the animal is tired. Very frequently the tendency disappears with increasing age; and good handling, whether in riding or driving, will make a great difference in this annoying and sometimes dangerous habit. When a wound has been caused by actual over-reach, it should be thoroughly but gently cleansed, then tincture of arnica and water, in about equal parts, applied, by soaking a piece of linen and tying it round the foot. Rest the horse for a few days, till the wound has closed over.

Abscesses occasionally form under the saddle. When this is the case, they must be opened with the lancet, which, however, few amateurs can be trusted to use.

Galls, either made by saddle or harness, are very simple, and only require time to cure them, pressure, of course, being entirely taken off the place injured. There is practically nothing to be done, except to use a lotion of Goulard water. Nature must be trusted to do the rest.

Fractures and Dislocations are best left alone by non-professional men. The best available veterinary aid should be secured immediately. If anything, beyond keeping the animal quiet, is done by the amateur, the probable result will be to cause exquisite suffering to the poor beast, and greatly to aggravate the mischief. As a matter of fact, the cleverest

practitioner rarely succeeds in effecting a cure if the injury is a serious one.

Falling.—In most cases, when a horse falls, he pitches forward on to his head and knees, though a not infrequent occurrence is where, in turning sharply round a corner, or when travelling on greasy stones, as the London streets, he slips up on his side. The latter fall seldom does much harm, provided the ribs escape uninjured, and the horse rises, a moment later, none the worse for the tumble. Where, however, he falls forward, the consequences may be more serious. The first thing to do is to secure his head, and keep it on the ground; then, assuming he is in harness, detach him, without unnecessary fuss and noise, from the carriage, which should be pushed back clear of him. If he shows any disinclination to rise on his head being released, let him lie until he has recovered himself a little; he may be winded, or perhaps a little stunned. When he manifests any intention of rising, support his head, and the muscles will be enabled to act more freely in raising his body. If he has cut himself severely, get him into the first stable you can find, and wash all the grit out with warm water; then apply the treatment recommended in the opening lines of this chapter.

It oftens happens that, in going through gaps in, or in jumping over, quickset hedges, the hunter gets thorns into his skin, especially in the legs and stomach. Bathe with warm water, then run the hand carefully over the part suspected, when the smallest projection will manifest itself at once. Most thorns can be removed with the fingers, by means of a sudden jerk; sometimes, however, the tweezers must be employed; but the greatest care should be taken to remove the whole of the thorn, or what is left will be sure to give trouble. In all such processes as these, remember this golden rule—that you cannot exercise too much patience and gentleness, and that a little extra time devoted to the good of your horse will be amply repaid later.

Lameness is sometimes occasioned by careless shoeing, where the ignorant smith drives a nail into the sensitive part of the hoof, or by the horse picking up a nail or piece of glass on the road. The shoe must be taken off, and the foot examined, when probably some tenderness will be discoverable. Put the foot in a cold bran poultice for a day or two; if heat and lameness still continue, the hoof should be pared down over

the suspected place, in order to let the matter out. If there is much inflammation in the foot, it may become needful to bleed a little from the toe; though I cannot refrain from remarking of bleeding in general, that the less it is resorted to, the better. Then place a little Friars' balsam on some tow or linen, and insert it into the abscess. Give the horse a cooling diet, such as bran, carrots, and, if the season admits of it, green meat, in lieu of corn. Unless the injury is one of extra severity, a few days will, in all probability, see the animal quite sound again.

Quittor may be the result of any wound in the foot, such as a severe blow to the coronet, &c. An ulcer forms, but instead of the matter, as in ordinary cases, discharging outwardly from the wound, it is confined within the hoof, and, as Mr. Youatt puts it, ". . . pent up there, and increasing in quantity, and urging its way in every direction, it forces the little fleshy plates of the coffin-bone from the horny ones of the crust, or the horny sole from the fleshy sole, and even eats deeply into the internal parts of the foot. These pipes, or sinuses, run in every direction, and constitute the essence of *quittor*." At last it forces its way out at the top of the foot, and produces an oozing wound. The original injured place in the sole of the foot should be opened, so that the matter will come downwards, and the sinus heal from the top. A piece of lint, soaked in Friars' balsam, and inserted by means of a probe, will generally induce the sides of the sinus to heal. In cases of long standing, or of unusual obstinacy, the experience and skill of the veterinary surgeon had better be requisitioned.

An accident which every hunting season brings plenty of examples of, is one caused by the rider's spur catching in a horse's shoulder or sides, in the course of a fall. Ugly gashes are frequently made thus; but they are almost as easily cured. Sponge the place with warm water, and, in a day or two, use a weak mixture of the tincture of arnica and water.



CHAPTER IV.

COMMON AILMENTS AND THEIR TREATMENT.

Cold—Strangles: Gervase Markham's Quaint Description of—Chronic Cough—Lampas—Roaring—Broken Wind—Me-grims—Staggers—Colic—Diarrhœa—Costiveness—Diseases of the Urinary Organs: Inflammation of the Bladder; Difficulty in Passing Urine; Profuse Staling, or Diabetes—Worms—Washiness—Cracked Heels—Lice in the Tail—Splints—Chronic Rheumatism—Swelled Legs—Thrush—Sand Crack—Corns—A Parting Word of Advice.

I AM induced, in commencing this chapter, to so name it because, in so small a volume as this, it would be manifestly impossible to deal properly with, or even to touch upon, many of the more serious ailments to which the horse is subject. I will only endeavour, therefore, to indicate the ordinary remedies for those disorders which are most frequently met with in the stable of the amateur horse-keeper.

Cold, or, more properly speaking, *Catarrh*, is a frequent complaint. The symptoms first appear in the horse's eyes and nose. There is, at first, a slight weeping from the eyes, the air passage is diminished by a thickening of the membrane, which causes increased labour in breathing, and the membrane lining the nostril is red, with a slight discharge, which gradually increases and thickens as the fever heightens. The causes of colds would fill a volume: Change of stabling, leaving off clothing, sudden change of weather, and draughts, are, perhaps, most frequently responsible. If the cold remains a local one, a little care, warmth, and some hot bran-mashes with a little nitre in them, will put all right. If

the cold does not yield to this treatment, give a mild aperient ball, and continue the mashes, with warm gruel. Should the throat become sore, and there be a difficulty experienced in swallowing, give no medicine beyond small doses of aloes, and not even that unless you are quite sure the disease has not touched the lungs. Apply the following embrocation to the inflamed parts, viz.: Oil of turpentine, hartshorn, and camphorated spirit (equal parts), mixed with a little laudanum. This will not destroy the hair or disfigure the animal, as some of the stimulating lotions are apt to do. If the cold develops into inflammation of the lungs, pleurisy, or any other of the more serious evils affecting the respiratory organs, the experienced practitioner can alone determine, in each individual instance, the proper course of treatment to be pursued.

Strangles will often supervene upon a bad cold. This is an inflammation of the mucous membrane of the throat and nose, coupled with a swelling of the glands situate about the jaw. Very many years ago, Gervase Markham gave the following quaint description of the disease: "It is a great and hard swelling between a horse's nether chaps, upon the rootes of his tongue, and about his throat, which swelling, if it be not prevented, will stop the horse's windpipe, and so strangle or choake; from which effect, and none other, the name of this disease took its derivation." The disease (which bears a strong resemblance to mumps in the human being) rarely attacks horses that are "past mark," and usually occurs before they reach the age of five years. The animal gulps his water, is feverish, the glands swell up sometimes to a great size—whilst the nose discharges a thick, opaque matter; the cough is of a spasmodic nature. The treatment indicated here is plain. The swollen glands must be encouraged to form matter, and the best plan for effecting this is to blister, having previously clipped the hair round them as closely as possible. In a few days the swelling produced by the blister abates, and hot fomentations, applied three or four times a day, will soon bring the abscess to a head. If it does not break and discharge naturally, it must be lanced. Keep the part clean, and apply a little Friars' balsam daily. Should the patient be feverish whilst the abscesses are forming, a mild aperient must be given, with cooling food, such as carrots, bran, and green meat—tares for choice. A tonic

ball, made of extract of chamomile and sulphate of iron, in the proportion of two of the former to one of the latter, may be given with advantage should the disease leave the sufferer at all weak, as will most likely be the case.

Chronic Cough is frequently the legacy left by a dying catarrh or by strangles. It may also be caused by sudden change of temperature or food. Again, it may be what is known amongst stablemen as "stomach cough"—that is, a cough dependent upon a disordered state of the stomach. Worms in the intestinal canal are occasionally at the root of this evil, and when that is ascertained to be the case, by observation of the staring coat and the harsh sound of the cough, a pint of linseed oil, given three times a week, will remedy the mischief if anything will; though it must be admitted that, if worms are once well established in a horse, they are very hard indeed to dislodge. Chronic cough, though objectionable to the ear, may, and often does, exist in a horse many years—some have it all their lives—without in the least impairing their usefulness. At the present time I have one that I have hunted and ridden hard for the last two seasons, who never passes a day without coughing, sometimes very badly, and yet he is always well, always in good condition, and fit to go. Strict attention to the diet is the great thing to ameliorate the evil. Very little, if any, chaff should be given; the hay should be wetted, a warm mash used two or three times a week, and the greatest care taken to exclude all dust from the corn. Carrots, which can be obtained all the year round, and green meat during the season, are very useful adjuncts to the regimen.

Lampas.—This is a complaint most frequently found in young horses. The bars of the mouth swell, and rise to a level with the edges of the teeth. The natural effect of this is that, when feeding, the corn is seized, and then suddenly dropped from the mouth, on account of the pain caused by pressure of the hard grain upon the sore and swollen gums; it often arises from some little trouble with the teeth, and rarely lasts long. Give no corn, plenty of soft, cooling food, and a slight aperient. Examine the mouth to see if any teeth are trying to come through; if so, the lancet will give instant relief. A little nitre—about an ounce—may be administered three times a week, in a bran-mash, and the rest left to Nature. Bear in mind, however, that from inability to

take his ordinary allowance of hard corn, the horse may be a trifle weak, and should be dealt gently with, in the way of work, for a few days.

Roaring.—Alas! that one should have to class this, the curse of so many good horses, amongst “common ailments;” but so undoubtedly it is. Cure, of course, is out of the question, and mitigation of its baneful effects is all we must venture to attempt. It is caused by some one or other of the many impediments to respiration, and the seat of the disease varies with each particular case. Most frequently the mischief is seated in the larynx, sometimes in the trachea, sometimes again in the lungs. Many degrees of roaring are known, from the noise that can be heard fifty yards off, to what is called “high blowing,” which is hardly roaring at all. Indeed, we have it on unquestionable authority that the unbeaten Eclipse himself “made a noise.” As there are different degrees of roaring, so are there different causes which make a roarer show at his worst. Some only betray their weakness when drawing a heavy carriage up hill, others make hardly any noise except when galloped, and I once broke in a young one who might have been ridden or driven all day long without a sound, unless anything occurred to excite him, when he would roar like a bull. Many good hunters make a noise when pressed; but, if carefully and humanely ridden, a “pull” being taken whenever opportunity offers during the run, most of them will get through their work pretty comfortably. Some people object very much to the unpleasant sounds emitted during the gallop, although this has its advantages, if it is true, as stated, that one noble M.F.H., when asked why he always mounted his whip on roarers, replied: “Because, if I can’t see them, I like, at all events, to hear where the beggars are!”

Broken Wind requires the same palliative treatment indicated for roarers. The latter encounter their difficulty in inspiration; broken-winded horses inspire easily enough, but cannot expel the air without such an effort as causes the diaphragm to heave violently; and by this sign alone the mischief may be unerringly indicated.

Megrims.—This disease is nothing more nor less than congestion of the brain, and is often brought on by the horse being too long exposed to a powerful sun, or by that abomination, a tight bearing-rein, or by an ill-fitting collar

Something prevents the blood from returning properly to the head; the small vessels of the brain become distended; the brain itself presses upon the nerves, and the result is sudden loss of consciousness. In most of these attacks the driver—they rarely occur to the saddle-horse—gets some warning; the horse will stop suddenly, shake his head, with the air of being hardly conscious of what he is doing; then one of two things may occur: he may either go on again as though nothing had happened, or, wheeling suddenly, fall heavily to the ground. Some lie like a log, others violently fight and struggle for several minutes, at the end of which time they rise again, covered with sweat, but mostly able to resume their journey. Greatly as I dislike the system of bleeding, I must frankly confess that that is the remedy here, and it ought to be done on the spot if anyone capable of properly handling a lancet be present; if not, then as soon as the horse can be got home. A cooling diet, with a dose of aperient medicine and a week's rest, if possible, are the best remedies. A horse which has once been attacked by megrims is always liable to a recurrence of the disease. Therefore, reader, if you are a family man, take the advice of one who is not—sell the animal, or, if you cannot do that, give him away.

Staggers.—Most of the remarks made in respect to megrims are also true of this complaint. The most fruitful cause of staggers, is where the horse has been kept for a prolonged period without food, and then suffered to gorge to excess. Prevention in this, as in everything else, is better than cure. and if, say with a hunter, you have been unable to get him anything to eat throughout the day, begin gently with him when you get him home. Do not let a big feed of corn be flung into the manger, but first induce him to take as much as he cares for of good, warm, oatmeal gruel; then give him a hot bran, or bran and oatmeal mash, and let him pick over a lock of sweet hay. When he has finished these things, vitality will have been restored to his digestive organs, and, refreshed and invigorated, he will take his corn with appetite, and yet without the voracity which would have induced him to "bolt" it had he had the chance when he first came in. Above all things, stop in the stable and see this little process properly gone through yourself. The poor animal has been going all day long, and fasting all day long, for your pleasure:

it is not too much to ask that you should at least see to his comfort before your own.

Assuming an attack of staggers to have occurred in spite of your humanity and precaution, bleeding from the jugular must be resorted to, and purging medicine given. In most cases, the veterinary surgeon will be necessary, as there is a considerable amount of danger generally attendant on this disease.

Colic frequently attacks horses after eating green meat, or after drinking a large quantity of cold water whilst in a heated or exhausted condition. The pain will come on in very severe paroxysms. The horse stands with his hind legs "tucked up" under him, paws violently, and often either falls or lays down suddenly, turning over on his back, apparently with the object of obtaining relief. The pulse is not very materially quickened; the ears and legs are of the normal temperature. After a few minutes, the spasm passes off, only to return again after a short lapse of time. The proper remedies here indicated are: first to well hand rub the stomach with some stimulating embrocation, such as Elliman's, or one made of mustard, 4oz., to oil of turpentine, 1oz. Walk the horse about, if he will let you, but do not attempt any violent exercise with him. If the spasm shows signs of returning, inject plentifully with warm water.

Diarrhœa.—Green food, or a violent drug, is usually the cause of this condition of the horse. It may be known by the approach of restlessness and fever, though not to any very great degree, and by spasmodic pains something akin to those experienced in colic, though, unlike the latter complaint, there is continued strong purging here. The pulse will also be heightened. Let the animal drink nothing but rice water. Give him a drench composed of powdered chalk, 1oz.; gum arabic, 1oz. (dissolved in a pint of hot water); oil of peppermint, 20 drops, and tincture of opium, $\frac{1}{2}$ oz., every night. Should the trouble continue, give the drench twice, instead of once, a day.

Costiveness is mostly brought about by too much hard food, or a sudden chill. Inject warm water freely, substitute hot bran-mashes for the corn, and get the horse to drink as much thin, warm gruel as possible. About 2dr. of dissolved aloes, mixed with a small quantity of opium, and made up as a draught, should be given twice a day until the desired effect

is produced. $\frac{1}{2}$ lb. of Epsom salts, dissolved in the warm water constituting the injection, may be used with advantage should the case continue obdurate.

Diseases of the Urinary Organs are generally of somewhat serious import, and unless the case you are treating yields pretty quickly to your remedies, it will be wiser to call in the practitioner's aid.

Inflammation of the Bladder may be of two kinds, either of the neck, or the main body. The former is a spasmodic contraction of the part to such an extent that there is not sufficient muscular power to force out the urine, except in small quantities and at frequent intervals. The bladder is painfully distended, and can be felt with the hand, under the rectum. When this is the case, the veterinary surgeon must be requisitioned to empty it, and demulcents, such as linseed, given, in hot bran-mashes, warm oatmeal gruel, &c.

Inflammation of the body of the bladder may or may not be accompanied by inflammation of the kidneys. In the latter case, bleeding may be of use, but not in the former. Here again demulcents are of the greatest possible use, and a camphor and opium ball ($1\frac{1}{2}$ oz. of opium to 2oz. of camphor) should be given. This must not be repeated more than twice. An ounce of nitre, in a hot mash of linseed and bran, twice a week, will be found efficacious.

Difficulty in Passing the Urine.—Congestion of the kidneys or some disarrangement of the bladder may be the cause of this. The corn should be stopped, bran and linseed given freely, and an ounce of nitre administered each night in a mash. The best drink will be a little scalded or boiled linseed, in a bucket of water. If accompanied by costiveness, an aperient ball should be given.

Profuse Staling, or Diabetes, is a very dangerous disease, and amateur efforts are likely to "make confusion worse confounded." You cannot go wrong, however, in giving soothing drinks, warm oatmeal, linseed, &c.; but professional advice should be taken. That excellent authority, "Stonehenge," recommends half a pint to a pint of lime water in the drinking-water, and I have no doubt that he is right.

Worms.—These are cruel pests, and very difficult to eradicate. The symptoms are well known, and almost unmistakable. The horse gets poor in condition, till he looks like a bag of bones; his coat sticks up the wrong way, whilst the

hair is dry and chippy; there is generally a harsh, discordant cough, and the appetite increases very much. Worms are of three or four kinds, but the treatment, roughly speaking, is the same for all. A ball made of aloes, with a small quantity of oil of wormwood added, should be given, and an injection of linseed oil used. One species of worm (the long round worm) is sometimes voided in large quantities by quite healthy horses, and my experience has gone to show that they are, in many cases, perfectly harmless. Indeed, the last case I came across was that of a carriage-horse which had never been sick nor sorry in his life, carried a smooth coat, and was as fat as a mole. Yet I saw scores of these worms (some 6in. long) come away from him in a single morning.

