SAMUEL WHITE BAKER

WILD BEASTS AND THEIR WAYS, REMINISCENCES OF EUROPE, ASIA, AFRICA AND AMERICA. VOLUME 1

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Содержание

Sir Samuel White Baker
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CHAPTER I

THE RIFLE OF A PAST HALF CENTURY

Forty years ago our troops were armed with a smooth-bore musket, and a small force known as the "Rifle Brigade" was the exception to this rule.

The military rifle carried a spherical bullet, and, like all others of the period, it necessitated the use of a mallet to strike the ball, which, being a size larger than the bore, required the blow to force it into the rifling of the barrel in order to catch the grooves.

Sporting rifles were of various sizes, but they were constructed upon a principle generally accepted, that extreme accuracy could only be obtained by burning a very small charge of powder.

The outfit required a small mallet made of hardwood faced with thick buff leather, a powerful loading-rod, a powder-flask, a pouch to contain greased linen or silk patches; another pouch for percussion caps; a third pouch for bullets. In addition to this cumbersome arrangement, a nipple-screw was carried, lest any stoppage might render necessary the extraction of the nipple.

The charge of powder in ordinary use for a No. 16 bore (which carried an ounce spherical ball) was 1 1/2 dram, and the sights were adjusted for a maximum range of 200 yards. Although at this distance considerable accuracy could be attained at the target upon a quiet day, it was difficult to shoot with any precision at an unmeasured range owing to the high trajectory of the bullet. Thus for sporting purposes it was absolutely essential that the hunter should be a first-rate judge of distance in order to adjust the sights as required by the occasion. It was accordingly rare to meet with a good rifle-shot fifty years ago. Rifle-shooting was not the amusement sought by Englishmen, although in Switzerland and Germany it was the ordinary pastime. In those countries the match-rifle was immensely heavy, weighing, in many instances, 16 lbs., although the bullet was exceedingly small.

The idea of non-recoil was paramount as necessary to ensure accuracy.

It will be at once perceived that the rifle was a most inferior weapon, failing through a low velocity, high trajectory, and weakness of penetration.

In 1840, I had already devoted much attention to this subject, and I drew a plan for an experimental rifle to burn a charge of powder so large that it appeared preposterous to the professional opinions of the trade. I was convinced that accuracy could be combined with power, and that no power could be obtained without a corresponding expenditure of powder. Trajectory and force would depend upon velocity; the latter must depend upon the volume of gas generated by explosion.

The rifle was made by Gibbs of Bristol. The weight was 21 lbs., length of barrel 36 inches, weight of spherical belted bullet 3 ounces, of conical bullet 4 ounces, charge of powder 16 drams. The twist was one full turn in the length of barrel. The rifling was an exceedingly deep and broad groove (two grooves), which reduced the difficulty of loading to a minimum, as the projecting belt enabled the bullet to catch the channel instantly, and to descend easily when wrapped in a greased silk patch without the necessity of hammering. The charge of powder was inserted by inverting the rifle and passing up the loading-rod with an ounce measure screwed to the end; this method prevented the powder from adhering to the sides of the barrel, and thus fouling the grooves.

An extraordinary success attended this rifle, which became my colossal companion for many years in wild sports with dangerous game. It will be observed that the powder charge was one-third the weight of the projectile, and not only a tremendous crushing power, but an extraordinary penetration was obtained, never equalled by any rifle that I have since possessed.

This weapon was in advance of the age, as it foreshadowed the modern Express, and the principle was thoroughly established to my own satisfaction, that a sporting rifle to be effective at a long range must burn a heavy charge of powder, but the weight of the weapon should be in due proportion to the strain of the explosion.

When I first visited Ceylon in 1845, there were several renowned sportsmen who counted their slain elephants by many hundreds, but there were no rifles. Ordinary smooth-bore shot-guns were the favourite weapons, loaded invariably with a double charge of powder and a hardened ball. In those days the usual calibre of a gun was No. 14 or 16. A No. 12 was extremely rare. The charge for No. 16 was 2 3/4 drams of fine grain powder, and drams for No. 12. Accordingly, the light guns, or "fowling-pieces," as they were termed, were severely tested by a charge of 6 drams of the strongest powder with a hardened bullet; nevertheless I never heard of any failure.

At a short range the velocity and penetration of an ounce spherical ball, with the heavy powder charge, were immense, but beyond 50 yards the accuracy was imperfect.

I believe I was the first to introduce rifles into Ceylon, which were then regarded by the highest authorities in the island as impractical innovations, too difficult to sight, whereas an ordinary gun could be used with ball more quickly in taking a snap-shot.

The rifles which I had provided were heavy, the 3 ounce already mentioned, 21 lbs., and a long 2 ounce by Blisset, 16 lbs. The latter was a polygroove, the powder charge only 1 1/2 dram when I originally purchased it. It was wonderfully accurate at short ranges with the small charge, which I quickly increased to 6 drams, thereby losing accuracy, but multiplying velocity.

Twelve months' experience with elephants and buffaloes decided me to order a battery of double-barrelled rifles, No. 10, two-grooved, with 6 drams of fine grain powder, and spherical-belted bullets. These were most satisfactory, and they became the starting-point for future experiments.

Shortly before the Crimean War, the musket was abolished, and about 1853 the British army was armed throughout with rifles. The difficulty of a military rifle lay in the rapid fouling of the barrel, which necessitated a bullet too small to expand sufficiently to fill the grooves; this resulted in inaccuracy. Even if the bullet were properly fitted, it became impossible to load when the barrel began to foul after a few discharges.

At that time I submitted a plan to the authorities which simplified the difficulty, and having left the pattern bullet at Woolwich, it quickly appeared with a slight modification as the "Boxer bullet." My plan designed a cone hollowed at the base. The bullet was a size smaller than the bore, which enabled it to slide easily down the barrel when foul. The hollow base fitted upon a cone of boxwood pointed at the insertion, but broad at the base, which was larger than the diameter of the hollow in the bullet. It may be easily understood that although this compound bullet was smaller than the bore of the rifle, a blow with the ramrod after loading would drive the conical bullet upon the larger diameter of the boxwood cone, which, acting like a wedge, would expand the lead, thus immediately secured within the barrel. The expansion when fired drove the boxwood into the centre of the bullet, which of necessity took the rifling.

The Boxer bullet superseded the boxwood plug by the use of a piece of burnt clay, which was less expensive and equally serviceable.

Before breechloaders were invented, we were obliged to fit out a regular battery of four double rifles for such dangerous game as elephants, buffaloes, etc., as the delay in re-loading was most annoying and might lead to fatal accidents.

In hot damp climates it became necessary to fire off and clean the entire battery every evening, lest a miss-fire should be the consequence upon the following morning from the condensation of

moisture in the nipple during night. This was not only great trouble and a wasteful expenditure of ammunition, but the noise of so many loud reports just at the hour when wild animals were on the move, alarmed the country. Trustworthy gun-carriers are always difficult to procure, and it was by no means uncommon that in moments of danger, when the spare rifles were required, the gun-bearers had bolted from the scene, and the master was deserted.

The introduction of breechloaders has made shooting a luxury, and has obviated the necessity of a large battery of guns. For military purposes the breechloader has manifold advantages—as the soldier can load while lying down, and keep up a rapid fire from a secure cover. It was remarked during the Crimean War that a large proportion of wounded men were struck in the right arm, which would have been raised above the head when loading the old-fashioned rifle, and was thus prominently exposed.

It is not my intention to enter into the minutiae of military rifles, but I cannot resist the satisfaction with which I regard the triumph of the small-bore which I advocated through the columns of the Times in 1865, at a time when the idea was opposed by nearly all authorities as impracticable, owing to the alleged great drawback of rapid fouling. There can be no doubt that the charge of 70 grains with a small-bore bullet, '303, will have a lower trajectory (higher velocity (equivalent to long range)) than a heavier projectile, '450, with the additional advantage of a minimum recoil.

