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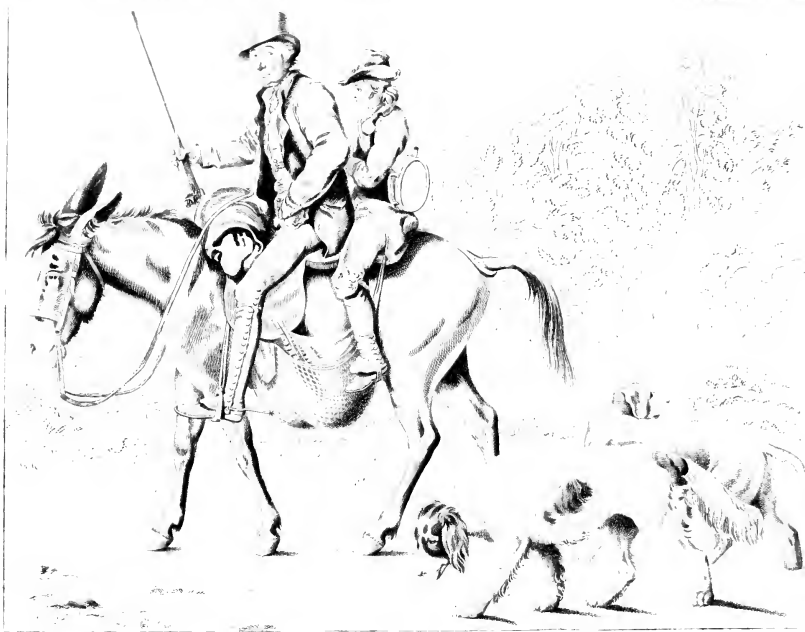
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H.A. Brough 1861

GEN. GEORGE BANGER.

From the Author
Kilmore
GENERAL GEORGE HANGER

TO ALL

Irish
Corwall
SPORTSMEN,

FARMERS, AND GAMEKEEPERS.

Above Thirty Years' Practice in Horses and Dogs; to feed and cure them of all common Disorders and to save a Dog which has been poisoned.

Effectually to catch *all* Vermin.

THE RAT-CATCHING SECRET;

TO CATCH EVERY RAT ON THE PREMISES ALIVE,
WITHOUT POISON.

On Fowling-Pieces, Rifles, and Muskets. To prevent Partridges being taken at Night by Drag-nets. To breed and feed Pheasants, and prevent them being destroyed by Night-shooters and Poachers. To catch flocks of Wood-pigeons and all Water-fowl. To shoot Wild-fowl, Pewits, Golden Plover, Wild Geese, and Bustards, by night. To approach Red Deer, within thirty or forty yards. Of Race Horses. Cure for Cattle swelled from eating Clover. Several valuable Family Receipts, &c.

EMBELLISHED WITH A CHARACTERISTIC PORTRAIT OF THE
AUTHOR ON HIS RETURN FROM SHOOTING.

A NEW EDITION.

LONDON.

PRINTED FOR J. J. STOCKDALE, No. 41, PALL-MALL.

Price Fifteen Shillings.



TO
THOMAS COKE, Esq.
OF
HOLKHAM, NORFOLK.

SIR ;

I HAVE frequently read dedications of books, to persons of distinction, attributing almost every virtue, in nature, to them ; and, after the most diligent search to discover where those virtues existed, I could find them no where but in the dedication. Indeed, many such persons, in my opinion, greatly resemble large china jars, in old family houses, which have outwardly a noble and handsome appearance, but, when you look into them, you will find nothing but dust and cobwebs.

I shall attribute three merits to you, which the whole world are acquainted with ; passing over those others, which have so firmly attached so many friends to you. First, sir, your conduct in the Senate of the Nation, for so many years, has incontestably proved you to be a true patriot, zealously attached to the liberties and interests of your fellow-subjects. Secondly, sir, you have been a most laudable agriculturist, expending tens of thousands of pounds, experimentally, for the universal benefit of mankind. Thirdly, sir, you are a good sportsman, and a liberal one.

I do not attribute this last quality to you for that unbounded kindness you have favored me with, by permitting me to shoot over three whole parishes, all your own lands; but from your well-known liberality to many others. There is, in truth,

a very great difference in the conduct of landholders; for there are many who would as soon lend their wives for a day, as their manors. Your kindness, sir, and that of several others in Norfolk and Suffolk, places me beyond the disagreeable predicament of receiving a refusal on application to them.

That you may live many years to continue that liberal and sumptuous hospitality, which have so much distinguished Holkham Hall, since it has been your country residence, and that you may enjoy every happiness in this world, is the sincere wish of

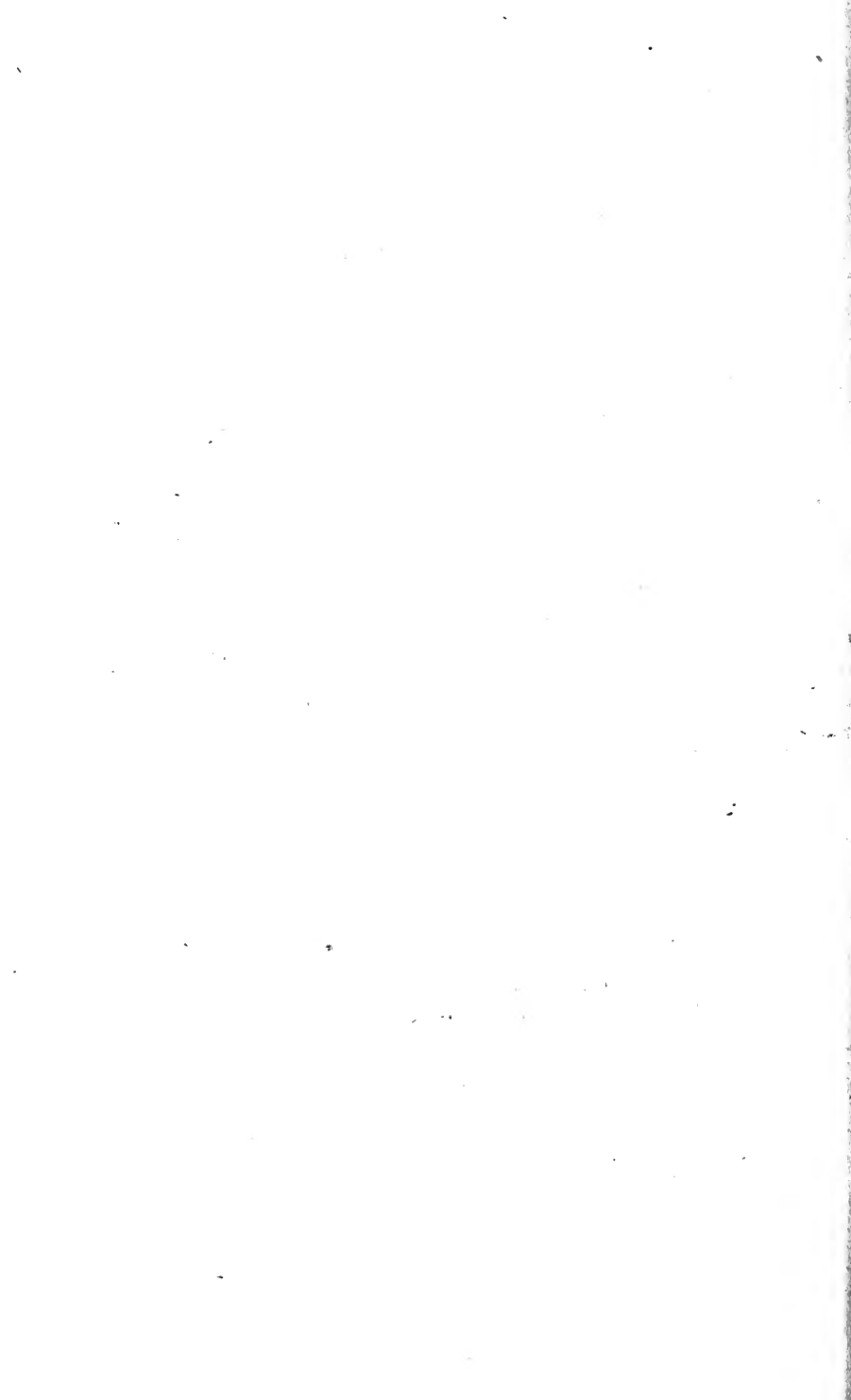
Sir, your most respectful,

Most devoted,

And grateful humble servant,

GEORGE HANGER.

London,
April 4, 1814.



COLONEL HANGER

TO

SPORTSMEN, FARMERS, &c.

I SHALL begin by making known the most useful medicine for horses that I am acquainted with. I have constantly used it for above thirty years, and, may in truth say, I have given it one hundred times. I shall relate how I first proved its surprising efficacy. Above thirty years ago, when I was confederate on the turf with my friend Mr. Robert Pigott, when his celebrated horse SHARK was at his best,—Mr. Pigott trusting the whole conduct of his stables to me, I came, some days before the Meetings, to try his horses and my own, and to see

Wonderful efficacy of nitre and sulphur balls, given to horses.

his horse Shark take his last sweat, before he ran with Lord Abingdon's Leviathan, for a very large sum of money we both had depending on that race.

Shark went through his sweat, at the dawn of day, very well, and to my perfect satisfaction; after which he was taken home, fed, and locked up, till twelve o'clock at noon. At twelve o'clock, when the trainer, Thomas Price, and myself came into his stable, we found all his legs swelled, his hind legs very much indeed, quite up to the hocks, and his fore legs considerably. I was much alarmed, and told Tom Price to keep the door locked, that none of the boys might see the condition he was in, and that I would send a servant to Mr. Pigott, to inform him, that he might get his money off.

Price said, " Sir, you are alarmed at that which is of no consequence whatever. Horses' legs, after sweating, frequently fly, and, I assure you, I have had many horses more swelled than Shark is. Provided his legs are not fine by to-morrow night, I will suffer death: and, to prove to you my sin-

cerity, I will, if you will allow me, stand every shilling you have on the race; and I know you have a very large sum depending. I will give him something which, by to-morrow night, shall make his legs as fine as they were yesterday." "You shall give him nothing," said I, "unless you tell me what the medicine is composed of." "It is the most simple and innocent of medicines, sir: I will write it down for you, and you shall go yourself to the apothecary's and have it made up, and see it given to him yourself. It is this: ONE POUND OF NITRE, AND HALF A POUND OF SULPHUR, (flower of brimstone,) MIXED UP INTO A MASS WITH MOLASSES." For Shark, I had it made up with honey, being so valuable a horse; but I never have given it to any other horse, except made up with molasses; and I look both on the honey and molasses, as only vehicles to give the nitre and sulphur. Before one o'clock at noon, I gave Shark a ball of it, as large as a good-sized hen's egg; at night, another; the next morning, another; and, in the evening,

Receipt for the
nitre and sulphur balls.

about five o'clock, another. At night, when we shut the stable up, we could scarcely perceive that his legs were at all swelled; and, at day-break the next morning, his legs were as fine as they ever had been. He had *two balls* given him *the first two days*, but *only one every day after*, until the day he started for the match, which was seven days after he had taken his sweat. His exercise was stopped only two days, during which time he was only walked, which, I am convinced, benefited him, for he was a delicate horse. All running horses, and hunters, must be well purged; if they are not, they will never stand their work, without *flying to pieces*, as the grooms vulgarly call it.

Running horses and hunters must be purged.

Of no utility purging draft or road horses.

It is not necessary to purge draft-horses, or hackneys. I have not physicked one for above thirty years. You need only give them one ball, as big as a hen's egg, every day, until they have taken the whole mass which I have prescribed. Give this in the spring; and, provided you find their legs swell again, from work, or that

they look unkind in their coats, give it them again,—for you need never stop their work.

Farmers, who are fond of having their cart-horses look well in their coats, when they go to market, are in the habit of giving antimony and other noxious drugs to their horses; this medicine will answer every purpose, and is most innocent and simple, and very efficacious.

Noxious drugs given to farmers' waggon-horses to make their coats look fine.

Ignorant John Groom, and the farrier, equally ignorant, whenever a horse looks unkind in his coat, and most particularly when his legs in the least swell, give him, for two or three successive days, a strong diuretic ball; which makes the horse stale profusely, weakens him, and is detrimental to his constitution. Diuretic balls are composed of rosin, juniper-berries, and other violent, strong diuretics, violent in their operations, and noxious to the animal. The medicine I recommend is perfectly innocent, and so mild and gentle in its operation, that it acts insensibly on him, and is not to be perceived, but by the cure.

Strong diuretic medicines detrimental to a horse's constitution.

Second proof
of the efficacy
of the nitre and
sulphur balls.

The first horse, after Shark, I gave this medicine to, was a most valuable brown horse, a hunter, presented to me by my worthy and old friend, Lord Egmont. The man who sold him to my friend, had deceived him, by telling him, that the horse had been properly physicked before the season. I had not rode him much above a fortnight, ere he flew all to pieces.

My groom came in one morning, and desired I would look at my horse. I found his coat extremely rough, staring, and unkind to the feel, and his legs very much swelled. I gave him, the first day, two balls; the second day, two balls; and every day after only one ball, until he had taken the whole mass. I hunted him on the fifth day, his legs being nearly as fine as they had been, and his coat every day looking better and kinder to the feel. Since that time I have given it to some hundreds of horses.

I gave this receipt to a horse dealer in London, an old acquaintance of mine, who was accustomed, whenever he had pur-

chased a lot of horses in the country, when any of them flew at the heels, their legs swelled, or looked unkind in their coats, to put them under a regular course of physic; by which method he lost the sale of his horses for six weeks. He has assured me that, ever since I gave him my receipt, his horses have, in ten days, been fit to shew to any gentleman.

I do not assert that this medicine will cure a confirmed grease in horses' heels, but it will cure an incipient disorder. Be sure never to apply any grease or ointment to the horses' heels, nothing but a turnip poultice. If the grease be obstinate, nothing but mercury will cure him, thus administered: Give the horse TWO DRACHMS OF CALOMEL OVER-NIGHT, AND THE NEXT MORN A COMMON ALOETIC PURGE. This must be repeated three times, stopping one or two days between each dose; after which give him the nitre and sulphur balls. This process will cleanse him thoroughly.

The Grease in horses.

Method of treating the Grease.

When horses come in from hunting and perfectly empty in the stomach, when you give them a double feed of corn, before

Peculiar method of discovering Worms in Horses, mistaken often for the Gripes.

they have eaten one half, you sometimes will observe them leave off feeding for a time, turn their heads back and look at their flanks ; sometimes they will even lie down for a minute or two, then get up, and finish their corn. Wise John Groom says directly, to a master as wise as himself, "Sir, your honour's horse has got the gripes ; I will give him a comfortable drink, which will soon relieve him." John Groom might just as well rub the horse's, or his own backside with a brick-bat. This proceeds from the horse having worms. The worms, as hungry as the horse, begin to feed and, by moving about in the body of the horse, make the horse, for a time, sick.

The cure.

Two drachms of calomel, given overnight, tying his head up to the rack, so that he cannot eat any thing, and half a dose of the common aloetic physic the next morning, three times repeated, will kill the worms, and bring them from the horse.

Peculiar case
of a Mare.

I once knew a mare which took three doses, and they had no effect on her ; but a fourth dose brought very great quantities from her ; her coat began to look fine, and

her corn did her good, which it did not before she was perfectly freed from them.

Courteous Reader, (as the man who makes Moore's Almanack, ever addresses his customers,) be pleased to observe, that I positively decline even entering into any difficult and intricate disorders which horses may have. I presume only to point out the methods which should be practised with all horses afflicted with simple and common complaints, which are so easily known and distinguished by any man, who has the least knowledge of horses. Provided your horse be afflicted by a greater malady than common, send for a Veterinary Surgeon. That description of men have arrived at great perfection, and there is scarcely a large town in England, where there is not one to be found of some proficiency. Provided you doctor your horse, when you know not what his disorder is, it is three to one but you kill him.

If your horse be attacked with a putrid fever, (which is easily known from a common inflammatory fever, proceeding from a horse having caught a violent cold, and

all perspiration checked, by having been put into a cold damp stable, and not well rubbed down, and well clothed, ever having been used to a warm stable and good attendance; or from standing in a great perspiration, hung to some ale-house by a master, by far more brute than the animal,) send for a veterinary surgeon. Yet, in complicated complaints, more commonly known by the name of chronical diseases, I am of opinion, that *nature* acts infinitely beneficent, kind, and great, in our favour. That the doctor may assist nature, I allow; but his skill cannot take the lead of her: and I am persuaded that, provided your apothecary and surgeon be a man of good sense, and of considerable practice in his profession, when he finds that all the medicines he has given you have been of no avail, and desires that you will call in a physician, it is only for this reason,—that, provided three people die in the year, attended by an apothecary *only*, it makes a greater noise in the parish than when three thousand die under the care of physicians; for scarcely does any one die

(excepting they drop down suddenly in a fit) without having this satisfaction and consolation left to their friends, that they died, or were killed, *secundum artem*.

Now I will frankly ask any physician, whether he has not many advantages when he attends his patient, which the veterinary surgeon cannot have? When I send for a veterinary surgeon to attend my horse, he goes into the stable;—he certainly can feel the horse's pulse; so can the physician, feel his patient's pulse; but the physician has a hundred advantages to make himself acquainted with his patient's disorder, which the veterinary surgeon cannot have; for the veterinary surgeon's patient cannot speak, and tell him where the complaint lies, or in what part of his body he feels pain, or whether he be cold, hot, or thirsty, or in great pain in any particular part of his body or limbs. This the veterinary surgeon has to find out.—Now I will state the following to the candid reader. Were I extremely ill indeed, and were to send for a physician,—when he is attending me, he first asks me how I feel, where the pain

Advantages
a Physician
has, which the
Veterinary
Surgeon can-
not have.

lies, whether it be in my foot, backside, or head, or in any other part of the body. Instead of answering him, were I to say, "Sir, I sent for you to tell me how, and where, I was affected; and not to inform you where the pain and disorder lies, together with all its symptoms,—that is your business to find out;" I will candidly ask the reader whether he would not hastily quit my bed-side, get into his carriage, drive away, and tell the whole town that I was mad? But yet what I have stated is a fact.—The only advantage the veterinary surgeon can have is, that his patient cannot be affected with such chronic disorders, from the simple and innocent nature of the horse's aliment, as man, from gluttony, drunkenness, and debauchery, is afflicted with. In short, I am of opinion, provided the disorder be not very easily known, and distinguished, both the horse and the man have but very little hopes from the veterinary surgeon's, or the physician's assistance. Nature, and a good constitution, nine times in ten, perform the cure, both in man, and horse.

Nature and a good constitution nine times in ten perform the cure.

I shall now speak concerning inflammatory fevers. They are not difficult to cure. First, the horse's pulse should be felt, to ascertain the height of the fever; a horse's pulse is to be felt by applying the palm of your hand, pressing hard, just behind the elbow of the left fore-leg. A horse's pulse, in good health, should beat about forty or forty-two pulsations in one minute. I have known a horse's pulse to beat above 80; but then the fever was very violent, and the horse must be plentifully bled; and he must be bled again the second day, provided the fever is not abated. To this one horse I now speak of, I gave FOUR OUNCES OF NITRE EVERY DAY; but, in general, three ounces is sufficient, unless the fever be very high. As the horse will not eat corn, in which the nitre may be given, you must make the nitre into a ball, and give it him; and be sure to drench him plentifully with water-gruel.

When a horse is much reduced by illness, but has recovered his appetite, the best thing to nourish him, I know, is malt.

Of Inflammatory Fevers.

Concerning a Horse's Pulse.

*Pulsations at
40 or 42 in a
minute - in
health -*

How to treat a Horse in an Inflammatory Fever.

Malt nourishing to Horses after an illness.

Put the malt into a stable-bucket, and just cover it over with boiling water ; throw a cloth over the pail, and let it steam for about half an hour. A person I knew well, who used to prepare the physic for his horses himself, put a certain quantity of calomel to a certain quantity of aloes and other ingredients, into an earthen pot, and boiled them together. From not stirring the ingredients constantly, until they were quite cold and stiff, the calomel all settled at the bottom of the pot. The first year he physicked his race-horses, they did well ; but the second year, coming to the bottom of the pot for the physic, he killed two or three of his young racing colts, and materially injured some of the aged horses.

Danger of giving Mercury to Horses.

How to give Mercury with safety.

To obviate this danger, when it be judged necessary to give a horse CALOMEL, let TWO DRACHMS be given over night, and the aloetic purge the next morning. To a young colt, of two or three years old, you must not give above half the quantity of calomel.

For the gripes or cholic in horses, the very best thing you can give them is a WHOLE BOTTLE OF DAFFY'S ELIXIR, MIXED IN ABOUT HALF A PINT OF WARM ALE, AND A LITTLE GRATED GINGER.

Daffy's Elixir
for the Cholic
and Gripes.

When I kept a stable of horses, I never was without three or four bottles in the stable. It is an expensive medicine, I acknowledge; but what of that?—purging must be promoted, not checked. We all know that Daffy's Elixir is made of a decoction of sena and warm spices. The sena purges gently, and the warm spices comfort and warm the horse's stomach. You will find a horse sometimes shew that he is in considerable pain, endeavouring frequently to stale and cannot. This is frequently taken for the gripes; but it is not the gripes: it proceeds from costiveness in the horse, and the dung-bag being so full as to press hard on the bladder, which prevents the horse from staling. Let a boy, with a small hand, well oiled, rake him: the horse will stale directly.

Costiveness
sometimes
taken for the
Gripes.

For bots, which often lie in the horse's anus, A DECOCTION of SHAG TOBACCO with

Of
the Anus; how
to kill them.

linseed oil will destroy them. The decoction must be thrown up by means of a syringe, and the horse's tail held fast down with a cloth on the fundament, for ten minutes, to prevent the decoction from being discharged.

How to treat dry, hard, and brittle Feet.

To ease pain in a horse's foot, or to make a dry, hard, brittle, or contracted foot supple and expand, I know nothing equal to boiled linseed, applied warm to the foot.

Of Wounds in the Feet.

When the foot be wounded by picking up a nail, cut by glass, or by some other accident, in which case gravel may have got into the foot, it will be necessary to apply a common poultice with Venice turpentine, to draw the gravel out.

Never grease Horses' hoofs, but dab them with Chamberlie.

Never on any account grease a horse's hoof, which all-wise John Grooms do, as they say, to supple it and keep it from cracking; grease has a contrary effect. Take your horses out from the clean straw and dab their hoofs well, morning and evening, with stale chamberlie.

Different effects of Chamberlie and Grease on Horses' Hoofs.

Take a dry hoof of a horse, cut it in half, steep one half for several days in a pot of chamberlie, and the other in a pot of

grease; take them out, wash them both clean, and lay them aside. In a short time you will find the one steeped in chamberlie tough, genial, and pliant, the other steeped in grease will be hard and brittle: this has been tried. You may anoint the coronet of the foot with a little fresh grease, but no other part of the foot.

Provided a splint lies on the bone of the leg, so as not to impede the action of the sinew, I recommend, by all means, to let it alone and do nothing to it; but, if it lies near the sinew, it must be taken away. The best method I am acquainted with, is to rub it with a round stick, till it feels somewhat soft, then prick it in many places with a bodkin or packing-needle, moderately hot; be sure to make two or three holes quite at the bottom. A gentle blister will then reduce it.

Of Splints,
how to treat
them.

With spavins and ring-bones I will have nothing to do. Send for a skilful veterinary surgeon. It requires skill and practice to operate on the vein in blood-spavins, and I believe bone-spavins generally incurable; at least the horse will not have

Of Spavins
and Ring-
bones.

the free use again of his joint ; and ring-bones are very bad maladies.

Of Corns.

Corns should be clean cut out, and a wide *wash* extended from the shoe, in the form of three thirds of a circle, and about two inches broad, over the part where the corn was, to guard it from sharp stones, gravel, &c. I do not approve of a bar shoe, it confines the dirt in the foot too much.

Of Running Thrushes.

It is dangerous to attempt to dry up running thrushes, unless the horse be put under a course of strong physic ; for, if, by sharp washes alone, you attempt to dry them up, the disorder frequently flies to the eyes, when, for a time, you nearly blind the horse. I look on running thrushes as a discharge of nature, much the same as sweaty feet in man : dry them up, and I imagine the disease will fly to some other part of his body. I am certain it always will in a horse. The only safe method of treating them is, to WASH THEM CONSTANTLY WITH STALE CHAMBERLIE. I would also particularly recommend GIVING A FEW OF THE NITRE AND SULPHUR BALLS,

How to treat Thrushes.

provided the thrushes run abundantly, and smell very foetid.

A horse cannot easily be lamed in the shoulder, except from a fall, a blow, or from running against some hard substance. But wise John Groom, and the farrier, provided they know not where the lameness really lies, swear the horse is lame in the shoulder; whereas the lameness is in their heads, and not in the horse's shoulder.

Of Lameness in the shoulder: infallibly how to distinguish it from Lameness below.

John Groom lame in the Head.