Washiness.—This is mostly caused by indigestion, though in some animals a peculiarly excitable disposition may be responsible for it. There is great irritation of the stomach, and the food passes too quickly through. The consequence is that the horse, instead of deriving the proper amount of nutriment from its corn, gets thin and half-starved looking. Physic is no good here; you must rely entirely upon a course of dieting. Boiled linseed, mixed with a bran-mash, carrots, and demulcent drinks, such as flour or oatmeal gruel, will be found of great service, and the oats should be crushed; in this form they are more likely to remain in the stomach until some nutriment, at least, is extracted. If circumstances permit, there is nothing so good as a long run at grass, always provided the horse has no access to herbage of a marshy nature, which will do infinitely more harm than good.

Cracked Heels.—The horse will not be long in showing you what is the matter with it here. It will lift one hind leg to such a height as to frequently fall against the side of the stall; occasionally it will utterly decline to “come over” when being bedded down, &c.; the legs will swell up, and a considerable amount of heat will be found in them, most of it in the heel. The skin is hard, glossy, and red, whilst the cracks themselves vary very much in size and soreness. Where the cracks are deep, accompanied by considerable lameness, the first thing to do will be to gently foment the part with warm water, and then apply a poultice, made of equal parts bran and linseed, or linseed alone. The best way to do this is to pull a stocking right over the foot and half way up the leg; then fill it with the poultice, pushing the linseed well into the sore parts, and

tying the top of the stocking round the leg, but not too tightly. After forty-eight hours of this treatment, foment again with hot water, taking great care to well—but gently—dry, after each application, till all the heat has disappeared. Then apply a lotion of alum, dissolved in water; or, better still, an ointment made of powdered alum, 2oz., to common lard, 6oz., to be well rubbed into the heels for some time after the cracks have apparently closed. The horse must be rested, his corn reduced, and a diet of bran-mashes and carrots resorted to; a mild purge of aloes should be given at the outset. If, after the cracks have disappeared, the legs remain hard and swelled, they should be flannel-bandaged, but never, under any circumstances, *blistered*, as I have heard recommended scores of times; a more fatal mistake could not be made. Green food, if the season admits, should be given, and a little walking exercise after the worst of the soreness has subsided.

Lice in the Tail.—The first thing to do is to immediately discharge your groom. This state of things discloses such laziness and dirt on his part as to make it impossible for anyone who values his horses to keep him another hour. Pour a little turpentine into the affected parts of the tail, and the pests will soon disappear.

Splints.—These are bony enlargements on the leg of the horse. Unless occurring between the suspensory ligament and the bone, they may never cause the slightest inconvenience. Running the hand down the leg will in most cases discover the splint, even if it is not visible to the eye. These bony deposits nearly always occur in young horses, and disappear with increasing years. If there is no lameness, it is far better to “leave well alone.” Should there, however, be inconvenience, caused by reason of their situation, the new remedy, “Ossidine,” or, in lieu thereof, a little mercurial ointment, well rubbed in (the hair being previously clipped close round the part), will be found the best remedy.

Chronic Rheumatism.—People seem to have taken a long time in recognising how frequently this is a cause of lameness in horses, and it is only in the comparatively recent books published upon veterinary science that it is treated of in that light. The same causes that work the mischief in human beings are generally responsible here. The animal comes in from a long day’s hunting in the wet, or, perhaps, a bitter nor’easter has been blowing, and, although apparently sound

when entering his stable, an hour later you can hardly get him out of it for stiffness. Sometimes the disease locates itself in one limb, at others it flies all over the animal. In whichever leg it happens to be, the horse puts it to the ground with great caution, and in evident pain. I do not see how any medicine we know of can relieve the horse—embrocations, on the other hand, may do so. A very effectual preparation for this purpose is Elliman's embrocation, or one made of mustard and water, well rubbed into the seat of pain.

Swelled Legs are mostly found in young horses, or where no proper and regular exercise has been given. The swelling is very rapid, and the limb becomes stiff and painful; often this is followed by "grease" in the heels. Too high feeding, or, on the other hand, general debility, may be to blame. A diuretic, which will lessen the quantity of the circulating fluid, should be given, with aperients, if the animal is in high condition, or tonics if weak. A drachm each of oil of juniper and camphor, mixed with $\frac{1}{2}$ oz. of nitre, and made into a ball, will be found as good as any. Tonics must always be administered with care, or they do more harm than good. Excellent tonics are gentian and ginger, and a capital ball is also made by mixing sulphate of iron with chamomile, the proportion being two of the latter to one of the former—say, $\frac{1}{2}$ oz. and 1oz. respectively.

We now proceed to consider the common ailments to which the feet are subject. Passing over such dangerous diseases as fever in the feet—both acute and chronic—which can only be treated by the experienced veterinary surgeon with any hope of a favourable result, we may notice, first, what is known as thrush.

Thrush.—This is a slight discharge of evil-smelling matter from the cleft of the frog, and is generally caused by the horse being allowed to stand in wet dung, or urine, in a badly-drained stable. It is, consequently, more often found in the hind than the fore feet. The frog gets wasted, and, under the influence of the disease, the foot often contracts, and lameness ensues; in addition to which, there is such tenderness, that the sudden stepping on a sharp stone is likely to bring about a bad fall. If suffered to run its course unchecked, canker probably appears, to further complicate and heighten the mischief. First remove the cause, and then, the foot being washed thoroughly clean, dip a piece of tow into a solution of chloride of zinc, or nitric

acid, diluted with twice the quantity of water, and insert it into the cleft of the frog until the foul smell disappears, and the frog itself begins to grow again. Burnt alum is also of great use here. I may add, that I have treated a horse successfully with a common vinegar wash, followed by a plentiful application of powdered charcoal.

Sand Crack is a crack extending from the top of the hoof, downwards. The cause is an inherent weakness in the hoof itself, and no indication may be given of the crack till it actually appears. A firing-iron should be passed pretty deeply above (if possible) and below it, to prevent it lengthening; the horse should be rested, and the horn encouraged to grow, by the application of tar and tallow to the top of the hoof. A plaster, formed by tarring the hoof, and then binding strips of strong calico over it, and tarring the hoof over again, will be needful as a protective measure if the case is a bad one.

Sometimes the crack is a very slight one, and does not penetrate through the horn. Here a daily application of olive oil will be sufficient to induce it to close up again.

Corns.—These are caused by an extravasation of blood below the horn. All pressure must be removed from the part, and the horn pared away by the smith. When this is done, thin stains of the extravasated blood will be visible. The corn will generally reappear at the end of three weeks or a month, and must be again pared down. Should there be any effusion of blood or matter in the lower part of the sole—this will be readily discoverable when the corn is pared out—it must be allowed to escape, and then the part be treated with lunar caustic. A bar shoe will be found excellent in these cases for taking the pressure off the seat of pain.

In closing this chapter, just as a parting word of advice I would say, Do not keep a medicine chest; you will be tempted to physic when there is no need, and many of your drugs will not be efficacious unless they are fresh. In the ordinary course of things, horses get on well enough without doctoring; if they *can* do without it, so much the better. Do not forget the old saying, which tells us that physicking at large consists in “putting drugs of which we know little into bodies of which we know less.” In this respect medicine is very unlike surgery; the latter is a science, the former is not.



CHAPTER V.

ON THE ROAD.

Scope of the Chapter—Driving a Single Horse—How “not” to Drive—Hurry at the Start to be Avoided—Holding the Reins—Holding the Horse’s Head—Running up to the Bit—Use of the Whip—Bearing-reins an Abomination when Driving Single—Driving a Pair—Kickers in Harness: Treatment of—Washing Out the Mouth—Advantages of being Early on the Road—Vices manifested on the Road: Jibbing; Rearing; Lying Down; Shying; Kicking in Saddle; Buck-jumping; Bolting.

IN such a small book as the present, it would obviously be out of place to deal with such charioteering efforts as those required by the ambitious driver of four-in-hands and tandems; so, leaving these higher walks for those of the more humble everyday one-horse and pair-horse vehicles, I will proceed to offer a few remarks and suggestions which I hope may be found useful to the amateur driver, and also to the road rider. There are very few of us, I assume, who have not, at some time or other, driven a single horse. It is not an arduous undertaking, and yet it is quite possible for the biped in charge to make something more than an ass of himself in the performance. Writing these words brings vividly before my mind’s eye a certain professional gentleman of my acquaintance who, invariably, on gathering up his reins, allows his horse to dash at once into a full swing trot, lets him outpace himself to such an extent that he trots with his fore legs and canters with the hind ones, and then pulls him up with such a sudden jerk that the poor beast almost sits down in the middle of the road. I say “the middle of

the road" advisedly, as never by any chance does he pull up at the kerb. Now, it will readily be seen that our friend is an apt example of nearly everything he should not be as a driver. Always avoid hurrying a horse when starting; many a bad slip, and consequent strain, has happened from neglect of this simple precaution. The reins should be held so that the near passes over the forefinger of the left hand, the off rein lying between the fore and second finger; then put the right hand loosely on the off rein; of course, in front of the left. Do not hold the horse's head too tightly, though probably a greater pressure will be needful than if you were riding the same animal. If you were to ask me why, I confess I should be utterly unable to tell; perhaps it is because all horses are more inclined to bore in harness than in saddle. Keep him going well within himself, and make him always run up to his bit; plenty of animals do not do so, for the simple reason that the bit is too severe. The remedy for this is so plain that it needs no telling. Use the whip as sparingly as possible, though a clever coachman may frequently be enabled to guide, not punish, an animal by its means. Bearing-reins in single harness are an abomination; they confine the head, deaden the mouth, and induce the animal to lean; so that, if he makes a little stumble, down he goes to a certainty. The hand should just feel the mouth, giving the head plenty of play all the time.

Driving a pair is almost as simple a process as driving a single horse. The main thing to look to is the keeping them together, and seeing that each does his fair share of the work; some animals are as clever as the proverbial "cartload of monkeys" at shirking their collars, just going sufficiently to keep their traces taut, but not pulling an ounce. Whip is no good when one horse is a free-goer and the other a slug; directly the worker hears it applied to the other, he dashes forward, and does still more of the work, and the sooner you part this pair the better. A capital plan is to change the sides of your horses pretty often; this prevents them getting into such bad habits as lying on the pole, &c. The bearing-rein admits of a reasonable excuse in double harness, as it serves to keep the two horses' heads on a level; and this, if they stand about much in the streets, is a consideration. If, however, the horses are for work, as distinguished from ornament, I would strongly advise the bearing-rein to be dispensed with

altogether. The reins should be let out or drawn in according to circumstances; thus, if one horse is a freer goer than the other, buckle his rein tighter, and give the lazy one plenty of play.

The dealing with kickers in harness is always, more or less, a difficult matter. In double harness it is especially awkward to fix a kicking strap, by reason of there being no shafts to which it may be attached. The method adopted is to bring two parallel straps from the top of the back, just behind the pad, one down each side of the crupper, and fix them on to the splinter-bar with buckles; two other straps are fixed transversely between the longitudinal ones, like the steps of a ladder. Even with this, a determined kicker will very often either break the straps themselves, or, at least, severely test the strength of the splinter-bar, and cause a very unpleasant sensation to the occupants of the carriage, by the jerking motion of the sudden upheaval of his quarters. In single harness, the strap is buckled to one shaft, passed across the animal's quarters, and fixed to the opposite shaft.

When starting on a long journey, avoid the common fault of hurrying off so as to, what is called, "break the neck" of it. Many people make a practice of pushing on till they get three parts of the way to their destination; "then," say they, "we can take it easily." Now a moment's thought will show the fallacy of such a course as this. Your horse, in all probability, starts away with a full stomach, and, by driving him fast at first, you prevent the natural process of digestion going on properly; he gets distressed at being hustled, and, if the weather is at all hot, sweats himself into a lather, and does the rest of the stage in manifest discomfort to you and to himself. When, after his bait, you resume your journey, you find that it is little matter whether you meant or did not mean to "take it easily." Your horse decides that question for you, by plainly showing that he is unable to do anything else. The fact is, he has been done up the early part of the day, and is fit for nothing afterwards. For at least five or six miles, and until the horse is "clear" in himself, let him take his own time—it will be no loss; on the contrary, you will be the gainer before the sun sets, and then you will find he will settle to the business of his own accord, and begin to "slip along" at an increased pace. Let his mouth be washed out when you have gone ten or twelve

miles; do not hurry him at the hills, and, if possible, give him an hour to an hour and a half to dine in, about the middle of the day. If it is in the hot weather that your travels are to be made, an excellent plan is to be early on the road, and to put some miles of your journey to the credit side of the account before eleven o'clock; then give your horse a long rest, so as to avoid the heat as far as possible, and start again when the fierceness of the sun's rays have somewhat abated, and then you will be able to go comfortably on till far into the evening. Most horses travel best at night, though if you are driving one that shies along an unknown road, it may be well to think twice about it, and perhaps take the advice given by *Punch* to those about to marry! Few things distress horses so much as excessive heat; I am speaking, of course, of England and English animals. I have ridden many a mile over the sandy plains of Southern Africa, in the full blaze of a mid-day sun, and never noticed any bad effect upon the hardy and blood-like little steeds there; they seem to go as well by day as by night. What splendid hacks they are, too! all broken, by a rough and ready method, to canter the moment you put them beyond a walk, they will keep on at this pace an almost incredible time. To ride in this way is, as may well be imagined, absolutely no more exertion than sitting at home in an armchair, and, provided you can get horses enough, there is no reason why one should not keep on journeying, practically, for ever!

A few words on the most common forms of vices manifested on the road may not be out of place here. I will give pride of place to *jibbing*, as, of all detestable things, this, in my humble opinion, is the worst. The horse declines his work, and either stands still, refusing to budge an inch, or worse, begins going backwards and letting the trap, of course, go back too. A sharp hill is usually chosen as the scene of action, and the great thing to avoid is allowing the carriage, if a four-wheeler, to get "locked," as in this case you are most likely in for an overturn. It is rarely any use to hit a bad jibber; he has been treated that way before, and, having made up his mind that he won't pull at his collar, no amount of punishment will shake his resolution. Someone should catch hold of his head without delay, and try to induce him to "lead" in the way he should go. If he still declines, lead him round and down the hill again, so that he

has nothing to pull; then, when once he is started, you will probably be able to turn him, and induce him to go in the direction you require. I believe there is absolutely no cure for jibbing. With some, an inexhaustible supply of patience may result in victory; but, generally speaking, the case is hopeless, and if you cannot get anyone to buy the brute, make him a present to the man who bores you with the stalest stories, or poisons you with an unsound claret when you dine with him.

Rearing in its worst form, *i.e.*, when a horse goes so far up and so straight as to frequently fall backwards, is the vice, *par excellence*, to be attended with fatal results. There is little or no difficulty in sitting a rearer—the danger is in his losing his balance. Before he is up straight enough for this, slip off, and then, if he comes back (and falls clear of you), so much the better; it will probably give him a wholesome dread of trying it again. Generally speaking, the vice is met with in young horses, who only act out of play and “calfishness.” So long as he confines himself to the modified form of rearing, a martingale and snaffle bridle (a curb is always an incentive to this habit) will do all that is necessary to make him go pleasantly. Hitting a horse between the ears, or breaking a bottle of water there by that means, is, to my mind, much prettier to read about in a three-volume novel than to see put into practice. Comparatively few riders, moreover, are in the habit of carrying water bottles about them, I should fancy.

Lying Down is, fortunately, not of frequent occurrence with English-bred horses. When it is tried, you suddenly become aware of a fore leg dropping; then, without a moment's delay, let the spurs in again and again, if necessary. This will usually suffice to keep him on his legs.

Shying, pure and simple, is mere nervousness, which should be treated with the utmost gentleness and patience. But how seldom do we see it thus dealt with? Ninety-nine out of a hundred men administer a severe cut with the whip immediately a horse shies; and what is the consequence? The very next time the animal sees anything frightening, not only does he shy at it, but, remembering the whip, swerves suddenly away from where he naturally expects it again, thus intensifying the mischief tenfold. Anything more illogical it would be hard to conceive. The true secret for the cure of this trick is to affect not to notice it, persevere to get the horse

up to whatever it is that has frightened him, but use no violent measures. Speak soothingly, and let him, if possible, approach the object of his alarm, and inspect it at his leisure; then pat and make much of him. Of course, if you have fully satisfied yourself that the shying proceeds, not from fear, but vice, a little punishment may be necessary; but always avoid it if possible.

Kicking in Saddle may be either from playfulness, or with the object of getting rid of the rider. In either case, it should be checked at once, by catching tight hold of the reins, and hitting the horse down the shoulder two or three times, speaking sharply to him at the same moment. I do not regard kicking in the saddle as a dangerous vice, but it may possibly unseat the inexperienced horseman.

Buck-jumping is where a horse gives a succession of plunges, rounding his back like a wheel at the same time. Some of the worst buck-jumpers are very hard to sit, and plenty of them have a nasty knack of breaking their girths by this trick. The treatment is the same as for kickers, with the addition of a liberal supply of spur.

Last, but not least, we come to the question of *Bolting*. Now, it is obvious that the degree of unpleasantness which it is possible to get out of this form of equine amusement varies with the locality, amount of traffic about at the time, &c. If horses would only choose to bolt up a long, stiff hill, or over a limitless expanse of ploughed fields, there would be very little harm resulting from it. Unfortunately, they do not; and if a crowded thoroughfare, flanked with glass shop-fronts, is the place selected, the consequences may be serious. A Chifney bit should be used on a determined bolter, but gently, until he *does* bolt, as it is so sharp that few will face it for long. Some do better with a sharply-twisted snaffle, with which a horse's mouth can be "sawn," *i.e.*, the reins pulled alternately, and not together. Directly he "goes" with you, gather your reins up calmly, then take a sharp pull at him; not a continued or "dead" pull, which will have no effect at all. Ease the mouth if your first pull is ineffectual, and try at it again; then saw the mouth sharply, especially if he gets his head down. If you find yourself practically powerless to stop his headlong career, and you are likely to do some serious mischief by continuing, you must gather him together, and then ram his head straight into the back of a heavy cart, into a hedge,

or anything of the kind; you must stop him at any risk, and if you have nerve enough to put him into the obstacle straight, and not obliquely, you will probably get off scot free. This "straight," as against the slanting style of riding, reminds me of something that I ought, perhaps, rather to mention in the next chapter, entitled "In the Field." However, I will just speak of it now: In going down a steep hillside, scrambling down big banks, &c., always let your reins free and loose, and ride straight, not in a sidling manner. Old Hills, the late huntsman of the Surrey Foxhounds, would gallop with a slack rein down the side of the huge hills which abound in his district, even when crippled with the gout. I think that coming down these places is merely a question of nerve. Trust your horse; let him get his head down as low as he likes, and he will rarely "give you away;" but I do not for an instant advocate coming down at a gallop.