The earliest in the field of progress was the old-established firm of Purdey and Co. Mr. Purdey, before the general introduction of breechloaders, brought out an Express rifle, No. 70 bore, with a mechanically fitting two-groove solid bullet. This small projectile was a well-pointed cone weighing exactly 200 grains, with a powder charge of 110 grains, more than half the weight of the bullet. The extremely high velocity of this rifle expanded the pure soft lead upon impact with the skin and muscles of a red deer. At the same time there was no loss of substance in the metal, as the bullet, although much disfigured, remained intact, and continued its course of penetration, causing great havoc by its increased surface. Nothing has surpassed this rifle in velocity, although so many improvements have taken place since the introduction of breechloaders, but in the days of muzzle-loaders it was a satisfaction to myself that I was the first to commence the heavy charge of powder with the 3 ounce bullet and 16 drams, to be followed after many years by so high an authority as Mr. Purdey with a 200 grain bullet and 110 grains of powder, thus verifying the principle of my earliest experience.

This principle is now universally accepted, and charges of powder are used, as a rule, which forty years ago would have been regarded as impossible.

The modern breechloader in the hands of a well-trained soldier should be a most deadly weapon, nevertheless we do not find a greater percentage of destruction among the numbers engaged than resulted from the old Brown Bess. The reason is obvious: battles are now fought at long ranges, whereas in the early portion of the century fire was seldom opened at a greater distance than 200 yards, and the actual struggle terminated at close quarters.

A long-range rifle in the excitement of a hot action has several disadvantages. The sights may have been set for 600 or 800 yards when the enemy was at a distance, but should that interval be decreased by an approach at speed, the sights would require an immediate readjustment, otherwise the bullets would fly overhead, and the nearer the enemy advanced, the safer he would be. Troops require most careful training with the new weapons entrusted to their care. Although a rapidity of fire if well directed must have a terrible result, there can be no question that it engenders a wild excitement, and that a vast amount of ammunition is uselessly expended, which, if reserved by slower but steady shooting, would be far more deadly.

Although the difficulty is great in preventing troops from independent firing when their blood is up in the heat of combat, the paramount duty of an officer should be to control all wildness, and to insist upon volleys in sections of companies by word of command, the sights of the rifles being carefully adjusted, and a steady aim being taken at the knees of the enemy.

There cannot be a better example than the advice upon this subject given by the renowned General Wolfe (who was subsequently killed at the siege of Quebec) to the 20th Regiment, of which he was Colonel, when England was hourly expecting an invasion by the French:—… "There is no necessity for firing very fast; … a cool well-levelled fire with the pieces carefully loaded is much more destructive than the quickest fire in confusion."—At Canterbury, 17th December 1755.

This instruction should be sternly impressed upon the minds of all soldiers, as it is the text upon which all admonitory addresses should be founded. It must not be forgotten that General Wolfe's advice was given to men armed with the old muzzle-loading Brown Bess (musket), which at that time was provided with a lock of flint and steel. Notwithstanding the slowness of fire necessitated by this antiquated weapon, the General cautioned his men by the assurance, "There is no necessity for firing very fast," etc., etc.

The breechloader is valuable through the power which exists, especially with repeating rifles, for pouring in an unremitting fire whenever the opportunity may offer, but under ordinary circumstances the fire should be reserved with the care suggested by the advice of General Wolfe.

Small-bores have become the fashion of the day, and for military purposes they are decidedly the best, as a greater amount of ammunition can be carried by the soldier, while at the same time the range and trajectory of his weapon are improved. The new magazine rifle adopted by the Government is only '303, but this exceedingly small diameter will contain 70 grains of powder with a bullet of hard alloy weighing 216 grains.

For sporting purposes the small-bore has been universally adopted, but I cannot help thinking that like many other fashions, it has been carried beyond the rules of common sense.

When upon entering a gunmaker's shop the inexperienced purchaser is perplexed by the array of rifles and guns, varying in their characters almost as much as human beings, he should never listen to the advice of the manufacturer until he has asked himself what he really requires.

There are many things to be considered before an order should be positively given. What is the rifle wanted for? What is the personal strength of the purchaser? In what portion of the world is he going to shoot? Will he be on foot, or will he shoot from horseback or from an elephant? Will the game be dangerous, or will it be confined to deer, etc.?

Not only the weapon but the ammunition will depend upon a reply to these questions, and the purchaser should strongly resist the delusion that any one particular description will be perfect as a so-called general rifle. You may as well expect one kind of horse or one pattern of ship to combine all the requirements of locomotion as to suppose that a particular rifle will suit every variety of game or condition of locality.

In South Africa accuracy is necessary at extremely long ranges for the open plains, where antelopes in vast herds are difficult of approach. In Indian jungles the game is seldom seen beyond fifty or sixty yards. In America the stalking among the mountains is similar to that of the Scottish Highlands, but upon a larger scale. In Central Africa the distances are as uncertain as the quality of the animals that may be encountered.

Upon the level plains of India, where the blackbuck forms the main object of pursuit, extreme accuracy and long range combined are necessary, with a hollow Express bullet that will not pass through the body. How is it possible that any one peculiar form of rifle can combine all these requirements? Rifles must be specially adapted for the animals against which they are to be directed. I have nothing to do with the purse, but I confine my remarks to the weapons and the game, and I shall avoid technical expressions.

The generally recognised small-bores, all of which are termed "Express" from the large charge of powder, are as follow:– Small-bore Charge of Large- Charge of For all Game Express. Powder. bores. Powder. such as*

'577 6 1/2 drams 4 bore 14 drams Elephants. '500 5 1/2 " 8 " 14 " Rhinoceros. '450 5 " 10 " 12 " Buffaloes. '400 4 " 12 " 10 " '360 Toys. '295 Toys.

The two latter rifles, '360 and '295, are charming additions, and although capable of killing deer are only to be recommended as companions for a stroll but not to be classed as sporting rifles for ordinary game. They are marvellously accurate, and afford great satisfaction for shooting small animals and birds. The '360 may be used for shooting black-buck, but I should not recommend it if the hunter possesses a '400.

It would be impossible to offer advice that would suit all persons. I can therefore only give a person opinion according to my own experience.

For all animals above the size of a fallow deer and below that of a buffalo I prefer the '577 solid Express—648 grains solid bullet,—6 drams powder not 6 1/2, as the charge of only 6 drams produces greater accuracy at long ranges.

The weight of this rifle should be 11 1/2 lbs., or not exceeding 12 lbs. For smaller game, from fallow deer downwards, I prefer the '400 Express with a charge of from 85 grains to 4 drams of powder—solid bullet, excepting the case of black-buck, where, on account of numerous villages on the plains, it is necessary that the bullet should not pass through the body. The important question of weight is much in favour of the '400, as great power and velocity are obtained by a weapon of only 8 1/2 lbs.

I should therefore limit my battery to one '577, one '400, and one Paradox No. 12, for ordinary game in India, as elephants and other of the larger animals require special outfit. The Paradox*, invented by Colonel Fosberry and manufactured by Messrs. Holland and Holland of Bond Street, is a most useful weapon, as it combines the shot-gun with a rifle that is wonderfully accurate within a range of 100 yards. (* Since this was written Messrs. Holland have succeeded after lengthened experiments in producing a Paradox No. 8, which burns 10 drams of powder, and carries a very heavy bullet with extreme accuracy. This will be a new departure in weapons for heavy game.)

It is a smooth-bore slightly choked, but severely rifled for only 1 1/2 inch in length from the muzzle. This gives the spin to the projectile sufficient to ensure accuracy at the distance mentioned.