I will give you an infallible method to know whether a horse be lame or not, in the shoulder. When you trot the horse, if he be lame in the shoulder, the muscles are affected, so as to prevent his extending that leg, or stepping out so far with it, as he will with the other leg; he will step considerably shorter with that leg. When the lameness lies below, he will extend the lame leg as far as the other; but, when he puts the foot to the ground, will shew lameness. If the cause of lameness be not very visible to the eye, you may rest assured it lies in the foot or fetlock joint: in this case send for a veterinary surgeon; for, to cure it, great skill and practice is necessary, and

a thorough knowledge of the anatomy of the foot, and fetlock joint. I have known several horses totally spoiled by lameness in the feet, and never fit for any other use but to draw a cart or waggon, where they never are forced beyond a walk.

Of Gun-shot
wounds in
Horses.

The best method of treating gun-shot wounds in horses, is, to inject spirit of wine; if that cannot be procured, use brandy, which will do extremely well; if that be not at hand, use rum. It is wonderful how speedily horses recover from gun-shot wounds, provided they are not shot in the bowels or other dangerous parts of the body. Yet I once had a horse shot directly through the centre of the body, about five inches above the bottom of his belly, and he was very well in a short time: and another horse of mine (it was singular) had a ball absolutely flattened on the bone of the hind-leg, just above the fetlock, which I cut out in the afternoon with a common pen-knife; the side of the ball next the bone was quite flat, and as broad as a shilling: it lamed him for some time.—I saw a horse belonging to a captain in our

regiment, in a very few months shot once through the neck, and the second time through both buttocks. In about five weeks after each wound, his master rode him; so very quick does the flesh of horses heal.

Ointments should seldom be used to any lacerated part, *and never to gun-shot wounds*; but when absolutely necessary. The following is the best, as there is very little grease in it.

Ointments never to be used to Gun-shot wounds, and very seldom in other wounds.

TAKE, OF LINIMENTUM ARCÆI (ARCÆUS LINIMENT), ONE OUNCE; OIL OF TURPENTINE, TWO DRACHMS; VERDIGREASE, A SUFFICIENT QUANTITY TO TURN IT TO A DARKISH GREEN COLOUR. This is an excellent healing ointment; BUT SIMPLE OIL OF TURPENTINE WILL DO WONDERS.

The only Ointment fit to be used.

I have not made any observations relative to the shoeing of horses for several years at Newmarket: formerly they were scandalously ill shod. It is to be hoped that since skilful veterinary surgeons have resided there, the method of shoeing has been altered. I have seen many horses' feet so narrowed at the heels by bad shoe-

Wonderful use of the simple Oil of Turpentine.

Horses ill shod at Newmarket.

ing, that the points of the fore shoes have nearly touched at the heel. I am certain this has been the cause of laming numbers, and would have lamed many more were it not from the fine soft turf they are exercised on.

How to widen
a Horse's Foot

I have frequently bought strong boney horses, with feet infinitely contracted. In four or five times shoeing I have widened their feet above one inch, and, in time, brought them to have a good foot, broad and open at the heel. To accomplish this, the shoe must be made quite straight, from the centre, to the heel, not in the smallest degree turned in at the points; pare the contracted points away, and let the point of the heels rest on the shoe. The heel, thus rested on the shoe, will naturally expand. Some people may say this method of shoeing may make the horse cut: I deny it; the horse never cuts with the heels of his shoes; nay, even in the speedy cut, he strikes his leg with the centre of the shoe.

When a Running Horse or any other is badly let down in the sinews of the fore leg.

When a running horse is badly let down, as it is termed, in the back sinews, the best way is to turn him to the stud; for I am

certain he will never stand a severe race ; and whatever you do to him, if you hunt him, he is ever liable to break down *in deep ground*. However, in case you are determined to try him, the leg must be reduced first as much as it is possible, and then he must be blistered and fired ; but above all, he must have long rest given him, *and the whole winter's run, in a very dry padock*, wherein there is no marshy nor wet ground. The winter's frost and cold air, in a dry padock, will, I believe, perform the greater part of the cure, together with long rest.

I own the following is a fancy of my own, and that I never have tried it ; but in my poor opinion I think it stands to reason. On the former lame leg, the shoe should be made *full half an inch thicker at the heel* than the shoe on the other foot, to give the injured sinew some additional relief. Indeed, I once had a capital cantering hackney fired on both fore-legs. I always shod him at the heel of both feet, much thicker than any other horse ; but then I never cantered him at above the rate of ten miles in the hour. He went so completely on his haunches, that but little

A fancy of my own, never tried.

The great perfection in the action of Horses.

strain laid on his fore-legs. This is the great perfection in all horses' actions. All of them go *from* their hinder parts, but very few go completely *on their hinder parts*; no hunter can go through deep ground unless he does; and no horse, which goes differently, can be used on the road with safety to your neck.

Of nicking
Horses.

I once knew a most valuable horse killed by nicking his tail; it mortified. The surest method is to give him a dose of physic the morning before the operation is performed, and at least one dose more the third day.

Of sore backs
in a Regiment
of Cavalry.

In the British Legion Cavalry, in America, we had no sore backs; for a blanket, six or eight times doubled, was always laid on the horse's back, under the saddle. All our cavalry, on service, should have a blanket, eight times doubled, under the saddle. It is of great utility; for, with care, you never will have a horse with a sore back; and, at night, the man may draw it from under the saddle, and cover himself with it; thus he will have two blankets to cover himself. But road-horses, and waggon-horses too, frequently have sore backs,

The best method of curing sore backs, and I have frequently experienced the efficacy of it, is to DISSOLVE HALF AN OUNCE OF BLUE VITRIOL IN A PINT OF WATER, and dab the injured parts with it four or five times a day.—The best captain of cavalry, I know, is not he who only fights his troop well in action; but he who has his horses in the best condition, and has the fewest sore backs in his troop. What a laudable example the German hussars, and other cavalry, shew us, in the care of their horses. The attention they pay to their horses is wonderfully meritorious.

A cure for sore backs.

I never allow a horse of mine, which is out in all weather, and frequently stands for hours in the street, and very often in rain, to be curried, or brushed: currying and brushing thins their coats, and makes them more liable to catch cold. Nor do I ever allow them to be covered in the stable with a cloth. They are rubbed well with a whisp of straw, and then with a coarse hair-cloth; this makes the blood circulate, and it is fully sufficient. I am thoroughly persuaded, no cavalry horse, on service, at

No Horse, out in all weathers, and standing still in the streets, should be curried or brushed.

the picket cord, should ever be curried or brushed: indeed a couple of curry-combs may be kept in each troop, in case a horse may have some hard dirt caked on, which cannot otherwise be rubbed off.

No Horse
should stand
on litter in
the day-time.

I never allow a horse to stand on litter in the day-time in the stable. I speak not of running-horses or hunters. Provided the straw be not perfectly dry and clean, it perishes the feet. Look to horses which stand upon half-perished litter, as one half of them do at the livery-stables; you will find their feet full of dirty half-perished litter. This materially injures the feet.

An infallible
lotion for
blows, bruises
and sprains.

For the present, I have nearly done with the treatment of horses; but will give you one receipt more, which, *of all the medicines* in the world, is *the most efficacious*. It is as beneficial to man and woman, as it is both to horses and dogs. You should never be without a bottle of it in the house. It is infallible in its cure of all bruises, blows, and gentle strains, which horses and dogs receive in the field. I do not mean to say that it will cure a horse, which is absolutely let down in the sinews; but, in

every other respect, it is a sovereign remedy. I have had, in the course of time, four or five servants who have slipped down stairs, and have terribly bruised their legs, and sprained their ancles. I have also given it to numbers who have received injuries in their limbs from falls, blows, or bruises, and I never have known it to fail. It was given to me by an old huntsman, thirty years ago. It may even be used when the skin is broken or rubbed off; not absolutely on the wound itself, because it will occasion great pain; but it may be rubbed in well all round the wound. TAKE, OF SPIRIT OF WINE, EIGHT OUNCES; DISSOLVE ONE OUNCE OF CAMPHOR FIRST, IN THE SPIRITS OF WINE, THEN ADD ONE OUNCE OF OIL OF TURPENTINE, ONE OUNCE OF SPIRIT OF SAL AMMONIAC; OIL OF ORIGANUM HALF AN OUNCE, AND ONE LARGE TABLE-SPOON FULL OF LIQUID LAUDANUM. It must be well rubbed in with the hand, for *full a quarter of an hour*, every time it is used; which must be four times each day. You will be astonished at its efficacy when you try it.

With certainty
how to know a
strong and
good eye from
a weak one.

I will now inform you how for certain you may know whether a horse has a strong and good eye, or a weak eye, and likely to go blind. People in general turn a horse's head to a bright light to examine his eyes. You can know very little, by this method, what sort of an eye the horse has, unless it be a very defective one. You must examine the eye first, when the horse stands with his head to the manger. Look carefully at the pupil of the eye in a horse; it is of an oblong form: carry the size of the pupil in your mind, then turn the horse about, bring him to a bright light, and if, in the bright light, the pupil of the eye contracts, and appears much smaller than it was in the darker light, then you may be sure the horse has a strong, good eye; but, provided the pupil remains nearly of the same size as it appeared in the darker light, the horse has a weak eye; therefore have nothing to do with him. There are contracting and dilating muscles in the eye, which will plainly shew you, provided you follow my instructions, in what state

the eye is, whether it be a strong or a weak one.

Many horses are attacked in their eyes when coming five years old. This is vulgarly called moon-blindness. It is a periodical blindness, which comes and goes, sometimes three or four times; but, if it ever comes above once, I imagine his eyes to be in great danger.

I have often read, in farriers' works, and in those of veterinary surgeons, of worms in a horse's stomach: for my own part, I cannot credit it; for the peristaltic motion of the stomach is so powerful and the heat so great, when the horse is alive, that I am of opinion that worms may as well live between two mill-stones, when at work, or in a hot baker's oven, as in a horse's stomach: and this I have a right to say, that, when the motion of the stomach ceases, which it does with the life of the animal, in half a minute, worms may move from their former quarters into the stomach, particularly if the stomach be replete with food. Certain we are, that no person has ever seen the stomach of a horse

Of Worms being in a horse's stomach.

when alive ; therefore I am justified in saying, that I imagine it must be conjecture, and that I give a good reason for my opinion : however, I will not assert, or be positive in an opinion which may be contrary to that of more experienced men.

Wounds in
the skin of
horses.

Wounds in the skin of horses will generally be cured BY LINT DIPPED IN FRIAR'S BALSAM. I have already mentioned the great benefit of nitre in inflammatory fevers. Osmer relates a story of a horse, which he asserts to be a fact :—that a horse, with the mad staggers on him, broke out of the stable at a powder-mill, and got to a cistern of water in which a large quantity of salt-petre had been dissolved. He drank plentifully of it, after which he became immediately well, without any thing else being given him. He mentions this, to shew the good effect of nitre in fevers.

If Daffy's
Elixir be too
expensive, give
Philonium Ro-
manum.

I have already mentioned, that A BOTTLE OF DAFFY'S ELIXIR is the best medicine I ever tried for a horse taken with the cholic, or gripes, from drinking cold water, &c. &c. But, as Daffy's Elixir is expensive,

you may give him ONE OUNCE OF PHILONIU M ROMANUM : repeat the dose in one hour, if the horse be not relieved. You must be particularly careful to distinguish, for there are two sorts of cholick or gripes ; the one proceeds from the horse being chilled by cold water, &c. ; the other proceeds from costiveness and inflammation of the bowels. In *the latter* disorder you must be guided by feeling the horse's pulse, to ascertain whether it be attended with any degree of fever. I have told you already how to feel a horse's pulse, and how often, in a minute, a horse's pulse, free from fever, should beat.—In this latter disorder the dung must be constantly raked away, as it falls into the rectum. Give the horse sweet oil inwardly, to relax the intestines, and to supple the hard excrement, which, from dryness, may be lodged in the gut, which *is frequently the cause of this complaint*. Give him, every four hours, one ounce of the common purging salts. In this case nitre is not to be given, as it acts mortally as a diuretic. If the horse be in considerable pain, he should be bled, and, if the pain

Two sorts of Cholick and Gripes: how to distinguish them, and to cure both.

be very violent, bleeding should be repeated, because there will be inflammation.

Of Physic for
Horses.

I shall give no particular receipt how to prepare physic for a horse, as the purging balls, sold by most chemists, are nearly composed of the same ingredients, and I have found them to operate very well.

Remarks con-
cerning train-
ing Horses at
Newmarket.

I shall touch but slightly on the method of training horses at Newmarket; for, if I were to enter into particulars, I might write a whole volume on the absurdities I have seen practised there. All horses, generally speaking, are treated alike, unless they fortunately fall into the hands of some trainer (the number of which are but few), who acts according to *reason* and *common sense*, and whose brains does not lie in his guts, (pardon me this vulgar expression,) and his guts in his head — for they are fond of good living.

There is a certain cant term, and method of speaking, amongst these most ignorant fellows, which I ever despised, when I was on the turf; and I equally despise it now. When a gentleman has matched his horse at the Jockey Club, he tells his

trainer what he has done, and asks his opinion on the match; the trainer replies, "I think your honour has got to windward of the flats," or some such vulgar and low-bred ignorant expression;—although this fellow knows that your horse is so bad a racer, that, provided he be matched (giving weight) against a common post-horse, he will be troubled to beat him. — His interest is not whether you lose, or win, your match; his interest is, to encourage you to continue on the turf, and to persuade you, that your horses are much better than they really are; for, if he were honest enough to tell you, that, out of *ten horses* you had, in your stable, you had *but one* horse which could be called a racer,—then every man, who was not bigoted to his own obstinate folly and ignorance, would send every horse in his stables *to the hammer*, excepting that one horse, to be sold for what they would be *knocked down at*.—But this does not suit or agree with the trainer's interest. *He lives by the sieve, and by the sieve only, together with the money you pay for the boy's board and lodging,*

who exercises your horse ; and *by this, and by this only*, they accumulate, in time, good fortunes.

It is by the sieve, and by the sieve materially, they make their fortunes. Every time they shake the sieve, to feed your horses, it is to their profit. Generally speaking, they give one horse as much exercise as the other, whether, from his nature, he carries more or less flesh. Can any thing be so absurd, as to see all the young colts, coming three years old, brushing along, as it is termed, after the aged horses, many of them carrying heavier lads, than the aged horses? I am certain, that most of the delicate horses, which, by nature, do not carry so much flesh as others, are overtrained and considerably weakened by being immoderately sweated. Every horse should be sweated according to his constitution, and the quantity of flesh he makes. I am certain, that nine in ten would run better, provided they went gently for the last three or four days.

Horses, of gross habits of body, must

Improper
method of
exercising
Horses.

not be stopped in their exercise; if they are, they will grow pursive.

I do not believe there ever was a better horse than Mr. Robert Pigott's Shark, excepting Eclipse, which was a very uncommon horse.—I will tell you what Shark could do, by which you may give a tolerably good guess whether you have nearly the best horse of his year. Run five or six of your young colts together, one mile: if they all come in well together, you may be sure that not one of them is worthy to be kept in training, excepting you have one amongst them, which is an uncommonly large sized colt, large limbed and loose made. It is possible that, when he comes to his strength, and fills up, he may turn out a good horse. If you have one colt, which, in the trial, runs clear away from all the rest, you may expect that he will turn out a good runner. Take him, about a fortnight after, run him with two of the others which were the two first of those beaten; for you must not run him with the worst or last of the lot. Let him give them both twenty-one pounds. If he does not beat

How to judge whether or not that you have the best Colt of the year.

A remarkable
trial.

them cleverly, you have no right to expect that he is the best, or nearly the best horse of his year. I will inform you of a wonderful trial, when Shark was coming six years old. He ran from the Ditch in. I borrowed a mare, a good runner, of Mr. Vernon. I think her name was Atalanta, but I cannot mention her name for certain. I gave Mr. Vernon fifty guineas for the hire of her; but, then, I agreed to have her for a fortnight before the race, in our stables, that he should not run her to death, by which I might have been deceived in the trial. I promised him to run her only once, from the Ditch in, and, on the third day, again one mile only, and then to return her. John Oakley rode Shark, and Anthony Wheatley rode the trial mare. Shark gave all the other horses, except the mare, twenty-one pounds. There were three others; my horse St. George, Salopian, and Jack of Hicton. The mare carried four pounds more than them; consequently Shark gave her only seventeen pounds. As the mare and the rest of the horses were coming down that small decli-

vity just past the Furzes on the town side, Shark had beaten them full three hundred yards ; so much so, that I rode up to Oakley and told him to pull Shark up, and go in, in the centre of the groupe. St. George and the mare had a very severe race : he just won it ; the other two were beaten three or four lengths.

St. George had been turned out in a padock, at my own house, in Berkshire, for ten months, and well fed with corn the whole time. He was wonderfully improved ; for, before I turned him out, I ran him with Salopian, across the Flat, and Salopian beat him shamefully.

Remember, every horse, including the mare, was of the same age, — six years old. Twenty-one pounds is the test of speed ; and this your colt must be able to give to one which is a tolerable good runner, and not to one which cannot run at all, or you have not the best, or nearly the best colt of the year.—So much for racing.

The test of
speed in
Races.

We will now proceed to speak concerning the stud and the breeding of colts. A

Of the Stud,
and breeding
of Horses.

sportsman has a mare (for argument's sake, we will say) which is a sister to King Herod, and a horse which is brother to Eclipse. They neither of them have any good shape, make, nor symmetry, and run so very bad that he is obliged to turn them out of training; but, as they are brother and sister to two such famous racers, he puts the horse and the mare together, and, being both of such *excellent blood*, he expects to have them produce a colt, which will run well. Can any thing be so absurd? Be assured, there is nothing more certain than that *shape, make, and symmetry will beget shape, make, and symmetry*; and that two very bad racers, without any good shape, make, or symmetry, can never produce a good racer.

There is one method by which you may perhaps have a good colt, by a very mean, bad-shaped mare, with this one proviso, that she be roomy in the flanks, and has a large bag, sufficiently so to contain a good-sized colt. Send her to the best racer of his time, and you may have a good colt; but not by a horse which never in his life

could run one yard. Our best stallions, I am certain, cover too many mares in one season; and this is the reason why they get so few good colts. Look to a real Arabian ass, such as the many sons of princes rode on, who came to visit King Solomon;—and view one of our English donkeys. The Arabian asses have great speed, with beautiful symmetry and shape. Our English donkeys have no shape nor make to be compared to them. Do you think it is not the same with race-horses?

Arabian
Asses and
English
Donkeys.

Let us return, for a short time, to the diseases of horses. Osmer informs us how to make a medicine nearly analagous to Doctor James's Powder: thus it is:—TAKE TWO PARTS OF NITRE, AND ONE OF ANTIMONY, FIRST RUBBED TOGETHER, AND DEFLAGRATE THEM OVER A FIRE, IN A CRUCIBLE, BY PUTTING IN A LITTLE AT A TIME. One or two gunces may be given once or twice a day. I confess I never have tried this medicine; but it is composed of two excellent medicines, and, provided it be analagous to Doctor James's Powder, it must be a valuable medicine. He says it is *most*

efficacious in the distemper in horses, and also in horned cattle.

● of Bullocks & Cows being hove or sprung from eating clover.

Speaking of horned cattle, which, in clover or rich pasture, are what, I believe, farmers term it, hove or sprung; that is to say, the beast, from overcharging its stomach, is much swelled, and will die, if not relieved; the excrement must be constantly raked from the straight gut, and ONE OUNCE OF SALTPETRE given every two hours, till the beast has taken three ounces: after this you may give him some purging salts: indeed, if the salts be given in about two hours after he be first afflicted, it will be more efficacious. Osmer also assures us, that the nitre and antimony, deflagrated, is *a very potent remedy* in the farcy, in cutaneous diseases, local swellings, in all inflammatory disorders, and in fevers of every kind. I think this medicine is worthy of being tried, for Osmer was not a common farrier, but *a regular bred surgeon*.

For a horse's back, which is crushed with the saddle, common camphorated spirits of wine will be found sufficient; but, should his back be much swelled, particu-

larly if the bruise be near the withers, the following will be found more efficacious:—SPIRITS OF WINE, FOUR OUNCES; CAMPHOR AND BOLE, POWDERED, EACH ONE DRACHM; AQUA-FORTIS, TWENTY DROPS. Remember that warm cloths must be bound on the parts; if not, the medicine will not have so desirable an effect, as warmth is every thing to assist in the cure of such swellings. Lint or tow must be dipped in this liquid and laid on the part, after first rubbing some of it well on the part, and dabbing it with the mixture. Use this twice a day. If matter should form under the skin, when you find it fluctuate under the finger, it must be let out. This liquid will generally perform the cure without any digestive ointment whatever.

I shall now leave the subject of horses, for a time, and will treat on the maladies and management of dogs, in which I have had very great practice. I have ever, throughout life, fed my own dogs, after

Concerning
Dogs.

Feed your
Dogs yourself.

they came home from the day's sport. If I had twenty servants, one should prepare the food for them ; but I would not so much as allow him to be present when they are fed. The advantages you acquire are very great, by doing this yourself :— first, you make the dog attached to you, and only to you ; for which reason he will hunt the better for you, and infallibly be more obedient. If your servant feeds him, the dog is always looking after him, and cares not one curse for you. What a pretty situation you are in, with an ignorant groom, who knows not, in the smallest degree, how to hunt or treat a dog in the field :—by heavens ! you had as well stay at home, either for the pleasure or the sport you will have ! It is different with gentlemen of fortune, who can afford to keep a regular game-keeper and dog-breaker, who knows well his business. Then the master has nothing more to do than to go up and shoot, when his dogs stand : every thing else is the keeper's business. This is going into the field in grand style, as it may be truly said ; but a wandering, poor vagabond

like myself, mounted on a mule, with a boy, hired for the time, riding behind me, cannot enjoy such luxuries.

I will tell you a story relative to one of the best pointers I ever had in my life, and one of the most speedy; for I declare I have seen him frequently turn a hare two or three times, considerably above half grown, before she could get out of the field. I know this is very irregular sporting; but I am, as in most other things, a very irregular sportsman, of which you shall hear further in due time; and why I teach all my dogs to run hares. Even when put into my hands, so perfectly well broke, that they will not look at a hare, which gets up before them, I confess it mortifies me much; and their regularity, to me, is very unpleasant for a time; but I soon prevail on them to forego those great regularities; then they become amiable; please me much, and are thoroughly useful to my method of sporting.

I was sitting, some years ago, in the coffee-room at Newmarket; this was in the Spring Meeting; and my worthy old

acquaintance, Charles Wyndham, came and sat down by me. After some racing conversation, he said to me, "George, I will give you one of the very best pointers in England." After thanking him kindly, I said, "My dear Charles, you will not, I trust, take it ill of me if I ask you one question?" "Certainly not," he replied.—"How can you, who are fond of shooting yourself, give me a most excellent pointer?"—"Why I will give you my reason. My groom feeds all my dogs, and, having other business to perform, he cannot always attend me shooting; and this dog, when he has hunted a short time, if I speak even a little harshly to him, runs away home, and I know I shall one day or other shoot him. It is a pity so good a dog should come to any harm, and, as I know you always feed your own dogs, he will be attached to you, and be a most useful animal."—He was kind enough to send him shortly to my house in London. I always make my dogs *my companions*, in the shooting season; taking them into the room where I sit, after I am returned from the field; letting them bask themselves by

Warmth necessary and genial to all animals.

the fire, which comforts them, and does them a great deal of good, especially when, after rain, the turnips are very wet. This method, I am certain, prevents many from having the rheumatism.

Would you like, when you return from shooting, to be put into a parlour, as they call it, at an ale-house, in which there has not been a fire lighted for a week?—I always request the favour that I may be permitted to have a small round table, near the fire, in the kitchen. There I sit and roast myself till I am nearly hot through; and I am certain that method has preserved me from disorders and maladies; particularly from the rheumatism, for I never experienced the smallest attack from it in my life, which is a very singular thing for an officer to assert, who has, for many years, slept under the canopy of heaven, (generally speaking,) and nothing above him but the skies.

Now, on service, I attribute the blessing of good health, in America I speak of, to the abundant quantity of wood, particularly to the southward, in those unhealthy climates,

The Soldier's
health preserved
by fire.

where the person who owns the timber is infinitely obliged to you for cutting it down; for you clear his land by so doing, and do him a service. Our fires in America were so large, that you could not approach them within two or three yards. Our soldiers ever laid themselves down to rest with their feet to the fire, for two good reasons: first, a man, lying lengthwise before the fire, takes up too much room; secondly, if the feet be kept warm by the fire, the whole body is warm. I declare I have frequently seen soldiers get up and retire from the fire, their feet and legs being too warm.

All nature requires warmth

All animals are fond of warmth. Do you not see, in the cold weather, that the cattle shelter themselves under a thick northern hedge, to enjoy the southern sunbeams? All nature requires warmth, and, to all nature, it is genial and beneficial.

Lord Thanet, the father of my worthy and kind friend, the present Lord, was a great fox-hunter. He had a kennel so constituted, on purpose for his hounds, with a large circular place in the centre railed

in, which contained a very large coal fire; the kennel-man always, at night, replenishing the fire. Round this the hounds laid and basked themselves, after the day's chase; by which, I trust it will be allowed, they were materially benefited. In short, all nature requires warmth.

Now this pointer, Mr. Wyndham gave me, I took great care of; for he was one of the handsomest dogs, as well as one of the best, I ever had. This dog was very large boned and lofty. I judged, from such a shape, that he should have a good quantity of flesh put on him; but I never was more out in my judgment—for he never could hunt unless you could lay one of your fingers between his ribs. I took him down to my old friend's, Mr. Brand, the father of the present, in Hertfordshire, where I generally used to shoot the first week in September, and thence proceed to Suffolk and Norfolk. The first day he scarcely hunted at all, and never faster than a gentle canter.