CHAPTER VI.

IN THE FIELD.

Style of Riding required for Hunting and Steeplechasing Different from that Adopted in Ordinary Road Riding—The Seat—The Hands—Delicate Handling to be Aimed at—“Bitting”—Courage and Coolness—The “Hard Funker”—Whyte Melville on Indecision—Speed v. Perseverance—Training Horses to Jump—Sir Charles Knightley’s Patience and Kindness—Practice with Hounds—Falls—Throwing up the Right Hand when Leaping—An Expedient for “Making a Timber Jumper”—Feeding and Treatment of Horses Ridden to Hounds—The Girths.

IT takes no wizard to tell us that a very different style of horsemanship is required for such sports as hunting and steeplechasing to that adopted in ordinary road riding. Many a man, who passes amongst his female acquaintance for a “very good rider,” would find himself painfully “out of it” in what Mr. Bromley Davenport stirringly calls “a quick thirty minutes from Ranksborough Gorse,” or even half that time, with the mildest of suburban packs. First and foremost, an entirely different seat is required for crossing a country safely and well to that which amply suffices for ordinary hacking purposes. Next, the hands should be of a far superior order; and last, but not by any means least, courage and coolness are not commonly called into play on the road, but they must never be absent in the field. As to the first of these essentials, the seat, settle yourself comfortably in the saddle; never mind what you look like. Some men think it necessary to sit bolt upright on their horses, with a hollow in their backs, and, by

so doing, ride about 2st. heavier than there is any occasion for. Ride well down, with the knees upon the padded part of the flap; take care that the stirrups are of the right length, and remember that—so easy is it to lose an iron going over a fence—your feet should be pushed right home in them. Many people say that, by so doing, your foot will be held, and you yourself dragged in the event of a fall. I beg leave to differ with them *in toto*. I have had my full share of falls; falls of all sorts and descriptions—down horses' shoulders, over their heads, falls when they have slipped up on their sides, falls when they have rolled right over me—and never but once in my life have I been dragged; and yet, both on the road and in going across country, it has been my invariable habit to thrust my feet right home in the stirrup irons. I merely mention this—and I know scores of other examples, but one illustrates all—by way of encouragement to those timid souls who erroneously imagine that, by placing merely the toe in the stirrup, they are adopting the only method possible for saving themselves in the event of an upset. Sit well back going at a jump, and more so when you land.

So much for the seat; now for the hands. Delicate handling is obviously the thing to aim at in riding to hounds; it will keep you in a better place with them, enable you to collect, without pulling at, your horse, in deep, holding ground, and, with a fair share of luck, leave you at the finish with a horse half as fresh again as that ridden by a man who has either let his animal go with a slack rein, outpacing and beating himself, or, on the other hand, exhausted both himself and his mount by fighting and pulling at him throughout. Every horse that is foaled has an individual mouth; no set rule can be laid down as to "bitting"; that must depend upon each animal's temperament. You will soon find out his peculiarities for yourself; rely upon it, no one can tell you. Do not pull an ounce more than you are obliged; and though Mr. Whyte Melville, it is said, probably lost his life through carrying his theory too far, I believe it none the less to be a true one, that "many more horses will cross a country safely with a slack rein than we suppose." I do not for a moment advocate a slack rein; there is a happy medium in this, as in all other things, and between pulling a horse's head off and letting him go along at his own sweet will there is a great gulf fixed.

Now let us get on to the question of courage and coolness. Of course, to a large extent, they depend upon the individual temperament of the rider—upon his health, his nerves, and, in many more cases than we think, upon atmospheric conditions. Yes, laugh as you will, I have known men brave as lions on a warm day, but whose courage is strictly in sympathy with the thermometer—when one falls, the other goes with it. By courage in crossing a country, do not suppose for a moment that I mean that class of valour which induces a man to cram his horse indiscriminately at everything he comes to, blind to the consequences, and heeding none of them. Such men come fairly within old Jem Hills' description of the Undergrads who rode at, or over, his beloved hounds, in addition to any other obstacles which barred their progress. "Bless you, Sir, they fears nothing, because they knows nothing!" said the veteran huntsman. Sooner or later, such riders as these are bound to come to great grief; and though all of us, who are in the habit of riding over a country, must expect an occasional fall, and take it good humouredly when it comes, the man who is all pluck and indiscretion goes to meet his mishap more than halfway, and gets half a dozen upsets for one sustained by him whose courage is accompanied by coolness and tempered by discretion. Watch the finished horseman as he goes sailing away, on the best of terms with his mount, down that grass field, bounded on the far side by a big, open ditch, with a bank and thick stubby hedge beyond. He gathers his horse together, pulls him gently back, so that his hind legs are well under him, and then, catching him by the head, but giving him plenty of play and liberty to act, sends him resolutely at it. Perfectly assured that he will not be interfered with, the horse gallops steadily and straight as a gun barrel at the obstacle, takes off a foot from the edge of the ditch, and clears it all in splendid style, picking himself up on the landing side, with just the slightest possible help from his pilot, and, getting away again into his stride, forges ahead without the loss of an available moment. Now turn from this picture to that of the man whose head will never save his limbs; pluck he has in plenty, but to discretion, alack! he is a stranger. Let us see how he fares in his attempt to follow the man with whom we have just been dealing. He has been driving his horse rather freely over the preceding

field, and the consequence is that the animal is not in quite such good wind as he might be. Now comes the first mistake: Directly our friend catches sight of the obstacle, he says to himself, "This is a big one!" and straightway he crams his hat on his head, sets his teeth, and drives his horse, as hard as he can lay his legs to the ground, at it. Hurried and bustled, yet with every desire to go straight, the gallant steed, his head stuck uncomfortably in the air, takes off a moment too soon, strikes the top of the hedge, and either comes backwards into the ditch, or turns a complete somersault, landing on his back in the next field. Now, both these riders were men of undeniable courage—neither showed, nor even felt, a touch of the white feather; but the real reason why the one failed where the other succeeded, is that the first had courage, plus discretion, coolness, nerve—whatever you like to call it; the other relied upon that which never got mortal man over a big country for any length of time yet—courage alone.

Before we have done with bad riding, let me just call attention to what Messrs. Bromley Davenport and Whyte Melville aptly call the "hard funkier." Always in a hurry, indecision yet claims him for her own. "This vacillation," writes Whyte Melville, "communicates itself in electric sympathy to his horse, and both go wavering down to their fence without the slightest idea what they mean to do when they arrive. Some ten strides off, the rider makes up his mind, selecting, probably, an extremely awkward place, for no courage is so desperate as that which is founded on fear. Want of determination is now supplemented by excessive haste, and, with incessant application of the spurs, his poor horse is hurried wildly at the leap. . . . Such a process, repeated again and again during a gallop, even of twenty minutes, tells fearfully on wind and muscle, nor have many hunters sufficient powers of endurance to carry these exacting performers through a run." The gifted writer who penned these lines might have added that such handling as this tells not only on "wind and muscle," but also, and much more fatally, on the poor animal's courage. The "hard funkier" may be safely trusted to ruin the finest hunter ever foaled in considerably less than a season; half a dozen runs with this gentleman "up" will break any horse's heart. Nothing communicates itself sooner from rider to ridden than indecision; nothing is more fatal to successfully crossing a country.

Now as to the sort of horse you have under you. "I don't mind how slow he is, so long as he'll *try* everything I put him at," said one of the best men to hounds that ever breathed; and there is much that is true in this; not that I, for a moment, undervalue a fast horse. His very pace enables you to keep him going so as to live with the first flight, without driving him at all; but, after all, it is better to have one as slow as the proverbial "man in boots," if he will really try all his fences, than a Derby winner who shirks them, and then requires a hundred-acre field to turn himself in. I say "try" advisedly, because we ought not to grumble if, in doing his best, our horse gives us a fall. What I, personally, do object to, is the cowardly brute who gallops straight up to his fence, and then, whipping suddenly round, almost sits on it, or else falls, neck and crop, into it. Horses will also, occasionally, let themselves fall out of sheer temper; but this is rare.

As it is not the lot of every man to get hold of a jumper, let us consider how you can best make your horse a pleasant and safe conveyance, assuming he is neither the one nor the other when you get him. Take him into a field by himself—or a farm is a capital schooling ground—walk him through any gaps, and try to induce him—letting him take his own time about it—to leap a small ditch or two. Always endeavour to let him think you have an object in getting to the other side, and never take him backwards and forwards over an obstacle, for fear of disgusting him. When he has accomplished what you asked him to do, make much of him, pat his neck, and speak approvingly to him. Do not do too much with him at first, and avoid coming back by the same way that you went in to the field. If you issue forth at another place, he will be under the impression that he has done something useful, and will not suspect that he has simply been taught a lesson. Next time you may try him over something bigger, but clean, such as a rail or a small sheep hurdle. It will be very useful here if you can get a friend, on a staid old hunter, to assist. Without any unnecessary fuss, start at a canter, the Mentor lying three or four lengths in front of you, and let him show the way over a succession of small obstacles, such as low brush fences, sheep hurdles, or plain rails. Your horse, for company's sake, will follow, and, in all probability, blunder over the brush fence, knock down

the hurdles, and wind up by "rapping his knuckles" pretty hard against the rail. Still, if the obstacles have been surmounted, never mind how, you will have cause to go home caressing your horse, and congratulating yourself on a very good morning's work. At the next essay, he will remember the rap that rail gave him, and rise a bit higher at it, or else refuse it altogether. If the latter, be most patient with him; try to persuade him that he does not really object to it, and, in fact, that he is enjoying the fun as much as you are. Such a grand horseman as Sir Charles Knightley has spent hours and hours in the saddle before he could induce a horse he was schooling to look at a single fence, and then, victory resting with the rider, by means of patience and kindness alone, the horse, at once, was fit to come out regularly in his turn, and take his place with the cleverest veterans in the stable. If your pupil will not have it in any other way, get off, and lead him over; most horses will let you do this, and follow over almost anything. If you have a pack of harriers within reach, you will find it excellent practice to take your beginner out with them, not getting too near the hounds. The excitement of company, and hounds running, will often induce a horse to take his fences far more kindly than he will in cold blood. When first with hounds, always, if possible, ride to a leader—again I would venture to remind you, not too near to him; his horse may get safely over a fence, and then, three or four strides farther on, come head over heels, in which case you will, if following immediately in his wake, have the pleasure of executing an involuntary dance upon your friend's prostrate body; on the ground of this occasionally necessitating a coroner's inquest, I strongly advise the non-adoption of such a system. You can get all the benefit of a "lead over," and yet give your leader plenty of room, and yourself plenty of time to pull off in case of a casualty in front. Should your own horse come down, do not be in too great a hurry to throw yourself off him. Sit still, giving him his head till the last possible moment; then, when you see he must go, a "shove off," with hands or feet, will mostly take you clear of his falling body. A clever horse almost always has a leg to spare to save himself with, if the fall is not a really bad one. The great thing to remember about this is, that it rarely happens that a man gets hurt much by the fall; it is the chance of the horse coming on top of him, or kicking

him badly, that is nearly always responsible for the mischief. Writing this reminds me of no less than four deaths which have occurred, unfortunately, within my own personal experience, one of them that of poor Greville Nugent, "Mr. St. James," than whom a pluckier steeplechase rider was never tossed into a saddle—where the rider was quite uninjured by the fall itself, but killed by injuries inflicted by his own or someone else's horse. It will be well to bear this also in mind, that the worst kind of fall is that for which the rider has no excuse—*i.e.*, when a horse is very much blown. Humanity tells us not to ask a horse to rise to a fence in this condition, and if we will—well, then we must take the consequences. A beaten horse always falls "all of a heap," and quite helpless. There is just this to say, that the man is generally freed from the danger of a kick in such cases, the horse being too much exhausted to struggle; on the other hand, if you find him on top of you, the probability is that, at least for the rest of that season, "the subsequent proceedings will interest no more," as Bret Harte observes. You may always know when your horse has had enough of it; his heaving sides and laboured breathing, the peculiar "flop" of the ears, and repeated changing of his leg, speak eloquently of his condition, and the man who goes on after such warnings, does so at his peril. When a horse falls through not jumping high enough, and turns a complete somersault, the odds are that man and beast will land on their respective backs; if so, and the horse rolls over away from his rider, no harm is likely to result. If, however, he should roll over you, obviously the consequences may be serious, and possibly fatal, although I once sustained such a fall from a steeplechase horse, and beyond being badly cut about the head, and feeling slightly "flattened out," escaped uninjured. Nevertheless, I cannot conscientiously recommend it as a pleasant method of passing the time.

Many men still stick to the old-fashioned method of throwing up the right hand in the air as they take a leap; why, I never could make out. You want both your hands, as your horse lands over his fence, to collect and assist him. Not only that, but throwing your whip hand in the air must alter the position of your body at the critical moment, when your horse is "taking off." Can anything be more likely to cause a flounder, if not a fall? Watch a first-rate steeplechase jockey

as he goes at a fence; both hands held low down, the calves of his legs feeling instinctively what his mount is going to do. Then, as he lands on the other side, the hands for a brief second slide down, one on each side of the horse's withers; then see how carefully he "assists" him into his stride again, and goes along without a moment's waste of time. He would not have anything like so much power if the use of one hand were voluntarily thrown away, besides having the disadvantage of balance, before alluded to, to contend with. In taking a jump, your body should swing freely and easily to the motion of the horse, whilst the legs should close upon the saddle like a vice; let the calf come right back, and never mind if the toes stick out more than is needful for absolute beauty. You are not trying for effect; your object is to be conveyed from one field to another, with safety and comfort to both man and beast, and, if you have achieved this, you have done well.

There is one expedient for "making a timber jumper" that I must just touch upon before concluding. I refer to that of "giving a horse a fall" purposely. Thomas Assheton Smith is reported to have three times ridden a young one over a stiff 4ft. rail going to covert one day, each attempt resulting in a fall; the fourth time he cleared it successfully! Most men would have hesitated, I fancy, to go on so long as this; but then most men do not happen to be made of cast iron, as Assheton Smith undoubtedly was. My own experience has left me rather in doubt as to the advisability, or otherwise, of the experiment, as, out of four horses I have tried it with, I can claim to have "made" two, whilst, at the same time, I must plead guilty to having "marred" the others; at all events, they neither of them would even look at another fence—in fact, no amount of inducement could ever get them near one again. In addition to the doubtful success attending this process, one must consider whether it is worth the risk of one's limbs—that is, if one is over twenty years of age; before that period in life men never consider anything at all. Again, many horses after getting a severe fall lose heart and courage, and become determined refusers. Whenever this happens to a horse who has been a good jumper, throw him up at once; do not take him out with hounds again for at least a month, and if anywhere near the end of the season wait till the next, by which time he will probably have

forgotten all about his mishap, and jump as freely as ever. A friend of mine, who used to ride an extraordinary jumper with a pack of draghounds kept by his regiment, came heavily to grief one day; his horse was stunned, and evidently severely shaken. The next week he was pronounced "fit to go," and he did go—as far as the first fence; but anything farther he most distinctly declined. My gallant friend (a really good man to hounds) bullied, whipped, and spurred, all in vain, and he had to go home without jumping a straw. Two further efforts the following week were attended with precisely similar results, and, coming home on the last of these occasions, the disgusted rider offered him to me for ten pounds. However, he was persuaded to keep him, and give him a rest. Later on in the same season he came out without a trace of fear about him, and fenced as well as ever.

In a long day with hounds, always get your horse a little something—a pail of oatmeal gruel with the chill taken off, a bit of hay, or even a piece of bread—to stay the stomach, which, in proportion to his size, is very small, and requires constant replenishing. This will save many an attack of indigestion, and often prevent a horse from getting off his feed when he comes home. When his day's work is done, warm gruel, and hot bran, or bran and linseed mashes, will be found very comforting, given *before* his ordinary corn. Don't suffer him to be washed, but merely well dry-brushed over, and the flannel bandages put on all round; then shut him up, and leave him to take his rest.

One word, in conclusion, about the girths. They should not be too tight. If a breastplate is worn, that will be found sufficient to keep the saddle in its place with girths moderately tightly buckled; and when you have had a sharp gallop, it will be time enough to take up that "one hole tighter" which would seriously inconvenience your horse at the start.



CHAPTER VII.

SADDLERY AND HARNESS.

Importance of having Good Accoutrements—Choosing a Saddle—Saddle-cloths—How to Treat a Sore Back—Small Knee-Rolls Recommended—When to Use the Plain Snaffle—The Short Hunting Curb and Bitoon—Pelhams—Gag-bits—Breastplates—The Martingale, Rings on the Reins, &c.—Girths—Ladies' Saddles—Safety Stirrup Irons—The "Lady's Bridle": an Atrocity—The Lady's Modern Bridle—The Bit—Bridles without Blinkers—Bearing-reins—The Collar—The Throat-lash—Loin-cloths—A Word of Caution.