The No. 12 Paradox weighs 84 lbs. and carries a bullet of 1 3/4 ounce with 4 1/2 drams of powder. Although the powder charge is not sufficient to produce a high express velocity, the penetration and shock are most formidable, as the bullet is of hardened metal, and it retains its figure even after striking a tough hide and bones. The advantage of such a gun is obvious, as it enables a charge of buck-shot to be carried in the left barrel, while the right is loaded with a heavy bullet that is an admirable bone-smasher; it also supersedes the necessity of an extra gun for small game, as it shoots No. 6 shot with equal pattern to the best cylinder-bored gun.

There are many persons who prefer a '500 or a '450 Express to the '577 or the '400. I have nothing to say against them, but I prefer those I have named, as the '577 is the most fatal weapon that I have ever used, and with 6 or 6 1/2 drams of powder it is quite equal to any animal in creation, provided the shot is behind the shoulder. This provision explains my reason for insisting that all animals from a buffalo upwards should be placed in a separate category, as it is frequently impossible to obtain a shoulder shot, therefore the rifles for exceedingly heavy game must be specially adapted for the work required, so as to command them in every conceivable position.

I have shot with every size of rifle from a half pounder explosive shell, and I do not think any larger bore is actually necessary than a No. 8, with a charge of 12 or 14 drams of powder. Such a rifle should weigh 15 lbs., and the projectile would weigh 3 ounces of hardened metal.

The rifles that I have enumerated would be always double, but should the elephant-hunter desire anything more formidable, I should recommend a single barrel of 36 inches in length of bore, weighing 22 lbs., and sighted most accurately to 400 yards. Such a weapon could be used by a powerful man from the shoulder at the close range of fifty yards, or it could be fired at long ranges upon a pivot rest, which would enable the elephant-hunter to kill at a great distance by the shoulder shot when the animals were in deep marshes or on the opposite side of a river. I have frequently seen elephants in such positions when it was impossible to approach within reasonable range. A rifle of this description

would carry a half-pound shell with an exploding charge of half an ounce of fine grain powder and the propelling charge would be 16 drams. I had a rifle that carried a similar charge, but unfortunately it was too short, and was only sighted for 100 yards. Such a weapon can hardly be classed among sporting rifles, but it would be a useful adjunct to the battery of a professional hunter in Africa.

There can be little doubt that a man should not be overweighted, but that every person should be armed in proportion to his physical strength. If he is too light for a very heavy rifle he must select a smaller bore; if he is afraid of a No. 8 with 14 drams, he must be content with a No. 12 and 10 drams, but although he may be successful with the lighter weapon, he must not expect the performance will equal that of the superior power.

It may therefore be concluded that for a man of ordinary strength, the battery for the heaviest game should be a pair of double No. 8 rifles weighing 14 or 15 lbs. to burn from 12 to 14 drams of powder, with a hardened bullet of 3 ounces. Such a rifle will break the bones of any animal from an elephant downwards, and would rake a buffalo from end to end, which is a matter of great importance when the beast is charging.

Although the rifle is now thoroughly appreciated, and sportsmen of experience have accepted the Express as embodying the correct principle of high velocity, I differ with many persons of great authority in the quality of projectiles, which require as much consideration as the pattern of the gun.

The Express rifle is a term signifying velocity, and this is generally accompanied by a hollow bullet which is intended to serve two purposes— to lighten the bullet, and therefore to reduce the work of the powder, and to secure an expansion and smash-up of the lead upon impact with the animal. I contend that the smashing up of the bullet is a mistake, excepting in certain cases such as I have already mentioned, where the animal is small and harmless like the black-buck, which inhabits level plains in the vicinity of population, and where the bullet would be exceedingly dangerous should it pass through the antelope and ricochet into some unlucky village.

As I have already advised the purchaser of a rifle to consider the purpose for which he requires the weapon, in like manner I would suggest that he should reflect upon the special purpose for which he requires the bullet. He should ask himself the questions—"What is a bullet?" and "What is the duty of a bullet?"

A bullet is generally supposed to be a projectile capable of retaining its component parts in their integrity. The duty of the bullet is to preserve its direct course; it should possess a power of great penetration, should not be easily deflected, and together with penetrating power it should produce a stunning effect by an overpowering striking energy.

How are we to combine these qualities? If the projectile has great penetrating force it will pass completely through an animal, and the striking energy will be diminished, as the force that should have been expended upon the body is expending itself in propelling the bullet after it has passed through the body. This must be wrong, as it is self-evident that the striking energy or knock-down blow must depend upon the resistance which the body offers to the projectile. If the bullet remains within it, the striking energy; complete and entire, without any waste whatever, remains within the body struck. If, therefore, a bullet '577 of 648 grains propelled by 6 drams of powder has at fifty yards a striking energy of 3500 foot pounds, that force is expended upon the object struck,—provided it is stopped by the opposing body.

We should therefore endeavour to prevent the bullet from passing through an animal, if it is necessary to concentrate the full power of the projectile upon the resisting body.

This is one reason adduced in favour of the hollow Express bullet, which smashes up into minute films of lead when it strikes the hard muscles of an animal, owing to its extreme velocity, and the weakness of its parts through the hollowness of its centre.

I contend, on the contrary, that the bullet has committed suicide by destroying itself, although its fragments may have fatally torn and injured the vital organs of the wounded animal. The bullet has ceased to exist, as it is broken into fifty shreds; therefore it is dead, as it is no longer a compact

body,—in fact, it has disappeared, although the actual striking energy of a very inferior bullet may have been expended upon the animal.

If the animal is small and harmless, this should be the desired result. If, on the other hand, the animal should be large and dangerous, there cannot be a greater mistake than the hollow Express projectile.

I have frequently heard persons of great experience dilate with satisfaction upon the good shots made with their little '450 hollow Express exactly behind the shoulder of a tiger or some other animal. I have also heard of their failures, which were to themselves sometimes incomprehensible. A solid Express '577 NEVER fails if the direction is accurate towards a vital part. The position of the animal does not signify; if the hunter has a knowledge of comparative anatomy (which he must have, to be a thoroughly successful shot) he can make positively certain of his game at a short distance, as the solid bullet will crash through muscle, bone, and every opposing obstacle to reach the fatal organ. If the animal be a tiger, lion, bear, or leopard, the bullet should have the power to penetrate, but it should not pass completely through. If it should be a wapiti, or sambur stag, the bullet should also remain within, retained in all cases under the skin upon the side opposite to that of entrance. How is this to be managed by the same rifle burning the same charge of powder with a solid bullet?

The penetration must be arranged by varying the material of the bullet. A certain number of cartridges should be loaded with bullets of extreme hardness, intended specially for large thick-skinned animals; other bullets should be composed of softer metal, which would expand upon the resisting muscles but would not pass completely through the skin upon the opposite side. The cartridges would be coloured for distinction.

If the metal is pure lead, the bullet '577, with an initial velocity of 1650 feet per second, will assuredly assume the form of a button mushroom immediately upon impact, and it will increase in diameter as it meets with resistance upon its course until, when expended beneath the elastic hide upon the opposite side, it will have become fully spread like a mature mushroom, instead of the button shape that it had assumed on entrance. I prefer pure lead for tigers, lions, sambur deer, wapiti, and such large animals which are not thick-skinned, as the bullet alters its form and nevertheless remains intact, the striking energy being concentrated within the body.

The difference in the striking energy of a hollow bullet from that of a solid projectile is enormous, owing to the inequality in weight. The hollow bullet wounds mortally, but it does not always kill neatly. I have seen very many instances where the '500 hollow Express with 5 drams of powder has struck an animal well behind the shoulder, or sometimes through the shoulder, and notwithstanding the fatal wound, the beast has galloped off as though untouched, for at least a hundred yards, before it fell suddenly, and died.