A man who broke dogs for Mr. Brand, met me, and told me that he was a won-

derfully fine dog, but not worth a guinea. I replied, I was certain Mr. Wyndham would not deceive me. In short, I took him out every day, and gave him nothing but some broth at night, and a lump of bread as big as my hand, for five days. He increased in his hunting every day, and the sixth day, he set a hunting like the very devil, and continued it the whole season; and I declare I never had a faster or a stouter. I mention this only to shew how necessary it is to observe, by the bone and make of dogs, which one should carry flesh, and which should not; yet, generally speaking, they are all fed alike, and, for certain, if they are fed by an ignorant servant lad.

Did you ever see a man, a pugilist, with a belly, fleshy, and bubbies as large as a woman, who could ever fight? — That great overgrown beast O'Brien, the giant, who was shewn for money, for some years, would have been beaten on a stage in a very few minutes by many lads, not weighing eleven stone, who drive the jack-asses to fetch garden-stuff from Covent-Garden

market. Wind is strength, and strength is wind; without it, no exercise can be well performed. It is the same in a man, in a horse, and in a dog; therefore, look to this particularly; for, provided your dog be not in good wind, he cannot hunt. Delicate small-boned dogs cannot be fed too much; but the best method is not to have any thing to do with them; for I never saw one in my life, which would hunt three days without tiring, and I would not give one farthing for a dog, which will not hunt every day, throughout the season. I cannot afford to keep many dogs; therefore, the few I have, must work well.

You shall now know my reason why I teach all my dogs to run hares. I will not defend the practice, for I well know it is very unsportsman-like, and contrary to all rule and order. I scarcely know the time when I have missed a hare, I mean when she gets up before me in a field, or out of a hedge; not when they are bobbing about in a cover; then it is very difficult to shoot them, and a man must shoot very quick indeed, a perfection which I never attained,

Of shooting
hares.

I always take a long aim. In three days and three hours (for it began to rain on the fourth day, very heavy, by twelve o'clock,) my partner and I shot eighty-six hares. I shot above fifty of them, and we neither of us missed one shot.

Shooting with large shot.

As I always shoot with uncommon large shot, Number 2, patent, from the first of September, to the last day of January, I frequently mortally wound hares at a great distance. Knowing, when I hold them well, that I must have wounded them, I always follow them with my dogs, and many dozens have I recovered above a quarter of a mile distant, which otherwise would have crept into a ditch and died. I solemnly declare I have shot numbers of hares above seventy yards, when they ran across me, so as to shoot them in the fore-quarters; so that they never have run five yards: and once I saw a man, with a gun of mine, shoot a hare one or two yards above eighty, and she never ran above one hundred and fifty yards. These distances were *measured, not computed.*

Effect of large shot.

I once shot a partridge flying directly

from me seventy-four yards. I cut his foot off, to know him from the rest. In the evening I had him picked: I found that three shot had entered behind, under the tail; two had passed through him and came out at the breast, the third remained in the body. I have frequently shot pheasants through and through the body at very long distances.

It is the custom of most sportsmen, in Norfolk and Suffolk, to shoot all the year with Number 5; nay, some even shoot with Number 6. I have seen them hit many pheasants, which must have died afterwards, and were lost to them:—this is destroying game to no purpose. An old hare, at seventy yards, will laugh at you, if you shoot with Number 5.

It is much the fashion to have dogs broken to lie down when the gun goes off. I do not approve of it: I am certain it checks their hunting. Is it not sufficient for the dogs to come in and lie down whilst you charge?

Of Dogs broken to drop when the gun goes off.

Now to the diseases of dogs.—I am acquainted but with two, which are most

The Distemper in Dogs.

fatal to them, namely, the distemper, and a violent bilious fever, which they are very subject to, from hunting in hot weather; particularly if they have not been thoroughly purged before the season. I never as yet have found any medicine which can be relied on as a cure for the distemper in dogs. I have given Doctor James's powders, and many other medicines. Some have died, some have lived. The most efficacious I know of, is one which I have frequently tried for above eighteen years, and never gave any other. It is not always to be relied on; but it is by far more certain than any other. I cured two dogs last year, 1813, which were both very bad, so much so, that I despaired of their lives. The medicine is as follows: TURBITH MINERAL, TWELVE GRAINS, MADE INTO A BALL, WITH ANY SYRUP. Give one dose every day, for three or four days in succession. This is the quantity for a full-grown pointer: give a young puppy, three or four months old, *five grains*; one of seven months old, *seven or eight grains*.

The best medicine for the Distemper in Dogs.

I have observed that dogs, in the dis-

temper, absolutely die for want of nourishment; for, if very bad, they refuse all food. I am convinced that I have saved the lives of several, by drenching them, three or four times a day, with strong beef or horse broth, with a little meal in it; making it a thin gruel.

I have found the turbith mineral, in the distemper, by many degrees the most efficacious; and I can with truth say, it does not often fail, when given in the early stage of the disorder. Although this medicine is not a certain cure in the distemper, yet, in a violent and fatal disorder, which dogs are very subject to, *I never knew it fail*, if given when the dog was first taken ill.

The disorder I shall next speak of, is a violent bilious fever, which kills a dog in three days, provided he be not relieved. The symptoms are as follow: first, he feeds very sparingly; shortly after that, he loses that fine, florid, flesh colour, in his mouth and gums, which begin to assume a pale cast; in a very few hours after, he will turn as yellow as a guinea in the mouth and eyes.

The violent
Bilious Fever
which dogs are
very subject to.

The moment he looks dull and heavy, refuses his food, and begins to look pale in the mouth, before he turns, in any considerable degree, yellow, you must give him the medicine, or I will not be answerable for his cure. The quantity is TWELVE GRAINS OF TURBITH MINERAL, MADE INTO A BALL, WITH ANY SYRUP, the same as in the distemper. Give this three or four days following: on the fourth day, he will either be totally out of danger or dead. You must by no means bleed him in this disorder; if you do, you will kill him. In a very few years, I have had six or seven dogs taken with this disorder; and, upon my word, I never lost but one, and that by my own negligence; which I will prove to you.

An old gamekeeper and huntsman, who was my servant, said to me, just as I was at breakfast: "One of your dogs, sir, did not feed last night well; you observed that, and told me to look to the dog, and examine him the very first thing in the morning. I let him, sir, out of the stable, to run about; but I observed him to be rather dull, and

not in such good spirits or so gay as the others. I wish, sir, you would come and look at him."

I went directly, and examined him; looked into his mouth, and examined his eyes. I did not observe that he was even faint-coloured in the mouth; but I left him at home that day, intending to return about five o'clock; desiring the ostler to feed and take care of him. I went that day above twelve miles distant, and, finding a great deal of game, I stopped at a village contiguous, sported there the next morning, and shot my way home to where I had left my dog. On my arrival, I found him very bad indeed: he was as yellow as a guinea in his mouth, and lay stretched out and extended on his side. I gave him the above medicine, but he died the next evening. Had I returned home the first evening, I should have saved my dog: the most early attention and relief is necessary in this disorder, as well as in most others.

I will now inform you how I have, for above twenty years, treated dogs which have had the mange. About that time I

Of the Mange
in dogs; how
best to cure it.

was very much employed in the recruiting service, and could not give up much time to my dogs; so I sent for an old man, who made a good livelihood by curing dogs. My dog had the mange; not very bad, but something much worse with it; he had eight or ten large blotches on his body, as big as large hazle-nuts. The old man took a bottle out of his pocket, and first dabbed the blotches with a bit of tow, each two or three times. He then stopped about five minutes, for that to dry in and penetrate; after which he took a pot of ointment, and rubbed the dog in well, for at least ten minutes, under the fore legs, and on the belly, but *particularly on the back bone*. He then desired me not to wash the dog, or let him go into the water; telling me, that he would call in about five days. When he called, the dog was apparently well; so much so, that he said he did not think it necessary to rub the dog again: however, I made him dab the blotches again, and rub once more in.—When he called to be paid, I told him that, upon my honour, if he would discover how the liquid and oint-

ment were made, I would give him two guineas, and never discover it till after his death. He consented. The liquid is thus made:—HALF AN OUNCE OF QUICKSILVER IS PUT INTO A BOTTLE, WITH HALF AN OUNCE OF OIL OF TURPENTINE, FOR ABOUT EIGHT HOURS BEFORE USING IT: SHAKE THE BOTTLE FREQUENTLY, AND SHAKE IT ALWAYS WHEN YOU USE IT, for there will be a sediment at the bottom. The ointment is thus made:—TAKE HALF AN OUNCE OF QUICKSILVER; PUT IT INTO A BOTTLE, WITH HALF AN OUNCE OF OIL OF TURPENTINE; LET IT STAND FOR EIGHT HOURS, SHAKING THE BOTTLE FREQUENTLY: THEN TAKE FOUR OUNCES OF HOG'S-LARD, AND, BY DEGREES, MIX BOTH TOGETHER, A LITTLE OF EACH AT A TIME, TILL THE WHOLE BE INCORPORATED.—He told me, that he always carried two pots of ointment with him, one stronger than the other, in case of a dog being very bad with the mange. The strongest ointment was made with only three ounces of hog's-lard, but with the same quantity of the quicksilver and turpentine.

Of the Queen's
Dog Physician.

There was a fellow in this town (I forget his name) who was called the Queen's Dog Physician. From his attending her majesty's dogs, he went to all the women of fashion, to doctor their dogs also. He never would undertake them, unless he was permitted to take them home with him for ten days. There was seldom any thing more the matter with them than a gross habit of body; fat to a degree, from the scandalous method they are fed, giving them every day more good meat than would supply two poor children. When he got Chloe home, he physicked her, and gave her nothing but dry bread for some time. She would not eat, the first three or four days, of such insipid food, and, the first day, howled most bitterly; however, he soon cured her of that, by giving her four or five sound floggings, to prevent her annoying his neighbours. I think it scandalous to give dogs what a human being would be grateful to receive: however, this must be passed over in oblivion, provided a gentleman be making love to the lady, for then

How the
Queen's Dog
Physician
treats my
lady's lap-dog.

it is necessary to make a considerable deal of love to the lap-dog also. In about ten days the Queen's dog physician brings my lady her dog home, as fine as a star, sleek in his coat, and in tolerable good condition, for he has fed it tolerably well for the last four or five days. Her ladyship is charmed with the looks of her dog ; he is as merry as a grig ; jumps, frisks, and plays about ; when, before, he could hardly walk down stairs to dinner. She pays him very handsomely ; he goes away contented, laughing in his sleeve at her ladyship.

I have mentioned all the fatal and bad maladies to which a dog is subjected, excepting madness. Fortunately, no dog of mine ever went mad, or was bitten by a mad dog ; therefore, on that subject, I can give no just opinion : but, provided I had a dog, ever so valuable, bitten very deep, particularly if near to the head, I would destroy him. If he were bitten but slightly, I would cut the bitten part out, and burn the wound well with a hot iron ; then pour some *liquid caustic* on the wound, and rub in, two or three times every day, some

Concerning
Mad Dogs.

very strong mercurial ointment; and, *for certain*, I would give him *twelve grains of Turbith mineral*. Osmer asserts positively that he has given it to many dogs, badly bitten, and never knew it fail; and several others assert the same. I would rub strong mercurial ointment into the wound every day, for at least one month; and give him, every week, for a month, two doses of the *Turbith mineral*. Provided a dog went mad in my kennel, I would discharge the person who looks after them; for no dog goes mad without first rejecting his food. The moment a dog refuses his food, or feeds very sparingly, he should be taken from the others, and chained up in some safe place.

Of Dogs' Feet:
how to treat
them.

I shall now proceed, and speak concerning dogs' feet,—the most essential point about the animal; for, without a good, firm foot, he can never hunt long. I never look at a dog which has a thin, flat, wide, and spread foot; they are not worth two-pence.

It has been a constant custom with me to wash my pointers' feet with strong salt

and water after the day's sport. I have found my error, and am convinced that it is a wrong practice. I never altered my method until three years ago. A game-keeper in Suffolk, seeing that a boy was washing my dogs' feet with strong salt and water, (his name was Cooper,) said to me: " Sir, I think you do wrong to wash your dogs' feet in salt and water, at this early part of the shooting season, (it was the first week in September,) at this time, sir, when the ground is uncommonly dry, and as hard as a rock. If you will feel their feet, you will find there is a considerable degree of feverish heat in the dogs' feet, from having hunted all day on hard and dry ground. A dog, sir, in such weather, should have his feet suppled and comforted. As long as the ground is dry and hard, I always wash my dog's feet with warm soap and water, and clean them well, particularly between the toes, and balls of the feet; this comforts his feet, allays the heat, and promotes the circulation in the feet. In the more advanced period of the season, when the ground is very wet, then salt and water

may be proper." I approved much of the reasons he gave ; it shewed the sense of his practice, and the folly of mine : since that period I have taken his advice.

Friar's Balsam
for wounds in
Dogs' Feet.

WHEN DOGS' FEET ARE CUT BY FLINT AND BY OTHER ACCIDENTS, FRIAR'S BALSAM, I HAVE USED FOR YEARS, AND FIND EXCELLENT. You may generally hunt the dog the next day, with a piece of strong wash-leather, four double, tied round the foot ; and when their feet are chafed or galled, or the skin is absolutely worn off, FRIAR'S BALSAM is the only thing I ever have used for many and many years.

Of the Canker
in the inside of
Dogs' Ears.

Dogs are sometimes afflicted with a disorder, called the canker, in the inside of the ear, and some distance in it also. In this disorder I have never had much practice, for I do not recollect that I ever had above four or five dogs so disordered. I have found the following method beneficial. Lay the dog down on his side, with that ear, in which the disorder lies, uppermost : put a lump of soft soap, as big as a walnut, into the ear ; pour one table-spoonful of brandy on it ; hold the ear close, and rub it

well, until the soap comes to a lather; then pour another table-spoonful, and so continue to do, until you have used three or four table-spoons full, constantly rubbing the ear till the soap and brandy be well mixed. Use this method three or four days following. This disorder is known by the dog shaking his head perpetually, and by his smacking his ears against his head and neck; a nasty, stinking humour is also discharged from the ear.

There is another sort of canker, which generally lies at the tip, or bottom side of the ear. This is very visible to the eye, and dogs are very subject to it. I will state to you a method of treating this disorder, invented and practised by that celebrated physician Doctor James, the inventor of the fever powders, who paid much attention to the disorders of dogs. I am certain I have used it to fifty dogs, and *never knew it fail.*

The Canker on
the outside of
the Ear, with
the Cure.

TAKE EQUAL PARTS OF RED PRECIPITATE AND HOG'S - LARD, WELL MIXED TOGETHER. Brush *both sides of the dog's ear* where the disorder lies, with a soft

tooth-brush, having some of this ointment laid on it. *Be sure never to brush against the hair, but always the way the hair lies.* About four dressings, once every day, is generally sufficient.

Provided you do not choose to rub your dog in with the quick-silver ointment, and dab him with the quicksilver dissolved in oil of turpentine, when he has got the mange; (in the former pages of this book, I have told you how to make them;) the following is the best thing I know, after the mercurial ointment; and, before I was acquainted with that, I always used it, and found it answer well; but then it must be used at least three times, which causes much trouble. It is made after the following method.

Take HALF A PINT OF TRAIN-OIL, HALF A PINT OF OIL OF TURPENTINE, HALF A POUND OF SULPHUR VIVUM, (the black coloured sulphur, and not the flower of brimstone,) and ONE OUNCE OF ROACH ALUM, VERY FINELY POWDERED; MIX THEM ALL WELL TOGETHER. It certainly is not prudent to use a strong mercurial oint-

Another receipt to cure the Mange in Dogs.

*Another Receipt
to cure the Mange
in Dogs.*

ment and wash, in very cold weather, nor unless your dog lies warm and dry. I know not what might be the consequence of such imprudence; but surely, with proper care, the dog can receive no injury.

The most cursed and tormenting malady a dog can have, is to be badly troubled with worms. Give him the best of food, it does him but little good; he always looks unkindly in his coat, and will not carry flesh. I have generally been very successful in destroying the worms in dogs, BY THE USE OF CALOMEL; nor have I used any thing else for years: THE QUANTITY I GIVE IS TEN GRAINS; FOUR DOSES, STOPPING ONE DAY BETWEEN EACH DOSE. This year, 1813, I had a dog so troubled with them for above ten months, so very bad, that I could not destroy them. I tried many things: first, *four doses of calomel*, ten grains in each dose; then I gave him *savin*; then bear's-foot; after that, *powdered glass*, four doses, as much in each dose as would lie on a shilling, heaped up. Then a medical gentleman of my acquaintance told me that I did not give him enough

Worms in
Dogs.

calomel; but that first I should boil a pint of milk, cool it, and sweeten it well with brown sugar; give this first to the dog, that the worms might feed well on it, and in about twenty minutes afterwards, give him *twenty* grains (*one scruple*) of calomel. This I gave him three times; it brought a number of worms from him: but, in about five or six days, he had nearly as many as before; then I knew not what step to take with him. One day, by chance, I met with a very old acquaintance of mine, a tradesman, and happened to mention to him how terribly troubled the dog was with worms. He said: "It is very singular, sir, having known me for so many years, that you should not be aware that I have cured some hundreds of the human race, and my medicine is equally efficacious to the brute creation. This medicine is nothing but THE LEAVES OF THE WALNUT TREE. In summer, when the leaves are green, they must be dried and baked in a plate before the fire, then rubbed to a fine powder with the hands. In winter, when dry, you must buy them at the medical

How to cure
the Worms in
Dogs.

herb-shop, Covent-Garden. I gave my dog TWO LARGISH TEA-SPOONS FULL, HEAPED UP; first boiling half a pint of milk, letting it cool, and putting the powdered leaves into it: the dog will take it well; but he will not take it in grease, for the leaves have a very strong taste, and smell. By the bye, I caution all sportsmen never to give dogs milk, which has not been boiled, for it will purge them as much as a dose of physic. I gave my dog, eight days following, one dose; after which, for *above two* months, he *never voided one single worm*.

Never give milk which has not been boiled, to dogs.

There is a peculiar excellence in these leaves; they never, in the least, purged my dog: his body was in the same state, as if I never had given him any thing. This is a vast benefit; for, as it does not purge the dog, it may be given him even when he hunts. I am told by medical men, who have studied botany, that walnut leaves are a positive poison to worms, but by no means detrimental to man or beast.

You may observe, in the autumn, when the caterpillars and grubs eat the leaves of trees, and destroy the garden-stuff, you will

never see the leaves of walnut-trees eaten by them : no caterpillar nor grub will approach a walnut-tree. Besides, I will give you another proof of their abhorrence of walnut leaves : in summer, when the ground is so dry that you cannot dig for worms to go fishing with, fill a pail, about one-third full, of walnut-tree leaves, and pour a large kettle of boiling water on them ; cover the pail over with a thick cloth, and let them stand till cold ; then, go to a bowling-green, where you observe many worm-casts ; spread the water over the grass, and the worms will immediately come up above the ground.—

This I have tried.

Within these two days I have observed two worms come from my dog : provided he voids more*, I shall give him about four doses more ; the result of which you shall be acquainted with, before I finish this book.

* It is full three months since this, and the finishing of this book, and I have not found above four or five come from him,—and I watch him constantly, for I value the dog's health ; and never above one at a time ; however, I shall give him three or four doses more, as the medicine never purged him in the least degree.

I will now describe this worm: it is about half an inch long, quite white, flat, and about as broad as a narrow piece of tape. I am thoroughly persuaded, though my dog may breed them again and again, that I can destroy them.

Respecting feeding dogs: all sportsmen know, that dogs must have flesh about half boiled, the broth of which should be well thickened, by boiling it with oatmeal, or barley-meal: oatmeal is certainly the best, but it is not (generally speaking) to be had, in travelling about. I find, provided I can, about twice a week, give my dogs a good meal of horse-flesh, half boiled, that household bread*, with *only skimmed* milk, boiled, will do very well for them on the other days.

Respecting the
feeding of
Dogs.

Respecting purging dogs: the COMMON ALOETIC HORSE-BALLS, SOLD BY MOST CHEMISTS, IS CERTAINLY THE BEST PHYSIC: for no animal is more bilious than a dog; and aloetic physic, in that respect, is the best.

Of Purging
Dogs.

* What is more nourishing than bread? is it not justly called the staff of life?

Three drachms is a proper dose for a full-grown pointer; but, as a dog will sometimes throw it up, instead of giving him three drachms at one dose every other day, until you have given three doses, I advise you to give him only one drachm every day, for nine days following: this will cleanse him well. However, I generally have given my dogs ONE DRACHM AND A HALF OF JULLAP, MIXED UP INTO A BALL WITH SYRUP OF BUCKTHORN; three doses, stopping one day between each dose; and I find this cleanses them very well.

Of powdered
glass.

When a dog looks unkindly in his coat, though he has been physicked, give him THREE DOSES OF POWDERED GLASS, as much as will lie heaped up on a shilling to each dose. This will make his coat very fine, and he will look well in his skin; besides, it is a very great cleanser. The powdered glass must not be made of the green glass bottles, but from broken decanters and wine-glasses, powdered and ground in an iron mortar, then sifted through a fine muslin sieve.

We will now proceed to the destruction of all vermin on a manor. There is no animal more easily caught than the large forked-tail kite; nor is there any animal more destructive to game, and especially to partridges. Suppose that they *only destroy one partridge in a week**, here is a direct loss of twenty-six pair of birds for the next breeding season.

How to destroy
all Vermin.

Of the Kite.

Vermin destroy more game in the year than is ever shot on the manor. Recollect, that there are numbers of their enemies at work by night, as well as by day, and, provided the vermin be not destroyed, a manor cannot be well stocked with game. It is full as necessary to employ a vermin-catcher, (but it is very difficult to find one who is skilful,) as it is to keep gamekeepers, to preserve your game from poachers. The following methods, receipts, and lures, I assure you I have acquired the knowledge of, *at a very considerable expense, in a course of above thirty years, from the most expe-*

Necessity of
employing a
Vermin-catcher.

* But, suppose they destroy one every day, the damage is incalculable.

rienced vermin-catchers; and, you *may rely on it*, you will find them succeed to your best wishes and satisfaction.

First, to the broad-tail kite: this bird is easily caught. I must first observe, that a vermin-catcher should be provided with one dozen, or a dozen and half, of iron traps: the common warren-rabbit trap is the best; it should be about eight inches square (not round), a square trap will catch with much greater certainty than a round one. For the kite, set the trap against a bush which extends a little, so that you may place the end of it against the bush, and that the trap may be somewhat flanked on each side by the bush, that he must walk on to it. Bury the trap well, and fasten a piece of bullock's lights to the bridge of it; then strew about two handfuls of feathers round and over the trap: the feathers will lure him down from a great height, he supposing some bird lies killed there. All hawks are to be caught in the same way.

How to destroy
Hawkes and
Kites.

Magpies and jays destroy many partridge and pheasant nests, by sucking the eggs. The best method of destroying them, is to

set a trap in the woods. You observe them, frequently, before the leaves are on the trees: lay a hen's egg on the bridge of the trap. These are both very cunning birds, therefore the trap must be well covered. A magpie is a most destructive animal, for he will kill young pheasants, partridges, and all sorts of young poultry; and, I have been informed, they will pick the eyes out of lambs not long dropped, and kill them.

Polecats, weazles, and stoats, are thus to be destroyed: set a trap where you observe them run; let it be well covered with earth; take a small bird, sparrow, linnet, &c. &c. DIP THE TIPS OF THE BIRD'S WINGS IN TINCTURE OF MUSK; stick a pointed stick into the bird's throat, and suspend him directly over the bridge of the trap, about five or six inches high. The tincture of musk will lure all these vermin at a considerable distance.

There is an animal which, in Norfolk and Suffolk, is called a lobster; I know not why, for he certainly is of the same species as the weazle and stoat, but much larger:

no vermin which run are so fatally destructive to all game as these animals; they will absolutely hunt a hare down which is above half grown. A gamekeeper assured me, that, about three years ago, he saw one which was hunting a young hare, as regularly as a hound would do. The animal got away from him in a hedge. About two hours after, returning that way, in the next field, a turnip field, he observed a hare, above half grown, cross the path, and this devil of an animal following, and hunting it by the foot, a very few yards behind. He had a good dog for vermin with him, and killed it. This most destructive animal may be destroyed in the same manner as the polecat, stoat, and weazle.

The surest method to destroy all vermin, and with the least trouble and labour to yourself, is to poison them. This may be done without incurring the danger of poisoning dogs, or any other animal, excepting a cat; and if every cat which strays into the fields were destroyed, it would be a great benefit to a manor. I shall speak of pussy shortly. There is not a more destructive devil

to all sorts of game than a cat, which deserts the farm-yard, and lives in the fields and woods. There they breed, and produce a race of real wild animals, in that case more destructive than any other vermin. To poison the above-named vermin, you need only prepare small birds, as I have directed, so as to draw the vermin to the bait from a distance off. Cut the breast of the bird open on both sides, and rub in five grains, not more, of arsenic*. Stick the bird about six inches from the ground, on a stick, in the paths where you observe the vermin run. Dogs wont eat the small bird, nor indeed any bird, especially when it be anointed with so strong a perfume. When you observe a bird taken away, you may be sure you have destroyed some one of those animals so destructive to game.