SO much of your horse's comfort depends upon his accoutrements, that too much care can hardly be exercised in their choice and fit. A few minutes' pulling in a badly-fitting collar will cause a wring, the effects of which will last for months; and many a horse has been irritated into bolting by means of a bit improperly adjusted. In choosing a saddle, have it placed properly on the back, and girthed; it is only by so doing, and then putting yourself into it, that you can see where it does *not* fit. Do not have it too close down on the withers; if it is, it will inevitably gall, sooner or later—most probably the former. A little extra stuffing will make a great deal of difference in the balance and adjustment of a saddle, and occasionally it may be useful to take a little of it out. As a general rule, saddle-cloths are not desirable; they make the back hot, and, of course, induce a great deal of perspiration unnecessarily, and this causes galling. The saddle-cloth provided by Nature—*i.e.*, the coat itself, cut to a saddle mark, is far preferable in the hunter, or horse used exclusively for hacking purposes. If any saddle-

cloth is used, then let it be a leather one—very much better, and less liable to cause mischief, than any other. In the event of a sore back, where it is absolutely necessary to use a horse, as, for instance, where he is to run in a race, the most effective thing to do is to rub the bad place liberally with pure hog's lard, then do the same to a linen cloth, and place it on the affected part, with the saddle on top. In this way, very little, if any, pain is caused to the poor beast during the short time he is wanted. Get the saddle off again as soon as may be, and gently bathe the affected part with warm water.

For the rider's comfort, I strongly recommend small knee-rolls, in preference to the plain-flap saddles. With the latter, the knees of a weak rider are apt to slip over on to the horse's shoulders in the event of any unwatched exertion, such as jumping, for instance. On the other hand, plain flaps undoubtedly look better, and set off the animal's shoulder to a greater advantage.

If a horse's mouth is sufficiently tender, by all means ride him in a plain snaffle. It is an immense advantage to him to have the free use of his head, unrestrained by a curb, and you will benefit, first, by having two reins instead of four in your hand, and, secondly, if you are hunting, &c., by knowing that, however bad Nature made your hands, you cannot very well pull your horse into his fences, or incommode him in going over them by "hanging on to his head." This reminds one of the story of the man with a refusing horse, which he was holding tightly by the head. "Give 'im 'is 'ed, gov'nor; give 'im 'is 'ed!" yelled an excited onlooker. "Yes, I dessay," contemptuously replied the rider, "and if I was to give 'im 'is 'ed, what am I to 'old on by?"

The next best bit to a plain snaffle is the short hunting curb and bridoon; whilst strong enough to hold almost anything, it is yet, properly manipulated, one of the easiest bits in the world. All such abominations as extra long shanked curbs, very high ports, &c., should be unhesitatingly rejected. They will spoil any horse's mouth, or, if that has been already done, make it worse than it was before. A very useful bit, especially for "bolters," is a sharply-twisted snaffle, with double reins, the lower run through a martingale. If you cannot stop a horse with this, the sooner he is sold the better for his owner and the insurance office! Pelhams are very well for light-mouthed animals, but, somehow or other, a

horse always gets to lean on the hand in them. For a puller they are a great mistake. Never have a curb-chain too tight; there is nothing so calculated to upset a horse's temper as this, and small blame to him for it.

For gag-bits of any kind I have no fancy whatever. Beyond crumpling up the corners of the mouth, and causing an immense amount of irritation to the temper, they have very small effect, and I never knew a puller stopped by one yet. The principle of the thing seems all wrong, and the pull does not come from the right place, the bearing being from the top of the head. A net or band of leather over the lower part of the nose is much more effective for hard-mouthed horses, as it keeps the mouth closed, whilst the pull is thus rendered of far more use. Care should be taken, however, with this nose-band attaching to the bit, that the latter does not cut the sides of the lips.

Breastplates should be worn in every long day with hounds, &c., or where any great amount of galloping is done. With one of these, the girths need not be so tightly buckled, and it effectually keeps a saddle in its place.

For a horse that throws its head about, a martingale must be resorted to. (N.B.—I say this with a certain amount of warmth, as only recently, a four-year-old on whom I had forgotten to place this useful appliance, threw its head up, jumping a fence, and loosened two of my front teeth!) Rings on the reins, sliding about just behind the jaw, are just as effective as, and may be used instead of, the martingale; in leaping they are to be preferred, as a martingale has been known to materially assist in pulling a horse into his fences. The rings not being fastened down to anything, go with the motion of the head, and therefore cannot cause harm in this way.

Girths made of webbing—white, blue, or brown—are ordinarily used, but I never rode with anything I liked better than those of raw hide, made in five or six small strands. "Don't you find they wring a horse?" is a question that has been addressed to me a hundred times at least; and my answer is, that I have used them constantly for twelve years, and, perhaps, on fifty different horses, and never wrung one yet. They are easy to clean. All you have to do is to put them into a pail of water to get the mud off, and then wipe them dry. They wear for ever (I have used

one pair for over ten years), and, from their being in open strands, horses naturally do not get nearly so hot underneath them as they do with the ordinary webbing. One more important thing I must mention with regard to raw-hide girths. I never heard of one breaking under any strain whatever; and how many "good men and true," I wonder, have I seen at different times measuring their length on the green sward through the bursting of their webbing girths?

As to ladies' saddles, first, they should always be made by an artist. You may pay a little more for them at the time of purchase, but, believe me, it is cheaper to do so in the end. Ladies should always be measured for their saddles, unless they wish to ride in positive misery. The right-hand flap should always be absolutely plain—pockets, buckles, quilting, and "fal lals" generally, being rigidly dispensed with. The adjustment of the third pommel should be an affair of the greatest nicety; on this the rider's comfort mainly depends.

I cannot too strongly impress upon "the superior part of creation" the necessity for using a safety stirrup-iron—*i.e.*, one that, in the event of an upset, releases the rider's foot, and averts the horrible process of "dragging." I have been at great pains to examine the different inventions now in use for this purpose, and have come to the conclusion that one stands out as pre-eminently the best and most sensible. In this particular iron, the place where the foot rests is made on a kind of swivel, so that, as the rider falls, the inner iron turns over, and not one little part only, as in most of these devices, but the whole, opens naturally by being turned upside down. There are absolutely no springs at all, and nothing that can possibly get out of order—nothing that can possibly hold the foot. Did I know the maker's name I would give it, and chance my readers suspecting me of puffing.

Ten or fifteen years ago it was customary for the fair sex to ride with an atrocity called a "lady's bridle." This apparatus was "fearfully and wonderfully made," with rounded leather everywhere except just the hand pieces of the reins, which were flat. The throat-lash was the most awful piece of machinery, however, of the whole, and consisted of this same rounded leather, *fastened with a leather tassel!* There was also a sort of leather fly-catcher, for the purpose, apparently, of irritating the horse's nose. Thank goodness, all

such toy-shop gew-gaws have practically disappeared, and though one occasionally gets a shock by the sight of such a thing adorning an effete mustang out of a livery stable, I do not think any private person who values her reputation would care to go out with one, nowadays, except under cover of the darkness!

The lady's modern bridle is in all respects the same as a man's, except in point of lightness. Few ladies are powerful enough to use a snaffle, and the short hunting curb is the best all-round bit that has yet been invented. It is difficult to advise as to whether ladies should have a severe bit or not. I would rather suggest their having a bit capable of being severe in case of a bolt, &c. It is horrible to think of the consequences to a fragile woman bolted with in a crowded thoroughfare, and still worse would it be out hunting, with some maddened brute recklessly rushing at a stiff timber leap. At the same time, we must bear in mind that many a horse is worried into this same bolting simply on account of a severe bit. If the hands are light and gentle, then the bit may be a "stiff" one, taking care, of course, that the curb chain is not too tight. When such an instrument is used, it should never be handled in a jerky fashion, or the horse is as likely as not to stop, and go straight up with you, finding he cannot face it. A young steeplechase-horse I have lately been riding is a fine example of this. His *modus operandi* is as follows: He tries to bolt directly you are safely ensconced on his back; when you succeed in persuading him, by the bit, that this is not feasible, up he goes in the air as straight as a line, and it is usually level money betting as to whether he comes down again the usual way, or lands on his back instead. With luck, this charming animal should do yeoman's service to the local undertaker. I would sum up the subject by saying to my fair readers: "Use a bit that you know you can hold a horse in with if he bolts, but use it most judiciously."

In harness there is not much scope for suggestions, and we have had very few material changes in it of modern years. It should be light and strong, and after it has seen much service should be constantly tested. The leather, especially of the traces, perishes very quickly, and nothing can be much more awkward than a breakdown in this essential part of the equipment. Some people are adopting the bridle

without blinkers, and though it naturally looks strange, I think it has common-sense on its side, and will eventually prevail. If it is not needful for saddle work, why on earth is it for harness? Many of the heavy carriers and omnibus horses now run without the "blinds," and that in itself is a recommendation of the innovation.

I think I have abused bearing-reins elsewhere in this book, so I will merely say, in passing, that their only excuse is, that, in double harness, they keep the horses' heads at the same level; even here they should be very loose—the bearing reins, not the heads, I mean—and for single harness they should be entirely eschewed. They deaden the mouth, and, if a horse makes a blunder, you do not stand half the chance you would without one, of picking him up and saving the fall.

The most important part of a harness, whether single or double, is the collar. Innumerable troubles come from these being more or less ill-fitting. A wring is so quickly caused, and so slow are its effects in disappearing, that we should not grudge time and care in getting a collar that is neither too large nor too small; one is as bad as the other.

A throat-lash, nine times out of ten, is buckled much too tightly. No object can be served by doing this, and the amount of discomfort inflicted on the horse is not by any means slight. The same remarks apply also, in every respect, to curb chains, in or out of harness. The best bits used are those made to slide in every joint, with a rough and smooth side, so that either can be used that is thought most fit. If possible—*i.e.*, if your horse is not too hard-mouthed—have the reins buckled on to the cheek, and not to either of the lower bars, as animals all go far more comfortably like this. If you have a very hard puller, an excellent plan is to use reins with bits of leather sewn at intervals across the hand-pieces; these give a tremendous grip, and prevent the reins slipping through your fingers.

Loin-cloths are good things for horses that have to stand about much in bad weather, as doctors' animals, for instance. I should only recommend their use for rain, however, as, if the weather is merely cold, the animal can be kept walking about, and the real danger to guard against is not cold, but wet across the loins.

In concluding these brief remarks upon the subject of harness,

I would offer a parting word of caution. Never drive with a pair of reins in the least degree under suspicion; better that any part of the harness should break than one of these. The consequences would probably be far less serious if even a trace "went" at an awkward moment.



CHAPTER VIII.

FEEDING.

Importance of Good Feeding—The Coat an Indicator of How Horses have been Fed—Exceptions to the General Rule—Keeping the Stomach from getting Empty—The Quality of Food—Preparing Food—A Week's Keep for a Hard-working Horse—Varied Diet the Best—Feeding Hunters—Bran-mashes and Carrot-mashes—Water—Warm Drinks—Maize—Care needed in the Feeding and Treatment of Broken-winded Horses—Advantages and Disadvantages of Moss Litter—Treatment for Horses Overfeeding themselves.

THERE can, obviously, be few more important questions in the matter of horse management than that of feeding. "It's better to pay a butcher's than a doctor's bill," exclaims the father of a healthy family; and no less reasonable is it for the owner of horses to prefer paying the corn-chandler than the veterinary surgeon. A horse fed by the average costermonger for a couple of months, and then put into a good stable, and on full rations of old oats, for the following two months, would be hardly recognisable at the end of the latter period.

As may readily be imagined, the coat is the first indication of the kind of feeding an animal is treated to, and no contrast can be more marked than that we see between the harsh, wiry, staring hair of the ill-cared for and poorly-fed horse, and the sleek, glossy coat of his more fortunate brother. Every rule has its exception, and although, nine times out of ten, a bad coat means bad feeding, I recollect once owning a young mare, quite thoroughbred, whose coat was a positive disgrace, in spite of every food invented by

the ingenuity of man being tried on her. I tried all sorts of things for a very long time, but when a friend of mine, after looking fixedly at her for some minutes, solemnly ejaculated, "Well, I would not be seen at a dog-fight with her," I thought it was time we parted. Regularity in the times of feeding goes for much, and due regard should always be paid to it when possible. With horses used in certain businesses, and with hunters, this, of course, is not always feasible, on account of the hours they have to be away from their stables. It is an important matter not to let the stomach get too empty, as flatulence and weakening of the digestive organs almost invariably follow. A very little is sufficient to prevent mischief occurring, and one of the handiest things I know of to give, in the absence of hay or corn, is a small loaf. In many cases, however, it is absolutely essential to the horse's well-being that he should be stabled every few hours, as comparatively few will relieve themselves out of doors, except, perhaps, when standing on grass, bracken, &c., and the most serious troubles may come from this.

In the matter of the quality of food, one can hardly be too particular. Corn-dealers are but human, and if they see that the horse-owner does not object to dusty oats, of inferior weight, and hay whose sweetness is not distinctly apparent, they will be apt to work off such stuff on the customer who does not complain. As to the former article, there are few things more calculated to injure the wind of a sound horse, or aggravate the mischief in one whose "bellows" are already in want of "mending." All corn, before being given to a horse, should be scrupulously shaken in the sieve, and cleansed, as far as possible, from dusty particles. As to hay, one's olfactory organs are quite sufficient to detect anything wrong here, and the least scent of a damp or mildewy nature should insure immediate rejection on the part of him who values his horse. Bran, also, which has once got damp, is practically useless.

Roughly speaking, two bushels of oats and one peck of white peas, or split beans, together with four bushels of short-cut chaff, and half to a whole truss of hay, is ample for a week's keep of a big, moderately hard-working horse. I take the precaution of saying "roughly speaking," because each horse's individual appetite must be studied, and more or less food given accordingly. Again, when doing extra hard work,

a few more peas or beans may advantageously be given. As a result of close experience of a considerable number of horses, I have come to the conclusion that most of them do best on a diet which is occasionally varied. For instance, when spring comes, the hay, or part thereof, may be withdrawn, and its place taken by green meat, such as tares, vetches, &c. Then less chaff or less corn may be used, and the deficiency made up with roots, carrots and parsnips being the best, though good sweet mangolds are by no means to be despised in this category. In dealing with hunters, however, I would recommend that neither these things, nor green food, should be given until the season is over; but they are a splendid and natural alterative in the spring, and infinitely to be preferred to the administering of drugs in any shape.

Bran-mashes should be given regularly once or twice a week, and always hot in the winter. If the coat is rough, or at all harsh, and inclined to dryness, nothing is so likely to do good as linseed, either made into a hot mash, or given as a demulcent drink, tepid. A carrot-mash is also a most useful thing for such cases, and, when a horse is "done up" by a long day's work, a couple of double handfuls of oatmeal in hot water, cold being added afterwards, may often tempt him back to appetite and comfort.

As regards drinking, I am a strong advocate for letting a horse take as much as he feels inclined to. Depend upon it, he will not take more than is good for him; only do not let the water be too cold. Nature teaches him to prefer the muddy stream to the clearest and brightest of hard water, and we cannot do better than profit by the hint. Water should always be allowed to stand for some time exposed to the air, and if in the winter, should remain in the stable or harness-room an hour or two before drinking. Colic so frequently attends in the wake of taking cold, hard water, that one cannot exercise too much care. Warm drinks, consisting of oatmeal, linseed, or flour gruel, as already indicated, are invaluable in cases of exhaustion, &c.

For horses of slow draught, maize is a good food, though I should, without hesitation, discard it for any others, such as hunters, carriage-horses, &c. It is, certainly, a flesh-making corn, though I doubt whether it would be as efficacious in picking up an animal in poor condition as either white peas or beans.

With broken-winded horses, or those afflicted with roaring (a very different thing, by the way), an extra careful method of feeding should be adopted. With such care, these invalids last an amazing long time, and do a lot of genuine work. Many I have come in contact with, both for field and road purposes were capable, properly fed, and judiciously and humanely handled, of great things in the way of exertion. In proof of this, I may mention the example of Woodbrook, a roarer, who, with a substantial weight on his back, won the Grand National Steeplechase, over four and three-quarter miles of the stiffest jumping course in England. The leading principle in dietary for this class of animal is that all dryness should be avoided. Aim at having everything scrupulously free from dust, and damp all that is capable of being damped. Green food, and especially watercress, where obtainable, roots, wet bran, and "kibbled" oats, are the most suitable food. Hay and chaff should be used very sparingly, if at all, and always damped. Care should be taken to prevent them eating the litter, either by the use of the setting-muzzle, where straw is the bedding, or by substituting moss litter or sawdust for straw. As to the moss litter, I never fancy a stable where it is used, and the horses always look more or less dirty. At the same time horses will not eat it, it distinctly improves bad feet, keeping them much cooler than wheat straw, and, where there is any thrush, it purifies and deodorises. I have found, from practical experience, that it is a very cold bed to give a horse in winter. On the whole, I prefer it to sawdust, though nothing looks so neat and clean as straw.

Perhaps in a chapter devoted to the subject of feeding, a word or two may not be out of place as to what should be done with an animal which has been taking the matter into his own hands, and overfeeding himself, through breaking loose and getting at the corn-bin. There can be no doubt but that a horse sometimes suffers very severely from overgorging himself. I walked into my stable late one night, and found one in serious trouble. He was standing in his box, blowing hard, his head held down, and his stomach painfully distended. On placing the hand upon the latter organ, it proved to be hard as iron, and the action of the heart was materially increased. In a case like this I thought it expedient not to move him, and straightway set to work

hand-rubbing the stomach. After a few minutes of this treatment eructations came freely, to his obvious relief. I continued the rubbing for some considerable time, and at the end of an hour he was in a fit state to be gently moved round the stable-yard. All liquid should be strictly kept from a horse in this state, as its tendency is to swell the grain in the inside. When I left my patient there was no need to put on the setting-muzzle; the poor beast was not at all likely to eat his litter, or, indeed, anything else, for a good many hours. When I saw him in the morning he was dull and heavy-eyed, but no longer suffering from the wind spasms of the previous night. Very gentle usage, and the substitution of warm mashes for corn during the next two days, completely restored him to health. If a horse does not seem to entirely recover within a short time of the over-gorging, a mild purgative had best be resorted to, though this is rarely needful.



CHAPTER IX.

BREEDING.

Reason why Treated of in this Work—Objection Urged Against Breeding Horses—Best Months for Foaling Horses for General Purposes—Advantages of Sunny, Genial Weather to Foals—Treatment for Constipation and Diarrhœa—Feeding—Weaning—Treatment of Mare after Weaning—Handling Foals—When to Commence Working Foals—“Backing”—Exercising, Breaking, and Training the Colt—Kindness the Royal Road to Success—Suggestions as to How Army Remounts should be Supplied—Selection of a Stallion—Suitable Mares to Breed from.