This is clumsy shooting. The solid bullet of pure lead would have killed upon the spot, as the bullet would have retained its substance although it altered its form, and the shock would have been more severe, The hollow bullet exhibits a peculiar result in a post-mortem examination: the lungs may be hopelessly torn and ragged, the liver and the heart may be also damaged, all by the same projectile, because it has been converted into small shot immediately upon impact. Frequently a minute hole will be observed upon the entrance, and within an inch beneath the skin a large aperture will be seen where an explosion appears to have taken place by the breaking-up of the lead, all of which has splashed into fragments scattering in every direction.

Common sense will suggest that although such a bullet will kill, it is not the sort of weapon to stop a dangerous animal when in full charge. Weak men generally prefer the hollow Express because the rifle is lighter and handier than the more formidable weapon, and the recoil is not so severe, owing to the lightness of the bullet.

My opinion may be expressed in a few words. If you wish the bullet to expand, use soft lead, but keep the metal solid. If you wish for great penetration, use hard solid metal, either 1/10 tin or 1/13 quicksilver. Even this will alter its form against the bones of a buffalo, but either of the above

will go clean through a wapiti stag, and would kill another beyond it should the rifle be '577 fired with 6 drams of powder.

The same rifle will not drive a soft leaden solid bullet through a male tiger if struck directly through the shoulder; it will be found flattened to a mushroom form beneath the skin upon the other side, having performed its duty effectively, by killing the tiger upon the spot, and retaining intact the metal of which it was composed.

A post-mortem inquiry in the latter case would be most satisfactory. If the bullet shall have struck fair upon the shoulder-joint, it will be observed that although it has retained its substance, the momentum has been conveyed to every fragment of crushed bone, which will have been driven forward through the lungs like a charge of buckshot, in addition to the havoc created by the large diameter of an expanded '577 bullet. Both shoulders will have been completely crushed, and the animal must of course be rendered absolutely helpless. This is a sine qua non in all shooting. Do not wound, but kill outright; and this you will generally do with a '577 solid bullet of pure lead, or with a Paradox bullet 1 3/4 ounces hard metal and 4 1/2 drams of powder. This very large bullet is sufficiently formidable to require no expansion.

Gunmakers will not advise the use of pure lead for bullets, as it is apt to foul the barrel by its extreme softness, which leaves a coating of the metal upon the surface of the rifling. For military purposes this objection would hold good, but so few shots are fired at game during the day, that no disadvantage could accrue, and the rifle would of course be cleaned every evening.

The accidents which unfortunately so often happen to the hunters of dangerous game may generally be traced to the defect in the rifles employed. If a shooter wishes to amuse himself in Scotland among the harmless red deer, let him try any experiments that may please him; but if he is a man like so many who leave the shores of Great Britain for the wild jungles of the East, or of Africa, let him at once abjure hollow bullets if he seeks dangerous game. Upon this subject I press my opinion, as I feel the immense responsibility of advice should any calamity occur. It is only a few months since the lamented Mr. Ingram was killed by an elephant in the Somali country, through using a '450 Express hollow bullet against an animal that should at least have been attacked with a No. 10. I submit the question to any admirer of the hollow Express. "If he is on foot, trusting only to his rifle for protection, would he select a hollow Express, no matter whether '577, '500, or '450; or would he prefer a solid bullet to withstand a dangerous charge?"

India is a vast empire, and various portions, according to the conditions of localities, have peculiar customs for the conduct of wild sports. In dense jungles, where it would be impossible to see the game if on foot, there is no other way of obtaining a shot except by driving. The gunners are in such case placed at suitable intervals upon platforms called mucharns, securely fitted between convenient forks among the branches of a tree, about 10 or 12 feet above the ground. From this point of vantage the gunner can see without being seen and, thoroughly protected from all danger, he may amuse himself by comparing the success of his shooting with the hollow Express or with the solid bullet at the animals that pass within his range, which means a limit of about 50 yards. I contend that at the short distance named; a tiger should NEVER escape from a solid bullet; he often escapes from the hollow bullet for several reasons.

It must be remembered that animals are rarely seen distinctly in a thick jungle, countless twigs and foliage intercept the bullet, and the view, although patent to both open eyes, becomes misty and obscure when you shut one eye and squint along the barrel. You then discover that although you can see the dim shadow of your game, your bullet will have to cut its way through at least twenty twigs before it can reach its goal. A solid bullet may deflect slightly, but it will generally deliver its message direct, unless the opposing objects are more formidable than ordinary small branches. A hollow bullet from an Express rifle will fly into fragments should it strike a twig the size of the little finger. This is quite sufficient to condemn the hollow projectile without any further argument.

While writing the above, I have received the Pioneer, 24th June 1888, which gives the following account of an escape from a tiger a few weeks ago by Mr. Cuthbert Fraser, and no better example could be offered to prove the danger of a hollow bullet. It will be seen that a solid bullet would have killed the tiger on the spot, as it would have penetrated to the brain, instead of which it broke into the usual fragments when striking the hard substance of the teeth, and merely destroyed one eye. The bullet evidently splashed up without breaking the jaw, as the wounded animal was not only capable of killing the orderly, but Mr. Fraser "heard, in fact, the crunching of the man's bones." He says "that he felt that he had the tiger dead when he fired, but the Express bullet unfortunately broke up." He had fired the left-hand barrel into the tiger's chest without the slightest result in checking the onset; had that been a solid bullet it would have penetrated to the heart or lungs.

ADVENTURE WITH A TIGER

The following experience of a sportsman in the Deccan is from the Secunderabad paper of 14th June 1888:—

> "Mr. Cuthbert Fraser had a most miraculous escape from a tiger the other day at Amraoti. The lucky hero of this adventure is a District Superintendent of Police in Berar. He is well remembered in Secunderabad as Superintendent of the Cantonment Police before Mr. Crawford. A son of Colonel Hastings Fraser, one of the Frasers of Lovat, he has proved his possession of that nerve and courage which rises to the emergency of danger—on which qualities more than all else the British Empire in India has been built, and on which, after all is said, in the last resort, it must be still held to rest. To quote the graphic account of a correspondent, the escape was about as narrow as was ever had. Mr. Fraser was told by his orderly that the tiger was lying dead with his head on the root of a tree. The orderly having called him up, he went to the spot. Mr. Fraser then sent the orderly and another man with the second gun back, and knelt down to look. Just then the tiger roared and came at him from about eighteen feet off: he waited till the tiger was within five feet of him and fired. As the tiger did not drop, he fired his second shot hurriedly. The first shot had hit exactly in the centre of the face but just an inch too low. It knocked the tiger's right eye out and smashed all the teeth of that side of the jaw. The second shot struck the tiger in the chest, but too low. What happened then Mr. Fraser does not exactly know, but he next found himself lying in front of the tiger, one claw of the beast's right foot being hooked into his left leg, in this way trying to draw Mr. Fraser towards him; the other paw was on his right leg. Mr. Fraser's chin and coat were covered with foam from the beast's mouth. He tried hard to draw himself out of the tiger's clutches. Fortunately the beast was not able to see him, as Mr. Fraser was a little to one side on the animal's blind side and the tiger's head was up. Suddenly seeing Mr. Fraser's orderly bolting, he jumped up and went for the man, and catching him he killed him on the spot. Mr. Fraser had lost his hat, rifle, and all his cartridges, which had tumbled out of his pocket. He jumped up, however, and ran to the man who had his second gun, and to do so had to go within eight paces of the spot where the tiger was crouching over his orderly. He heard, in fact, the crunching of the man's bones and saw the tiger biting the back of the head. He now took the gun from his man. The latter said that he had fired both barrels into the tiger—one when he was crouching over Mr. Fraser, and the other when he was over the prostrate body of the orderly. The man had fired well and true, but just too far back, in his anxiety not to hit the man he would save, instead of the tiger.