* If you give any considerable quantity of arsenic, it will make the animal sick, and he will throw it up; five grains, or as much as will lie on the point of a sharp penknife, is enough; that will stay with him, and kill him.

The large brown owl is a very destructive animal to game; there are very few of them, excepting in woody, mountainous countries. The best method of destroying them is to look for their nests in the spring, and destroy both young and old. I am of opinion, that the grey owl, which lives in the barns, lives chiefly on mice, and is not destructive to game.

A cat which quits the stables and farm-yard is a most destructive animal to game. There is a large wood in Dorsetshire, of several hundred acres, and not a village within three miles of it, except one, about a quarter of a mile from it; the lord of the manor lets the cottagers their houses scarcely at any rent, with this stipulation, that they do not keep a cat. The gamekeeper assured me, that, in one year, he destroyed, young and old, *above three hundred*. A cat is very easily caught: bait the bridge of the trap with a piece of red herring; strew a little valerian powder on the trap: a cat, when it smells the valerian, will lie down, and roll on the trap. You may draw all the cats in a street together with valerian pow-

Cats destroy
Game.

der. A cat will travel miles. Cats, bred wild in the woods, are most destructive animals to game.

Rats, which live in the fields, will destroy game: I have known a whole brood of young geese destroyed by rats; and a waterman up the river assured me, that the rats destroyed five young swans, just hatched in the nest, by boring a hole, at the bottom, into the nest.

Carrion-crows are very destructive to game: you may kill them, by taking a leg of horse-flesh, scoring it with a knife, and rubbing arsenic into the flesh. It must then be fastened on the top of a corn-rick, which stands in the open fields, and not near to any house. Kites and magpies will also feed on the horse-flesh.

It is well known, that foxes destroy much game; not when the game is grown up, and can fly, but by catching hen-pheasants and partridges when they sit on their eggs. If you doubt this, dig out a litter of young foxes, and you will find, in the hole, the legs of many pheasants, partridges, and young hares. I would not, on any ac-

count, destroy a fox where hounds are kept ; *I think it a dishonourable and ungentlemanlike act* ; but I would desire the master of the hounds to draw my covers frequently in the spring of the year, and I would dig in all the earths, and if a fox draws the holes open, which they will do, provided they are fond of and attached to the spot, then you should funk the earths with brimstone and assa-fœtida, or push a dead cat (stinking) as far as you can into the hole, or any thing else which is filthy ; for a fox is a clean animal, and will go somewhere else to breed.

The best method to preserve your game from foxes, is to encourage a great quantity of rabbits in your woods ; where they have plenty of rabbits, they will not destroy much game.

You shall now be informed how to catch every rat on your premises, without using poison, which is not only dangerous, but has proved very expensive to many ; for when the rats eat the poison, they grow sick and faint, and creep under the floors, and behind the wainscots of the house ; there

The Rat-catcher's secret, how to kill all Rats without poison.

they die, and stink the house, so that you cannot live in it, until you have removed the floors and wainscots. This, I trust, will prevent every prudent person from attempting to destroy rats by poison: you shall be instructed how to destroy them all, without incurring the risk of any expense in your house. I must inform you how I acquired this valuable secret.

When I was aid-de-camp to my most worthy patron, protector, and friend, Sir Henry Clinton, then commander in chief at New York, one day, at dinner, he told Col. Phillips, that the rats were so numerous in his quarters, that he had been forced to have the bottom of the doors lined with tin, for that they had very nearly eaten through the door where he kept his papers; and he asked Col. Phillips, if he knew of any person who could destroy them. Col. Phillips, who was a loyal American in our service, replied, that, some years before the American war commenced, a rat-catcher, who had been transported from England, came and lived as gardener with him, at his estate at Phillipsbourg, about twenty odd

miles from New York, and a very good gardener and servant he was. Col. Phillips was requested to inquire, whether this man was to be found within our lines. In a few days he was found, and sent to head-quarters*. I attended him, to see that he performed his duty: seven wooden fall-traps were made; such traps as are used to catch vermin alive. These traps are called hutch-traps, fall-traps, and box-traps: they should be made two feet eight inches long, and of a proportionate height and breadth, with a door at each end, and a bridge in the middle with a trigger to it, which, when the trap is set for catching, holds both the doors up, by keeping the handles of the doors close down to the top, by a string, which is fastened to the opposite side, and which is fixed, by a flat piece of wood, to a notch in the trigger, when the trap is set for catching. These traps are to be set in the main runs, in which the rats constantly travel from

Construction
of the Traps.

* This rat-catcher's name was Maddison, which is also the name of the present president of the United States.

one room, or out-house, to the others; first preparing them after the following method: Purchase HALF A PINT OF OIL OF ANNISEED, AND HALF A PINT OF OIL OF CARRAWAY; THESE TWO ARE CHEAP MEDICINES; NOW COMES A THIRD, WHICH IS VERY DEAR, BUT THEN ONLY A SMALL QUANTITY IS NECESSARY, A BOTTLE AS LONG AS YOUR FINGER BEING SUFFICIENT: IT IS OIL OF RHODIUM. This will cost about ten shillings. Dab the traps on each side *within* well, with the oil of carraway and oil of anniseed, and with the tip of your finger, dipped in the oil of rhodium, in four or five places; it is enough, as the oil of rhodium has a powerful smell. The food with which the traps are to be baited must be thus prepared: GRATE A VERY DRY LOAF OF BREAD, SO FINE THAT THE RATS CANNOT CARRY ANY OF IT AWAY WITH THEM; AND TO EVERY DOUBLE HANDFUL PUT ABOUT TEN OR TWELVE DROPS OF OIL OF CARRAWAYS, BY A FEW DROPS AT A TIME, RUBBING THE BREAD BETWEEN YOUR HANDS WELL, SO AS TO IMPREGNATE THE WHOLE. You should taste the bread, and be guided by your taste, not to make the bread taste

Medicines and
Food to be
used to catch
Rats.

too strong of the oil of carraways. It is a mistaken notion, putting oil of anniseed into the food: it will make the food too strong, and they will not feed freely. *Oil of carraways, and oil of carraways only*, must be mixed in the food. The doors of the traps must be fastened firmly up, so that they cannot fall down; then, for the two or three first days, lay a table-spoonful, spread about, very near each door of the traps, and, by degrees, put the food further into the trap. After a few days, you must lay a table-spoonful ON THE BRIDGE OF THE TRAP ONLY. AFTER THIS METHOD YOU ARE TO PROCEED, UNTIL YOU OBSERVE THAT THE RATS, FREQUENTING THE TRAPS CONSTANTLY, RUN, AND FEED FREELY; DABBING THE TRAPS EVERY DAY WITH THE OILS. This will take eight or ten days. When you are sure that they run and feed freely, after the house is quiet, and every one is gone to bed, you may tile the traps up, and begin to catch, reserving one spare trap near you, to put down in the place of any one you may take up with rats in it. You must leave all the doors open, sit down very

When to begin
catching the
Rats.

quietly, and listen. The doors of the traps, when they fall down, make a considerable noise, which you will distinctly hear. When you hear one trap strike, you must be prepared with a large canvas bag, with a large mouth to it, so as to admit one end of a trap into it: hold the bag under the trap, whilst another person tilts the trap, with the lower door open, perpendicularly, and shoots the rats into the bag; shaking the trap well, and striking the sides of it with your hand. Open the upper door by degrees; look well, with a light, into the trap, to see that every rat be shaken into the bag; then gather your hands round the mouth of the bag, swing it, and strike it very hard against the wall or the floor, so as effectually to kill every rat in it. In this you must be very particular, for in it lies the whole strength of the art. If you let even so little as one single rat, either out of a trap or the bag, you WILL NOT CATCH ONE MORE rat that night; and you must fasten the traps firmly up, and begin to feed them again, which will take four or five days at least. I forgot to mention that, when you hear

the doors of one of the traps fall down, when you take it up you must carry another trap with you, and lay it down exactly in the same place, putting a little of the food on the bridge. The first night the man and myself, for I sat up the whole night, caught very near three hundred. On the following nights he caught a great many more, and continued until he had totally freed the house of them, and, I make no doubt, many of the adjoining houses also.

A few days before this man began to prepare to catch, I said to him, "Mr. MADISON, if you will honestly impart to me this secret, I will give you two guineas." I judged it prudent at the same time to give him a *gentle hint*, that, if he deceived me, the strong hand of power was with me, and I should recommend him to the care of the provost marshal at the jail for one month. The man very honestly replied, "Sir, take these three bottles of oils, and I will tell you also how to make the food. I will not, for four or five days, come near the house; you shall anoint the traps yourself, and feed them also." I did as he had instructed me,

for five days: in the afternoon he called and asked for me; we examined the traps, and he then determined to begin catching that night, without his doing any thing previously himself to the traps. This convinced me of his honesty, and that he had imparted the real process to me.*

* Col. Hanger has invented a trap, of an entirely novel construction, which may be set perpetually, and emptied only once a day, and the rats *killed, as already directed*. It will hold above fifty rats before it requires to be emptied. Made on a larger construction, this trap may be set in the woods, *effectually* to catch all running vermin; but it must be baited in a different manner than for rats, in the manner previously specified in this book, with a small bird hung directly over the centre of the two falling bridges, with his wings dipped in TINCTURE OF MUSK, and the sides of the trap sprinkled with tincture of musk, to draw and allure all running vermin, which tincture of musk will do at a great distance. On applying to Mr. Stockdale, publisher of this book, information will be given where this trap can be seen, and of the man who, under Col. Hanger's direction, is permitted to make them.

I am informed that Government (how true I cannot say) have given a person two thousand pounds, for a method to catch rats on board of our ships of war. Had they only waited until this book was published,

How to breed,
feed, and cure
the disorders of
young Pheasants.

In breeding pheasants to turn out, the proper proportion is five hens to one cock ; not more, if you expect the hens to lay well. Provided you take the eggs away as they are laid, leaving only one or two in the nest, each hen-pheasant, generally speaking, will lay twenty-five eggs. Common pease and small beans are excellent food to make them lay, giving them now and then a handful of hemp-seed; and, if they are not in an extensive place, in a menagerie, with a grass yard to it, you must also give them some sort of greens. When the young pheasants are hatched, the best food for them is certainly the eggs of the large horse-ant; but these are not easily to be obtained; for these large ants scarcely ever breed but in very extensive woods. I will inform you of a substitute, (known but to very few) which is much better food and more nourishing than ants' eggs : take dead

they might, for twelve shillings, have known how to catch EVERY RAT *in the navy*. If this could be brought to bear in the British Senate, at the cost of *only twelve shillings*, what reward might I not look for!!

rabbits, cats, dogs, or any dead animals, and stick them on sticks, near to the coops where the young pheasants are kept, until they are full of maggots. Shake the sticks two or three times a day: this food will make them thrive wonderfully. At first they should be fed with oatmeal, and even, for the first two or three days, with barley-meal; but you may very soon give them barley with the barley-meal. For the three or four first days, you should chop up some onions, both the white roots and green tops: this will warm their stomachs. When you observe young pheasants look unkindly and not well, their feathers standing up and ragged, toast some bread, and steep it in stale chamberlie; feed them with it until they look better; at least twice a day: this will cleanse them, and make their feathers look well, and lie smooth.—When you turn them, when nearly full grown, into the woods, be sure you do it at night; never by day, for they may fly away above half a mile. Keep them also very hungry the evening before you turn them out, that they may take to feeding well the next morning; after which

they will lie quiet, and not be inclined to ramble.

It is surely as necessary to know how to preserve them from all sorts of poachers, as to breed them. I believe that desperate gang of night-shooters, who several years past so infested Norfolk, and absolutely, for a time, defied even an armed force opposed to them, is totally broken up. Several of them, I am told, have been transported, and some hanged; for when game grows scarce, and, in the breeding time, when they cannot sell the game, it not being fit to eat, being idle fellows, and averse to labour, they must then turn their abilities to something else, such as sheep and horse stealing; and, from one thing to another, they improve so much, as even often to take to house-breaking. In this occupation they are sure to be found out, as dispose of the goods they must; this, to a certainty, either hangs or transports them in due time.

There is a very destructive method of taking pheasants by night, which is by means of a brimstone rag, lighted, and held under the pheasants, when on the trees at

† of taking
Pheasants by
night and by
day.

roost ; and this is done without making any noise. To prevent this, nothing is so easy as to keep a man on purpose, when the leaves are off the trees, to go, just after dark, into the woods and brush them off the trees with a long pole. But there are other methods of catching pheasants ; such as fastening a horse-bean, or an acorn, of which they are very fond, on a fish-hook tied to a bush, in the paths at the extremity of the woods where the pheasants run out to feed : but this method may very easily be found out, provided your gamekeepers are diligent, for the pheasant cannot be caught but by daylight. Small iron rat-traps, with any corn, pease, or beans laid on the bridge of the traps, will for certain catch them : but this may also be observed ; for they cannot be caught but in daylight, though the hooks and traps may be set at night.

The best method of all, had I a manor, and my house lay close to my preserve cover, which I would adopt, is to plant a six-pounder cannon on a platform at the top of the house, thus loaded : Buy a

How infallibly
to preserve a
Cover at night.

bushel of marbles, such as the boys play with at taw ; put a double handful into the cannon ; and have clay balls, just the size of the caliber of the gun, made and baked at the brick-kilns, first boring three or four holes with an iron, nearly as big as your little finger, through and through them. This ball, when fired from a cannon, will make a most terrible whizzing noise, and, together with the marbles buzzing about a fellow's ears, would make him think that the very devil was in the wood. I would also build my gamekeeper a house on one flank on the opposite side of the wood, with no door nor window below. The lower rooms might be easily lighted from above ; and the door ten feet from the ground. He might draw the ladder up at night. In this castle he could stand a siege, for it would be impossible to set fire to the house. And a round tower of about thirty feet, like the martello towers, only in miniature, with a six-pounder mounted at the top of it, with a door going out from the corner of his bed-room up to the platform on which the cannon is planted, should be also built.

Thus either the gamekeeper, or I, should, from our positions, always have a flanking fire on the enemy. I am of opinion, if, about two or three times a week, my gamekeeper and self were to fire about three or four rounds each, into the wood, that the very devil himself would not go into it, when he once knew that such manœuvres therein were frequently practised; that is to say, after it was dark. I do not think, if I may judge by my own feeling, that it would either be pleasant or prudent. My motive for firing the cannon with a baked clay-ball, is, that an iron ball would damage the timber; so would iron grape-shot; but marbles will not.

A most intimate and old friend of mine, and an old soldier, had a wood full of game, close to his house, within, at least, one hundred and fifty yards. He had a large balcony up one pair of stairs, which overlooked this wood. One night he heard some shots fired in his wood. He and his servant got directly up, and planted themselves out, on the balcony. He always kept a soldier's musquet for himself, and

one for his man, with sixty rounds of ball-cartridges to each,—they fired each of them about twenty rounds at the very spots where they heard the guns go off, he hollowing out each time, after he had fired: “For God’s sake take care of my spring-guns.” Those gentlemen night-sportsmen never came into his wood again.

Partridges may very easily be preserved from poachers taking them at night with nets. It is a custom, generally speaking, when gentlemen take pains to preserve their game, to lay thorn bushes in the stubbles. I hold this custom to be of very little utility; for the two men who carry the net, only halt a moment, when a third, who follows the net, lifts it up, over, the thorn bush, and then they draw on; and they can always see the bush, unless the night be intensely dark; and even then, if careful, they can instantly feel that the net touches, when they have but to halt and let the man behind free it. There is a much better method; which is, to stick stakes, about as big as your thumb, three feet six inches long, with one end well fastened, into the

How to prevent Partridges being taken at night by drag-nets.

ground. These stakes they cannot see, unless of a moonlight night. But there is another method, preferable to all the rest, which I never as yet have heard to have been practised, and it is infallible:—Keep a boy mounted on a jack-ass; let him have two long-legged spring spaniels (not the small cocking spaniel) under his care, and feed them himself, that the dogs may know him well, and follow kindly. Let him go out, not before it is quite dark, and hunt all the stubbles, and particularly the standing clover, for the breadth of half a mile all round your house. This will not take him much above three hours; he has only to lie in bed two hours longer in the morning. When a covey of birds is sprung at night, they separate, and go various ways, and by far the greater part get to some hedge, if there be any, and the country be not quite open; for if it be ever so dark, they can distinguish the hedge; by the darkness of its appearance: besides, as they fly very low, provided the hedge be of any moderate height, they are sure to see it. There they are perfectly safe; and

also in the middle of a field, for no two birds will light together. Follow this method, and no netter, by night, can ever catch a covey; he may chance to catch a single bird. Besides, when birds lie singly by themselves, having been once disturbed, they are constantly on the watch; and, on hearing a foot-step, but certainly on hearing a horse's tread, they will run, for certain, if not rise again. This being done, your keepers may go to bed, by which they will be more able to get up, and be out before the day dawns, at which time the greatest mischief is done. Had I a manor of my own, I would go out with a setting dog, one month before the season, and catch all the birds at the extremity of the manor, where, from its distance, the keepers could not so well look after them, and turn the young birds into the field next to my residence. Be sure to leave the old cock and hen on the spot where you caught them, for they will entice the young ones to ramble. Thus you will have by far the greater number of birds directly under your eye, close to home. I also would never

shoot till the fifteenth of September ; for I am certain that more birds are destroyed in the first fifteen days, than in the whole season besides.

It is absurd to permit any farmer to set rabbit-traps to destroy them. If it be necessary to destroy them, dig all the earths in, excepting one large main spout. After dark, when the rabbits are out feeding, go quietly to the spout, and stuff a piece of an old sack or carpet into the spout, about three feet within it ; then go drive them with a dog, and you will catch six or seven in every main spout. Thus, by digging them in, you will soon destroy them.

A rabbit-trap will catch a hare ; and no man shall tell me, that, when a man observes a hare-rack, he will not set the trap in it. Besides, partridges and pheasants are constantly caught, running along these paths, in the traps. Look only to the warreners, what a number of hares they destroy in their rabbit-traps !

You cannot have any plenty of hares, provided there be a warren close to your

Farmers setting Traps for Rabbits, destroy Hares, Pheasants, and Partridges.

A Warren on your Manor destructive to Game.

manor. They catch, also, a great number of partridges and pheasants. A gamekeeper, this season, assured me, that, one day, he shot four brace of partridges, and two brace of pheasants: three of the partridges had but one leg, and one brace of the pheasants only one leg. On manors, where gentlemen wish to preserve the game, all the warrens should be ploughed up, and farm-houses built on them. This method will bring in more rent, unless the soil be more sterile than it generally is. Do I not remember the time when all the way from Newmarket to Swaffham, was one continued rabbit-warren? Where now is finer land to be found?

Furze Seed
should be
sowed in every
Hedge.

I am astonished that sportsmen do not order furze seed to be sown in every hedge on their manor. There is no greater preservative, in respect of cover, for all sorts of game; and surely it would considerably strengthen the farmer's fence, and assist in keeping the cold winds for his cattle. There is no cover so good as a furze cover, for all game, particularly pheasants; for

night shooters, or those who stifle them at roost with brimstone, cannot, by such means, destroy them in a furze cover.

Wood-pigeons are very easily caught in hard weather, particularly when snow is on the ground. You have but to sweep the snow on one side, for about a dozen yards long, and about three feet broad. Lay about twenty small eel-hooks, fastened by a peg into the ground, with a small bean on each : be sure you put the point of the hook only, through the top of the bean, and the barb standing quite out, on the side ; otherwise, if the hook be totally buried in the bean, when the bird struggles, he will pull the hook out of his throat.

How to catch
Wood-Pigeons.

I think, as good a way as any, is to punch two or three holes in horse-beans, with an iron bodkin, and then boil them in some common gin : many will be so drunk that they cannot fly up ; others will perch on the adjacent trees ; watch them, and you will see them tumble down.

If you have a large pond, or lake, frequented by wild-fowl ; in the shallow water, about one foot deep, where you observe

How to catch
Wild-fowl.

them feed, lay a few rabbit-traps, with a few beans on the bridge of the trap, under the water. This is a sure method of catching them. Where the water is about two feet deep, put a stick in, about one foot above the water; cut a slit at the top of the stick; tie a strong piece of packthread round a brick-bat, or to a large stone; let the string, after having tied it round the stone, be about a foot longer; to the other end fasten a small eel-hook, baited with a piece of bullock's lights, sheep's paunch, or a horse-bean; then, about three or four inches from the brick-bat, fasten a stick, nearly as big as your little finger, and about four inches long, tying the string, with a single knot, exactly to the centre of the stick; then place that part of the string, which is between the brick-bat and the short stick, into the notch at the top of the long stick, which is stuck into the bottom of the pond. The short stick will prevent the weight of the brick-bat from drawing the string through the notch, and the hook will hang a few inches from the water, and the brick-bat hang fast by the notch in the top

of the stick. When the water-fowl takes the baited hook, he pulls the stick and brick-bat down, and the brick-bat pulls him under water and drowns him.

I will now, for the benefit of sportsmen in the Highlands of Scotland, *instruct them how to approach the red deer within thirty yards.* The red deer are so very wild and shy, that, I am told, it is most difficult to get within shot of them. This difficulty I will completely do away. My plan is nothing, more or less, than what, in both North and South Carolina, is so well known, and called FIRE-HUNTING BY NIGHT. I feel a very considerable degree of pleasure in reflecting, that I shall be the means of procuring much diversion and satisfaction to Highland sportsmen, by teaching them, whenever they choose it, how to approach, within a short distance, the wildest and shyest red deer. I will describe the whole particulars. I was an eye-witness to this amusement, when I first went about thirty miles up the country, just after the siege of Charlestown, with my old, intimate, and

How to approach the Red Deer, in the Highlands of Scotland, within 30 or 40 yards.

Fire-Hunting by night.

worthy friend, Colonel Simcoe, then commanding the Queen's Rangers, afterwards General Simcoe, now dead and lost to his country—I say, lost to his country, for he undoubtedly was one of the very best officers in our service.

Two American Back-woodsmen went with me; all three of us on horseback: they go on horseback, for fear, lest, creeping along by the edge of the swamps, they might tread on a rattle-snake, of which there are plenty near to the swamps. The rattle-snake, when he hears the stamp of a horse's foot, flies away; for divine nature has so ordained it, that this deadly animal avoids you as much as you wish to avoid it; and no person is bitten by a rattle-snake, excepting he come on it when it lies, coiled up, asleep, and basking in the sun.

The Back-woodsman takes a large frying-pan, with a very long iron handle to it; puts about half a dozen middling-sized pieces into it, of the pine-tree, (the knots of the pine,) which are full of turpentine: these, when lighted in the frying-pan, give a very strong and great light. The pine-

treeknots were stuck into an iron stanchion, on their tables, in their houses, to light the house by night; for they had at that time no candles, and they give a very great light. He, after lighting this wood in the frying-pan, puts the pan over his left shoulder, and carries the light behind his head: he then mounts his horse; first putting strong, thick sacks over the rump of the horse, to prevent any fire falling down and burning the animal; and takes a soldier's musket, loaded with buck-shot, in his right hand. The other man follows, about seventy or one hundred yards behind, with a bag of turpentine knots, to replenish the fire in the frying-pan when necessary. I went on horseback, close behind the man with the gun. In following, you must be very particular. The frying-pan must be held directly straight over your left shoulder, never turning the handle one inch, even to the right or left. When you look before you, you must not move your head, but turn your whole body on the saddle to the right and left, holding the frying-pan

firm and straight, by fixing your elbow firm to your body.

So far off even as two hundred yards, you will see the deers' eyes appearing just like two balls of fire. Remember, for certain, that you go directly up the wind, else the deer will smell you, and you never will get near to one. The deer, astonished and surprised at so strange a sight, stands stock-still, terrified, and gazing at this very bright light, and permits you to approach him very near. We had not been long out, walking our horses very gently, by the side of a swamp, where the deer at night feed; but we found one. Before we came within one hundred yards of him, he ran away. To the best of my recollection, one of our horses snorted. We had not gone a quarter of a mile further, ere we found another: the Back-woodsman did not go directly up to him, but took his way about thirty yards on one side of the deer. The animal, I am certain, let him come within less than forty yards of him: he then pulled up his horse, which was going only at a very slow walk,

laid his arm over the handle of the frying-pan, supported his musket with his left hand, fired, and shot the deer. The deer was standing rather sideways to him, with his head turned round to the light; so that he shot him in the fore-quarters, just behind the fore-elbow. The animal did not run five yards. We threw him over his horse, and returned home.

There was, when I was in the Carolinas, a positive act of the assembly, imposing a fine on any person who should *fire-hunt by night*; for some persons, not approaching near enough to distinguish plainly that it was a deer, and no other animal, have shot young colts, oxen, and heifers; for the eyes of these young animals, at night, by this light, will appear just the same as the eyes of the deer: therefore you must be careful, and see distinctly what animal it is, or you may shoot young cattle.