IT may be thought hardly in consonance with the general tenour of this book to even remotely touch upon the subject of breeding; but a few words to the man who has a suitable place to bring up a foal in, and likes to try the experiment, may not be unwelcome. Plenty of people who keep a mare or two might as well have a foal in the spring as not, and it is really surprising what very little use one loses of the dam during her time of pregnancy. Steady work, I venture to assert, is much better for the mare than standing idle, and there is no objection whatever to her being kept at it till within a short time of her foaling. One of the great objections always urged against breeding horses, is the time one has to wait for the return of one's capital; but it is not necessary to attempt to meet that assertion here, as, in the cases to which I am now intending these remarks to apply, hardly any expenditure of capital is requisite. Granted that you have a suitable mare, and that you can command the services of a well-bred and sound stallion, somewhere close at

hand, at a reasonable fee, very little outlay, beyond that actually required for the keep of the foal, is wanted. A good paddock, and hovel for shelter in bad weather, is really all the stock-in-trade needful for embarking on the enterprise. March, April, and May are the best months for foaling, except for racehorses, whose birth dates from the 1st of January in each year, and who, therefore, get a great advantage over their compeers by a few weeks' superiority in age. With these I am, of course, not dealing; and, for all other classes of horse, the later months are far preferable, both on account of avoiding the inclement weather, and also for the fact that the mare cannot be expected to secrete so much milk as when feeding on the green herbage of the spring. Nothing so frequently causes a young thing to run to weediness, and checks its growth, as either an insufficient supply, or an improper quality of food. Next to food, I would place sun, unhesitatingly, as the most desirable factor in the foal's well-doing. Anyone who has watched a youngster's progress during a couple of weeks of sunny, genial weather, will bear me out in this saying. Assistance (veterinary if possible) should be at hand when the time for foaling approaches; but after this has been satisfactorily accomplished, all unnecessary intrusion should be carefully avoided. Watch if the foal is constipated (a frequent occurrence); in such case an injection, and gently laxative food given to the mare, will generally put all straight. If, on the other hand, it should suffer from relaxation of the bowels, a quatern of bruised barley given daily to the mare will probably remedy the evil. Should the diarrhœa, however, proceed from some acidity in the foal's stomach, half a drachm of carbonate of soda, given in a warm mash, twice or three times a day, is an excellent remedy.

At a very early age the foal will begin to eat corn, and care should be taken to see that it gets its fair portion, as the dam is apt to monopolise "the lion's share," especially as the youngster gets older. The sooner they take to corn, the better for their ultimate health and strength. When the mare's milk gives indications of failing in quantity, corn and linseed should be given liberally, to stimulate the supply; as soon, however, as the milk gets poor and scanty, the weaning process should take place; and, in all delicate mares, suckling should not continue any length of time. August and

September are favourable times, as a general rule, for effecting the separation. If two or more foals are placed together for company or convenience' sake, they should be closely watched, to see that one does not obtain the mastery over the other, and drive it from the corn at feeding-time, hunt it about, &c. Should this take place, it will be far better to separate them at once.

Dry food should be given to the mare until the secretion of milk has entirely subsided, and, if necessary—*i.e.*, if the vessels appear to be distended—a small quantity of the milk should be drawn off every day.

Young horses can hardly be handled too early. When I say handled, I mean "gentled," caressed, made accustomed to the presence of man, led about by a rein and head-collar, and, above all, inspired with unbounded confidence in him. Once let this confidence suffer any serious shock, and the work of the past is all undone, and will have to be commenced *de novo*. No actual work should be done with the colt till he is well past his two-year-old birthday, and then the work should be of the very lightest description. Never be induced to put up a boy, on the one hand, or a heavy man on the other, to do the first "backing" of your colt or filly. Boys are ruinous, generally speaking, to the mouths of any horses, young or old, and heavy weights destructive to a youngster's action and shape. A man, if not more than 9st. in weight, patient, and blessed with fine hands, equable temper, and, of course, an undeniable seat, should be selected for the purpose, and an incredibly short space of time will be sufficient to accomplish the task of teaching the young one his preliminary lessons. Horses are always quick enough at learning; and it should always be borne in mind how retentive are their memories, both for good and evil—perhaps for the latter especially. The breaker should never fall into the common error of making his lessons too long. In addition to the leading about, backing, &c., the colt should be allowed to take as much exercise as it feels inclined for, if the weather be favourable, and—a most important point for the animal's growth and well-being—encouraged to eat corn as much as possible. If you intend making a hunter of him, exercise him on a field of inequalities—such as ridge and furrow, for instance. In fact, for whatever purpose intended, I always think the colt's

action is considerably better where the exercise-ground is thus constituted than where it is perfectly flat: the latter induces a "dishing," daisy-cutting way of putting the fore legs down, which is suitable to no place but the race-course, and not then when the course is at all up and down hill. When a horse is taken into a hunting country where ridge and furrow abounds, it is simply astonishing how helpless he is, called upon to suddenly shorten his stride every few feet, and to collect himself for his jumps from off the unequal ground, if he has been accustomed only to gallop on perfectly flat fields. A man I knew some years ago, used to always have two or three young horses about his place, bred by himself, which he invariably sold to the hunting men about the neighbourhood when the animals were four years old. His system of training them was unique: they were handled almost as soon as they were born, caressed, and made familiar with man in every way, so that by the time they were three years of age, and the backing process was to commence, they usually walked away with the unaccustomed burden as though they thought absolutely nothing of it. As may well be imagined, youngsters broken in this way rarely gave any trouble at all. In their earliest days of running about the paddocks their owner had a capital plan for teaching them the rudiments of jumping: in front of the shed, where they ran for shelter in bad weather, and in which they were daily fed, he would dig a shallow ditch. Into this they solemnly walked, and out again the other side. After a time they found it was a more expeditious method to trot up and jump it, whereupon it was made a little wider, and a small bank put up on one side of it. When this had been safely accomplished—often with a scramble and a hoist of the hind quarters, in sheer exuberance of spirits—a gorse fence, 2ft. high, was placed in front of the ditch, and gradually increased in height, but never made too big; and by the time they were old enough to be ridden gently with hounds, they had no aversion to trying their jumps with a man on their backs, and, moreover, had a very good notion as to how those jumps should be accomplished. In all the phases of handling young horses, it is impossible for too much care and patience to be exercised. Kindness is the only royal road to success; once let them get frightened of their teacher, and it will take months to eradicate the ill effects. Let a young one do all his first jumps at a walk,

then trot him up to them, and finally let him have them at a slow gallop.

There are one or two suggestions now being made as to how our army remounts should be supplied. One is that the Government should increase its grant to £50 per head; and an alternative proposal is that horses wanted for this purpose should be bought up at two years of age, and then allowed to run loose until they are four. Were the latter scheme acted upon, great risk would be run, in the fact that the young ones might very likely injure each other, herded together as they would undoubtedly be, and, by reason of loss from this cause, the survivors might prove rather an expensive purchase. At two years of age, too, it would be rather a hard task to give a guess as to whether they would eventually prove quite the stamp for the work for which they would be required. The other idea, that of increasing the price, would seem more feasible, although, of course, that would mean an increase in taxation such as any Government would be chary of accepting. Depressed agriculture, however, would undoubtedly benefit; and it does seem hard, that in these bad times for our farmers, so much money should be flowing out of the country into foreign coffers to pay for an inferior class of horse. At the present price, our farmers, who have to pay so heavily for their land, cannot afford to breed good animals fit for the purpose; but were that price slightly raised, I have little doubt but that, in a very few years time, we should be on a far more satisfactory footing in our army than the state of the present "paper" cavalry regiments gives us indications of.

In the selection of a stallion, it is as well to bear in mind that a foal, in most cases, bears far more outward resemblance to its sire than to its dam. In disposition the rule is generally reversed. Of the many defects which experience has shown to be hereditary, none is more strikingly so than temper. A strange example of this occurred in a horse I once owned, whose temper was sweetness itself until approaching the conclusion of her four-year old season, when, without any apparent reason, she turned a perfect savage. She had been always under my own eye, never ridden by anyone else, and none but a steady, experienced man had had anything to do with looking after her, so I know she had never been teased. &c. This mare's sire was one of the worst-tempered brutes

at the stud, and I can only conclude that this was a development of the "family failing." Anyhow, it got so bad as to render her practically useless, and I sold her for a song. Suspicious eyes, wind, and badly-formed feet are also, notoriously, things which are often transmitted to the progeny.

Many men seem to consider themselves hardly done by if, after putting an unsuitable sire to a worn-out mare, the result is a failure. Only sound, roomy, and comparatively fresh mares should be bred from; and for any class of light work, choose a thoroughbred sire. I am not prejudiced as to colour, but consider, on the whole, that the young stock is more likely to be hardy if a good Yorkshire brown or a bright bay, with well-defined black points, be chosen, than is the case with greys, chestnuts, &c. Necessarily, this short chapter is but the merest glossary of such a subject as breeding, and I have simply endeavoured to give the amateur horse-owner a few rough hints as to the main things needful in trying the experiment of raising a foal or two for himself. Much of the success or non-success attendant upon such an undertaking will, of course, depend upon the care and attention devoted to it; but, I may add, that it is by no means a task of stupendous difficulty, and that, in my own experience, I have known foals bred and reared successfully under most disadvantageous circumstances, and where very little time and attention have been given to the business. It goes without saying, that where that time and attention are given, the result is, and always must be, infinitely more satisfactory.

INDEX.

THE PRACTICAL HORSE-KEEPER.

By GEORGE FLEMING, C.B., LL.D., F.R.C.V.S.

Late Principal Veterinary Surgeon to the British Army, and Ex-President
of the Royal College of Veterinary Surgeons.

In cloth, price 3s. 6d., by post 3s. 10d.

DISEASES OF HORSES:

Their Causes, Symptoms, and Treatment. For the use of Amateurs.

By HUGH DALZIEL.

In paper, price 1s., by post 1s. 2d.; cloth 2s., by
post 2s. 3d.

L. UPCOTT GILL, 170, STRAND, LONDON, W.C.

INDEX.

A.

- Abscesses, 17
- Accidents caused by spurs, 19
 - Common, and their treatment, 13
- Accoutrements, importance of having good, 47
- Action of finished horseman, 40
 - Of horseman with courage, but no discretion, 40
 - Of steeplechase jockey in taking a jump, 44
- Ailments, common, and their treatment, 20
 - Of the feet, 29
- Army remounts, suggestions as to supplying, 63

B.

- Back sinews, enlargement of, 17
 - Sinews, indications of straining of, 3
 - Sinews, strains of the, 16
- "Bad doers," 8
- Bandages, 9
- Beans, 7
- Bearing-reins, 32, 52
- Bit for "bolters," 43
- Biting, 11
- Bits, best, 52
- "Bitting," 39
- Bladder, inflammation of the, 26
- Blowing over corn, 8

- Bolting, 36
 - Steeplechase horse, a, 51
- Bony enlargements of leg, searching for, 3
- Boot to prevent cutting, 14, 15
- Bran-mashes, 7, 56
- Breastplates, 46, 49
- Breeding, 59
 - Horses, objection urged against, 59
 - Small outlay required for, 59
 - Stock-in-trade needful for, 60
- Bridle, lady's modern, 51
 - The lady's, 50
 - Without blinkers, 51
- Broken knees, 13
 - Wind, 23
- Broken-winded horses, feeding, 57
- Buck-jumping, 36
- Buying, a few hints on, 1
 - A horse, advantages of the newspaper press in, 2
 - A horse, difficulty of, 1
 - A horse, necessary trial before, 2
 - A horse, points to be sought when, 3
 - A horse, should veterinary assistance be dispensed with in, 2

C.

- Carrot-mashes, 56
- Carrots, 8

Catarrh, 20
 Chaff, 8
 Charlier shoe, advantages of, 10
 Shoe, fixing, 10
 Chifney bit, the, 36
 Choosing sire of horse required for
 light work, 64
 Chronic cough, 22
 Rheumatism, 28
 Clipping, 9
 Clothing, 9
 Coat an indicator of how horses
 have been fed, 54
 Cold, 20
 Colds, causes of, 20
 Collars, evils of ill-fitting, 52
 Collar, the, 52
 Colour non-essential when buying,
 2
 Colours recommended for breeding
 from, 64
 Colt, exercise for, 61
 Food for, 61
 Importance of exercise ground
 for, having unequal surface,
 62
 Common accidents and their treat-
 ment, 13
 Ailments and their treatment,
 20
 Congestion of the brain, 23
 Corn, cleansing, 55
 Corns, 30
 Costiveness, 25
 Cough, chronic, 22
 Courage and coolness, 33, 40
 Proportioned by the thermo-
 meter, 40
 Cracked heels, 27
 Crib-biting, 11
 Curb and bridoon, short hunting,
 48
 Cutting, 14
 Boot to prevent, 14, 15
 Causes of, 14
 Speedy, 15

D.

Diabetes, 26
 Diarrhœa, 25

Diet, varied, 56
 Difficulty in passing urine, 26
 Diseases, 20
 Dislocations, 17
 Docility necessary in a harness
 horse, 4
 Drainage of stable, 7
 Drive, how *not* to, 31
 Driving a pair, 32
 Single, 31

E.

Earliness on road, advantages of,
 34
 Eating the litter, 11
 Empty stomachs, preventing horses
 getting, 55
 Examining the fore legs, 2
 The legs, 3
 Exercise ground for colt, 61

F.

Fallacy of "breaking the neck" of
 a journey, 33
 Falling, 18
 Falls, 39
 When riding to hounds, 43
 Feeding, 7, 54
 And treatment of horses ridden
 to hounds, 46
 Importance of good, 54
 Times, 8
 Feet, ailments of the, 29
 Evil effects of stopping the, 10
 Fever in the, 29
 Treatment of the, 9
 Washing the, 12
 Fever in the feet, 29
 Field, in the, 38
 Finished horseman, action of, 40
 Firing, 17, 30
 Foal, feeding, 60
 Treatment of bowels of, 60
 Foaling, best months for, 60
 Veterinary assistance needed
 for, 60
 Foals, separating quarrelsome, 61

Food, quality of, 55
 Quantity of, 7
 Foot in stirrup, placing, 39
 Fore legs, examining the, 2
 Fractures, 17
 Frog, examining the, 3

G.

Gag-bits, 49
 Galls, 17
 Girths, 46
 Cleaning, 49
 Of webbing, 49
 Raw-hide, 49
 Gnawing the halter, 12
 Green meat, 8

H.

Halter, gnawing the, 12
 Handling, delicate, when riding to hounds, 39
 Hands, manipulation of, 33
 "Hard funkler," the, 41
 Harness and saddlery, 47
 Horses, bad faults in, 4
 Horses, feeling the mouths of, when buying, 5
 Importance of testing constantly, 52
 Haste in driving, ill effects of, 33
 Hay, 7
 Head collar, slipping the, 12
 Holding the, 32
 Heat, effect on horses of, 34
 Heels cracked, 27
 Examining the, 3
 Hereditary defects, 63
 Hip joint, strains of the, 16
 Horse-dealing a temptation to roguery, 1
 Hounds, practice with, 43
 Riding to, 43
 Hunters, feeding, 56
 Hurry at starting condemned, 32, 33

I.

Indecision when riding, evil of, 41

Individual mouths, 39
 Inflammation of the bladder, 26
 In the field, 38

J.

Jem Hills and the Undergrads, 40
 Jibbing, 34
 Journey, treatment of horse on, 34
 Jump, action for taking a, 45
 Training horses to, 42
 Jumping, trying intended purchase in, 4

K.

Keep, a week's, 55
 Kickers in harness, 33
 Kicking, 11
 In saddle, 36
 Strap, fixing the, 33
 The stall, 12
 Kindness the royal road to success in training young horses, 62
 Knee-rolls v. plain flap saddles, 48
 Knees, broken, 13
 Knightley, Sir Charles, patience and kindness of, 43

L.

Ladies' saddles, 50
 "Lady's bridle," the, 50
 Modern bridle, 51
 Lameness, 18
 Lampas, 22
 Leaping, throwing up the right hand in air when, 44
 Legs, examining the, 3
 Swelled, 29
 Lice in the tail, 23
 Linseed, 56
 Litter, 11
 Eating the, 11
 Moss, 57
 Loin-cloths, 52
 Loose boxes v. stalls, 7
 Lying down, 35

M.

- Maize, 8, 56
 Successfully used by the
 London General Omnibus
 Company, 8
 Management, stable, 6
 Manger and fittings, 10
 Mares to breed from, 64
 Mare, treatment after weaning of,
 61
 Markham's, Gervase, quaint de-
 scription of strangles, 21
 Martingale, 49
 Medicine chest. why not advisable
 to keep, 30
 Megrims, 23
 Cause of, 23
 Milk of mare, stimulating the
 supply of, 60
 Moss litter, 57
 Mouth, feel of the, 2

N.

- Night-time best for horses to
 travel, 34

O.

- Oatmeal, 56
 Oats, 7
 Evils caused by dusty, 55
 Oblique pastern, importance of, in
 horse for saddle work, 4
 Old Hills riding to hounds, 37
 Overfed horse, treatment of an, 57
 Over-reach, 17

P.

- Pair, driving a, 32
 Patience and kindness essential
 when training to jump, 43
 Paving the stable, 10
 Pelhams, 48
 Perseverance *v.* speed, 42
 Plain flap saddles *v.* knee rolls, 47
 Snaffle, the, 48

- Practice with hounds, 43
 Prejudices of stablemen, 6
 Profuse staling, 26

Q

- Quittor, 19

R.

- Rack, advantages of a low, 10
 Rearing, 35
 Regularity in feeding, importance
 of, 55
 Reins, holding, 32
 The, 52, 53
 Rheumatism, chronic, 28
 Riding to hounds, 43
 To hounds, advice as to, 43
 To hounds, falls when, 43
 Rings on the reins, 49
 Road, on the, 31
 Vices on the, 34
 Roarers, feeding, 57
 Roaring, 23
 Roguery, horse-dealing a tempta-
 tion to, 1
 Running up to the bit, 32

S.