> When afterwards asked if he was not afraid to hit the Sahib, 'I was very much afraid indeed,' he replied, 'but dil mazbut karke lagaya: I nerved myself for the occasion.' 'A good man and true!' a high officer writes, 'who after firing never moved an inch till Mr. Fraser came to him, although close to the tiger all the while. He is one of the Gawilghur Rajputs—a brave race, Ranjit Singh, a good name.' The man said he had no more cartridges left and so they both got a little farther from the tiger, as the orderly was evidently done for. Afterwards they found one more cartridge for the gun and tried to recover the body, but it was no use. The tiger was lying close, most of the buffaloes had bolted and the Kurkoos would not help. Mr. Fraser then sent six miles off for an elephant. But the animal did not arrive till dark, so Mr. Fraser went home in great grief about the poor orderly and at having to leave the body. His own wound was bleeding a great deal, it being a deep claw gash. Next day they got the body and the tiger dead, lying close to each other. Perhaps no narrower escape than Mr. Fraser's has ever been heard of. To the excellent shot which knocked the beast's eye out he undoubtedly owes his life. He says that he felt that he had the tiger dead when he fired, but the Express bullet unfortunately broke up. Probably, he thinks a 12-bore would have reached the brain."

I could produce numerous instances where failures have occurred, and I know sportsmen of long experience who have given up the use of hollow bullets except against such small game as black-buck and other antelopes or deer.

So much for the Express hollow bullet, after which it is at the option of all persons to please themselves; but personally I should decline the company of any friend who wished to join me in the pursuit of dangerous game if armed with such an inferior weapon. In another portion of this volume I shall produce a striking instance of the result.

The magazine rifle, which is destined to become the military arm of the future, can hardly merit a place among sporting rifles, as it must always possess the disadvantage of altering its balance as the ammunition is expended. The Winchester Company have, I believe, produced a great improvement in a rifle of this kind, '400, which carries a charge of 110 grains of powder; but even so small a bore must be unhandy if the rifle is arranged to contain a supply of cartridges. For my own use I am quite contented with one '577, a '400, and a No. 12 Paradox – all solid bullets, but varying in hardness of metal according to the quality of game; for the largest animals a pair of No. 8 rifles with hard bullets and 14 drams of powder.

I can say nothing more concerning rifles for the practical use of sportsmen, although a volume might be devoted to their history and development. Shot guns are too well understood to merit a special notice.

CHAPTER II

THE ELEPHANT (ELEPHAS)

This animal has interested mankind more than any other, owing to the peculiar combination of immense proportions with extraordinary sagacity. The question has frequently been raised "Whether the elephant or the dog should be accepted as superior in intelligence?" My own experience would decide without hesitation—The Dog is man's companion; the Elephant is his slave.

We all know the attachment and fidelity of the dog, who appears to have been created specially to become the friend of the human race. He attaches himself equally to the poor man and the rich, and shares our fortunes "for better, for worse," clinging with heroic loyalty to his master when all other friends may have abandoned him. The power of memory is wonderfully exhibited, considering the shortness of life which Nature, by some mischance has accorded to man's best friend.

"While thus Florinda spake, the dog who lay Before Rusilla's feet, eyeing him long And wistfully, had recognised at length, Changed as he was and in those sordid weeds, His royal master. And he rose and lick'd His withered hand, and earnestly looked up With eyes whose human meaning did not need The aid of speech; and moan'd, as if at once To court and chide the long-withheld caress… . . . . . Disputing, he withdrew. The watchful dog Followed his footsteps close. But he retired Into the thickest grove; there yielding way To his o'erburthen'd nature, from all eyes Apart, he cast himself upon the ground, And threw his arms around the dog, and cried While tears stream'd down. Thou Theron, thou hast known Thy poor lost master… Theron, only thou!"—

Southey's "Roderick, last of the Goths."

In case of danger the dog will defend his master, guided by his own unaided intelligence; he at once detects and attacks the enemy. In wild sports he *shares the delight of hunting equally with his master, and the two are inseparable allies. The day is over, and he lies down and sleeps before the fire at his master's feet, and dreams of the dangers and exploits; he is a member of his master's household.

The elephant is, in my opinion, overrated. He can be educated to perform certain acts, but he would never volunteer his services. There is no elephant that I ever saw who would spontaneously interfere to save his master from drowning or from attack. An enemy might assassinate you at the feet of your favourite elephant, but he would never attempt to interfere in your defence; he would probably run away, or remain impassive, unless guided and instructed by his mahout. This is incontestable; the elephant will do nothing useful unless he is specially ordered to perform a certain work or movement.

While condemning this apathetic character, we must admit that in the elephant the power of learning is extraordinary, and that it can be educated to perform wonders; but such performances are only wonderful as proving the necessary force of direction and guidance by a superior power, to which the animal is amenable.

I have had very many years' experience with elephants, both Asiatic and African, and in my opinion they are naturally timid. Although in a wild state the males are more or less dangerous, especially in Africa, the herd of elephants will generally retreat should they even wind an unseen enemy. This timidity is increased by domestication, and it is difficult to obtain an elephant sufficiently staunch to withstand the attack of any wild animal. They will generally turn tail, and not only retreat gracefully, but will run in a disgraceful panic, to the great danger of their riders should the locality be forest.

The difference in species is distinct between the Asiatic and the African. It is at all times difficult to give the measurement of a dead animal, especially when so enormous, as the pressure of weight when alive would reduce the height afforded by measurement when the body is horizontal.

The well-known African elephant Jumbo that was sold to America by the Zoological Society of London, was brought up in confinement since its early existence, when it was about 4 feet 6 inches high. That elephant was carefully weighed and measured before it left England, with the result, of height at shoulder, 11 feet; weight, six tons and a half. The girth of the fore-foot when the pressure of the animal's weight was exerted, was exactly half the perpendicular height of the elephant. I have seen very much larger animals in Africa, but there is nothing in India to approach the size of Jumbo.

There is no reason why the African elephants should not be tamed and made useful, but the difficulty lies in obtaining them in any great numbers. The natives of Africa are peculiarly savage, and their instincts of destruction prevent them from capturing and domesticating any wild animals. During nine years' experience of Central Africa I never saw a tamed creature of any kind, not even a bird, or a young antelope in possession of a child. The tame elephant would be especially valuable to an explorer, as it could march through streams too deep for the passage of oxen, and in swimming rivers it would be proof against the attacks of crocodiles. So few African elephants have been tamed in proportion to those of Asia that it would be difficult to pronounce an opinion upon their character when domesticated, but it is generally believed by their trainers that the Indian species is more gentle and amenable to discipline. The power of the African is far in excess of the Asiatic. Nine feet at the highest portion of the back is a good height for an Indian male, and eight feet for the female, although occasionally they are considerably larger. There are hardly any elephants that measure ten feet in a direct perpendicular, although the mahouts pretend to fictitious heights by measuring with a tape or cord from the spine, including the curve of the body.

As Jumbo was proved to have attained the height of eleven feet although in captivity from infancy, it may be easily imagined that in a wild state the African elephant will attain twelve feet, or even more. I have myself seen many animals that would have exceeded this, although it would be impossible to estimate their height with accuracy.