As no pine barren knots are to be procured in this country, I will find you a substitute, and a much better thing, than the frying-pan and wood fire; for the wood fire can only be used in a very still night,

The various
uses of the
Lantern, with
a reflector be-
hind the lamp.

when there is no wind. This is, one of those large lanterns, which hang over the front doors of some hotels, and over the doors of gentlemen's halls, which cast so strong and bright a light quite over the street, on the opposite side. The glass lamp which holds the oil must have three tubes to it, with a wick of cotton in each tube. These three cotton wicks, lighted, will give a very great light. At the back of the lantern, and behind the lamp, a *concave* piece of *very high polished* tin or steel, *full ten inches* in diameter, and quite round, must be fixed. This will collect the rays of light, and reflect them to a very great distance, powerfully. I think those reflecting mirrors, at the back of these lanterns, are better, which are made with small pieces of broken looking-glass, as they are more easily kept clean. Before the lamp, in the front, a large magnifying glass, eight or ten inches in diameter, should be fixed, instead of a common piece of glass: this will throw the light much stronger, and at a greater distance. At the bottom of the lantern a groove must be made, to receive a stick,

quite flat, and about five or six inches square, so that the lantern may rest flat on it, and be fastened with a screw. The handle of the stick must be five feet long, about three inches broad, and quite flat, so that it may lie easily on the shoulder. —Now I have completely equipped you, you have only to enter on your sport.

I will point out to you another method how you may amuse yourself with this lantern: hang the lantern, by a broad leathern belt, over a man's neck, and strap it round his body, to keep it steady. Let the man carry a very large, deep-sounding bell, such as is hung round the necks of cows, in each hand, and keep incessantly ringing them: this will prevent the noise of your feet disturbing the animals you are searching after. Proceed to the springs, and other places which are not frozen up in hard weather: there, at night, *you will be sure to find both wild-fowl and snipes.* Walk behind the man carrying the lantern, with a double gun; one barrel loaded with duck-shot, the other with snipe-shot. This amusement was called, one hundred years ago, the

How to shoot Wild-Fowl and Snipes, in hard weather, by night.

Of the Bell and Buffet, a very old amusement.

bell and buffet; and my father told me, when he was a young man, it was much practised.

I have been informed that rabbits, at night, will not run out from this bright light; and that, with a couple of dogs, you may catch several; *but I never tried it.*

I have no reason to doubt, that a hare, by this light, will let you approach him: when a deer will, I see no reason that a hare will not. But you must be sure to go up the wind; and I am of opinion that, to approach a hare at feed, by night, you should not use the bells.

Of shooting
Pewits, Plovers
and Bustards,
by night.

Provided *you mark down a large flock of pewits, plovers, or wild geese, just at dark, going to roost, or golden plover*, I should imagine, by these means, you may get within shot of them. And why may not this method be TRIED ON BUSTARDS when you see them settling for the night, to roost? If a wild deer, which is one of the shyest and most timid of animals, will let you approach him by night, will not every other animal let you approach him? I judge this to be a very fair question, and I presume that it is

Other Animals
generally.

founded on reason. I have also every reason to expect that, in hard frost, when the great rivers and lakes are frozen up, and no waters but the small, sharp, running brooks are open, provided you walk by the side, throwing this bright, strong light on the water, *that all sorts of wild-fowl will let you come within gun-shot of them.*

The small rivulets, which are not frozen up, are full of wild-fowl by night: they have no other place to feed in. In soft spongy places, where springs are, near to woods, where you know woodcocks feed at night, what reason have you to imagine that, by means of this bright light, you may not approach them? The light, to a certainty, will shew them to you; for, at that time, feeding, they will be walking about. In short, I am firmly of opinion, that, by this method, you may shoot every species of animals by night. Surely, the roebuck, in Scotland, may, by this method, be approached;—but be sure ever to observe the wind.

Woodcocks.

Of Guns, Gun-
barrels, Stocks
and Breech-
plugs.

Now, with respect to fowling - pieces, rifles, muskets, &c. &c.—Several gun-makers in this town have arrived at such perfection in making fowling-pieces, that it is necessary only to make this one observation on barrels. He who can bore a barrel nearest to a perfect cylinder, provided the iron be soft, mild, and expansive, will make a perfect barrel, which will shoot strong and well. Respecting the breech-plugs, several of which bear the *pompous name of patent plugs*, I believe many of them are very good; but I can assure the reader, that a plug, made in the following simple method, will make a gun shoot as strong as any one of those pompous patent plugs, which you are assured will work wonders, but will not do more than the simple plug. I shall here describe it, and this plug any blacksmith can make: take a cherry, the size of the caliber of the barrel, work it round into the breech-pin, until you have formed a cup, about the size of the cup of an oak acorn, rather, if any thing, deeper, *say one eighth of an inch deeper*; then bore a hole directly in the

Of Patent
Plugs, and of
other Plugs.

centre of it, behind, not deep, and not bigger than a middle-sized straw. This hole must communicate with the touch-hole, which must be *countersunk on the inside*. The breech-plugs, to every gun I have, are thus made, excepting one, and that bears the name of *Joseph Manton's patent*; but it is not one whit the better for that: it is a very excellent gun, for certain; and I am as certain that my old friend Joseph can make as good a gun, as any man existing; and certain I am, that there are others who can make as good a gun as he: I do not mean to say there are many.

When I speak respecting the shooting of barrels, I desire it may be *distinctly understood*, that I speak of such as are exactly of the same weight; for if one barrel weighs only *three pounds and a half*, and another *four pounds and a half*, the latter will carry a larger charge, shoot stronger, and, having more resistance from its superior weight, will not strike the shoulder more than the lighter barrel with a smaller charge. Now gun-makers will do me a very great favour, and I shall be infinitely obliged to them,

if they will not give me a direct, barefaced and impudent assertion; but give me a positive proof, accompanying their assertion, to the following question, which I shall put to them. I think, for certain, I may be in no fear, when I say I will give myself up to be crucified, with my head downwards (poor fellow) as St. Peter was, provided they give me a positive proof in solving my question. The question:—An experienced gun-maker shall bore twenty barrels, all of the same weight, length, and caliber, and the iron exactly the same quality, paying equal attention to each barrel; why shall *one barrel, amongst the twenty*, when they come to be shot at a mark, be found to carry the shot much closer than all the others? This does not often happen; indeed, hardly ever. One instance of this I saw in a gun of Joseph Manton's, which gun he sold to Lord Camelford: this gun carried the shot so uncommonly close, to what all others did, that it really astonished me. Now, pray, Messrs. Gun-makers, solve me this question? I believe this will give you as much trouble as it has

given the mathematicians to square the circle.

Respecting locks. Every year some new trick is held out to induce us to believe that they make the guns shoot quicker. A simple, plain lock, well made, with main-spring and hammer-spring, acting with a due and proper resistance to each other, will go off quick enough for my use. I have none of their new tricks and vagaries to my locks, and I find them act quick and well. One gun-maker bores a hole in the lock *here*, another *there*, in another part: both assure you that, from this, the gun will be fired quicker, and that it is a wonderful improvement; for which they charge you from *three to five guineas extra*. The only wonderful improvement I know, that they possess, is improving the price.

Respecting
Gun-Locks.

I can affirm, that as good a double gun can be made in London for about thirty-four or thirty-six guineas, as a sportsman can wish to shoot with: notwithstanding this, many gentlemen give fifty to sixty-five guineas for a double gun, which will not shoot better, nor kill one inch further than

the one which cost only thirty-four guineas. I am equally certain, that several gentlemen give a preference to the one gun which cost sixty-five, because it cost sixty-five guineas, when they absolutely have another which shoots full as well and as strong, which cost them full twenty-five guineas less money.

Of Elevation-
Ribs.

Now to the elevation-ribs, so much in fashion: they undoubtedly elevate the gun, by which you throw the centre of the shot to a greater distance: but if a sportsman will have his gun stocked very straight, when first made, this will have the same effect as the elevation-rib, and he will save three or four guineas expense.

No one can
shoot well with
a gun crooked
stocked.

My old friend, Mr. Brand, gave me a most excellent double gun, made by Joseph Manton. It was so very crooked stocked, that I constantly shot under the birds; broke their legs often, and feathered them under the belly; so much so, that I was forced to lay it by.* I took it to Joseph

* I do positively assert, and without fear of contradiction, that no man can shoot well with a gun which

Manton, and directed him to glue on a very thick piece of leather, at the extremity of the stock, whereon the barrels rested. I also had a wooden check let into the but, to prevent my getting my eye down in a line with the barrels. When it was done, looking at it, he said: "This gun is so much elevated, sir, that you surely, at short distances, must *shoot over the birds.*" He did not recollect that, elevated as it was, the lower part of the circle of the shot would take the bird, and, at *short distances*, shoot strong enough to kill. When his elevation-sights first were produced, he was candid enough then to own to me, that my method of stocking my gun had just the same effect as his elevation-sight, (or rib, I believe it is called.)

is crooked stocked; he must shoot under the birds. I knew a person once, indeed, who shot extremely well with a gun stocked so crooked, that I could not shoot with it; but then he held his head up as directly straight as a soldier under arms on the parade: the very position he held his head in, gave the muzzle of the gun an elevation.

Of Rifle-Guns
and Rifle
Shooting.

I have now finished respecting fowling-pieces, and will treat concerning rifles, and particularly rifle shooting. I never in my life saw better rifles (or men who shot better) than those made in America: they are chiefly made in Lancaster, and two or three neighbouring towns in that vicinity, in Pensylvania. *The barrels weigh about six pounds two or three ounces, and carry a ball no larger than thirty-six to the pound; at least I never saw one of a larger caliber, and I have seen many hundreds and hundreds.* I am not going to relate any thing respecting the American war; but to mention one instance, as a proof of most excellent skill of an American rifleman. If any man shew me an instance of better shooting, I will stand corrected.

Of an American Rifleman's shooting.

Colonel, now General Tarleton, and myself, were standing a few yards out of a wood, observing the situation of a part of the enemy which we intended to attack. There was a rivulet in the enemy's front, and a mill on it, to which we stood directly with our horses' heads fronting, observing their motions. It was an absolute plain

field between us and the mill ; not so much as a single bush on it. Our orderly-bugle stood behind us, about three yards, but with his horse's side to our horses' tails. A rifle-man passed over the mill-dam, evidently observing two officers, and laid himself down on his belly ; for, in such positions, they always lie, to take a good shot at a long distance. He took a deliberate and cool shot at my friend, at me, and the bugle-horn man.* Now, observe how well this fellow shot. It was in the month of August, and not a breath of wind was stirring. Colonel Tarleton's horse and mine, I am certain, were not any thing like two feet apart ; for we were in close consultation, how we should attack with our troops, which laid 300 yards in the wood, and could not be perceived by the enemy. A rifle-ball passed between him and me : looking directly to the mill, I evidently

* I have passed several times over this ground, and ever observed it with the greatest attention ; and I can positively assert that the distance he fired from, at us, was full four hundred yards.

observed the flash of the powder. I directly said to my friend, " I think we had better move, or we shall have two or three of these gentlemen, shortly, amusing themselves at our expence." The words were hardly out of my mouth, when the bugle-horn man, behind us, and directly central, jumped off his horse, and said, " Sir, my horse is shot." The horse staggered, fell down, and died. He was shot directly behind the fore-leg, near to the heart, at least where the great blood-vessels lie, which lead to the heart. He took the saddle and bridle off, went into the wood, and got another horse. We had a number of spare horses, led by negro lads.

Now, speaking of this rifleman's shooting, nothing could be better ; but, from the climate, he had much in his favour. First, at that time of the year, there was not one breath of wind : secondly, the atmosphere is so much clearer than ours, that he can take a more perfect aim. I will next tell you how they judge what quantity of powder is necessary for their rifles, on active service : for shooting deer, &c. in peacable

What quantity
of powder the
American
Riflemen use
on active ser-
vice.

times, they never put in more powder than is contained in a woman's thimble. They take the horn of a deer, make several trials with a ball, always on the powder, and when, by each time increasing the quantity of powder, they find the rifle rather throws back, that is to say, has a recoiling motion, they draw off a small quantity of the powder, cut the horn off, and use it for actual service before an enemy. From the weight of the barrels of *their rifles being somewhat more, by a few ounces, than six pounds, and the balls so small as thirty-six to the pound, they will carry more than half the weight of the ball in powder.*

I had a most excellent American rifle, which carried full one half of the weight of the ball of our best powder, without recoiling in the least. I must inform you also that their rifles are made with one whole spiral turn in the barrels, which are, as I mentioned before, three feet three inches long. To strengthen and prove my opinion, that it is necessary, *on active service,* to use a much greater quantity of powder

What spiral
twist their
Barrels have,
and of what
length the
Barrels are.

than is used at present, I will state to you *what I have tried some hundreds of times. Practice is every thing : I detest theory ; it has led hundreds into errors.*

How many
pounds a Rifle
Barrel should
weigh, and
how many
balls to the
pound, for
active service.

After repeated trials with various rifle barrels of different weight, and different caliber, *I have fixed on one, the barrel of which weighs six pounds four or five ounces, and it carries thirty balls to the pound. This I have repeatedly fired, at long distances, with one half of the weight of the ball in powder, and it recoils not in the least; the length of it is two feet seven inches, and the twist about three quarters of a turn. I would rather * it were three feet three inches long, and that the barrel weighed a very few ounces more than six pounds,—three or four ounces is enough,—and that it carried thirty balls to the pound ; as the one I already have spoken of does ; and the very first time I can afford it, I will*

* My reason for wishing it were three feet three inches long, is, that the greater the distance is between the sights, the more accurate your aim will be.

have such an one made, and the twist of the rifle *shall be exactly one whole turn.*

Now, gentlemen rifle-shooters, I will teach you *a most deadly and destructive method* of using the rifle, in face of an enemy.

A most destructive method of loading Rifle-guns, on service.

It is my own idea; at least, I never heard that any one has ever practised it, and I have known it and practised it several years ago. A rifleman on service should have a small leathern bag fixed to his belt, with about thirty balls, tied up in greased patches. When he comes within one hundred and fifty yards of an enemy, IN BATTALION, which at times they may approach so near to the foe, when posted in a wood, and flanked, both on their right and left, by strong battalions; then they should load two balls more on the one already in the rifle: but then the rifle-guns must be made *as heavy* in the barrel as *my gun above spoken of*; for the present guns are so much lighter, that, provided you put sufficient powder to carry three balls to a certain distance, to do execution, what, with the increase of powder, and the resistance of the three balls, it would nearly knock a man down.

I wish that some of you gentlemen riflemen, who can well afford it, would have a few rifles made according as I have directed; and then fasten up a coarse piece of canvas, six feet high and twelve yards long. Place then twelve of your best shots facing the canvas, at one hundred and fifty yards, *firing three balls every shot*; then inspect the cloth, and judge by it, provided you had been placed against a solid battalion of the enemy, what havock you must have made amongst them.

What destruction Riflemen can make on an enemy's Battalion,

I will relate to you a real fact, which took place in the seven years' war, *the very beginning of it*, near to Minden; that Minden which lies between Gottingen and Hesse Cassel, not the Minden where the celebrated battle was gained by the allies, under Duke Ferdinand: General Oberg commanded the Germans; I forget the name of the French general.

General Oberg's position was taken just after ascending the hill from Minden, on the road to Hesse Cassel. The Hessian and Hanoverian jägers were placed in a very thick wood, full of large timber trees, in the

centre of the right wing. The French were obliged to form one regiment, in their line, directly facing this wood, where the jägers were stationed. The jägers made such havoc amongst this French regiment, that the colours were at last forced to be held by serjeants, and even by corporals. There were but very few of their officers who were not killed or wounded. The jägers were not above two hundred yards from them, and were flanked, both on their right and left, by strong battalions of the line. The French were at last compelled to bring up six pieces of cannon, loaded with grape, to clear the wood of the jägers. I had a man in my company, in the Hessian jägers, in America, who was the son of a jäger, supposed to be one of the very best shots amongst those engaged at Minden. His comrades had such an opinion of his shooting, that six or seven men handed their rifles to him, as he stood behind a large tree, continually keeping them loaded for him to fire, so that he could fire several shots in one minute. When the cannon were brought up, his comrades desired him to come away; but he said he would stay,

and have one shot more: a grape-shot struck him, and killed him.

The French were so incensed that day, against the jägers, that a few of them which they took, wounded, in the retreat, for the German forces were beaten, they buried up to their chins in the ground, and left them to die.

In the French armies, in those days, the bugle-horn was called "*la musique funeste*;" for they, in those days, had no riflemen in their armies; but they have had plenty, of latter days. They have now a great number of tirailleurs, but not many riflemen, for jägers are very scarce to be got; and to make a common soldier an expert rifleman, it requires much time.

Having related how severely this French regiment suffered, opposed to the German jägers, I am of opinion, that if every jäger there had had a rifle, the barrel of which weighed somewhat *above six pounds*, and carried not *above thirty balls to the pound*, that, at the distance they were from them, they would have done double execution, *by firing three balls every shot*. But say only that they had put in *two balls*; two balls, at

two hundred yards, will act with tolerable precision. Make a trial of it.

I shall now pass over rifle-shooting; but not without some remarks *on a most ingenious book*, lately published, entitled *Scloppetaria; or, Considerations on the Nature and Use of Rifled-barrel Guns: by a Corporal of Riflemen*. The perusal of this book has given me much pleasure, and great satisfaction, where the author *states practical facts*; for it proves to me to what perfection the art of making rifled guns is arrived, and with what unerring skill a skilful marksman shoots. I mean by this to refer to the copper-plates; first, at page 86, where there is very good shooting proved; but when I advance to page 119, I am astonished at the excellence of the workman who made the gun, and at the superior skill of the rifleman. In the lower target, page 119, I find, at the distance of two hundred and fifty yards, that eight shots in twelve are concentrated in the small space of ten inches; to which I beg leave to add two more, for they absolutely touch the edge of the ten-inch circle. This is shoot-

Remarks on a Book, called *Scloppetaria*; or, Considerations on the Nature and Use of Rifle-Guns.

ing with such a degree of precision as I never saw, and I believe will be found very difficult to exceed.

It is not my intention to examine this ingenious book, page by page, which does the author so much credit; for there are many passages in it which plainly evince great ability, learning, and study: but, when he boldly, *theoretically*, and *theoretically only*, without giving any *practical proof*, overturns (as he imagines) at once the principle and means by which a rifle has so great a superiority over a smooth, bored gun; namely, from what principle a ball, fired from a rifle-gun, receives a rotatory or whirling motion, round its own axis; and gives us an assertion of his own, *theoretically* founded, and *not practically*; it becomes me, as a duty, to give a *practical proof*, to confute his *theoretical assertion*. I will quote the author's own words, page 63. "Thus, then, it will seem certain, that so long as the ball has any progressive motion at all, it cannot fail to compress the air before it, and the air so compressed *will act constantly as a power, to turn the ball round and round*. We think, there-

fore, we may safely say, that so long as the ball has progressive, it cannot fail to have lateral motion also ; and that the latter will ever be dependent on the former, because the ratios are of necessity equal. *We then consider the spiral grooves of the barrel as of no further utility, with respect to the generating of the rotatory motion, than as an easy and expeditious way of giving the ball the requisite indentations, in order that the impulse of the powder, and the re-action of the elastic medium, AIR, may together produce and continue, through the means of those grooves, the whirling motion."*

Now let us see whether the author's *theoretical proposition* will stand the test of a *practical proof*. This any gentleman may be convinced of, by trying the following experiment with his rifle : load the rifle, as customary, with powder first ; then put a ball on the mouth of the rifle with a greased patch, so that the ball may go down tolerably tight, and fit well in the grooves, as a ball should do in a rifle-gun. Do not push the ball in *above one inch* ; and, instead of holding the gun fast, either with one hand and ramming down the ball with the other,

A practical
Proof.

or holding your rifle fast between your legs and thighs, place the *upper part* of the heel-plate on the butt, on a polished, smooth board, quite at the extremity of the butt, where it is somewhat round; then raise the lower part of the butt about half an inch from the board; then place both your hands to the ramrod, ram the ball down, and, as your gun is rifled either a quarter-turn, half a turn, three-quarters turn, or a whole turn, you will observe your gun turn round on the upper end of the butt, placed on the smooth board. If this is not received as a convincing *practical proof*, that the ball, when it is shot out, does receive a rotatory, or whirling motion, round its own axis, by means of the spiral grooves in the rifle, I shall be greatly surprised; for it appears to me as evident, as that the sun shines at noon-day. Yet the author of the *Scloppe-taria* asserts, *that the spiral grooves of the barrel are of no utility, with respect to generating the rotatory motion of the ball.* Now, provided the ingenious author (for he certainly shews much ingenuity in his *theoretical arguments*) will have a ball cast, and such a

bullet-mold can be made, so that six or seven excrescences, or ribs, project from the sides of the ball; then put this ball, with a greasy patch, into a smooth-bored gun, of a perfect caliber; the author will be entitled to shoot as true, with this smooth-bored gun, as he can with a rifle-gun, provided, as the author asserts, that the ball takes a spiral rotatory motion round its axis, *by the action of the air on the excrescences of the ball, and not from the grooves in the rifle.*

One observation more. It is respecting balls cast for rifle-guns. The author says, you should always put that part of the ball, where is the neck, which is formed by the mold and cut off, *uppermost*. I widely differ with him: the reverse, or smoothest part of the ball, should be placed uppermost; for, when *no inequality* in the ball is opposed to the air, in the flight of the ball through the air, the ball is less liable to deviate from its direction.

How to place
the Ball.

I shall now have done with rifle-shooting, and with any further observations on this gentleman's work; candidly acknowledg-

ing, that it is a most ingenious production : at the same time declaring that, in those parts where he works up your expectation, expecting that you will be acquainted with some very great improvement, his whole propositions and assertions are founded on nothing but *theoretical arguments*.

Of the Rifle-
bench of
London Gun-
makers.

There are gun-makers in London, who tell you, that they have a rifle-bench, in which they rifle their guns, which has cost them above two hundred pounds. More fools they ! for I will procure them as many as they choose to have, from Germany, for a few pounds. This wonderful machine they will, *on no consideration*, shew you. I cannot help laughing in their faces, after having seen so many guns rifled in Germany : and I will tell them something more. Several years ago, when I was last in Germany (I imagine every thing must now be much dearer) I could purchase a capital, good rifle for *three guineas* ; and have reason to think, that, at this time, they would not charge above five guineas : and this rifle shall shoot, in every respect, both at long and short distances, as well as one

which these most ingenious artists, with their *wonder-working*, two-hundred-guinea rifle-bench, will *charge you thirty guineas for*. I will also assure them, that, a few years ago, I had a shot-gun, which was made for a German jäger, which *cost only three guineas*; and I never, in my life, shot out of a better gun. To be sure, I must allow that the lock was very indifferent, and the stock not elegantly finished; but the lock never missed fire, and the barrel shot very well indeed; and, what is more strange, the barrel was what is vulgarly called strait rifled, which requires additional labour and workmanship.

I have already observed, what folly it is to give from fifty to sixty-five guineas for a gun, when Baker of Whitechapel, and Fisher, of Greek Street, Soho, will make you as good a double gun as can be shot out of, for about thirty-six guineas. It is no more than due justice to relate a truth: Fisher, of Greek Street, a very few years ago, put a single barrel into an old German stock, with a German lock already to it. The barrel weighs three or four ounces

Folly to give such high prices for Guns. What price should be given.

above four pounds. *He only charged me six guineas* for the barrel. I lent it about three seasons past to a man, who, I think, was one of the best shots which ever took a gun to his shoulder. I seldom have shot with this gun myself, for I ever shoot with a double gun. He killed several birds at wonderfully long distances; but he made one of the most surprising long shots at a hare that ever I saw. I am certain I could not be mistaken in the distance, for the hare was running along a foot-path close to the hedge, in which path I was walking at a distance behind; and, less than one yard after he shot at her, she turned into a gap in the hedge: she did not run much above a hundred yards before the dogs caught her. I went up to the spot where he shot at her, and measured it, to the place where he stood, and he measured it from the spot he had fired from, and we made it about *two yards above fourscore*. Now this hare was not struck with one chance shot in the brain or heart, but she had three or four shot in the fore-part of her body, just behind the fore-leg. It

A very singular long shot at a Hare.

must be remarked that he shot with very large shot, No. 2, patent. I always shoot with No. 2, from the first day to the last of the season.

Before I have quite done with guns, I do most earnestly intreat such persons, into whose hands, perchance, this production on guns may fall,—if they have any influence with the persons in public employ, — to use their utmost influence with them, positively to command that no rifle, in future, shall be made for our troops, the barrel of which does not weigh *full six pounds*, and no ball larger than thirty to the pound. I will suffer death if I deceive them. I will explain further: the barrels of the rifle-guns, used by our regiments on service, weigh only four pounds, and carry a ball twenty to the pound. If you put half the weight of the ball in powder, which weighs twenty in the pound, into a barrel weighing only four pounds, it will very near knock the man down who fires the rifle. And to make a rifle which carries twenty balls to the pound,—to give the barrel an additional weight, so as to give it

The weight of the Barrels of our present Rifles on service, and what they ought to weigh; with the size also of the Ball.

a proper resistance when it is fired with half the weight of the ball in powder, so that it may not, in the slightest degree, affect the shoulder of the man who fires it; that gun will be too heavy for a man to carry on a long day's march. *My rifle-gun barrel, above six pounds, ball thirty to the pound, complete for a man to carry on service, weighs only ten pounds five ounces.* This is nothing like so heavy as a soldier's musket.