- Saddle, choosing a, 47
 Kicking in, 36
 Saddle-cloths, 47
 Saddlery and harness, 47
 Saddles, ladies', 50
 Safety stirrup irons, 50
 Sand crack, 30
 Seat required for crossing country
 38
 Selection of a stallion, 63
 Shoes, 10
 Shoe, the Charlier, 10
 Short-hunting curb and bridoon,
 48
 Shoulder, 4
 Strains of the, 15
 Shying, 35
 Cause of, 35
 Singeing, 9

Single, driving, 31
 Slipping the head collar, 12
 Speed *v.* perseverance, 42
 Speedy cutting, 15
 Splints, 28
 Searching for, 3
 Spurs, accidents caused by, 19
 Stable, drainage of, 7
 Management, 6
 Paving the, 10
 Temperature of, 7
 Tricks, 11
 Ventilation of, 7
 Stablemen, prejudices of, 6
 Stabling, importance of good, 6
 Often, importance of, 55
 Staggers, 24
 Prevention of, 24
 Staling, profuse, 26
 Stall, dimensions of, 10
 Kicking the, 12
 Stallion, selection of a, 63
 Stalls *v.* loose boxes, 7
 Staying the stomachs of horses
 ridden to hounds, 46
 Stifle joint, strains of the, 16
 Stirrup-irons, safety, 50
 Stopping the feet, evil effects
 of, 10
 "Straight" riding, 37
 Straining of back sinews, indica-
 tions of, 3
 Strains, 15
 Of the back sinew, 16
 Symptoms of, 15
 Strangles, 21
 Gervase Markham's quaint
 description of, 21
 Suggestions as to supplying Army
 remounts, 63
 Swelled legs, 29

T.

Tail, lice in the, 28
 Temperature of stable, 7
 Thorns, removal of, from hunters,
 18
 Throwing up the right hand in
 air when leaping, 44

Thrush, 29
 Tight throat-lashes and curb
 chains, discomfort of, 52
 Timber jumper, an expedient for
 making a, 45
 Traces, 51
 Training horses to jump, 42
 Young horses as hunters,
 unique system of, 62
 Treatment of an overfed horse,
 57
 Of the feet, 9
 Tricks, stable, 11
 Trying an intended purchase in
 jumping, 4
 Horse for harness purposes, 4

U.


Unsatisfactory feeders, 8, 54
 Urinary organs, diseases of the,
 26
 Urine, difficulty in passing, 26

V.

Vacillation when riding, Whyte
 Melville on, 41
 Ventilation of stable, 7
 Veterinary assistance in buying a
 horse, 2
 Vices on the road, 34

W.

Warm drinks, 56
 Washiness, 27
 Washing horse's legs after a
 journey, 10
 Out mouth when on journey,
 33
 The feet, 12
 Water, 8, 56
 Mistake in stinting supply of,
 8
 Temperature of, 9
 Weaning, 60
 Time for, 61

- Weaving, 12
Week's keep, a, 55
Whip, using the, 32
Whyte Melville, 39
 On vacillation when riding,
 41
Wind, broken, 23
Windgalls, 3
Wind-sucking, 11
Worms, 26
- Y
- Young horses as hunters, unique
 system of training, 62
Horses, "Backing," 61
Horses, care and patience in
 handling, 62
Horses, handling, 61
Horses, when to commence
 working, 61
- 

Catalogue of Practical Handbooks
Published by L. Upcott Gill, 170,
Strand, London, W.C.

ANGLER, BOOK OF THE ALL-ROUND. A Comprehensive Treatise on Angling in both Fresh and Salt Water. In Four Divisions, as named below. By JOHN BICKERDYKE. With over 220 Engravings. *In cloth, price 5s. 6d., by post 6s.* (A few copies of a LARGE PAPER EDITION, bound in Roxburghe, price 25s.)

Angling for Coarse Fish. Bottom Fishing, according to the Methods in use on the Thames, Trent, Norfolk Broads, and elsewhere. Illustrated. *In paper, price 1s., by post 1s. 2d.*

Angling for Pike. The most Approved Methods of Fishing for Pike or Jack. Profusely Illustrated. *In paper, price 1s., by post 1s. 2d.; cloth, 2s. (uncut), by post 2s. 3d.*

Angling for Game Fish. The Various Methods of Fishing for Salmon; Moorland, Chalk-stream, and Thames Trout; Grayling and Char. Well Illustrated. *In paper, price 1s. 6d., by post 1s. 9d.*

Angling in Salt Water. Sea Fishing with Rod and Line, from the Shore, Piers, Jetties, Rocks, and from Boats; together with Some Account of Hand-Lining. Over 50 Engravings. *In paper, price 1s., by post 1s. 2d.; cloth, 2s. (uncut), by post 2s. 3d.*

AQUARIA, BOOK OF. A Practical Guide to the Construction, Arrangement, and Management of Fresh-water and Marine Aquaria; containing Full Information as to the Plants, Weeds, Fish, Molluscs, Insects, &c., How and Where to Obtain Them, and How to Keep Them in Health. Illustrated. By REV. GREGORY C. BATEMAN, A.K.C., and REGINALD A. R. BENNETT, B.A. *In cloth gilt, price 5s. 6d., by post 5s. 10d.*

AQUARIA, FRESHWATER: Their Construction, Arrangement, Stocking, and Management. Fully Illustrated. By REV. G. C. BATEMAN, A.K.C. *In cloth gilt, price 3s. 6d., by post 3s. 10d.*

AQUARIA, MARINE: Their Construction, Arrangement, and Management. Fully Illustrated. By R. A. R. BENNETT, B.A. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*

AUSTRALIA, SHALL I TRY? A Guide to the Australian Colonies for the Emigrant Settler and Business Man. With two Illustrations. By GEORGE LACON JAMES. *In cloth gilt, price 3s. 6d., by post 3s. 10d.*

AUTOGRAPH COLLECTING: A Practical Manual for Amateurs and Historical Students, containing ample information on the Selection and Arrangement of Autographs, the Detection of Forged Specimens, &c., &c., to which are added numerous Facsimiles for Study and Reference, and an extensive Valuation Table of Autographs worth Collecting. By HENRY T. SCOTT, M.D., L.R.C.P., &c. *In leatherette gilt, price 7s. 6d., by post 7s. 10d.*

BAZAARS AND FANCY FAIRS: Their Organization and Management. A Secretary's *Vade Mecum*. By JOHN MUIR. *In paper, price 1s., by post 1s. 2d.*

- BEEES AND BEE-KEEPING:** Scientific and Practical. By F. R. CHESHIRE, F.L.S., F.R.M.S., Lecturer on Apiculture at South Kensington. *In two vols., cloth gilt, price 16s., by post 16s. 8d.*
- Vol. I., Scientific.** A complete Treatise on the Anatomy and Physiology of the Hive Bee. *In cloth gilt, price 7s. 6d., by post 7s. 10d.*
- Vol. II., Practical Management of Bees.** An Exhaustive Treatise on Advanced Bee Culture. *In cloth gilt, price 8s. 6d. by post 9s.*
- BEE-KEEPING, BOOK OF.** A very practical and Complete Manual on the Proper Management of Bees, especially written for Beginners and Amateurs who have but a few Hives. Fully Illustrated. By W. B. WEBSTER, First-class Expert, B.B.K.A. *In paper, price 1s., by post 1s. 2d.; cloth, 1s. 6d., by post 1s. 8d.*
- BEGONIA CULTURE,** for Amateurs and Professionals. Containing Full Directions for the Successful Cultivation of the Begonia, under Glass and in the Open Air. Illustrated. By B. C. RAVENSCROFT. *In paper, price 1s., by post 1s. 2d.*
- BENT IRON WORK:** A Practical Manual of Instruction for Amateurs in the Art and Craft of Making and Ornamenting Light Articles in imitation of the beautiful Mediæval and Italian Wrought Iron Work. By F. J. ERSKINE. Illustrated. *In paper, price 1s., by post 1s. 2d.*
- BIRDS, BRITISH, FOR THE CAGE AND AVIARY.** Illustrated. By DR. W. T. GREENE. [*In the Press.*]
- BOAT BUILDING AND SAILING, PRACTICAL.** Containing Full Instructions for Designing and Building Punts, Skiffs, Canoes, Sailing Boats, &c. Particulars of the most suitable Sailing Boats and Yachts for Amateurs, and Instructions for their Proper Handling. Fully Illustrated with Designs and Working Diagrams. By ADRIAN NEISON, C.E., DIXON KEMP, A.I.N.A., and G. CHRISTOPHER DAVIES. *In one vol., cloth gilt, price 7s. 6d., by post 7s. 10d.*
- BOAT BUILDING FOR AMATEURS, PRACTICAL.** Containing Full Instructions for Designing and Building Punts, Skiffs, Canoes, Sailing Boats, &c. Fully Illustrated with Working Diagrams. By ADRIAN NEISON, C.E. Second Edition, Revised and Enlarged by DIXON KEMP, Author of "Yacht Designing," "A Manual of Yacht and Boat Sailing," &c. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*
- BOAT SAILING FOR AMATEURS.** Containing Particulars of the most Suitable Sailing Boats and Yachts for Amateurs, and Instructions for their Proper Handling, &c. Illustrated with numerous Diagrams. By G. CHRISTOPHER DAVIES. Second Edition, Revised and Enlarged, and with several New Plans of Yachts. *In cloth gilt, price 5s., by post 5s. 4d.*
- BOOKBINDING FOR AMATEURS:** Being Descriptions of the various Tools and Appliances Required, and Minute Instructions for their Effective Use. By W. J. E. CRANE. Illustrated with 156 Engravings. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*
- BULB CULTURE, POPULAR.** A Practical Manual for the Amateur. By W. D. DRURY. Illustrated. *In paper, price 1s., by post 1s. 2d.*
- BUNKUM ENTERTAINMENTS:** A Collection of Original Laughable Skits on Conjuring, Physiognomy, Juggling, Performing Fleas, Waxworks, Panorama, Phrenology, Phonograph, Second Sight, Lightning Calculators, Ventriloquism, Spiritualism, &c., to which are added Humorous Sketches, Whimsical Recitals, and Drawing-room Comedies. *In cloth, price 2s. 6d., by post 2s. 9d.*
- BUTTERFLIES, THE BOOK OF BRITISH:** A Practical Manual for Collectors and Naturalists. Splendidly Illustrated throughout with very accurate Engravings of the Caterpillars, Chrysalids, and

Butterflies, both upper and under sides, from drawings by the Author or direct from Nature. By W. J. LUCAS, B.A. *Price 3s. 6d., by post 3s. 9d.*

BUTTERFLY AND MOTH COLLECTING: Where to Search, and What to Do. By G. E. SIMMS. Illustrated. *In paper, price 1s., by post 1s. 2d.*

CACTUS CULTURE FOR AMATEURS: Being Descriptions of the various Cactuses grown in this country; with Full and Practical Instructions for their Successful Cultivation. By W. WATSON, Assistant Curator of the Royal Botanic Gardens, Kew. Profusely Illustrated. *In cloth gilt, price 5s., by post 5s. 4d.*

CAGE BIRDS, DISEASES OF: Their Causes, Symptoms, and Treatment. A Handbook for everyone who keeps a Bird. By DR. W. T. GREENE, F.Z.S. *In paper, price 1s., by post 1s. 2d.*

CANARY BOOK. The Breeding, Rearing, and Management of all Varieties of Canaries and Canary Mules, and all other matters connected with this Fancy. By ROBERT L. WALLACE. Third Edition. *In cloth gilt, price 5s., by post 5s. 4d.; with COLOURED PLATES, 6s. 6d., by post 6s. 10d.*

General Management of Canaries. Cages and Cage-making Breeding, Managing, Mule Breeding, Diseases and their Treatment, Moulting, Pests, &c. Illustrated. *In cloth, price 2s. 6d., by post 2s. 9d.*

Exhibition Canaries. Full Particulars of all the different Varieties, their Points of Excellence, Preparing Birds for Exhibition, Formation and Management of Canary Societies and Exhibitions Illustrated. *In cloth, price 2s. 6d., by post 2s. 9d.*

CANARY, THE PET. With some Instructions as to its Purchase, Diet, Toilette, Cage, and Sanitary Keeping. Illustrated. By W. H. BETTS, Hon. Treas. Cage Bird Club. *Price 5s., by post 5s. 3d.*

CANE BASKET WORK: A Practical Manual on Weaving Useful and Fancy Baskets. By ANNIE FIRTH. Illustrated. *In cloth gilt, price 1s. 6d., by post 1s. 8d.*

CARD TRICKS, BOOK OF, for Drawing-room and Stage Entertainments by Amateurs; with an exposure of Tricks as practised by Card Sharps and Swindlers. Numerous Illustrations. By PROF. R. KUNARD. *In illustrated wrapper, price 2s. 6d., by post 2s. 9d.*

CARNATION CULTURE, for Amateurs. The Culture of Carnations and Picotees of all Classes in the Open Ground and in Pots. Illustrated. By B. C. RAVENSCROFT. *In paper, price 1s., by post 1s. 2d.*

CATS, DOMESTIC OR FANCY: A Practical Treatise on their Antiquity, Domestication, Varieties, Breeding, Management, Diseases and Remedies, Exhibition and Judging. By JOHN JENNINGS. Illustrated. *In cloth, price 2s. 6d., by post 2s. 9d.*

CHRYSANTHEMUM CULTURE, for Amateurs and Professionals. Containing Full Directions for the Successful Cultivation of the Chrysanthemum for Exhibition and the Market. By B. C. RAVENSCROFT. New Edition. Illustrated. *In paper, price 1s., by post 1s. 2d.*

COINS, A GUIDE TO ENGLISH PATTERN, in Gold, Silver, Copper, and Pewter, from Edward I. to Victoria, with their Value. By the REV. G. F. CROWTHER, M.A. Illustrated. *In silver cloth, with gilt facsimiles of Coins, price 5s., by post 5s. 3d.*

COINS OF GREAT BRITAIN AND IRELAND, A GUIDE TO THE, in Gold, Silver and Copper, from the Earliest Period to the Present Time, with their Value. By the late Colonel W. STEWART THORBURN.

[New Edition in the Press.]

- COLLIE, THE.** Its History, Points, and Breeding. By HUGH DALZIEL. Illustrated with Coloured Frontispiece and Plates. *In paper, price 1s., by post 1s. 2d.; cloth, 2s., by post 2s. 3d.*
- COLLIE STUD BOOK.** Edited by HUGH DALZIEL. *Price 3s. 6d. each, by post 3s. 9d. each.*
- Vol. I.**, containing Pedigrees of 1308 of the best-known Dogs, traced to their most remote known ancestors; Show Record to Feb., 1890, &c.
- Vol. II.** Pedigrees of 795 Dogs, Show Record, &c.
- Vol. III.** Pedigrees of 786 Dogs, Show Record, &c.
- COLUMBARIUM, MOORE'S.** Reprinted Verbatim from the original Edition of 1735, with a Brief Notice of the Author. By W. B. TEGTMEIER, F.Z.S., Member of the British Ornithologists' Union. *Price 1s., by post 1s. 2d.*
- CONJURING, BOOK OF MODERN.** A Practical Guide to Drawing-room and Stage Magic for Amateurs. By PROFESSOR R. KUNARD. Illustrated. *In illustrated wrapper, price 2s. 6d., by post 2s. 9d.*
- CONJURING FOR AMATEURS.** A Practical Handbook on How to Perform a Number of Amusing Tricks. By ELLIS STANYON. *In paper, price 1s., by post 1s. 2d.*
- COOKERY FOR AMATEURS;** or, French Dishes for English Homes of all Classes. Includes Simple Cookery, Middle-class Cookery, Superior Cookery, Cookery for Invalids, and Breakfast and Luncheon Cookery. By MADAME VALÉRIE. Second Edition. *In paper, price 1s., by post 1s. 2d.*
- CRICKET.** The History of a Hundred Centuries, as Written by Dr. W. G. GRACE, and Edited by W. YARDLEY. *In paper, 6d., by post 7d.*
- CUCUMBER CULTURE FOR AMATEURS.** Including also Melons, Vegetable Marrows, and Gourds. Illustrated. By W. J. MAY. *In paper, price 1s., by post 1s. 2d.*
- CYCLIST'S ROUTE MAP** of England and Wales. Shows clearly all the Main, and most of the Cross, Roads, Railroads, and the Distances between the Chief Towns, as well as the Mileage from London. In addition to this, Routes of *Thirty of the most Interesting Tours* are printed in red. Fourth Edition, thoroughly revised. The map is printed on specially prepared vellum paper, and is the fullest, handiest, and best up-to-date tourist's map in the market. *In cloth, price 1s., by post 1s. 2d.*
- DESIGNING, HARMONIC.** Explaining a System whereby an Endless Variety of Most Beautiful Designs suited to numberless Manufactures may be obtained by Unskilled Persons from any Printed Music. Illustrated by Numerous Explanatory Diagrams and Illustrative Examples. By C. H. WILKINSON. *Demy 4to, price £2 2s. [In the Press.]*
- DOGS, BREAKING AND TRAINING:** Being Concise Directions for the proper education of Dogs, both for the Field and for Companions. Second Edition. By "PATHFINDER." With Chapters by HUGH DALZIEL. Illustrated. *In cloth gilt, price 6s. 6d., by post 6s. 10d.*
- DOGS, BRITISH, ANCIENT AND MODERN:** Their Varieties, History, and Characteristics. By HUGH DALZIEL, assisted by Eminent Fanciers. Beautifully Illustrated with COLOURED PLATES and full-page Engravings of Dogs of the Day, with numerous smaller illustrations in the text. This is the fullest work on the various breeds of dogs kept in England. In three volumes, *demy 8vo, cloth gilt, price 10s. 6d. each, by post 11s. 1d. each.*
- Vol. I.** Dogs Used in Field Sports.
- Vol. II.** Dogs Useful to Man in other Work than Field Sports; House and Toy Dogs.