The shape of the African variety is very peculiar, and differs in a remarkable manner from the Asiatic. The highest point is the shoulder, and the back is hollow; in the Indian the back is convex, and the shoulder is considerably lower. The head of the African is quite unlike that of the Indian; and the ears, which in the former are enormous, completely cover the shoulder when thrown back. The best direction for a vital shot at an African elephant is at the extremity of the ear when flapped against the side. A bullet thus placed will pass through the centre of the lungs. The Indian elephant has many more laminae in the teeth than the African, constituting a larger grinding surface, as the food is different. The African feeds upon foliage and the succulent roots of the mimosa and other trees, which it digs up with its powerful tusks; the forests are generally evergreen, and being full of sap, the bark is easier to masticate than the skeleton trees of India during the hottest season. Both the Indian and African varieties have only four teeth, composed of laminae of intensely hard enamel, divided by a softer substance which prevents the surface from becoming smooth with age; the two unequal materials retain their inequality in wear, therefore the rough grinding surface is maintained notwithstanding the work of many years. A gland at the posterior of the jaw supplies a tooth-forming matter, and the growth of fresh laminae is continuous throughout life; the younger laminae form into line, and march forward until incorporated and solidified in the tooth.

It is impossible to define exactly the limit of old age, as there can be little doubt that captivity shortens the duration of life to a great degree. We can only form an opinion from the basis of growth when young. As an elephant cannot be fully developed in the perfection of ivory until the age of forty, I should accept that age in a wild animal as the period of a starting-point in life, and I should imagine that the term of existence would be about a hundred and fifty years.

The life of an elephant in captivity is exactly opposed to its natural habits. A wild Indian elephant dreads the sun, and is seldom to be found exposed in the open after dawn of day. It roams over the country in all directions during night, and seeks the shelter of a forest about an hour before the sun rises. It feeds heartily, but wastefully, tearing down branches, half of which it leaves

untouched; it strips the bark off those trees which it selects as tasteful, but throws wilfully away a considerable portion. Throughout the entire night the elephant is feeding, and it is curious to observe how particular this animal is in the choice of food. Most wild animals possess a certain amount of botanical knowledge which guides them in their grazing; the only exception is the camel, who would poison himself through sheer ignorance and depraved appetite, but the elephant is most careful in its selection of all that is suitable to its requirements. It is astonishing how few of the forest trees are attractive to this animal. Some are tempting from their foliage, others from their bark (vide the powerfully astringent Catechu), some from the succulent roots, and several varieties from the wood, which is eaten like the sugar-cane. There is one kind of tree the wood of which alone is eaten after the rind has been carefully stripped off.

The elephant, being in its wild state a nocturnal animal, must be able to distinguish the various qualities of trees by the senses of smell and touch, as in the darkness of a forest during night it would be impossible to distinguish the leaves. There are few creatures who possess so delicate a sense of smell; wild elephants will wind an enemy at a distance of a thousand yards, or even more, should the breeze be favourable. The nerves of the trunk are peculiarly sensitive, and although the skin is thick, the smallest substance can be discovered, and picked up by the tiny proboscis at the extremity.

A wound upon any portion of the trunk must occasion intense pain, and the animal instinctively coils the lower portion beneath its chest when attacked by a tiger. This delicacy of nerve renders the elephant exceedingly timid after being wounded, and it is a common and regrettable occurrence that an elephant which has been an excellent shikar animal before it has been injured, becomes useless to face a tiger after it has been badly clawed. I cannot understand the carelessness of an owner who thus permits a good elephant to work unprotected. In ancient days the elephants were armoured for warlike purposes to protect them from spears and javelins, and nothing can be easier than to arrange an elastic protective hood, which would effectually safeguard the trunk and head from the attack of any animal.

I had an excellent hood arranged for a large tusker which was lent to me by the Commissariat. The first layer of material was the soft but thick buff leather of sambur deer. This entirely covered the head, and was laced beneath the throat; at the same time it was secured by a broad leather strap and buckle around the neck. A covering for about three feet from the base of the trunk descended from the face and was also secured by lacing. The lower portion of the trunk was left unprotected, as the animal would immediately guard against danger by curling it up when attacked. Upon this groundwork of buff leather I had plates of thick and hard buffalo hide, tanned, overlapping like slates upon a roof. This armour was proof against either teeth or claws, as neither could hold upon the slippery and yielding hard surface of the leather tiles; at the same time the elephant could move its trunk with ease. Two circular apertures were cut out for the eyes, about six inches in diameter.

An elephant, if well trained, would be sufficiently sagacious to appreciate this protection should it find itself unharmed after a home charge by a tiger or other dangerous beast; and such a quality of armour would add immensely to its confidence and steadiness.

Although the elephant is of enormous strength it is more or less a delicate animal, and is subject to a variety of ailments. A common disease is a swelling in the throat, which in bad cases prevents it from feeding. Another complaint resembles gout in the legs, which swell to a distressing size, and give exquisite pain, especially when touched. This attack is frequently occasioned by allowing elephants, after a long march under a hot sun, to wade belly-deep in cool water in order to graze upon the aquatic vegetation.

Few animals suffer more from the sun's rays than the elephant, whose nature prompts it to seek the deepest shade. Its dark colour and immense surface attract an amount of heat which becomes almost insupportable to the unfortunate creature when forced to carry a heavy load during the hot season in India. Even without a greater weight than its rider, the elephant exhibits signs of distress when marching after 9 a.m. At such times it is disagreeable, as the animal has a peculiar habit of sucking water through the trunk from a supply contained within the stomach, and this it syringes with

great force between its fore legs, and against its flanks to cool its sides with the ejected spray. The rider receives a portion of the fluid in his face, and as the action is repeated every five minutes, or less, the operation is annoying.

It is a curious peculiarity in the elephant that it is enabled to suck up water at discretion simply by doubling the trunk far down the throat, and the fluid thus procured has no disagreeable smell, although taken direct from the creature's stomach. In every way the elephant is superior to most animals in the freedom from any unpleasant odour. Its skin is sweet, and the hand retains no smell whatever, although you may have caressed the trunk or any other portion of the body. It is well known that a horse is exceedingly strong in odour, and that nothing is more objectionable than the close proximity of a stable, or even of a large number of horses picqueted in the open,—I have frequently been camped where fifty or sixty elephants were for several days in the same position within a hundred yards of the tents, and still there was no offensive scent.

The food of an elephant is always fresh and clean, and the digestive functions are extremely rapid. The mastication is a rough system of grinding, and the single stomach and exceedingly short intestines simplify the process of assimilation. The rapidity of the food passage necessitates a consumption of a large amount, and no less than six hundred pounds of fodder is the proper daily allowance for an elephant.

There have been frequent discussions upon the important subject of elephant-feeding. Mr. G. P. Sanderson, the superintendent of the keddah department in Assam, has declared against the necessity of allowing a ration of grain in addition to the usual fodder. This must naturally depend upon the quality of the green food. If the locality abounds in plantains, the stems of those plants are eagerly devoured, and every portion except the outside rind is nourishing. Even then the waste is excessive should the stems be heedlessly thrown down before the animal. It will immediately proceed to strip long fibrous ribbons from the stem by placing one foot upon the extremity, and then tearing off the alternate layers like the skin of an onion. These it converts into playthings, throwing them over its back and neck until it is dressed in dangling necklaces, which by degrees, after serving as toys, are ultimately devoured. The proper method of feeding an elephant with plantains where an allowance of rice is added, is by splitting the entire stem through the centre, and then cutting it into transverse sections about two feet in length. As each layer is detached, it resembles a delicately coloured trough, nearly white; this is doubled up in the centre and it at once forms a hollow tube, similar to a very thick drain tile. A handful of rice is placed within, and it is secured by tying with a fibrous strip from the plantain stem. A large pile of these neat packages is prepared for every elephant, and, when ready, the mahout sits by the heap and hands the parcels one by one to the ever-expectant trunk.