It may be said that, for service, a ball weighing twenty to the pound, is better than one of thirty to the pound. It may be so: I will not argue that point. But this I presume to say; whether you be wounded by a rifle shot, either two, three, four, or five hundred yards distant, the ball weighing twenty, or thirty, to the pound, it is immaterial; either of them will kill you, or send you to the hospital, and that is sufficient; for you are either totally put *hors de combat*, or for a time only.*

* It is but due justice to Mr. Baker, gun-maker, Whitechapel, who made the rifles for the 95th regiment, to state that he worked to order, being directed

Now, gentlemen, I speak to you who belong to the different rifle corps in this metropolis. You will, I believe, acknowledge, that some of you load your rifles with one fourth of the weight of the ball in

The quantity
of Powder now
used,

to make those rifles to carry balls which weighed *twenty to the pound*. It was his wish to make the barrels heavier; but, had he made the barrels proportionably heavy to the size of the ball of twenty to the pound, the gun would have been too heavy for the man to carry: for, to load that gun, carrying twenty balls to the pound, with half the weight of the ball in powder, the barrel should weigh nine pounds at least, if not nine pounds and a half, so that, when fired, it should not affect the man's shoulder. The gun then would have weighed, together, about fourteen pounds,—an immense heavy weight;—whereas the barrel of my gun, weighing six pounds three ounces, and the whole gun, complete for service, weighs only ten pounds five ounces, carries a ball of thirty to the pound, and half the weight of that ball in powder, and goes off without any recoil whatever. Now the barrel of the gun used by the 95th regiment, weighs *only four pounds*, and carries a ball twenty to the pound, and not more than *one third* of the weight of that ball in powder, (I doubt, if so much.) The difficulty of making a common soldier judge at what distance an enemy is, on service, is amply explained in the treatise entitled **A PLAN**, published at the end of this book, to which the reader is *particularly* referred.

powder, and some with one third of the weight; seldom, if I be not erroneously informed, do you load with more powder than one third. Now, gentlemen, I will ask you a plain, candid, and simple question, not founded on *theory*, but on *practice*; for *theory* I abhor; it has led thousands into error:—Will not my rifle, loaded with one half the weight of the ball in powder, throw a ball to a much greater distance, before the force of the powder shall begin to lose, in the smallest degree, its impulse on the ball, than your rifle will, loaded with only one third of the weight of the ball in powder?—I trust this point will not be disputed.

Of the force of
Powder on a
Rifle Ball.

Now it will be said that the largest ball, of twenty to the pound, being one third heavier and considerably larger, will, by its superior weight and size, operate more forcibly on the air, in its passage through it, (so Robins tells us,)—pardon me, gentlemen, if I do not speak technically,—than a smaller ball will. To which I reply, that what the smaller ball loses by its want of weight, is most astonishingly compensated for, by the triple velocity given to it, from

the great increase of the powder. Now we will suppose, gentlemen, that your rifle barrel shall weigh only four pounds, and shall carry a ball twenty to the pound: put you half the weight of the ball in powder, in your rifle, and your rifle, when fired, shall knock you backwards,—whereas, when my rifle is loaded with half the weight of the ball in powder, and fired, my rifle shall go off, as all rifles should, pleasantly and without the smallest recoil.—

Gentlemen, I can assure you, on my word, that the American riflemen have but *one sight behind* to their guns: I mean, by this, that they have no rising-sight, by which to give their guns a greater degree of elevation; and *that one sight* is not above *two sixteenths of an inch* in height above the barrel. I do believe, that, if he shot at a man standing still, at four hundred yards, by only aiming at the man's head, that he would drop the ball into his breast, *not lower*, or go so near to him as to alarm him devilishly.—Pray, what does this precision in shooting at so great a distance, without using a more elevated sight, proceed from?

Of the American Rifles,
and of the
Riflemen.

Why, undoubtedly from the great force of powder, operating on the ball, to a very considerably greater distance before it loses its operative force on the ball, than guns loaded with much less powder will operate.

What an American Rifleman can do.

I have often asked American riflemen, what was the most they thought they could do with their rifle? They have replied, that they thought they were generally sure of splitting a man's head at two hundred yards, for so they termed their hitting the head. I have also asked several whether they could hit a man at four hundred yards, — they have replied certainly, or shoot very near him, by only aiming at the top of his head. — Remember, gentlemen, they have but one sight, and I have told you the height of that sight from the barrel. Now, gentlemen, does not this prove to you how *absolutely necessary it is* for you to increase the weight of your rifled barrels, so that you may very considerably increase the powder, for long distances: for what is rifle shooting, at short distances? Nothing. *Rifle shooting begins to excel at the distance where the musket*

The necessity of increasing the weight of the Rifle barrels.

leaves off, and shoots with no certainty whatever. I would not give one farthing for a rifle, which would not throw a ball, to a certainty, into the space of about three or four file of men, at four hundred yards, provided the wind was not strong; and then riflemen know how to regulate their aim.

I have told you the proportionate weight of the barrel and the ball: I assure you, you will find it just as I have stated; and I have the greatest expectation that some of you will adopt the principle. I would not lead you into error and expense, by *theoretical ideas*: what I have stated, *I have tried, hundreds and hundreds of times*. I always try my rifle-guns directly down the wind: but this cannot be done near London; it must be done on the sea-coast, on the sands: there you have scope, and an advantage on the sands, I mean when the tide is going out, where the sands are wet. At whatever distances you fire, if you will fix the lower side of your target on the moist sands, you must see whether you shoot on one side or not; and, at long distances, whether your ball falls short of the target, and

How to try
Rifle-Guns.

how far short; for the ball must make a very visible mark on the moist sands. I always lay two thick horse-cloths down, and lie down on my belly on them to shoot, placing a log of wood before me to lay my gun over. This method is a great assistance to you, for you evidently must see the directions the balls have taken, which have missed the target: on any other ground you cannot have this accurate advantage: lying flat down is also the surest position you can fire from.

Of strait
Gunpowder,
for all bad
shots.

I should be extremely happy if it were in my power to instruct the Bunhill-Row and Spital-Fields Cockney-sportsmen, and other bad shots, how to improve in their shooting; but, after much reflection and study, I find it totally out of my power. However, I am labouring for their advantage, and with no small doubt of making my fortune also, should I succeed: it is by the invention of STRAIT POWDER. But, hitherto, I have failed of finding an effectual composition to mix with gunpowder, to make it shoot strait; and have been equally as unsuccessful as the chemists have

been in their endeavours, to find out the philosopher's stone, who have wanted nothing to complete their long-wished-for object but a perfect powder of projection. However, like them, I do not despair; but shall labour on with assiduity, to find out some composition, for the benefit of all bad shots, which will make powder *shoot strait*.

The breed of dogs which I prefer, beyond all others, are those which are bred between a setter and a pointer; but not bred from those setters which have no natural point in them; for I have no idea of shooting to a dog which does not stop at birds the very first day he is taken into the field. I have not had a setter, which was broke *by force*, for above twenty years; nor ever will have one. Leave them at home only one week; for the next two days you must turn to dog-breaking, and not to shooting. I prefer those between a pointer and a setter, which take after the setter; for, generally speaking, they have better

Of the best
breed of Dogs
for shooting
Game.

feet, which is a great point in a dog: for certain, they have more hair on their feet, which is a great preservative to the foot, if it be kept clean. I never kept a cocking spaniel in my life: I always shoot to pointers, even in the strongest covers, with bells round their necks. I know, for certain, you will not find so much game; but then what you find, you are sure to shoot at. Here is the great benefit of shooting to pointers: you may shoot every day, in a wood, and not drive the game away. But if you turn cocking spaniels into a wood, which quest, when they come on the foot of a pheasant, in a very few days you will drive every pheasant out of the wood. A Newfoundland dog, tutored to keep behind you in the fields, and not to go above a dozen or twenty yards from you in a wood, is of wonderful utility, in retrieving and bringing wounded game. I have had several that were uncommonly useful.

Questing Spaniels drive all the Game away.

The utility of a Newfoundland Dog.

I hope it will be satisfactory to you to be informed, how to preserve your fire-arms *for two or three years loaded*, and that they shall go off more lively, and with less danger of hanging fire, than when fresh loaded. The method is very simple; of course, so much the better. About once every month, or five weeks, lay your pistols—and, particularly, ever on the morning before you travel—on the brass stand, on which toast and muffins are placed before the fire, with the butts and locks towards the fire, until they are *quite hot through*; so hot, that you cannot hold your finger on the butt of the barrels and pans; then prick the touch-hole well, quite into the body of the powder. Thus the powder will be dried as perfectly as when it first was taken warm out of the drying-room, at the powder-mills; and will go off more sure, than powder which has lain in your horn for some time.

How to preserve Fire-arms in perfect order, for two or three years.

There is no better defence for a house, than a double-gun, nor against robbers on the road; but be sure never to load it with a ball, but with Nos. 2 or 3, patent shot. If

a thief be forcing even your bed-room door, shot will shoot through any common bed-room door, which is not made of three-inch oak, or mahogany. If you hear them in the house, throw up the window, and cry out, Fire! every body then will come to your assistance; but if you cry out, Thieves! the devil of one will move, and, for certain, no watchman.

I am told, by the officers in Bow-street, that the very first thing a thief does, when he breaks into a house, is to open both the front and back doors, so that, in case he be disturbed, he may have a fair start. If you see him, from your window, brushing out, and your gun be loaded with a ball, you most likely will miss him when you fire; but, with shot, you are sure to stick as many into him, as will employ a surgeon, for two hours, to pick them out of his body. I always keep a duck-gun, loaded with two ounces and a half of No. 2, patent shot, by my bedside: this will pepper any one, even at one hundred yards distance.

A gun may be kept in perfect order, by

Never load a Gun, for the defence of your house, with Ball.

heating the barrels quite through, the same as I have directed for pistols*. Be sure your fire-arms are perfectly clean, when you load them; for I have known arms to come home with much filth in the touch-holes, after having been cleaned at the gun-makers; so much so, as to dirty three or four feathers passed into them.

After the various remedies I have given, for the cure of disorders in the brute creation, when I possess a receipt how to compose a most valuable *tonic tincture*, so beneficial to the health and comfort of the most lovely part of the creation, I should be justly condemned, in my neglect of the fair sex, were I not to make it known to them. To all delicate women, subject to fainting-fits, hysterics, lowness of spirits, and all nervous disorders whatever, the fol-

Tonic Tincture
for weak, deli-
cate Women.

* At this moment of time, I have a large musket, loaded with No. 2, standing by my bedside, which has been loaded considerably *above two years*.

lowing tonic tincture, taken as prescribed, will be found a most valuable and efficacious remedy; and a great comforter to all women far advanced in the decline of life:—

DE COCHLICUS JUNIPERI,

Fiat tinctura anæ quantum suff.

Libram ter die sumat.

Pints and pounds are the same in chemistry. The bottle to be put by the bedside, at night, and to be taken whenever the cough is troublesome.

You need not send to the apothecary's for this valuable tonic tincture: the doctor at the BOOZING KEN can supply you with it more genuine. There is still a better medicine, made of the same ingredients, for those who can afford it; for it is considerably dearer:—

DE COCHLICUS JUNIPERI,

Fiat tinctura Collegii Londinensis,

Appellatus SENEX THOMAS.

This medicine, being infinitely more powerful than the foregoing prescription, only half the quantity, as above prescribed, must be taken. To save ladies the trouble

of applying, either to their man-midwife, or their *body parson*, or *priest*, to interpret the above Latin prescription, as it stands sanctioned by the London College of Physicians, in the *Pharmacopia Collegii Londinensis*—

Send to *the slum cove at the boozing-ken*, to give you a sufficient quantity of OLD TOM. I have frequently witnessed its surprising effects on women of all ages, from fifteen to fourscore, and upwards: it should always be taken instead of tea, both morning and evening; for tea, to delicate, hysterical, and nervous women, is hurtful. Those who are unacquainted with the wonderful, salubrious effect of this *tonic medicine*, when they have once tried it, will ever after bless and praise my kindness, for having imparted this valuable recipe to them.

Gentlemen sportsmen! I have led you into the field, and now I will regale you in it: let some one come to you, at a particu-

lar appointed place, about two o'clock at noon, with a few bottles of mild ale, bread, and sufficient of the following meat, for yourself and friend. It is thus prepared :

▲ Field Regale
for Sportsmen.

Take a fine round of beef, four ounces of saltpetre, three-quarters of an ounce of all-spice ; rub it well on the beef, and let it stand twenty-four hours ; then rub in as much common salt as will salt it. Lay it by twelve days, turning it every day ; then put it into a pan, such as large pies are baked in, with three or four pounds of beef-suet, some under, some over. Cover it with a thick crust, and bake it for six hours. It will keep for two months.—It is called sportsmen's beef ; and most excellent it is.

I shall now make you acquainted with a few receipts, useful for every family to be acquainted with ; and begin with one which I never knew fail : I have given it to many : it is a remedy for *the scurvy*. I will inform you how I first was acquainted with its efficacy : About eighteen years ago I

Infallible Cure
for the Scurvy.

was going to dine with an old acquaintance, a hearty and hospitable Norfolk farmer, with another farmer in company, who was shooting with me. The farmer complained that he was much troubled with the scurvy. The old farmer said, "I will cure you to a certainty," and thus proceeded.

"A few years ago, I was so terribly afflicted with scurvy, that my whole body nearly was one eruption. I had tried the Lynn, Norwich, and Bury physicians, and had even gone to London for advice, but they none of them could cure me. Sitting at my door, an old gipsy woman, hearing me complain, told me she would cure me; for that she had cured hundreds. I told her, I would try her medicine, if she would tell me of what it was made, and that I would feed her, and give her a warm birth and clean straw in my stable, and five guineas, provided she performed a cure. The bargain was made, I took her medicine, and in about three weeks every scale I had on my body fell off. I was perfectly cured, and never have had it again to any extent; for, when I see the smallest erup-

tion on my skin, I take the medicine, for five or six days.”—It is thus composed :
TAKE TWO PARTS OF FLOWER OF BRIMSTONE, AND ONE PART CREAM OF TARTAR ; MIX THEM WELL TOGETHER : TAKE FOUR LARGE TEA-SPOONS-FULL, IN MILK, EVERY MORNING, the first thing you do, when you get up, before your breakfast :—milk is only the vehicle to take it in ; you may take it in any thing else. The farmer with me took it ; he had scales on his arms, breast, and thighs ; he was cured in three weeks. In the course of eighteen years, I have given it to many, and never knew it fail. It is not above three months ago, when, sitting in a public-house, a gentleman came in, and said, “Colonel Hanger, I am infinitely obliged to you, for having cured me completely of the scurvy.”

Warm Milk from the Cow, Conserve of Roses, & Rum are wonderfully nutritious, & an excellent thing to be taken by anyone suspected of going into a Decline.

A lady of my acquaintance was so extremely unwell, that I was of opinion she was going into a decline. She took the following for six weeks, and her health was perfectly re-established :—**HALF A PINT OF MILK, WARM FROM THE COW, MADE LUS-**

CIOUSLY SWEET, WITH OLD CONSERVE OF ROSES, AND TWO TABLE-SPOONS-FULL OF THE VERY BEST RUM. Take it the first thing in the morning. There are many old persons whose appetites are quite gone, who, to my knowledge, are kept alive for a time, by drinking half a pint of milk, with a small quantity of rum in it, three or four times a day; but *not with* any conserve of roses. Remember that old persons, who wish to try this, must first boil the milk, and let it get tolerably cool; for all milk, when it has once got cold, if not boiled, will purge.

The following gargle for sore throats, I have seen often tried with surprising effect: TAKE A LARGE HANDFUL OF RED SAGE, (not the common garden sage,) BOIL IT IN ONE QUART OF THE BEST WHITE-WINE VINEGAR, TO NEAR A PINT, THEN SWEETEN IT WELL WITH HONEY. You may, if you please, add two *small* wine-glasses of port wine. A person of my acquaintance, had a fever and most violent sore throat, so bad that he could scarcely swallow spoon-meat: the

A surprising
efficacious
Gargle for a
Sore Throat.

apothecary had prescribed a gargle for four days, which had done no good : — he used the above, and in twelve hours, was cured. *I have tried this often.*

How to make a
Pint of Saline
Draught for
eight-pence.

I will instruct you how to make one pint of saline draughts, for about six or eight pence, which quantity, from the apothecary's, will cost nine shillings; six draughts, at eighteen-pence each.—TAKE TWO SCRUPLES OF SALT OF WORMWOOD, PUT THEM IN A TEA BASIN; SQUEEZE THE JUICE OF ONE LEMON ON THE WORMWOOD : IF THE ACID IS NOT ENOUGH TO MAKE IT BOIL AND BUBBLE UP IN THE BASIN, YOU MUST SQUEEZE THE JUICE OF ANOTHER LEMON ON IT: ADD THREE OR FOUR LUMPS OF FINE SUGAR, THEN PUT IT INTO A PINT-POT AND FILL IT UP WITH BOILING WATER : — take a small wine-glass at a time.

Wonderful effects of Friar's Balsam in strengthening the Stomach and Bowels.

About eight years ago, I was as violently afflicted as any person ever was, who recovered. My stomach, after it, for some time, was so weak, that I could not keep the victuals on it, long enough to nourish me,

without taking half a grain of opium, before breakfast, and one grain before dinner. I asked two physicians, whether it would be detrimental to me, to continue taking the opium; they both said, that, in time, my stomach would be stronger, and that I should leave off taking the opium by degrees. A few days after, my old friend Captain John William Lloyd called on me, and told me that he would put my stomach to rights;—that numbers of people, in the same way as me, had been cured. It was, to TAKE ONE LARGE TEA-SPOONFUL OF FRIARS' BALSAM, IN FOUR TEA-SPOONS-FULL OF WATER, EVERY MORNING, AND AT NIGHT, GOING TO BED. I had not taken it above three weeks before my stomach was perfectly well. Whenever I find my stomach the least lax, I always take it for a few days, and it has an astonishing effect on me.

I have already mentioned that *the lotion for bruises, blows, sprains, and all outward injuries, received by horses*, is as beneficial to the human race, as it is to the brute creation. I repeat it again, for I have

A sovereign
Lotion for
Bruises, Blows,
Sprains, & all
outward inju-
ries to the Hu-
man Body, as
well as to the
Brute Creation

experienced its powerful effects, a great number of times, and I recommend every family, in case of accidents, to keep a bottle of it in their house ; *it is by far the most sovereign medicine I ever used.*

THINGS LEFT OUT IN THEIR PROPER PLACES,
FROM ERROR, NOW INSERTED.

The great benefit of loose Stables.

I HAVE known horses, in trifling lamenesses, receive much benefit from being turned into a loose stable ; and all valuable horses should be kept in loose stables. I am certain, if you crack the oats for horses, in a machine made for that purpose, that *three feeds will do a horse nearly as much good as four.**

Of cracking Oats for Horses

* In medical books we read, that, from experiments tried, the gastric juices do not operate on any sort of grain, when swallowed *whole* into the stomach, so as to procure the digestion of the grain ; but only when it be chewed or broken : so that all grain swallowed *whole* passes through the animal undigested, and of course

A horse has a very sweet tooth,—when he be unwell and wont drink, *mix molasses or coarse brown sugar in the water* : he will then drink freely.

Molasses, or Brown Sugar, mixed in Water, will make a sick Horse drink freely.

The best stopping I know to make horses' feet grow, or to supple hard feet, which are subject to crack, is linseed boiled, and, when moderately cool, applied to the feet.

The best Stopping to supple hard Feet, and make them grow.

I have been informed by an agriculturist who has written on agriculture, and the feeding of cattle, that the following cheap food will do for all horses, which work in the stages, and draft-horses;—not for mail-coach horses, nor post-chaise horses; they must be full fed with oats.—HALF A PECK

Cheap Food for Draft-Horses.

does him no benefit. This plainly proves how great an advantage you gain by cracking the oats:—how wonderful it is, also, that the gastric juices operate only on dead flesh, both in the human body, and in the body of carnivorous animals. If it operated on living flesh, it would destroy the intestines. In various works of divine nature, how evidently do we see the hand-workmanship, and wisdom of an omnipotent, all wise, incomprehensible Deity!—

“ *Whatever is, is right.*”

OF SPLIT BEANS PER DAY ; OATS IN THE STRAW, ONE THIRD ; TWO THIRDS BARLEY OR WHEAT STRAW ; THE OATS IN THE STRAW ; AND STRAW TO BE CUT, IN A CUTTING MACHINE, AS SHORT AS POSSIBLE, NOT ABOVE A QUARTER OF AN INCH LONG. *Particularly* NO HAY WHATEVER WITH THIS IS NECESSARY.

What Farmers'
Daughters
were, and what
they now are.

In my youthful days, farmers' daughters put their red cloaks on, and the milking-pails on their shoulders, went out before dawn of day into the field, to milk the cows, and before they had gone a hundred yards, generally split a cow-turd with their feet,—but now, if one of them look even out at the door, the servant cries out, “*Miss*, pray do not go out, you will wet your feet, and catch cold.” Formerly, when the lasses came home from milking, they had a rasher of bacon, broiled on the coals, for breakfast, and a pint of mild ale,—washed their face at the pump, and rubbed

it well, to make the blood circulate, with a coarse towel;—now, *miss* must wash her face, or rather not wash it at all, with cream, or some other cursed nastiness; and breakfast on the finest tea and sugar, and a delicate, small, thin piece of buttered toast; and not eat heartily, for fear of growing too gross, and spoiling her complexion. Formerly the lasses, in fine weather, used to dance on the green, with the lads; but now *miss* is taught to dance, and to sing, and play on the piano-forte: then she must attend all the county balls:—the captain gets acquainted with her; mamma remarks, what an attentive, polite, and elegant man, the captain is. The captain dances with *miss*, frequently, and at last, when the regiment marches, the captain dances off with her, and she is never heard of in the county again.

She dances
with the Cap-
tain at the
County Balls.

In former days, farmers' daughters went in a cart to market, to sell butter, eggs, poultry, young pigs, &c.: now they are driving all over the county in elegant taxed-carts; visiting, romping, and rioting all

over the land.* You may as well, now-a-days, ask a farmer's daughter to milk the bull, as to milk a cow. Then, to imitate women of fashion, at the balls, they dress half naked; neck and arms quite bare, and the gown cut down so low in the back, that you absolutely may see their rumps. I remember, many years ago, if a person had walked down St. James's Street, with an umbrella, and strings in his shoes, it would have occasioned much censure; but now all the priests and footmen wear and carry both.

Custom is every thing.

Custom is prevalent, and custom establishes every thing; for the same nurse who looks after little miss, and little master, tells little miss, provided she shews only one inch of her ankle—"O fie, miss, for shame, you shew your ankle; that is very indelicate;" and, with the next breath, she

Difference in the bringing up of Little Miss & Little Master.

* In all these romplings and riotings, provided they do not get *hove*, or *sprung*, as cattle do which swell in the body from eating clover, it is all very well; that is a very troublesome disorder, and is seldom got rid of under nine months.

tells little master to take up his coats and *piss like a man*.—So it is, custom governs and sanctions every thing; or how could the most delicate and decent women permit a man-midwife, six feet high and two feet broad, over the loins, to attend them during their pregnancy; taking liberties, *only professionally*, to know whether the child lies right, &c., and, after that, to deliver them?

I have often thought that we men have lost a very great benefit and pleasure from women not having studied physic, so as to take out their *diplomas* as physicians; for, when I was a young man, I must confess that it would have been extremely satisfactory to me, when the complaint was so desperate, as to render it necessary to call in two female physicians, in order that they might attend diligently to my disorder, to request them both to pass the night with me, and partake of my bed; and then, in the morning, for their kind attention to my disorder, dismiss them with a liberal fee*.

The great loss Mankind sustain from there being no Female Physicians.

* To be sure, there are some disorders in man which

I think it would not be a bad speculation, to plant a great many acres with fig-trees ; for, if the women go on progressively, as they have for many years, the good old custom of our grandmother Eve will be adopted, and nothing but a fig-leaf be worn.

Try No. 2, patent Shot, instead of No. 5 or 6.

Gentlemen-sportsmen, I can have no personal nor self-interested view, in requesting you, for two or three days, to shoot with No. 2, patent,—you, who at present shoot with No. 5, and 6 : don't begin to try it till October, when the birds are strong, and rise at a much greater distance. I give you my word, from convincing practice, that two shots of No. 2 will kill a bird at above seventy yards ; when seven

might put a lady to the blush to examine, at first ; but if they would but consider what great liberties the fair sex allow men-midwives to take with them, without ever blushing, I am of opinion that, with a little time and practice, they might handle any part of a man with the same indifference as they would handle a cucumber or a carrot.

of No. 5 or 6 will only maim the bird, but wound him so, that, although he will fly away, and you never get him, he undoubtedly may die. At least, gentlemen, I think it is fairly worthy of giving it a trial: but let me ask you a question! Do you ever expect to kill an old hare with No. 5 or 6, at seventy yards? Upon my word, she will canter on and laugh at you. I assure you, on my word, *I have killed some dozens above seventy yards with No. 2.* Now pray observe of what infinite advantage it will be to your manor, provided you order your gamekeeper, after the first month of September, ever to shoot with No. 2; morning and evening, late and early, when vermin ever rove, if he falls in with a kite, hawk, carrion-crow, magpie, or any four-legged vermin, he is ever prepared to destroy them*.