- Vol. III. Practical Kennel Management:** A Complete Treatise on all Matters relating to the Proper Management of Dogs whether kept for the Show Bench, for the Field, or for Companions.
- DOGS, DISEASES OF:** Their Causes, Symptoms, and Treatment; Modes of Administering Medicines; Treatment in cases of Poisoning, &c. For the use of Amateurs. By HUGH DALZIEL. Third Edition. *In paper, price 1s., by post 1s. 2d.; in cloth gilt, 2s., by post 2s. 3d.*
- ENGRAVINGS AND THEIR VALUE.** Containing a Dictionary of all the Greatest Engravers and their Works. By J. H. SLATER. New Edition, Revised and brought up to date, with latest Prices at Auction. *In cloth gilt, price 15s., by post 15s. 6d.*
- ENTERTAINMENTS, AMATEUR, FOR CHARITABLE AND OTHER OBJECTS:** How to Organize and Work them with Profit and Success. By ROBERT GANTHONY. *In coloured cover, price 1s., by post 1s. 2d.*
- FANCY WORK SERIES, ARTISTIC.** A Series of Illustrated Manuals on Artistic and Popular Fancy Work of various kinds. Each number is complete in itself, and issued at the uniform price of 6d., by post 7d. Now ready—(1) MACRAMÉ LACE (Second Edition); (2) PATCHWORK; (3) TATTING; (4) CREWEL WORK; (5) APPLIQUÉ; (6) FANCY NETTING.
- FEATHERED FRIENDS, OLD AND NEW.** Being the Experience of many years' Observation of the Habits of British and Foreign Cage Birds. By DR. W. T. GREENE. Illustrated. *In cloth gilt, price 5s., by post 5s. 4d.*
- FERNS, THE BOOK OF CHOICE:** for the Garden, Conservatory, and Stove. Describing the best and most striking Ferns and Selaginellas, and giving explicit directions for their Cultivation, the formation of Rockeries, the arrangement of Ferneries, &c. By GEORGE SCHNEIDER. With numerous Coloured Plates and other Illustrations. *In 3 vols., large post 4to. Cloth gilt, price £3 3s., by post £3 6s.*
- FERNS, CHOICE BRITISH.** Descriptive of the most beautiful Variations from the common forms, and their Culture. By C. T. DRUERY, F.L.S. Very accurate PLATES, and other Illustrations. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*
- FERRETS AND FERRETING.** Containing Instructions for the Breeding, Management, and Working of Ferrets. Second Edition, Rewritten and greatly Enlarged. Illustrated. *In paper, price 6d., by post 7d.*
- FERTILITY OF EGGS CERTIFICATE.** These are Forms of Guarantee given by the Sellers to the Buyers of Eggs for Hatching, undertaking to refund value of any unfertile eggs, or to replace them with good ones. Very valuable to sellers of eggs, as they induce purchases. *In books, with counterfoils, price 6d., by post 7d.*
- FIREWORK-MAKING FOR AMATEURS.** A complete, accurate, and easily-understood work on Making Simple and High-class Fireworks. By Dr. W. H. BROWNE, M.A. *In paper, price 2s. 6d., by post 2s. 9d.*
- FISHERMAN, THE PRACTICAL.** Dealing with the Natural History, the Legendary Lore, the Capture of British Fresh-Water Fish, and Tackle and Tackle-making. By J. H. KEENE. *In cloth gilt, price 7s. 6d., by post, 8s.*
- FISH, FLESH, AND FOWL:** When in Season, How to Select, Cook and Serve. By MARY BARRETT BROWN. *In coloured wrapper, price 1s., by post 1s. 2d.*

- FOREIGN BIRDS, FAVOURITE**, for Cages and Aviaries. How to Keep them in Health. Fully Illustrated. By W. T. GREENE, M.A., M.D., F.Z.S., &c. *In cloth, price 2s. 6d., by post 2s. 9d.*
- FOX TERRIER, THE**. Its History, Points, Breeding, Rearing, Preparing, for Exhibition, and Coursing. By HUGH DALZIEL. Illustrated with Coloured Frontispiece and Plates. *In paper, price 1s., by post 1s. 2d.; cloth, 2s., by post 2s. 3d.*
- FOX TERRIER STUD BOOK**. Edited by HUGH DALZIEL. *Price 3s. 6d. each., by post 3s. 9d. each.*
- Vol. I.**, containing Pedigrees of over 1400 of the best-known Dogs, traced to their most remote known ancestors.
- Vol. II.** Pedigrees of 1544 Dogs, Show Record, &c.
- Vol. III.** Pedigrees of 1214 Dogs, Show Record, &c.
- Vol. IV.** Pedigrees of 1168 Dogs, Show Record, &c.
- Vol. V.** Pedigrees of 1662 Dogs, Show Record, &c.
- FRETWORK AND MARQUETRY**. A Practical Manual of Instructions in the Art of Fret-cutting and Marquetry Work. Profusely Illustrated. By D. DENNING. *In cloth, price 2s. 6d., by post 2s. 10d.*
- FRIESLAND MERES, A CRUISE ON THE**. By ERNEST R. SUFFLING. Illustrated. *In paper, price 1s., by post 1s. 2d.*
- FRUIT CULTURE FOR AMATEURS**. By S. T. WRIGHT. With Chapters on Insect and other Fruit Pests by W. D. DRURY. Illustrated. *In cloth gilt, price 3s. 6d., by post 3s. 9d.*
- GAME AND GAME SHOOTING, NOTES ON**. Grouse, Partridges, Pheasants, Hares, Rabbits, Quails, Woodcocks, Snipe, and Rooks. By J. J. MANLEY. Illustrated. *In cloth gilt, price 7s. 6d., by post 7s. 10d.*
- GAMES, THE BOOK OF A HUNDRED**. By MARY WHITE. These Games are for Adults, and will be found extremely serviceable for Parlour Entertainment. They are Clearly Explained, are Ingenious, Clever, Amusing, and exceedingly Novel. *In stiff boards, price 2s. 6d., by post 2s. 9d.*
- GARDENING, DICTIONARY OF**. A Practical Encyclopædia of Horticulture, for Amateurs and Professionals. Illustrated with 2440 Engravings. Edited by G. NICHOLSON, Curator of the Royal Botanic Gardens, Kew; assisted by Prof. Trail, M.D., Rev. P. W. Myles, B.A., F.L.S., W. Watson, J. Garrett, and other Specialists. *In 4 vols., large post 4to. In cloth gilt, price £3, by post £3 3s.*
- GARDENING IN EGYPT**. A Handbook of Gardening for Lower Egypt. With a Calendar of Work for the different Months of the Year. By WALTER DRAPER. *In cloth, price 3s. 6d., by post 3s. 9d.*
- GOAT, BOOK OF THE**. Containing Full Particulars of the various Breeds of Goats, and their Profitable Management. With many Plates. By H. STEPHEN HOLMES PEGLER. Third Edition, with Engravings and Coloured Frontispiece. *In cloth gilt, price 4s. 6d., by post 4s. 10d.*
- GOAT-KEEPING FOR AMATEURS**: Being the Practical Management of Goats for Milking Purposes. Abridged from "The Book of the Goat." Illustrated. *In paper, price 1s., by post 1s. 2d.*
- GRAPE GROWING FOR AMATEURS**. A Thoroughly Practical Book on Successful Vine Culture. By E. MOLYNEUX. Illustrated. *In paper, price 1s., by post 1s. 2d.*
- GREENHOUSE MANAGEMENT FOR AMATEURS**. The Best Greenhouses and Frames, and How to Build and Heat them, Illustrated Descriptions of the most suitable Plants, with general and Special Cultural Directions, and all necessary information for the Guidance of the Amateur. Second Edition, Revised and Enlarged.

Magnificently Illustrated. By W. J. MAY. *In cloth gilt, price 5s. by post 5s. 4d.*

GREYHOUND, THE: Its History, Points, Breeding, Rearing, Training, and Running. By HUGH DALZIEL. With Coloured Frontispiece. *In cloth gilt, demy 8vo, price 2s. 6d., by post 2s. 9d.*

GUINEA PIG, THE, for Food, Fur, and Fancy. Illustrated with Coloured Frontispiece and Engravings. An exhaustive book on the Varieties of the Guinea Pig, and its Management. By C. CUMBERLAND, F.Z.S. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*

HAND CAMERA MANUAL, THE. A Practical Handbook on all Matters connected with the Use of the Hand Camera in Photography. Illustrated. By W. D. WELFORD. Third Edition. *Price 1s., by post 1s. 2d.*

HANDWRITING, CHARACTER INDICATED BY. With Illustrations in Support of the Theories advanced taken from Autograph Letters of Statesmen, Lawyers, Soldiers, Ecclesiastics, Authors, Poets, Musicians, Actors, and other persons. Second Edition. By R. BAUGHAN. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*

HAWK MOTHS, BOOK OF BRITISH. A Popular and Practical Manual for all Lepidopterists. Copiously illustrated in black and white from the Author's own exquisite Drawings from Nature. By W. J. LUCAS, B.A. *In cloth, price 3s. 6d., by post 3s. 9d.*

HOME MEDICINE AND SURGERY: A Dictionary of Diseases and Accidents, and their proper Home Treatment. For Family Use. By W. J. MACKENZIE, M.D. Illustrated. *In cloth, price 2s. 6d., by post 2s. 9d.*

HORSE-KEEPER, THE PRACTICAL. By GEORGE FLEMING, C.B., LL.D., F.R.C.V.S., late Principal Veterinary Surgeon to the British Army, and Ex-President of the Royal College of Veterinary Surgeons. *In cloth, price 3s. 6d., by post 3s. 10d.*

HORSE-KEEPING FOR AMATEURS. A Practical Manual on the Management of Horses, for the guidance of those who keep one or two for their personal use. By FOX RUSSELL. *In paper, price 1s., by post 1s. 2d.; cloth, 2s., by post 2s. 3d.*

HORSES, DISEASES OF: Their Causes, Symptoms, and Treatment. For the use of Amateurs. By HUGH DALZIEL. *In paper, price 1s., by post 1s. 2d.; cloth 2s., by post 2s. 3d.*

INCUBATORS AND THEIR MANAGEMENT. By J. H. SUTCLIFFE. Illustrated. *In paper, price 1s., by post 1s. 2d.*

INLAND WATERING PLACES. A Description of the Spas of Great Britain and Ireland, their Mineral Waters, and their Medicinal Value, and the attractions which they offer to Invalids and other Visitors. Profusely illustrated. A Companion Volume to "Seaside Watering Places." *In cloth, price 2s. 6d., by post 2s. 10d.*

JOURNALISM, PRACTICAL: How to Enter Thereon and Succeed. A book for all who think of "writing for the Press." By JOHN DAWSON. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*

LAYING HENS, HOW TO KEEP and to Rear Chickens in Large or Small Numbers, in Absolute Confinement, with Perfect Success. By MAJOR G. F. MORANT. *In paper, price 6d., by post 7d.*

LIBRARY MANUAL, THE. A Guide to the Formation of a Library, and the Values of Rare and Standard Books. By J. H. SLATER, Barrister-at-Law. Third Edition. Revised and Greatly Enlarged. *In cloth gilt, price 7s. 6d., by post 7s. 10d.*

MAGIC LANTERNS, MODERN, A Guide to the Management of the Optical Lantern, for the Use of Entertainers, Lecturers, Photographers, Teachers, and others. By R. CHILD BAYLEY. *In paper, price 1s., by post 1s. 2d.*

- MICE, FANCY:** Their Varieties, Management, and Breeding. Third Edition, with additional matter and Illustrations. *In coloured wrapper representing different varieties, price 1s., by post 1s. 2d.*
- MILLINERY, HANDBOOK OF.** A Practical Manual of Instruction for Ladies. Illustrated. By MME. ROSÉE, Court Milliner, Principal of the School of Millinery. *In paper, price 1s., by post 1s. 2d.*
- MODEL YACHTS AND BOATS:** Their Designing, Making, and Sailing. Illustrated with 118 Designs and Working Diagrams. By J. DU V. GROSVENOR. *In leatherette, price 5s., by post 5s. 3d.*
- MONKEYS, PET,** and How to Manage Them. Illustrated. By ARTHUR PATTERSON. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*
- MOUNTAINEERING, WELSH.** A Complete and Handy Guide to all the Best Roads and Bye-Paths by which the Tourist should Ascend the Welsh Mountains. By A. W. PERRY. With numerous Maps. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*
- MUSHROOM CULTURE FOR AMATEURS.** With Full Directions for Successful Growth in Houses, Sheds, Cellars, and Pots, on Shelves, and Out of Doors. Illustrated. By W. J. MAY. *In paper, price 1s, by post 1s. 2d.*
- NATURAL HISTORY SKETCHES** among the Carnivora—Wild and Domesticated; with Observations on their Habits and Mental Faculties. By ARTHUR NICOLS, F.G.S., F.R.G.S. Illustrated. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*
- NEEDLEWORK, DICTIONARY OF.** An Encyclopædia of Artistic, Plain, and Fancy Needlework; Plain, practical, complete, and magnificently Illustrated. By S. F. A. CAULFIELD and B. C. SAWARD. *In demy 4to, 528pp., 829 Illustrations, extra cloth gilt, plain edges, cushioned bevelled boards, price 21s., by post 22s.; with COLOURED PLATES, elegant satin brocade cloth binding, and coloured edges, 31s. 6d., by post 32s. 6d.*
- ORCHIDS:** Their Culture and Management, with Descriptions of all the Kinds in General Cultivation. Illustrated by Coloured Plates and Engravings. By W. WATSON, Assistant-Curator, Royal Botanic Gardens, Kew; Assisted by W. BEAN, Foreman, Royal Gardens, Kew. Second Edition, Revised and with Extra Plates. *In cloth gilt and gilt edges, price £1 1s., by post £1 1s. 10d.*
- PAINTERS AND THEIR WORKS.** A Work of the Greatest Value to Collectors and such as are interested in Art, as it gives, besides Biographical Sketches of all the Artists of Repute (not now living) from the 13th Century to the present date, the Market Value of the Principal Works Painted by Them, with Full Descriptions of Same. *In 3 vols., cloth, price 15s. per vol., by post 15s. 6d., or 37s. 6d. the set of 3, by post 38s. 6d.*
- PAINTING, DECORATIVE.** A practical Handbook on Painting and Etching upon Textiles, Pottery, Porcelain, Paper, Vellum, Leather, Glass, Wood, Stone, Metals, and Plaster, for the Decoration of our Homes. By B. C. SAWARD. *In cloth gilt, price 3s. 6d., by post 3s. 9d.*
- PARCEL POST DISPATCH BOOK** (registered). An invaluable book for all who send parcels by post. Provides Address Labels, Certificate of Posting, and Record of Parcels Dispatched. By the use of this book parcels are insured against loss or damage to the extent of £2. Authorized by the Post Office. *Price 1s., by post 1s. 2d., for 100 parcels; larger sizes if required.*
- PARROT, THE GREY,** and How to Treat it. By W. T. GREENE, M.D., M.A., F.Z.S., &c. *Price 1s., by post 1s. 2d.*

- PARROTS, THE SPEAKING.** The Art of Keeping and Breeding the principal Talking Parrots in Confinement. By DR. KARL RUSS. Illustrated with COLOURED PLATES and Engravings. *In cloth gilt, price 5s., by post 5s. 4d.*
- PATIENCE, GAMES OF,** for one or more Players. How to Play 106 different Games of Patience. By M. WHITMORE JONES. Illustrated. Series I., 39 games; Series II., 34 games; Series III., 33 games. Each 1s., *by post 1s. 2d.* *The three bound together in cloth gilt, price 3s. 6d., by post 3s. 10d.*
- PEN PICTURES,** and How to Draw Them. A Practical Handbook on the various Methods of Illustrating in Black and White for "Process" Engraving, with numerous Designs, Diagrams, and Sketches. By ERIC MEADE. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*
- PERSPECTIVE, THE ESSENTIALS OF.** With numerous Illustrations drawn by the Author. By L. W. MILLER, Principal of the School of Industrial Art of the Pennsylvania Museum, Philadelphia. *Price 6s. 6d., by post 6s. 10d.*
- PHEASANT-KEEPING FOR AMATEURS.** A Practical Handbook on the Breeding, Rearing, and General Management of Fancy Pheasants in Confinement. By GEO. HORNE. Fully Illustrated. *In cloth gilt, price 3s. 6d., by post 3s. 9d.*
- PHOTOGRAPHY (MODERN) FOR AMATEURS.** New and Revised Edition. By J. EATON FEARN. *In paper, price 1s., by post 1s. 2d.*
- PIANOFORTES, TUNING AND REPAIRING.** The Amateur's Guide to the Practical Management of a Piano without the intervention of a Professional. By CHARLES BABBINGTON. *In paper, price 6d., by post 6½d.*
- PICTURE-FRAME MAKING FOR AMATEURS.** Being Practical Instructions in the Making of various kinds of Frames for Paintings, Drawings, Photographs, and Engravings. Illustrated. By the REV. J. LUKIN. *In paper, price 1s., by post 1s. 2d.*
- PIG, BOOK OF THE.** The Selection, Breeding, Feeding, and Management of the Pig; the Treatment of its Diseases; the Curing and Preserving of Hams, Bacon, and other Pork Foods; and other information appertaining to Pork Farming. By PROFESSOR JAMES LONG. Fully Illustrated with Portraits of Prize Pigs, Plans of Model Piggeries, &c. *In cloth gilt, price 10s. 6d., by post 11s. 1d.*
- PIG-KEEPING, PRACTICAL:** A Manual for Amateurs, based on Personal Experience in Breeding, Feeding, and Fattening; also in Buying and Selling Pigs at Market Prices. By R. D. GARRATT. *In paper, price 1s., by post 1s. 2d.*
- PIGEONS, FANCY.** Containing Full Directions for the Breeding and Management of Fancy Pigeons, and Descriptions of every known Variety, together with all other information of interest or use to Pigeon Fanciers. Third Edition, bringing the subject down to the present time. 18 COLOURED PLATES, and 22 other full-page Illustrations. By J. C. LYELL. *In cloth gilt, price 10s. 6d., by post 10s. 10d.*
- PIGEON-KEEPING FOR AMATEURS.** A complete Guide to the Amateur Breeder of Domestic and Fancy Pigeons. By J. C. LYELL. Illustrated. *In cloth, price 2s. 6d., by post 2s. 9d.*
- POLISHES AND STAINS FOR WOODS:** A Complete Guide to Polishing Woodwork. with Directions for Staining, and Full Information

for making the Stains, Polishes, &c., in the simplest and most satisfactory manner. By DAVID DENNING. *In paper, 1s., by post 1s. 2d.*