The delicacy of an elephant's palate is extraordinary, and the whims of the creature are absurd in the selection or rejection of morsels which it prefers or dislikes. I once saw a peculiar instance of this in an elephant that belonged to the police at Dhubri on the Brahmaputra. This animal had a large allowance of rice, therefore about three-quarters of a pound were placed within each tube of plantain stem. A lady offered the elephant, when being fed, a very small sweet biscuit, about an inch and a half in diameter. This was accepted in the trunk, but almost immediately rejected and thrown upon the ground. The mahout, fearing that his elephant had behaved rudely in thus refusing a present from a lady's hand, picked up the biscuit and inserted it in the next parcel of rice and plantain stem. This was placed within the elephant's mouth. At the first crunch the animal showed evident signs of disgust, and at once spat out the whole of the contents. There lay a complete ruin of the neat package, which had been burst by the power of the great jaws; but among the scattered rice that had been ejected we perceived the biscuit which had caused the second instance of bad behaviour. So utterly disgusted was the elephant with this tiny foreign substance that it endeavoured to cleanse its mouth from every grain of rice, as though polluted by the contact, and for several minutes it continued to insert its trunk and rake out each atom from its tongue and throat.

The adaptation of the trunk to many purposes is very interesting. I had an elephant who would eat every particle of rice in a round bamboo basket by sucking it up the trunk and then blowing it into its mouth. The basket was close-grained and smooth inside, but although brimful at the commencement of operations, it was emptied by the elephant as though it had been cleansed with a dry sponge.

A distinct rule for feeding elephants cannot be laid down without exceptions rendered necessary by peculiarities of localities and the amount of hard work required from the animal. If the elephant is simply turned out to grass for a season, it will thrive upon such natural herbage as bamboos, the foliage of the banyan, peepul, and other varieties of the Ficus family; but if it is expected to travel and perform good work, it is usual in the Commissariat department to allow each elephant seven and a half seers of flour, equal to 15 lbs. avoirdupois. In addition to this, 600 lbs. of green fodder are given, and about 1 lb. of ghee (buffalo butter), with salt and jaggery (native sugar). During a jungle expedition I have always doubled the allowance of flour to 30 lbs. daily for each animal. This is made into large flat cakes like Scotch "scones," weighing 2 lbs. each. The elephants are fed at about an hour before sunset, and then taken to drink water before actual night. Cleanliness is indispensable to the good health and condition of the elephant. It should bathe daily, and the entire body should be well scoured with a piece of brick or a soft quality of sandstone. This operation is much enjoyed, and the huge animal, obeying the command, lies down upon its side and accommodates its carcase to the scrubbing process by adapting its position to the requirements of the operator. It will frequently bury its head completely beneath the water, and merely protrude the extremity of its trunk to breathe above the surface. The coolie is most particular in scrubbing every portion of the animal, after which it will usually stand within the tank or river and shower volumes of water from its trunk over its back and flanks. When well washed, it appears a thoroughly clean black mass, but in a few minutes it proceeds to destroy its personal beauty by throwing clouds of dust upon its back, which, adhering to the moisture occasioned by its recent bath, converts the late clean animal into a brown mound of earth.

There is no quadruped not absolutely amphibious that is so thoroughly at home in the water as the elephant. In a wild state it will swim the largest rivers, and it delights in morasses, where it rolls in the deep mud like a pig or buffalo, and thus coats its hide with a covering of slime, which protects it from the attacks of flies and the worry of mosquitoes. When in a domestic state, the elephant is shy of trusting itself upon unsound earth or quicksands, as it appears to have lost the confidence resulting from an independent freedom among the jungles, and marshy valleys teeming with aquatic vegetation. It will also refuse to cross a bridge unless of solid masonry, and it is curious to observe the extreme care with which it sounds the structure, either by striking with the coiled extremity of the trunk or by experimenting with the pressure of one foot, before it ventures to trust its whole weight upon the suspected floor.

It is difficult to describe the limit of an elephant's swimming powers; this must depend upon many circumstances, whether it is following the stream or otherwise, but the animal can remain afloat for several hours without undue fatigue. The displacement of an elephant's carcase is less than the weight of water, although it swims so deeply immersed that it would appear to float with difficulty. An elephant shot dead within the water will float immediately, with a considerable portion of one flank raised so high above the surface that several men could be supported, as though upon a raft. The body of a hippopotamus will sink like a stone, and will not reappear upon the surface for about two hours, until the gas has to a certain degree distended the carcase: thus the hippopotamus is of a denser and heavier material than the elephant, although it is an aquatic animal.

When tame elephants cross a river they are conducted by their drivers, who stand upon their backs, either balancing themselves without assistance, or supported by holding a cord attached to the animal's neck. It is very interesting to watch the passage of a large river by a herd of these creatures, who to a stranger's eye would appear to be in danger of drowning, although in reality they are merely gamboling in the element which is their delight. I have seen them cross the Brahmaputra when the

channel was about a mile in width. Forty elephants scrambled down the precipitous bank of alluvial deposit and river sand: this, although about thirty-five feet high, crumbled at once beneath the fore-foot of the leading elephant, and many tons detached from the surface quickly formed a steep incline. Squatting upon its hind-quarters, and tucking its hinder knees beneath its belly, while it supported its head upon its trunk and outstretched fore legs, it slid and scrambled to the bottom, accompanied by an avalanche of earth and dust, thus forming a good track for the following herd.

It is surprising to see in how few minutes a large herd of elephants descending a steep place will form a road. I have frequently seen them break down an alluvial cliff in the manner described, where at first sight I should have thought it impossible for an elephant to descend. Once within the river the fun began in earnest. After a march in the hot sun, it was delightful to bathe in the deep stream of the Brahmaputra, and the mighty forms splashed and disported themselves, sometimes totally submerged, with the drivers standing ankle-deep upon their hidden backs, which gave them the appearance of walking upon the surface. A tip of the trunk was always above water, and occasionally the animal would protrude the entire head, but only to plunge once more beneath the stream. In this way, swimming at great speed, and at the same time playing along their voyage, the herd crossed the broad river, and we saw their dusky forms glittering in the sunlight as they rose wetted from their bath, and waded majestically along the shallows to reach an island; from which they again started upon a similar journey to cross another channel of the river.

The first impression of a stranger when observing the conduct of a mahout or driver is sympathy for the animal, which is governed through the severe authority of the iron spike. This instrument is about twenty inches long, and resembles somewhat an old-fashioned boat-hook, being a sharp spike at the extremity beyond the keen-pointed hook; it can thus be used either to drive the elephant forward by digging the point into its head, or to pull it back by hooking on to the tender base of the ears. These driving-hooks weigh from about 4 to 6 lbs., and are formidable weapons; some are exceedingly ancient, and have been preserved for a couple of centuries or more, such specimens being highly artistic, and first-rate examples of the blacksmith's work. Although we may commence our experience by pitying the animal that is subjected to such harsh treatment, we quickly discover that without the hook the elephant is like the donkey without the stick. The fact of his knowing that you possess the power, or propeller, is sufficient to ensure comparative obedience, but it would be impossible to direct the movements of an elephant by simple kindness without the power to inflict punishment. This fact alone will prove that the elephant does not serve man through affection, but that it is compelled through fear. It is curious to witness the absurd subjection of this mighty animal even by a child. I have frequently seen a small boy threaten a large elephant with a stick, and the animal has at once winced; and, curling the trunk between the legs, it has closed its eyes and exhibited every symptom of extreme terror when struck repeatedly upon the trunk and face. The male is generally more uncertain than the female. It would at first sight appear that for shooting purposes the bull elephant would be preferred for its greater strength and courage. There can be no doubt that a pair of long tusks is an important protection, and not only forms a defence against the attack of a tiger or other animal, but is valuable for offensive purposes; yet, notwithstanding this advantage, the female is generally preferred to the male, as being more docile and obedient.