* I beg leave to call your attention to two facts which are stated in the foregoing pages: the first is, my having killed a partridge *above seventy yards*, put three shots into him, *two of which* went in behind, passed through his body, and went out at his breast. The second is, a man, shooting with me, having killed

I shall end with giving you a certain ointment, with which you may rub a pair of boots, and walk four or five hours in water, snipe-shooting, and never be wet. TAKE BOILED LINSEED-OIL, ONE PINT; BEE'S WAX, ONE OUNCE; BURGUNDY PITCH, HALF AN OUNCE; SPIRIT OF TURPENTINE TWO OUNCES: melt the three first in an earthen-pot, and then add the turpentine. Lay it on when the leather is dry, and warmed before the fire. This ointment *must be well rubbed in before the fire*, and when the leather is tolerably dry.

a hare, putting three or four shot into her at *above eighty* yards. Can you do the same with No. 5, or No. 6? *I answer, No*; you cannot; it is not possible. Upon my word, I should not imagine that I should be in any degree of danger of receiving material injury, were I to allow any person to fire at my hinder parts, at four-score yards, with No. 6, provided I had a good pair of buckskin breeches, and particularly had I a great-coat on,—not of any peculiar thick cloth, but superfine only. I do not believe that any shot would penetrate that coat strong enough, even to give me pain. So firm is my preference of No. 2, to No. 5 or 6, that I think the point cannot be contested. — Look to pheasant-shooting; the bird has a small body, but the plumage is very thick.

Many years ago, I used to be satisfied provided my gun, at forty measured yards, with equal measure of powder and shot, would shoot through a quire of foolscap writing-paper. Recollect that there are four-and-twenty sheets in the quire; but, as it is always sold doubled, so it must be fired at, and will present to you forty-eight half-sheets: and, in these days, even though I have guns, which will shoot stronger, yet a man may be satisfied with one which will perform as I have stated, for it must be deemed a good gun. Remember the shot must be *No. 3, patent*,—neither larger nor smaller.

Provided any gentleman, whom I am acquainted with, when he meets me, will ask me, I will instruct him how he can entice hares, which pass over his grounds, to *stop and remain* on them; and how to entice them, by food in winter, and especially how to make them frequent any one particular wood or plantation on his grounds. But any gentleman who may

live near to where I may have a sporting cottage, cannot in reason expect me to impart this valuable method to him.

How to know
the age of a
Dog, until he
be six years
old.

I have omitted informing you of what will be very useful, and is not so generally known as it ought to be, for I have known several gamekeepers and huntsmen not the least acquainted with it: it is to know the age of a dog until he be *six years old*; after which period you cannot ascertain his age. A dog has a very visible mark in his teeth, as well as a horse, which mark does not disappear totally until he be *very near, or full, six years old*. Look to the *four front teeth*, both in the upper and lower jaw, but *particularly* to the teeth in the upper jaw; for, in those four front teeth, the mark remains longest: at twelve months old, you will observe every one of the four front teeth, both in the upper and under jaw, jagged and uneven, nearly in the form of a *flower de luce*, but not quite so pointed, at the edges of the jags, as a flower de luce is. As the dog advances in age, these marks

will wear away, gradually decrease, and grow smoother and less jagged every year. Between three and four years old, these marks will be full half worn down; and when you observe all *the four front teeth, both in the upper and lower jaw*, quite worn smooth and even, and not in the least jagged, then you may conclude that the dog is nearly, if not *full six years old*. When those marks are quite worn flat and even, and those teeth quite level and even, you can no longer judge the age of a dog. I have seen many huntsmen and gamekeepers ignorantly look at the side and eye teeth of a dog; they might as well look under his tail; for I have seen many dogs, not two years old, which have had the canker in the mouth, with hardly one sound tooth in their heads.

REMARKS ON THAT UNJUSTIFIABLE AND UNGENTLEMANLIKE, ACT OF LAYING POISON IN PLANTATIONS, NEAR THE HIGH ROADS, TO POISON TRAVELLING SPORTSMEN'S DOGS.

I cannot conclude this publication without expressing my abhorrence of a most cruel, unjustifiable, and ungentlemanlike practice, which I have too often observed in travelling the king's high roads in Suffolk and Norfolk ; — namely, thus written up on boards : POISON FOR DOGS IS LAID IN THIS PLANTATION. Before I proceed further on this subject, I recommend to those persons who call themselves gentlemen, who sanction such an outrageous and unjustifiable act, to consult their own personal feelings, and study that golden rule, which the good Roman Emperor Alexander, the son of Mammia, had engraved on the avenues leading to his palace, and in all the public courts of justice : ALTERI NE FECERIS QUID TIBI FIERI NON VIS ; and that divine, moral,

and ethical command to us in Scripture: DO AS YOU WOULD BE DONE BY. Now, if a person be possessed of a park, free warren, or plantation, paled in, I believe the law of the land gives him great power and command, more than it can do, or does in other places; but, sanctioned as he may be by law, I will ask him *by the law of honor*, whether he be justified in doing an injury to a neighbour, who has no intent of design to molest him, or interfere with his private concerns?

For instance, I will first state the case in the strongest light, then in a most unjustifiable one:—A qualified man has a manor of his own, or has permission, from the owner of the land, to sport on his lands, which is equally as good. These lands run up close to the park, free warren, or plantation, of another person: a hare gets up; a valuable pointer follows that hare, jumps the paling, and, in half an hour after his return, lies down and dies, poisoned, at his master's feet. Now I will state the case in quite a different point of view:—A qualified man, in the evening, is returning to the

place whence he came, after having sported on a manor, on which he has leave from the landholder to sport, and on the king's public highway he is travelling, on each side of which runs a plantation, bounded but by a very slight hedge, and frequently not by any hedge at all. A hare, disturbed, perchance, crosses the road; a valuable dog runs into the plantation, after the hare, and, in less than half an hour, lies down and dies, poisoned, at his master's feet. I ask, in honor, can any law sanction so base an outrage, committed on an unoffending man, who is not sporting, nor has even attempted to hunt a dog the whole day, on that man's land; but is travelling home, on the king's high public road? Remember this shall happen *in open daylight*. I trust in my God I never shall find myself in so disagreeable a predicament,—but, should I unfortunately be so situated, *I solemnly declare*, I would resent it in the same manner as I would a personal injury done to me, or the gross insult of a man spitting in my face. There is some reason to be given for laying poison by night in

woods, to destroy poachers' dogs, who come, by night, to drive with their dogs to their nets and snares ; but then, I am firmly of opinion, that the man who lays it, and does not take it up at dawn of day, long before sun-rise, richly deserves to have the portion forced down his own throat. However, so far I am resolved as to make myself thoroughly acquainted with the legality or illegality of this outrageous practice, by consulting an eminent lawyer, who has written on, and made the game-laws his particular study : then I shall find myself more at home on this subject ; then I shall know how to proceed against such outrages, sanctioned by persons *calling themselves gentlemen*.

In respect of laying poison in a plantation, or wood, *close to, and bordering on, the king's highway, either by day or night*, I am firmly of opinion, that every liberal-minded man will agree with me, that it is an unjustifiable act. By night, even, it cannot, in justice and honour, be sanctioned : suppose, for instance, a gentleman be travelling after dark, on a high public road, as many do,

and which I myself have often done, to shoot, the next day, on a manor where he has leave; and his dog be poisoned; *can any man, in honour, justify the act?* It is unwarrantable to lay poison, either by day or night, in a wood or plantation, close to the high public road. If poison be laid at all, surely it should never be laid but in woods, remote from high public roads. In such places, no dogs, but those belonging to night poachers, can suffer; but, close to a public highway, the dog of an unoffending, travelling sportsman, may suffer. Such an act, I avow publicly as my opinion, is unjust, illiberal, and an outrage on the community, which *cannot, in honour, be sanctioned.* Such haughty tyrants, I know, were it not for our salutary laws which protect us, would ride, rough-shod, over that part of the creation, who, unfortunately, were so situated, as to be *at their mercy.* However, let such men, possessed of every thing in life to make it valuable to them, recollect, that many have lost their lives by a far less injury done to a fellow-creature.

Now, allowing the great difference in value, between the life of a human being and the life of a dog, I will draw a parallel: A man lives near to a country school; he has his garden robbed of fruit: boys, not reflecting that there is a very severe punishment for such an offence, will take fruit. Should the owner of a garden, when the fruit is ripe, gather the greatest part of his fruit, and leave only a few on the walls, inserting into every peach or nectarine, poison; the boys come and take this fruit, and are poisoned; would he not be deemed, by all the civilized part of mankind, a monster of inhumanity; and would he not be hanged? The school-boys have done him an injury, and have occasioned him a loss; but the inoffensive dog has not. By my God, I am of opinion, that the man who would do the one act, would commit the other crime to any one, to whom he bore a dislike and hatred; did he not know, that for such a deed he would be hanged. In both the above cases, baseness, criminality, and inhumanity, are evident. It is true that, in one case, the law takes greater cognizance

of the crime, than in the other; but the severer punishment, in the one case, does not do away the turpitude in the other: yet such persons call themselves gentlemen. I am ignorant in what school of liberality, and honour, such principles and actions are inculcated. For myself, I frankly avow, that I abhor such monsters of oppression and injustice, who dare to infringe on the social orders of society.

I am informed, and will make myself better acquainted with this practice, that, by the law of the land, no person whatever can lay poison on any ground whatever which is not *walled in*, aye, and that wall must be of a certain height also. When I have made myself acquainted with the statutes on that subject, the public may rest assured that I will make them publicly known in the newspapers; and will also cause printed bills, inserting the very words in the statutes, against such practice, with the penalties inflicted by the law, on such offenders; and will cause such printed bills to be pasted up in the public markets of the great towns in Norfolk and Suffolk.

Then sportsmen will be able to punish such offenders, by indicting them, NOT AT THE QUARTER SESSIONS OF THE COUNTY, but, by giving them notice to appear BEFORE OUR SOVEREIGN LORD, THE KING, AT WESTMINSTER: there you will have ample justice done you. I am of opinion these *poisoning gentlemen* will be soon tired of this practice: they will not only suffer in their purses, but will be held up, by the publishing of such trials in the newspapers, to the contempt and abhorrence of all mankind.

A few words more before I quit this subject. I address myself to that respectable body of farmers, whose liberality, hospitality, and kindness, I have so frequently experienced. I have frequently been invited by them (by the bye, who have had long leases of their farms,) to come and sport on their grounds, saying: "Go you and shoot on my farm, and on my neighbour's farm, who dines with us to-day; and if any one asks you what right you have to shoot there, tell them you have

leave from Farmer A. and Farmer B. to shoot on their farms.”

I have heard that sportsmen have had their dogs shot. There is a very heavy penalty for shooting a qualified man’s dog*. But I swear, by heaven, that, however heavy the penalty may be, that would not satisfy me; for that, I would instantly shoot his horse, and stand prepared with the other barrel to defend my own person; and I always go prepared with a few bullets sewed up in greased linen: a ball is quickly rammed down; and a patched, greased ball will shoot pretty near as true as a rifle, to the distance of seventy or eighty yards, if not to one hundred.

But to return to my friends the farmers. A farmer has a valuable mastiff dog, which protects his premises by night, and is a safeguard to his person by day: he walks

* And there is a more heavy action against the master of that keeper, provided he sanctions that unwarrantable act: this action is called The Statute of Powder and Ball at about twelve paces!

across his fields to see a friend ; the dog with him : this dog cannot hunt, nor even disturb game ; but a hare, disturbed by some other person, runs past him ;—the dog will naturally follow the hare to the wood : he returns poisoned ! This farmer shall have two valuable sheep-dogs, which are absolutely necessary to him in his line of business ; the same may happen to those sheep-dogs. Now, what a time it will take to breed up and tutor two such dogs ; and what a time it must take before this injury can be repaired. Is not the mastiff of infinite value and use, also, to his master ?—I am sick of writing so much respecting such inhuman persecutors and annoyers of the happiness of society : away with such wretches ; no more concerning them.

I shall now proceed in respect to warreners. To these fellows I will shew no indulgence, for they deserve none. Warreners are the most notorious poachers and destroyers of game ; and, from their line of business, they have such advantages, and are so situated, that it is scarcely possible to find them out. How many hares, par-

tridges, and pheasants, have I, in my lifetime, shot near to warrens, which had lost one foot*.

A warren is a most destructive thing to a manor. A gamekeeper, last season, told me, having an order to send a basket of game to London, he shot four brace of partridges, and two brace of pheasants; two of the pheasants and three of the partridges had but one foot. A warrener, who follows his business correctly, sets his traps at the mouth of the rabbit-holes; but, when they set traps in the paths across the warrens, which is called trapping high, it can be done for no other purpose than to catch hares, going across in those paths. I am surprised that gentlemen do not have all the rabbit-vans and higlers' carts searched; they carry quantities of game to London. The lord-mayor, a very few years ago, searched all the poulterers' shops in Leadenhall-market, and found cart-loads of game. It is true some game comes by

* I have frequently found hares lying near to warrens, which have had only three legs.

the coaches, but by far the greater part not.

I am informed that warreners are prohibited setting traps between sun-rise and sun-set: I shall make myself well acquainted with this law, and, if there be such an one, I will make the first offender appear before our sovereign lord the King, at Westminster, to answer for his non-observance of such law. When I have leave to shoot on a manor, I have a right to shoot on the warren also. Is it not scandalous that I should run the risk of having a valuable pointer lamed for ever, by being caught in one of those infernal warrener's traps?

I have twice in my life found pieces of flesh hung upon sticks in warrens: I suspect the flesh was poisoned: I threw the flesh into the first water I came to: but the next I find I will take to a chemist and have it analysed; when I will severely punish such infamous offenders. What! am I, a qualified man, having leave to sport on a manor, to be subjected to the risk of having my dogs poisoned, when I drive game

on that warren and follow it? If there be furze or fern on a warren, birds are sure to fly there.

I now recommend to all sportsmen, who shoot near warrens, to carry a box of pills with them, each pill containing TWENTY GRAINS OF WHITE VITRIOL : this is the most powerful emetic which can be given, and will operate in *nearly one minute* after it be taken. Go as fast as you can to the first house, should your dog swallow any flesh laid on warrens ; give him *one of these pills*, and, if it does not make him sick *in three minutes*, give him another : the moment he begins to vomit, drench him well with warm water ; by this method you will for certain save your dog.

A Plan for the formation of a Corps, which never has been raised as yet in any Army in Europe: in which Corps singly shall be comprised all the strength, activity, energy, and skill of four Corps, namely, a regular Battalion, a Corps of Light-Infantry, a Corps of Sharp-shooters, and a Corps of Rifle - Marksmen.

THE proposed corps must, at the very lowest, consist of 2000 men; on account of the enemy's regiments and corps being so strong in numbers.

This corps, as it will be proved in the sequel, shall, IN ITSELF, comprise all the solidity, activity and skill, of THREE DISTINCT corps; namely, the strength, solidity and force of fire, of a regular battalion in close order; the activity, energy and rapidity in charge, of British light-infantry,

acting either at open order or double open order, as particular cases and situations may require; together with the destructive skill of a rifleman acting *à la debandade*; nay, more, they shall act at such loose order, as to imitate the subtle art of the Indian, who endeavours always to steal away the life of an enemy, without exposing himself to danger.

Thus the perfection and distinct powers of *three* corps may be united in *one*.

I am bold enough to assert that no such corps *has ever been produced in Europe*, and trust, that, with truth I may say, I am the first officer, who has laid down a method, by which *a single corps shall perform every duty which three species of troops can perform*, namely, that of regular battalion soldiers, light-infantry, and irregular rifle marksmen.

Before I proceed to relate particulars, it is absolutely necessary to remark, that what I have above stated, cannot be performed, unless a gun can be produced, which can be loaded, by any battalion soldier in the line, with cartridges and be

fired as many times in one minute, as he can discharge his common musket; which very same gun can also shoot *with the same precision* as the best rifle-gun at any distance.

Such a gun I pledge myself to produce; which gun and bayonet together, shall be EQUAL *in* LENGTH to every soldier's musket and bayonet; shall be LOADED AND FIRED AS MANY TIMES IN ONE MINUTE AS A SOLDIER'S MUSKET; shall weigh lighter* than a musket; shall fire, when loaded with cartridges, with sufficient *precision* at 100 *yards* to hit the figure of a man, and shall fire at THREE hundred yards with the *same precision* that *any rifle will*; and with precision at greater distances.

* This gun will be nearly the same weight as a soldier's musket. The rifle-guns made for our rifle corps are all too light in the barrel. If a sufficient charge of powder were put in, so as to throw a ball with any certainty five hundred yards into a body of men, they would knock the man down who fires them; and a rifleman who cannot throw a ball into a column, at that distance, is badly armed to harass an enemy on their line of march.

This corps shall perform all General Dundas's eighteen manœuvres, in solid battalion,* shall be trained to every light infantry manœuvre, and, after a certain time given to practise them, shall be tolerably good marksmen, when used as riflemen; I say, tolerably good riflemen, for it is not possible even for any officer, who has served in a German jäger corps; who has made it his study to enquire into and to make himself acquainted, during a war of seven years, with the skill and

* I am of opinion, provided this corps was constantly practised to march in line, in close order, both to slow and quick time, to form columns, and from columns to form the line, that it would be sufficient; those manœuvres being the most essential to a regular battalion in the day of battle: at all other times they should be drawn up as light infantry, and should never be placed in the line of battle in close order, excepting when real necessity requires it, from a want of a sufficient number of regular battalions; on the contrary, they should ever be employed on the flanks of the army. The officer commanding such a corps, provided he had seen much active service, before the enemy, should have great latitude given him, to act according to his own judgment, as circumstances might point out to him in the day of battle.

judgment of a German jäger, and the unerring and surprising skill of the American back-woodsman, as I have done; and who, from the age of sixteen, has made the use, perfection, and construction of the rifle, and all other species of arms, both his study and pleasure,—to train a common British soldier to shoot with the same degree of precision as a German jäger will do, or an American back-woodsman, although he may be made a very formidable marksman before an enemy. The reason why they can never arrive at so high a degree of perfection, I will state; and, as I shall bring forward reasons, founded only in common sense, to prove my assertions, I trust they must be judged intelligible and will be plainly understood.

The following are my reasons :

A British soldier *can never be taught* to be a *perfect judge of different distances*. Place an object, in the shape and size of a ^{tree} man, at 150 yards distant, ask him how far that object is from him, one will say 100 yards, another will say 200 yards. Place the same object at 200 yards from him, he,

most likely, will display more ignorance respecting what distance the object is from him. Place the same object at 300 yards, you may as well not ask him the distance at all, for that distance is totally beyond his scale of judgment.

Now the German jäger, brought up in the forests to shoot at every thing, for the sake of practice, which presents itself, with the rifle, from the age of fifteen, is taught all distances by the practice of years; for he can never offer himself to serve any gentleman as a jäger, unless he can produce certificates from the masters of the forests, that he has served an apprenticeship of seven years, and is a perfect shot. Jägers, from their natural servitude and great practice, are in no want of being taught distances; the knowledge and precision of judging different distances comes to them naturally from practice, from their early youth.

The American back-woodsman has a much greater field to exercise his talents by practice, from living in a country cultivated only around his own log-wood hut, for a

very short extent ; has woods extensive and swamps impenetrable to every soul but to those, who, by daily practice, are well acquainted with its dreary and swampy obstacles, which contain various animals, such as the wild pig, the wolf, the bear, the panther (which the Americans call painter), the deer, the fox, both grey and brown, the beaver, the racoon and the opossum.

Not only their own cattle are shot with the rifle, but, when they go to the hunting grounds to kill the wild cattle for their tallow and skins, they use no other gun. The wild turkey is shot with a rifle ; nay, even birds and squirrels, from the very top of the loftiest trees in the woods. No small-shot gun, during my residence of seven years of the war in America, was ever kept in the house of a back-woodsman. You will often see a boy, not above ten years of age, driving the cattle home, but not without a rifle on his shoulder : they never stir, out, on any business, nor on a journey, without their rifle ; practice, from their infancy, teaches them all distances.

Provided I am able to make any soldier,

who cannot *discriminate between different distances*, shoot *as well*, at all distances, as a man who *is a perfect judge of distances*, I trust that *I may claim some credit amongst military men*.

I judge it necessary to give a description how all rifle-guns are sighted. Rifles, to shoot at long distances, have always two sights, and generally three; the first to shoot about 120 yards, the second at 200 yards, and the third at 300, sometimes more and sometimes less, according to the distances to which the gun, with the different sights, was *shot in* and regulated. It must be acknowledged, that it is of but little use to give a rifle-gun, with three sights to it, to a common soldier, who cannot discriminate distances, for he will not know how to use them properly, and will generally use the wrong sight; but I pledge myself to produce a gun so GAUGED, and with but ONE sight to it, which, if the man does but aim straight, shall, with *this single sight only*, constantly hit the figure of a man *at every different distance from 100 to 300 yards*. I beg I may be understood. I do by no

means pretend to say that I can make any soldier fire, with the same precision at 300 yards as he can at 100, for that I know the most expert jäger or American woodsman cannot do; but I will prove that *the gun can perform what I have stated*. Provided I prove this, which I bind myself to do, it must be allowed that I obviate the greatest difficulty and obstacle in teaching British soldiers to be marksmen *at all distances*; for at once I can obviate their want of discrimination of distances and totally do away the grand obstacle in teaching British soldiers to be formidable marksmen.

Another very great advantage will, by my method, be gained. It will take *only one fifth part of the time* to make the soldier a good marksman; for, when he is taught to fire well at one hundred yards only, he can shoot well at every other distance from 100 yards as far as 300; for *it is the gun*, from its construction and regulation, *which performs the duty*, not the man.

I judge it necessary to mention minutely and explicitly what this gun of mine can do. Let the figure of a man, about two

feet broad, and five feet ten inches in height, be placed before a MOST PERFECT marksman, and direct him to aim at ALL distances from 100 to 300 yards, EQUALLY ALIKE, ever at the center or bull's eye, painted on the figure of the man; never to hold higher nor lower; I engage that this gun is capable of striking the figure of a man, from the execution and peculiar construction of it. When the soldier comes on actual service, with my gun, it is a matter of total indifference whether the enemy he fires at be 100 or 300 yards distant: not that I mean to say that even the MOST EXPERT marksman can fire with that exact, nice precision at 300 as he can at 100 yards; for the human eye, though ever so perfect, cannot extend its vision to 300 yards, with that *exact* precision which it can at 100 yards; but this gun *will effectually do away the want of judgment* the soldier labours under, in respect to what distance the enemy is from him in action.

With the rifles at present in use, you must first teach a man to fire at 100 yards, then at 150, then at 200, then at 250, then

at 300 yards, which will take up five times more time in training the man than my gun and method will, and, after all, when you have taught him to fire tolerably well at targets, at all the above distances, your labour and time is all lost; for, though he will know which sight of the three he should use, at all the above different distances, when firing at a target, yet, take him into the field, before an enemy, he will be as ignorant as ever respecting what *precise distance* the enemy is from him; which is the grand object to obtain, and most particularly in broken ground, or firing from one height at an enemy on another height, or from a height down to an enemy on the plain. With my gun he can fire without ever troubling his head what particular distance the enemy is from him. The reader will pardon my reminding him again, for I wish strongly to impress it on his mind, that this gun, whenever it shall be found necessary for the corps to stand in the line, as a solid, regular, well-disciplined battalion in close order, or to act as light-infantry, can be loaded and fired with

cartridges as many times in one minute as a common musket, and shall shoot, with precision sufficient, to hit a target the size of a man, every time, at 100 yards. Thus, from the perfection and universal use of my gun, it must, in candour, be allowed, that it is equally adapted to regular battalion soldiers, to light-infantry men, and to the rifle marksmen; in short it is an *universal gun*, equally to be applied and used by every man who carries arms in war, from the grenadier to the Indian savage.

One grand preliminary in the formation of such corps, is, that it be absolutely and indispensably necessary, that one company of 150 men be enlisted solely from artificers and workmen, namely, carpenters, sawyers, men who earn their daily bread by felling trees, clearing and hewing down coppices, together with some excellent country spademen, who are well accustomed and expert in throwing up ditches and mounds, and wattling staked hedges. Such a corps as I have above described, cannot perform what ought to be, and will be in justice required of them, without a

company of 150 pioneers ; besides, the army also may be much benefited at particular times by them : yet I propose that this company of pioneers shall carry arms as well as the other part of the corps ; on this account,— that they shall be able to stand sentry and do all other duty, except when in the day of real action before the enemy, they shall *only be used as pioneers*. I cannot refrain from observing how useful such a company would be in winter quarters, with working parties from the corps ordered every day to assist them ; winter cantonments might readily be completed without any application to the barrack department, and much money be saved to the state.

To this gun I engage to produce a trigger, which shall have *four times* the purchase and power which triggers now in use have, by which a lock, standing very firm at full cock, may be pulled off with a slight touch, which will be of infinite benefit to a marksman.

The above corps may be raised in about one month, and should ever be ready to

move at one hour's notice and to go upon every expedition and on the most active service.