POOL, GAMES OF. Describing Various English and American Pool Games, and giving the Rules in full. Illustrated. *In paper, price 1s., by post 1s. 2d.*

POTTERY AND PORCELAIN, ENGLISH. A Guide for Collectors. Handsomely Illustrated with Engravings of Specimen Pieces and the Marks used by the different Makers. New Edition, Revised and Enlarged. By the REV. E. A. DOWNMAN. *In cloth gilt, price 5s., by post 5s. 4d.*

POULTRY-KEEPING, POPULAR. A Practical and Complete Guide to Breeding and Keeping Poultry for Eggs or for the Table. By F. A. MACKENZIE. Illustrated. *In paper, price 1s., by post 1s. 2d.*

POULTRY AND PIGEON DISEASES: Their Causes, Symptoms, and Treatment. A Practical Manual for all Fanciers. By QUINTIN CRAIG and JAMES LYELL. *In paper, price 1s., by post 1s. 2d.*

POULTRY FOR PRIZES AND PROFIT. Contains: Breeding Poultry for Prizes, Exhibition Poultry and Management of the Poultry Yard. Handsomely Illustrated. Second Edition. By PROF. JAMES LONG. *In cloth gilt, price 2s. 6d., by post 2s. 10d.*

RABBIT, BOOK OF THE. A Complete Work on Breeding and Rearing all Varieties of Fancy Rabbits, giving their History, Variations, Uses, Points, Selection, Mating, Management, &c., &c. SECOND EDITION. Edited by KEMPSTER W. KNIGHT. Illustrated with Coloured and other Plates. *In cloth gilt, price 10s. 6d., by post 11s.*

RABBITS, DISEASES OF: Their Causes, Symptoms, and Cure. With a Chapter on THE DISEASES OF CAVIES. Reprinted from "The Book of the Rabbit" and "The Guinea Pig for Food, Fur, and Fancy." *In paper, price 1s., by post 1s. 2d.*

RABBIT-FARMING, PROFITABLE. A Practical Manual, showing how Hutch Rabbit-farming in the Open can be made to Pay Well. By MAJOR G. F. MORANT. *In paper, price 1s., by post 1s. 2d.*

RABBITS FOR PRIZES AND PROFIT. The Proper Management of Fancy Rabbits in Health and Disease, for Pets or the Market, and Descriptions of every known Variety, with Instructions for Breeding Good Specimens. Illustrated. By CHARLES RAYSON. *In cloth gilt, price 2s. 6d., by post 2s. 9d.* Also in Sections, as follows:—

General Management of Rabbits. Including Hutches, Breeding, Feeding, Diseases and their Treatment, Rabbit Courts, &c. Fully Illustrated. *In paper, price 1s., by post 1s. 2d.*

Exhibition Rabbits. Being descriptions of all Varieties of Fancy Rabbits, their Points of Excellence, and how to obtain them. Illustrated. *In paper, price 1s., by post 1s. 2d.*

REPOUSSÉ WORK FOR AMATEURS: Being the Art of Ornamenting Thin Metal with Raised Figures. By L. L. HASLOPE. Illustrated. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*

ROAD CHARTS (Registered). For Army Men, Volunteers, Cyclists, and other Road Users. By S. W. HEPWORTH DIXON and A. B. H. CLERKE, Royal Artillery. No. 1.—London to Brighton. *Price 2d., by post 2½d.*

ROSES FOR AMATEURS. A Practical Guide to the Selection and Cultivation of the best Roses. Illustrated. By the REV. J. HONYWOOD D'OMBRAIN, Hon. Sec. Nat. Rose Soc. *In paper, 1s., by post 1s. 2d.*

SAILING GUIDE TO THE SOLENT AND POOLE HARBOUR, with Practical Hints as to Living and Cooking on, and

Working a Small Yacht. By LIEUT.-COL. T. G. CUTHELL. Illustrated with Coloured Charts. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*

SAILING TOURS. The Yachtman's Guide to the Cruising Waters of the English and Adjacent Coasts. With Descriptions of every Creek, Harbour, and Roadstead on the Course. With numerous Charts printed in Colours, showing Deep water, Shoals, and Sands exposed at low water, with sounding. *In Crown 8vo., cloth gilt.* By FRANK COWPER, B.A.

Vol. I., the Coasts of Essex and Suffolk, from the Thames to Aldborough. Six Charts. *Price 5s., by post 5s. 3d.*

Vol. II. The South Coast, from the Thames to the Scilly Islands, twenty-five Charts. *Price 7s. 6d., by post 7s. 10d.*

Vol. III. The Coast of Brittany, from L'Abervrach to St. Nazaire, and an Account of the Loire. Twelve Charts. *Price 7s. 6d., by post 7s. 10d.*

Vol. IV. The West Coast, from Land's End to Mull of Galloway, including the East Coast of Ireland. Thirty Charts. *Price 10s. 6d., by post 10s. 10d.*

Vol. V. The Coasts of Scotland and the N.E. of England down to Aldborough. Forty Charts. *Price 10s. 6d., by post 10s. 10d.*

ST. BERNARD, THE. Its History, Points, Breeding, and Rearing. By HUGH DALZIEL. Illustrated with Coloured Frontispiece and Plates. *In cloth, price 2s. 6d., by post 2s. 9d.*

ST. BERNARD STUD BOOK. Edited by HUGH DALZIEL. *Price 3s. 6d. each., by post 3s. 9d. each.*

Vol. I. Pedigrees of 1278 of the best known Dogs, traced to their most remote known ancestors, Show Record, &c.

Vol. II. Pedigrees of 564 Dogs, Show Record, &c.

SEA-FISHING FOR AMATEURS. Practical Instructions to Visitors at Seaside Places for Catching Sea-Fish from Pier-heads, Shore, or Boats, principally by means of Hand Lines, with a very useful List of Fishing Stations, the Fish to be caught there, and the Best Seasons. By FRANK HUDSON. Illustrated. *In paper, price 1s., by post 1s. 2d.*

SEA-FISHING ON THE ENGLISH COAST. The Art of Making and Using Sea-Tackle, with a full account of the methods in vogue during each month of the year, and a Detailed Guide for Sea-Fishermen to all the most Popular Watering Places on the English Coast. By F. G. AFLALO. Illustrated. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*

SEASIDE WATERING PLACES. A Description of the Holiday Resorts on the Coasts of England and Wales, the Channel Islands, and the Isle of Man, giving full particulars of them and their attractions, and all information likely to assist persons in selecting places in which to spend their Holidays according to their individual tastes. Illustrated. Eighth Edition. *In cloth, price 2s. 6d., by post 2s. 10d.*

SHADOW ENTERTAINMENTS, and How to Work Them: being Something about Shadows, and the way to make them Profitable and Funny. By A. PATTERSON. *In paper, price 1s., by post 1s. 2d.*

SHAVE, AN EASY: The Mysteries, Secrets, and Whole Art of, laid bare for 1s., *by post 1s. 2d.* Edited by JOSEPH MORTON.

SHEET METAL, WORKING IN: Being Practical Instructions for Making and Mending Small Articles in Tin, Copper, Iron, Zinc, and Brass. Illustrated. Third Edition. By the Rev. J. LUKIN, B.A. *In paper, price 1s., by post 1s. 1d.*

- SHORTHAND, ON GURNEY'S SYSTEM (IMPROVED),** LESSONS IN: Being Instructions in the Art of Shorthand Writing as used in the Service of the two Houses of Parliament. By R. E. MILLER. *In paper, price 1s., by post 1s. 2d.*
- SHORTHAND, EXERCISES IN,** for Daily Half Hours, on a Newly-devised and Simple Method, free from the Labour of Learning. Illustrated. Being Part II. of "Lessons in Shorthand on Gurney's System (Improved)." By R. E. MILLER. *In paper, price 9d., by post 10d.*
- SHORTHAND SYSTEMS; WHICH IS THE BEST?** Being a Discussion, by various Experts, on the Merits and Demerits of all the principal Systems, with Illustrative Examples. Edited by THOMAS ANDERSON. *In paper, price 1s., by post 1s. 2d.*
- SKATING CARDS:** An Easy Method of Learning Figure Skating, as the Cards can be used on the Ice. *In cloth case, 2s. 6d., by post 2s. 9d.; leather, 3s. 6d., by post 3s. 9d.* A cheap form is issued printed on paper and made up as a small book, 1s., by post 1s. 1d.
- SLEIGHT OF HAND.** A Practical Manual of Legerdemain for Amateurs and Others. New Edition, Revised and Enlarged. Profusely Illustrated. By E. SACHS. *In cloth gilt, price 6s. 6d., by post 6s. 10d.*
- SNAKES, MARSUPIALS, AND BIRDS.** A Charming Book of Anecdotes, Adventures, and Zoological Notes. A capital Book for Boys. By ARTHUR NICOLS, F.G.S., F.R.G.S., &c. Illustrated. *In cloth gilt, price 3s. 6d., by post 3s. 10d.*
- STAMPS, POSTAGE,** and their Collection. A Practical Handbook for Collectors of Postal Stamps, Envelopes, Wrappers, and Cards. By OLIVER FIRTH, Member of the Philatelic Societies of London, Leeds, and Bradford. Profusely Illustrated. *In cloth gilt, price 3s. 6d., by post 3s. 10d.*
- TAXIDERMY, PRACTICAL.** A Manual of Instruction to the Amateur in Collecting, Preserving, and Setting-up Natural History Specimens of all kinds. With Examples and Working Diagrams. By MONTAGU BROWNE, F.Z.S., Curator of Leicester Museum. Second Edition. *In cloth gilt, price 7s. 6d., by post 7s. 10d.*
- THAMES GUIDE BOOK.** From Lechlade to Richmond. For Boating Men, Anglers, Picnic Parties, and all Pleasure-seekers on the River. Arranged on an entirely new plan. Second Edition, profusely illustrated. *In paper, price 1s. by post 1s. 3d.; cloth, 1s. 6d., by post 1s. 9d.*
- TOMATO AND FRUIT GROWING** as an Industry for Women. Lectures given at the Forestry Exhibition, Earl's Court, during July and August, 1893. By GRACE HARRIMAN, Practical Fruit Grower and County Council Lecturer. *In paper, price 1s., by post 1s. 1d.*
- TOMATO CULTURE FOR AMATEURS.** A Practical and very Complete Manual on the Subject. By B. C. RAVENSCROFT. Illustrated. *In paper, price 1s., by post 1s. 3d.*
- TOYMAKING FOR AMATEURS:** Being Instructions for the Home Construction of Simple Wooden Toys, and of others that are Moved or Driven by Weights, Clockwork, Steam, Electricity, &c. Illustrated. By JAS. LUKIN, B.A. *In cloth gilt, price 2s. 6d., by post 2s. 10d.*
- TRAPPING, PRACTICAL:** Being some Papers on Traps and Trapping for Vermin, with a Chapter on General Bird Trapping and Snaring. By W. CARNEGIE. *In paper, price 1s., by post 1s. 2d.*
- TURKEY, THE.** A Handy Manual for both the Amateur and Professional Breeder of the Turkey, describing its Characteristics, Varieties,

and Management. By W. WILLIS-HARRIS, Vice-President of the Turkey Club. *In paper, price 1s., by post 1s. 2d.*

TURNING FOR AMATEURS: Being Descriptions of the Lathe and its Attachments and Tools, with Minute Instructions for their Effective Use on Wood, Metal, Ivory, and other Materials. Second Edition, Revised and Enlarged. By JAMES LUKIN, B.A. Illustrated with 144 Engravings. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*

TURNING LATHES. A Manual for Technical Schools and Apprentices. A guide to Turning, Screw-cutting, Metal-spinning, &c. Edited by JAMES LUKIN, B.A. Third Edition. With 194 Illustrations. *In cloth gilt, price 3s., by post 3s. 3d.*

VAMP, HOW TO. A Practical Guide to the Accompaniment of Songs by the Unskilled Musician. With Examples. *In paper, price 9d., by post 10d.*

VEGETABLE CULTURE FOR AMATEURS. Containing Concise Directions for the Cultivation of Vegetables in Small Gardens so as to insure Good Crops. With Lists of the Best Varieties of each Sort. By W. J. MAY. Illustrated. *In paper, price 1s., by post 1s. 2d.*

VENTRILOQUISM, PRACTICAL. A thoroughly reliable Guide to the Art of Voice Throwing and Vocal Mimicry, Vocal Instrumentation, Ventriloquial Figures, Entertaining, &c. By ROBERT GANTHONY. Numerous Illustrations. *In cloth gilt, price 2s. 6d., by post 2s. 9d.*

VIOLINS (OLD) AND THEIR MAKERS: Including some References to those of Modern Times. By JAMES M. FLEMING. Illustrated with Facsimiles of Tickets, Sound-Holes, &c. Reprinted by Subscription. *In cloth gilt, price 6s. 6d., by post 6s. 10d.*

VIOLIN SCHOOL, PRACTICAL, for Home Students. Instructions and Exercises in Violin Playing, for the use of Amateurs, Self-learners, Teachers, and others. With a supplement on "Easy Legato Studies for the Violin." By J. M. FLEMING. *Demy 4to, cloth gilt, price 9s. 6d., by post 10s. 4d.* Without Supplement, *price 7s. 6d., by post 8s. 1d.*

WAR MEDALS AND DECORATIONS. A Manual for Collectors, with some account of Civil Rewards for Valour. Beautifully Illustrated. By D. HASTINGS IRWIN. *In cloth gilt, price 7s. 6d., by post 7s. 10d.*

WHIPPET AND RACE-DOG, THE: How to Breed, Rear, Train, Race, and Exhibit the Whippet, the Management of Race Meetings, and Original Plans of Courses. By FREEMAN LLOYD. *In cloth gilt, price 3s. 6d., by post 3s. 10d.*

WHIST: MODERN SCIENTIFIC. A Practical Manual on New Lines, and with Illustrative Hands. Printed in Colour. By C. J. MELROSE. *In cloth gilt, price 6s., by post 6s. 6d.*

WILDFOWLING, PRACTICAL: A Book on Wildfowl and Wildfowl Shooting. By HY. SHARP. The result of 25 years' experience in Wildfowl Shooting under all sorts of conditions of locality as well as circumstances. Profusely Illustrated. *Demy 8vo, cloth gilt, price 12s. 6d., by post 13s.*

WILD SPORTS IN IRELAND. Being Picturesque and Entertaining Descriptions of several visits paid to Ireland, with Practical Hints likely to be of service to the Angler, Wildfowler, and Yachtsman. By JOHN BICKERDYKE, Author of "The Book of the All-Round Angler." &c. Beautifully Illustrated from Photographs taken by the Author. *In cloth gilt, price 6s., by post 6s. 6d.*

WINDOW TICKET WRITING. Containing full Instructions on the Method of Mixing and Using the Various Inks, &c., required, Hints on Stencilling as applied to Ticket Writing, together with Lessons on Glass Writing, Japanning on Tin, &c. Especially written for the use of Learners and Shop Assistants. By WM. C. SCOTT. *In paper, price 1s., by post 1s. 2d.*

WIRE AND SHEET GAUGES OF THE WORLD. Compared and Compiled by C. A. B. PFEILSCHMIDT, of Sheffield. *In paper, price 1s., by post 1s. 1d.*

WOOD CARVING FOR AMATEURS. Full Instructions for producing all the different varieties of Carvings. 2nd Edition. Edited by D. DENNING. *In paper, price 1s., by post 1s. 2d.*

Special Supplements

GIVEN WITH "The Bazaar."

Ladies'

Fashions and Fancy Work Illustrated.

Stamps. . . .

Invaluable for all Philatelists.

Fiction. . . .

Popular Stories by Popular Authors.

Photo. . . .

Practical Papers for Amateurs.

Home. . . .

Illustrated Articles on all Home Subjects.

Dog. . . .

Papers for all Dog Owners.

BARGAINS

which is used by Private Persons for disposing of anything which they no longer require. It is the paper *par excellence* for Amateurs.

in every kind of Article that can be thought of are readily secured through **The Bazaar**,



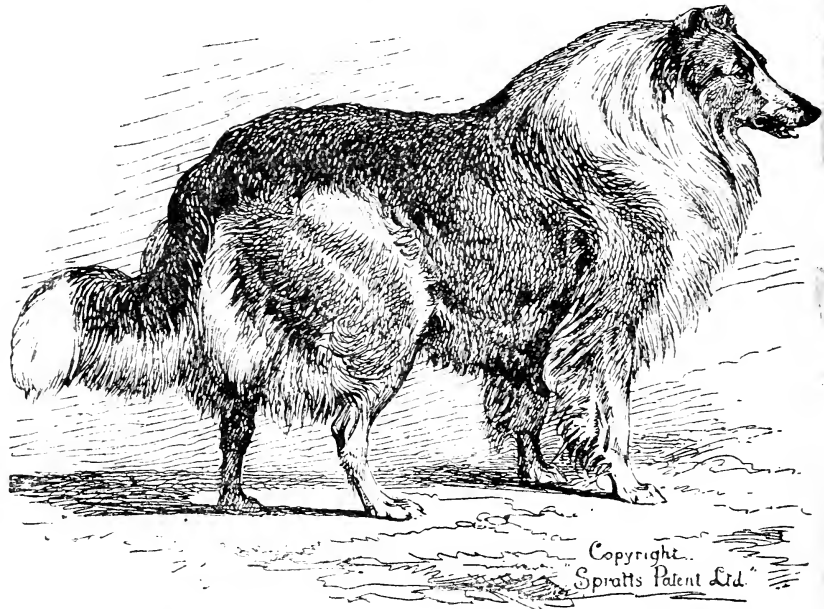
2^d.

2^d.

ADVICE

on every possible subject may be obtained on application to **The Bazaar**, which has the largest staff of Eminent Experts of any paper in the Kingdom, and these Experts freely place their services at the disposal of its readers.

The Diet of all Lucky Dogs



SPRATTS PATENT DOG CAKES.

Pamphlet on CANINE DISEASES GRATIS.

SPRATTS PATENT LIMITED, BERMONDSEY S.E.