I know full well that there are many much more ingenious in mechanism than myself; and, when this plan is made known publicly, by trying various experiments, it is possible that they may construct a gun to perform equal to my gun; but, I trust, as I am the very first projector of such a corps, for certain it is that no such corps has ever been formed or even thought of, it would be uncandid not to give me credit for the projection; and surely it must be allowed, that, by permitting any other to put it in execution, it would discourage every officer from bringing forward any thing beneficial and useful to the service. Yet, I confess, I am of opinion, that it would puzzle the most ingenious artist to construct a gun, with *one sight-only*, which shall fire *with precision at all distances*, namely, from 100 yards to 300, which every rifle now in use can do; which gun also, when loaded with cartridges, shall strike the figure of a man

every time at 100 yards, and is capable of being fired as many times in one minute as a common musket.

Reflections on the utility, universality, superiority, and skill of this Corps.

SUCH a corps, most undoubtedly, would be always employed at the out-posts before an army, in scouring the country before the position of the army, as all light troops do. Supposing, with this corps, I should fall in with some corps belonging to the enemy; such corps must either be a regular regiment of infantry, or a corps of light troops, what is called in Germany or France a *fry corps*, or a corps of riflemen. I will speak first respecting meeting a corps of riflemen, namely, *riflemen only*. I would treat them the same as my friend Colonel Abercromby, afterwards General Sir Robert Abercromby, when in America, treated Morgan's riflemen. When Morgan's riflemen came

down into Pennsylvania from Canada, flushed with success gained over Burgoyne's army, they marched to attack our light infantry, under Colonel Abercromby; the moment they appeared before him, he ordered his troops to charge them with the bayonet; not one man of them, out of four, had time to fire, and those who did, had no time given them to load again: they did not stand three minutes; the light infantry not only dispersed them instantly, but drove them for miles over the country. They never attacked, or even *looked at*, our light infantry again, without a regular force to support them.—Secondly, supposing this corps shall fall in with a light corps of the enemy, a *fry corps*, are not my men light infantry, and moreover are they not *marksmen*? Surely a corps of British infantry and good marksmen besides, need by no means be alarmed at the attack of a *fry corps*.—Thirdly and lastly, provided they fall in with a regular regiment, some considerable distance from their camp, I am of opinion, that a regular regiment in such a situation, being so unfortunate as to

fall in with such a corps, as the one I propose, *who possess the powers of three distinct corps*, namely, that of *regular battalion soldiers*, of *light infantry*, and of *rifle marksmen*, can do nothing better for their safety, than make the best of their way to their army : even then, should they adopt this prudent measure, I can attack them on their retreat, not only in their rear, but on both flanks of their line of march ; and, it must be allowed, that my loss must be very inconsiderable, if any, and that they must suffer materially ; for, marching regularly as they must do in column, let it be even an open column, along a main road, they must present numbers in a body to my marksmen, dispersed in all directions, and acting *à la debandade*, on both their flanks and on their rear. My men being marksmen, and *ever instructed to aim where they perceive the enemy to stand the thickest* in numbers, it is most certain that a great number of their shots must tell. Provided the country be inclosed or broken, so that a charge from a large body of cavalry need not be dreaded, I will be bound to drive a regular regiment

of the enemy within the pickets of their army, after having destroyed numbers of them; nay, even after having harassed them for a couple of hours and considerably diminished their numbers. Should I find the least irregularity or confusion amongst them, I may consolidate my corps by a single sound of the bugle-horn, charge them and either destroy, or take prisoners, by far the greater part of them.

Should they draw up to fight me in regular line, instead of making the best of their way to their army, which I imagine every officer who knew his duty, would do, his regiment must ultimately perish.

I only state the following by way of argument, to shew what a great superiority my corps must have, from the various and distinct powers it possesses over *any corps whatever* they may fall in with. We will suppose that this regular regiment shall be so imprudent, as to draw up to fight me. Before I come within shot of them I divide my ten companies, of two hundred each, into three distinct bodies; I leave four in the centre to skirmish and amuse the

enemy, and detach six companies, three to the right, and three to the left. In less than ten minutes the three companies on each side detached, shall not only envelope the enemy's right and left flank, but several of my men *shall absolutely be in their rear*. If the enemy remain in this situation they must be irrevocably lost. Provided they charge my four companies, drawn up as light infantry, to oppose them in front, my troops retreat, constantly keeping at least at 150 yards distant, and firing with good aim.

The *further they charge my centre, the further they will be from safety*, namely, their own camp; and, by such a manœuvre, they inevitably must bring my six companies on their flanks, *absolutely in their rear*, harassing them in proportion as they advance, till ultimately they will be enveloped on all parts around them. But, instead of thus acting, should they detach three companies to their right, and three companies to their left, to oppose those I have detached to act on their flanks; after having amused them for a considerable time by skirmishing and

destroying many of them ; (for it must be allowed that my men, as marksmen, must have a wonderful advantage over them in skirmishing, armed as they are with a *very imperfect* and *indifferent* soldier's *musket* and my men armed with a *perfect gun*, which not only at short distances, but at long distances shall shoot with precision ;) my corps, being trained constantly to the following practice, at one sound of the bugle-horn can at an active run *be consolidated on their centre*, and charge the remaining four centre companies of the enemy with the bayonet. It cannot be denied but that they must be beaten, and forced to fly. I will now not briefly explain, but only ask any officer what must become of their three companies detached to their right, and three to their left ? I imagine it will be allowed that they must fly also. In short, should a regular regiment attempt to engage such a corps as I have proposed to form, and not retreat as speedily as they possibly could do to their camp, they must be ruined.

I shall now content myself by making a few observations on the different and dis-

tinct qualities, and superior pre-eminence which my gun must have over a common soldier's musket, and then conclude.

A soldier's musket, if not exceedingly ill bored and very crooked, as many are, will strike the figure of a man at 80 yards; it may even at a hundred; but a soldier *must be very unfortunate indeed* who shall be wounded by a *common musket* at 150 yards, PROVIDED HIS ANTAGONIST AIMS AT HIM; and, as to firing at a man at 200 yards with a common musket, you may just as well fire at the moon and have the same hopes of hitting your object. I do maintain, and I will prove, whenever called on, that NO MAN WAS EVER KILLED, AT TWO HUNDRED YARDS, by a common soldier's musket, BY THE PERSON WHO AIMED AT HIM. Any officer who will give himself the trouble to read Robins's Treatise on Gunnery, will readily understand the truth of my assertion. I could easily explain this point to the satisfaction of the reader; but, in so short a treatise as this, the intent of which is only to treat of the utility, skill, and perfection of the corps I propose, and not to

treat on the general system of projectiles, or the deficiency of muskets in present use, it would be too prolix and extraneous to my present object and views, respecting this proposed corps and my *universal gun*, for so I call it, and such on proof *it will be found to be.**

* At three hundred yards the gun I speak of was tried in the following manner. The target was a board, two feet broad, and only three feet high. The bull's eye in the centre. I shot *down wind*, on the sands of the sea, at low water, lying down on a horse-cloth on my belly. I had a lump of wood before me, on which was placed my hat, to rest the gun on. I imagine the whole height, to the crown of the hat, was about two feet from the ground. This, of course, gave to the muzzle of the gun, three or four inches *depression*, so that my gun, at some distance beyond the target, must have pointed into the sands. However, notwithstanding this, I found that the ball, when it passed on one side of the target, never struck the sands, under full sixty yards beyond the target. Now, provided my gun had been laid in a direct horizontal level, to the centre of the bull's eye, or had had the muzzle of it two or three inches *elevated*, instead of being *depressed*, (I speak to experienced riflemen,) would my gun not have been entitled to throw the ball *considerably further* before it struck the sands?— Now, supposing I had shot at a target, at three hun-

I have many times asked the American back-woodsmen what was the most their

dred yards distant, which had been the height of a man, say five feet ten inches high, and, instead of aiming at the bull's eye, I had aimed at the top of the target, the same as at the top of the head of the figure of a man, am I not entitled to say, that my ball would either have struck *the breast* of that figure, or have passed by on one side of the target, and full as high as the breast of a man; and that it would not have struck the sands, which lay on a direct level with the bottom of the target, until it had reached a distance considerably above four hundred yards? I detest theory, but, speaking to experienced riflemen, I do assert, that this is not theory, but that it is *plain demonstration*, founded on the truest principles of the knowledge and system of projectiles.

I desire it may be understood, that the gun, the various merits of which I have described in this short treatise, entitled "*A Plan for the formation of a Corps which never has been raised as yet in any army in Europe, &c. &c. &c.*" is not the common rifle I speak of, which should be used with effect at long distances, before an enemy; but a gun, very far superior, from its distinct and various qualities as it is described to possess. The barrel of that gun, I sawed in half, and threw the one half over Westminster bridge, on one side, and the other half on the other. There, and in my breast, the construction of such a gun lies.

One word more before parting: if we have not a rifle on active service, which will shoot with precision

best marksmen could do ; they have constantly told me that an expert riflemen,

and do great execution, at by far a greater distance than where the musket leaves off, what is the use of it? In my humble opinion very little. The rifle-guns used on service, by the 95th regiment, are well made, and will shoot as well as any rifle, the barrel of which weighs *only four pounds*, and carries a ball, weighing *twenty to the pound*; but, I do assert, that they are not *properly constructed* to be used at long distances, on service, with *certain effect*, and possess not that great advantage, namely, of beginning to do execution to a *certainly*, at that distance where the musket ceases to have any certain direction or effect. By saying that they are not properly constructed to be used on active service, I mean, that the barrels are too light ; they weighing *only four pounds*, and carry too large a ball, (namely, a ball *twenty to the pound*,) in proportion to the weight of the barrel. If this be doubted, let one of them be produced, and I will produce a rifle I have, the barrel of which weighs *six pounds four or five ounces*, and carries a ball weighing *only thirty to the pound*, loaded with *one half of the weight of the ball in powder* ; and this gun shall go off pleasantly and without the least recoil. But then I will not begin to shoot under 350 yards, and from that distance we will extend our practice to 600 yards.

Reader, do not be surprised at my speaking of 600 yards practice,—for I do not mean to say, that I can hit a horse or an elephant at that distance ; but I will prove to you, that I can throw a ball into a piece of

provided he can draw good and true sight, (they mean, by this expression, when they can distinctly see the object aimed at in a direct line with the two sights on the rifle,) can hit the head of a man at 200 yards. I

canvas *six feet high by fifteen feet long*; and this will prove that a ball may be thrown, at that distance, into a column of troops, on their line of march. It is not the make, construction, or workmanship of the rifle-guns of the 95th regiment which I condemn; it is the want of weight in the barrel, and the size of the ball, being too large in proportion to the weight of the barrel, I materially object to. I trust I have given ample reason to convince every *experienced* rifleman that my observations are founded, not on theory, but absolute practice; for what is the use of a rifle which will not do execution *to a certainty*, on a body of men marching in column at a very great distance?

I once saw about twenty country-men (not more) on one side of a small river, unfordable, so pelt a regiment with their rifles, that it was forced to break out of its line of march on a road, and march on its left at a much greater distance from the river.

Speaking of my rifle-gun, I do not presume to say that there is any thing wonderful and very superior in its construction, for I assure the reader that there are several gunmakers in London, who can make one full as executive as mine, provided they will only make the barrel *as heavy* and the ball of the same size.

am certain, that, provided an American rifleman were to get a perfect aim at 300 yards at me, standing still, he most undoubtedly would hit me, unless it was a very windy day, so as to occasion the ball to deflect considerably. Now, there are many persons, in various volunteer rifle companies in London, who can hit a target the size of a man much oftener at 200 yards than they miss it; and I think it very hard if a soldier, with good practice, cannot be trained to hit the space of a man at 200 yards, much oftener than he misses it; and when *he does miss* his enemy at that distance, the ball *shall go so near to him* as to intimidate him, and for safety-sake make him shift his position, well knowing the danger he was exposed to; for a man, shot at, and finding how narrowly he escaped, is but little inclined to take a second trial.

I shall conclude with stating, that, if every soldier in the British army, the grenadier, the battalion man, the light-infantry man, the rifleman and sharp-shooter, were armed with a gun which can shoot as well as the gun I can produce, and possessing such

universal qualities as I have described, namely, being capable of being loaded and fired as many times in one minute, when loaded with cartridges, as a soldier's musket can; and may be fired with precision at 100 yards; which gun also, at every distance, from 100 to 300 yards, when used by marksmen, shall fire with the *same precision* as the best rifle which can be made,— I maintain that every soldier in his Majesty's service would be infinitely more formidable before an enemy.*

* Although I have said that *every* soldier would be benefited and more formidable before the enemy, if armed with my gun, which I have described to possess such eminent and universal qualities, yet I trust every officer who peruses these few pages will do me more justice than to suspect that it ever entered into my mind, even for one instant of time, to lay aside the musket and to arm the whole British army with my gun: yet I must steadily persist in observing, that all arms, which hereafter shall be ordered to be made for the *express and sole use of light-infantry or sharpshooters*, should be constructed on the principles of my gun; for it must appear evident to intelligent minds, that, armed with such a gun, the soldier would possess a very superior advantage **over** the enemy to what he now does, armed as he is with a common Tower musket,

I shall now leave it to the candour of every experienced officer to judge *how much superior* the corps I have proposed must be, on active service, *to any corps, which has as yet been raised*. Certainly, hitherto, *no such corps has ever been produced*, nor even thought of.

I shall now make one observation, on which I respectfully intreat every officer candidly and impartially to reflect. Those officers who have served in the American war, who have seen the infinite service our light troops performed in that country, the features of which were so peculiarly adapted to light troops, are wild after light troops, and perhaps do not pay that respect to *des gros battalions* which I do, and may wish for too great an increase of light troops in our army. There they certainly lie under an error; but those officers who

which is so very imperfect an arm (imperfect I mean from its bad construction), as not to put it in the power of the best-trained light-infantry man or sharpshooter to fire with the smallest hopes of hitting the man he aims at, at a greater distance than 80 or 100 yards.

did not serve in the American war, lie under a much greater error in their judgment; for their system extends nearly to the total extirpation of light troops in our army. The *French* have *much* increased the number of their *light troops*, and *we ought to increase ours*; but that increase of light troops should not be sharp-shooters and riflemen ONLY; no, they should be trained to be *marksmen*, but should also be AS WELL DISCIPLINED as any REGULAR BATTALION of the line; then they may BE USED IN ANY AND EVERY WAY the commanding general shall judge proper. Such properties the corps I propose, can be possessed of. Let every officer who served in the American war and all those who never were in America, join hand in hand to recommend and patronize the formation of a corps which CAN PERFORM EVERY DUTY REQUIRED OF BRITISH SOLDIERS, FROM THE GRENADIER TO THE IRREGULAR MARKSMAN. Speaking relatively to the defence of this country, in case of invasion, I *with confidence* assert, that *such corps are wanting*; the nature and

features of our country evidently point out their utility and efficacy. Look only, for instance, to the counties of Essex, Kent and Sussex.

I know full well the powers and superior efficacy of *des gros battalions* ; no man respects them more than I do, for I am positively persuaded *no signal victory can be gained without them*. But let me ask a question candidly : Cannot such a corps, constituted, disciplined, and trained according to those rules which I have prescribed, *be formed at all times INTO A GROS BATTALION and PERFORM EVERY DUTY REQUIRED OF A SOLID BATTALION in CLOSE ORDER, on the day of battle in the line ?* I trust it will be allowed that *they certainly can*. To this I will presume to add an opinion. Trained as marksmen, and armed with a gun which possesses such superior and *universal qualities*, it is but just to suppose that *they are entitled to do more execution, as regulars, in the day of battle, than any battalion of the line in his Majesty's service, armed as they are at present with a common mus-*

ket, most *miserably and badly bored*, and the barrel, generally speaking, crooked both inside and out.

Riflemen, as riflemen *only*, are a very feeble foe and not to be trusted alone any distance from camp; at the out-posts they must ever be supported by regulars, or they will be constantly beaten in and compelled to retire on the main army: but such a corps as the one I have, in the foregoing pages, described, can go every where *alone*, and are able to meet every species of infantry; equal to all, and *very superior to many*. Nay, even provided they are attacked by cavalry, they can defend themselves as well as any regiment of the line. I have served in a German *jäger* corps, and confess, that, in a dark rainy night, we have been very disagreeably and, in my opinion, very dangerously situated; nothing but the most vigilant alertness preserved us.

Even when a serjeant from the out-pickets reported that the dogs in the neighbouring houses barked, every man was obliged to fall in and form, and lie

down in the ranks, with his rifle under his arm; nay, oftentimes have we been forced to be under arms whole nights, permitting the men only to sit down in the ranks. Riflemen can feel no confidence in themselves on a dark, and more particularly on a stormy and rainy night; nor can they enjoy any confidence in their own strength, when any distance from camp *unsupported*.

I shall never forget the night before the battle of Monmouth Court-House. It was uncommonly dark, with frequent thunderstorms and rain. It fell to my lot, that night, to have the outermost picket. Never could man pass a more anxious time; the fires all put out, the enemy's patrols feeling us and firing every half hour and oftener at the advanced sentries; our men on sentry firing sometimes at the enemy's patrols and sometimes at cattle in the woods, as soldiers will do when they hear a noise in the bushes, challenge, and gain no reply; the night so dark (taking it by turns every half hour, with two lieutenants, to visit the sentries) as not to be able to perceive our own men until we came close

upon them and in danger of being fired at by our own men. Such a night of anxiety and danger I never since passed, and blessed my God when the day began to dawn.

As some of you, gentlemen; to whom I send these few pages may have done me the honour of reading a pamphlet, published for me by Mr. Stockdale, Bookseller, Piccadilly, opposite to Burlington House, in the beginning of the year 1804, entitled *Reflections on the menaced Invasion, and the Means of protecting the Capital, &c. &c. &c.*, in the latter part of which I make mention of light troops and of a gun which light troops should be armed with; I beg you will observe, that the gun I therein spoke of was only a superior sort of musket to the common musket now in use and *is totally different and distinct in quality, infinitely inferior in excellence and not to be compared to the gun I now speak of; for I expressly stated that the former gun I made mention of would not do any execution further than 150 or 200 yards at most, and then not shoot with any perfect degree of precision.* It was only represented as a better sort of

musket for light troops than the common Tower musket in use.

This PLAN has been highly approved by several distinguished officers, and particularly by one general officer, to whose distinguished services the country is much indebted. Although he has given me leave, in the most public manner, to use his name, yet from delicacy, respect, and friendship, I refrain from taking so great a liberty ; trusting that those who may read the PLAN, will believe my assertion. When I asked him his opinion of the Plan, he replied, that a corps *so disciplined, so trained, so manœuvred, and so armed*, must have a very superior advantage over any other corps, not exceeding it in numbers.

Any gentleman curious in arms, by calling on Messrs. Tatham and Egg, Gunmakers, near the Admiralty, may see a double-barrelled rifle pistol, making for Colonel Hanger, on a perfectly *new construction*. No pistol, hitherto, has been made with a lock communicating with the under barrel, to operate *with such certain effect*.

IN conclusion, I address the following to officers who have served in a rifle corps, on active service ; particularly to that distinguished corps, the Ninety-fifth Regiment, and other rifle regiments, as also the companies of rifle marksmen in London, whose precision and execution, at the target, I have witnessed with great satisfaction and pleasure.

I have already observed that the rifled guns, used on service, are not heavy enough in the barrel, and carry a ball too large, in proportion to the weight of the barrel ; so that they cannot be loaded with a sufficient quantity of powder to do that execution, at great distances, which all rifles, used on service, should be able to perform. The barrels weigh only four pounds ; the balls are twenty to the pound ; and they cannot be charged with more powder than one third of the weight of the ball, without recoiling so much as to make them shoot at random and with no precision.

In the sporting part of this book, I have

spoken very explicitly on rifle-guns and rifle shooting ; so I shall only make mention concerning the rifle I now have by me. The barrel of it weighs six pounds five ounces ; it carries a ball thirty to the pound, and is loaded exactly with one half the weight of the ball in powder, without the least recoil. What an advantage this gun must have, compared to one weighing *only* four pounds in the barrel, and which cannot be loaded with more than one third the weight of the ball in powder. I cannot refrain from mentioning how much I lament that such a set of gallant soldiers are not armed with a weapon more efficacious, and which can do much greater execution at very great distances.

I have, in the former part of this book, informed you how the American riflemen load their rifles for active service ; they must shoot considerably more than half the weight of the ball in powder, as their barrels weigh *full six pounds*, and shoot a ball weighing *no more than thirty-six* to the pound. Now, gentlemen, rifle marksmen, and officers serving in rifle corps, I inform

you, that it is my intent to order a rifle immediately to be made, the barrel of which shall weigh *full nine pounds*, and shall carry a ball *no larger than thirty to the pound*. It is impossible for me to state what weight in powder, in proportion to the ball, such a gun will take without recoiling, as the gun is not yet made; but, at a random guess, let us suppose it will take *three fourths* of the weight of the ball in powder. Now observe what an immense advantage must be gained by this great increase of the quantity of powder: in short, every thing is gained by it; for the ball shot out of this gun must be forced to a very considerable distance further, before the powder, in any degree, loses its operative force on the ball; and the ball will not incline to the centre of gravity, until it has arrived at a very considerable distance further than a ball, weighing *twenty* to the pound, fired out of a barrel weighing *only four pounds*, and loaded *only with one third of the weight of the ball in powder*. This surely is self-evident, and requires no further observation: and this gun, weighing nine pounds in the

barrel, will not be heavier than a soldier's musket and bayonet; and why a rifleman should not carry arms as heavy as a battalion soldier, I can see no reason, when he shall reap so great an advantage by so doing.

I can speak with no certainty, for the experiment remains to be tried; but I am *strongly* inclined to believe, that this rifle, weighing nine pounds in the barrel, will shoot with more precision and execution, at *six hundred yards*, than the rifles used at present before the enemy, will shoot at *four hundred*. Should the experiment turn out equal to my expectations, what an advantage will not a corps of riflemen, so armed, obtain before an enemy that they do not at present possess! Anyhow, it is lamentable to reflect how badly such a gallant set of fine fellows are *at present* armed,—for the addition of two pounds, to make the barrels six pounds in weight, or of five pounds of IRON to make the barrels weigh nine pounds, is *too paltry* an expense to be considered by any government, considering the immense advantage which will be acquired, by adding more weight to the

barrels, so that they may be loaded with a much greater quantity of powder, and consequently do execution at a much greater distance. Excepting for the additional pounds of iron in the barrels, there will not be one farthing more expense in the gun.

I boldly assert that the barrels of the rifles (used at present) on service, are ineffective, and a stigma on any government to put such *useless arms (I speak comparatively)* into the hands of such gallant soldiers. The rifles, I know, are well made; I have seen and examined them, and I have no doubt but that they shoot very well, *according to their powers*; but the construction of them is *physically false*, and therefore *but of little use or effect*, compared to those rifles which I have pointed out, and described, and which can be made by every gunmaker who understands well his business, just as readily and as easily as those rifles which have been already made; therefore it will be a gross neglect if such gallant fellows are not armed with a more effective instrument, when there is no mystery, conjuration, nor any art required, more than is

already known, to arm them with *a perfect rifle*.

I conclude this by repeating, that it is a disgrace to the country, and an injustice to such gallant soldiers, to arm them with *so useless a rifle*, as they are at present armed with; and that, were I honored with the command of a large corps of riflemen, I would prefer arming them with a common musket, and *use them as light infantry*, being certain that I could do more with them, (so badly armed for riflemen, as they now are,) both to my own credit, to the satisfaction of the soldier, and to the advantage of my country. The barrel of the rifle I use at present, weighs six pounds four or five ounces, the whole gun only ten pounds five ounces. If it shall be thought, that a barrel, weighing nine pounds, will make the gun too heavy, then let the barrel weigh only eight pounds, the addition of two pounds, will be an *immense* advantage: the whole gun then will not weigh so much as a soldier's musket. But I repeat again, that I see no reason why a rifleman should not carry arms as heavy as a battalion sol-

dier; and, provided the barrel of the rifle shall weigh nine pounds, the whole gun will not be heavier than a musket. I carry a double gun, all day, when shooting, which weighs very near nine pounds, and I find no inconvenience from the weight of it.

I again request those gentlemen, belonging to the rifle companies in London, who may have rifles, the barrels of which have sufficient substance to withstand the weight of the balls without recoiling, to fire three balls at one hundred yards, and two balls at two hundred yards, each ball separately rammed down with a greased patch, at a large piece of canvas, that they may be convinced what wonderful destruction two, and three balls, will make in the ranks of an enemy. Thus every rifleman should act, (at particular times,) before the enemy, and especially when the enemy is beaten, and retreating, in large solid bodies, without order or regularity.*

* The reader is requested to observe, that the gun, which I describe in THE PLAN, to arm a corps of soldiers with, is a distinct, particular, and (as I call it) an

universal gun, as I have described it to be, and it is to be considered totally and distinct by itself. The reader will be pleased also to observe, that when I speak on rifle-guns and rifle-shooting, the rifles I there make mention of, are no more than a common rifle, which every skilful gunmaker can make, and that I find no objection to those guns, used now on active service, but to their want of weight in the barrels; they not having resistance enough in weight, to take a sufficient quantity of powder, in proportion to the weight of the ball, so as to do proper execution at very great distances. Be pleased also to observe, that the rifle I intend to have made, the barrel of which is to weigh *nine pounds*, will be loaded with as much powder, as it can take, without recoiling, by which I expect to gain a very great advantage when shooting at very great distances, such as at *five, and six hundred yards*; and the ball is not to be larger than *thirty* to the pound.

FINIS.

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