The males differ in character, but they are mostly uncertain in temper during a period varying from two to four months every year. At such occurrences of disturbance the animal requires careful treatment, and the chains which shackle the fore legs should be of undoubted quality. Some elephants remain passive throughout the year, while others appear to be thoroughly demented, and, although at other seasons harmless, would, when "must," destroy their own attendant and wreak the direst mischief. At such a crisis the mahout must always be held responsible for accidents, as the animal, if properly watched and restrained, would be incapable of active movements, and would of course be comparatively harmless. Upon many occasions, through the neglect of the attendant, an elephant has been left unchained, or perhaps secured with an old chain that has been nearly worn through a link;

the escape of the animal under such circumstances has led to frightful casualties, usually commencing with the destruction of the mahout, who may have attempted a recapture. The approach of the "must" period is immediately perceived by a peculiar exudation of an oily nature from a small duct upon either temple; this somewhat resembles coal-tar in consistence, and it occupies an area of about four inches square upon the surface of the skin. There is a decided odour in this secretion somewhat similar to the same exudation from the neck of the male camel.

I have known male elephants which were remarkably docile throughout all seasons, but even these had to be specially regarded during the period of "must," as there was no means of foretelling a sudden and unexpected outbreak of temper. Many males are at all times fretful, and these expend their ill-nature in various ways; if chained, they kick up the earth, and scatter the dust in all directions; they are never quiet for one moment throughout the day, but continue to swing their heads to and fro, and prick forward their ears, exhibiting a restlessness of spirit that is a sufficient warning to any stranger. Such elephants should always be approached with caution, and never directly in front, but at the side.

An elephant is frequently treacherous, and if the person should stand unheedingly before it, a sudden slap with the trunk might be the consequence. For the same reason, it would be dangerous to approach the heels of such an animal, as a kick from an elephant is rather an extensive movement, and it is extraordinary that so colossal a limb as the hind leg can be projected with such velocity, equalling that of a small pony.

Discussions have frequently arisen concerning the maximum speed of an elephant; this is difficult to decide exactly, as there can be no question that the animal in a wild state will exert a greater speed than can be obtained from it when domesticated. The African variety is decidedly faster than the Asiatic; the legs being longer, the stride is in proportion; and as the habits of the African lead it to wander over large tracts of open country instead of confining its rambles to secluded forests, this peculiarity would naturally render the animal more active, and tend to accelerate its movements. I consider that the African elephant is capable of a speed of fifteen miles an hour, which it could keep up for two or three hundred yards, after which it would travel at about ten miles an hour, and actually accomplish the distance within that period. The Asiatic elephant might likewise attain a speed of fifteen miles for perhaps a couple of hundred yards, but it would not travel far at a greater pace than eight miles an hour, and it would reduce that pace to six after the first five miles.

The proof of an elephant's power of great speed for a short distance is seldom seen except in cases where the animal is infuriated, and gives chase to some unfortunate victim, who seldom escapes his fate by flight. For a short burst of fifty or one hundred yards an elephant might occasionally attain a pace exceeding fifteen miles an hour, as I have frequently, when among rough ground, experienced a difficulty in escaping when on horseback; and in my young days, when a good runner, I have been almost caught when racing along a level plain as smooth as a lawn with a savage elephant in full pursuit. An active man upon good ground can run for a short distance at the rate of eighteen miles an hour; this should clear him from the attack of most elephants; but unfortunately the good ground is scarce, and the elephant is generally discovered in a position peculiarly favourable to itself, where the roughness of the surface and the tangled herbage render it impossible for a man to run at full speed without falling.

We have recently seen a distressing example in the death of the lamented Mr. Ingram in Somaliland, who, although well mounted, was overtaken by an infuriated wild elephant and killed. This was a female, and it appears that Mr. Ingram, having followed her on horseback, had fired repeatedly with a rifle only .450. The animal charged, and owing to the impediments of the ground, which was covered with prickly aloes, the horse could not escape, and Mr. Ingram was swept off the saddle and impaled upon the elephant's tusks.

The African differs from the Asiatic in the formation of ivory, the tusks of the former being both thicker and heavier; the females also possess tusks, whereas those of the Asiatic variety have merely embryo tusks, which do not project more than two or three inches beyond the lips. I had a tusk

of an African elephant that weighed 149 lbs. I have seen in Khartoum a pair that weighed 300 lbs., and I saw a single tusk of 172 lbs. In 1874 a tusk was sold at the ivory sale in London that weighed 188 lbs. These specimens are exceptions to the general rule, as the average weight in a full-grown African male would be about 140 lbs. the pair, or 75 lbs. for one tusk and 65 lbs. for the fellow, which is specially employed for digging.

The African variety is an industrious digger, as it feeds upon the succulent roots of many trees, especially those of the mimosa family. The right tusk is generally used in these operations more than the left; accordingly it is lighter from continual wear, and it is known by the Arabs as the "hadam" or servant. As the African elephant is a root-eater it is far more destructive than the Asiatic. It is astonishing to observe the waste of trees that are upturned by a large herd of these animals, sometimes out of sheer wantonness, during their passage through a forest. The dense tops of mimosas are a great attraction, and there can be no doubt that elephants work collectively to dig out and to overthrow the trees that would be too large for the strength of a single animal. I have seen trees between two and three feet in diameter that have been felled for the sake of the roots and tender heads; these have shown unmistakable signs of an attack by several elephants, as the ground has been ploughed by tusks of different sizes to tear up the long straggling roots which were near the surface, and the deep marks of feet around the centre of operations, of various diameters, have proved the co-operation of members of the herd.

I once saw an elephant strike a large timber tree with its forehead to shake down the fruit. This was a peculiar example of the immense power that can be exerted when required. We were waiting near the margin of the White Nile, about half an hour before sunset, expecting the arrival of waterbuck, when a rumbling sound and a suppressed roar in the jungle were accompanied by the breaking of a branch, which denoted the approach of elephants. Presently they emerged from the forest in several directions, and one, which appeared to be the largest I had ever seen, advanced to within 120 yards of our position without perceiving us, as we were concealed behind a bush upon some rising ground close to the river's bank. This elephant had enormous tusks, but as we had only small-bore rifles, I was contented to watch, without disturbing the magnificent animal before me.

There was a very large and lofty tree quite three feet in diameter; upon the upper branches grew the much-loved fruit, similar in appearance to good-sized dates, and equally sweet and aromatic (Balanites Egyptiaca). Elephants will travel great distances to arrive at a forest where such fruit is produced in quantity, and they appear to know the season when the crop will be thoroughly ripe. Upon this occasion, the elephant, having picked up the single fruits which lay scattered upon the ground, presently looked up, and being satisfied with the appearance of the higher boughs, he determined to shake down a plentiful supply. Retiring for a few feet, he deliberately rammed his forehead against the stem, with such force as to shake the tree from top to bottom, causing a most successful shower of the coveted fruit, which he immediately commenced to eat.

Commander R. N. J. Baker was my companion, and we agreed that any person who might have taken refuge in the branches of that large tree must have held on exceedingly tight to have avoided a fall, so severe was the concussion.

When it is considered that a large bull elephant weighs between six and seven tons, which weight is set in movement by the muscular exertion of the animal, there is at once an explanation of the force against a tree, which, although large, would hardly exceed that weight.

The memory of elephants must be peculiarly keen, as they remember the seasons for visiting certain districts where some particular food is produced in attractive quantities. In the southern district of Ceylon, between Yalle river and the sea-coast, there are great numbers of the Bael tree, the fruit of which resembles a large cricket-ball. The shell is hard, and when ripe it becomes brown, and can only be broken by a sharp blow with some hard substance. The contents are highly aromatic, consisting of a brownish substance exceedingly sweet, and mixed with small seeds resembling those inside a pear. There is a strong flavour of medlar in this fruit, and it is much esteemed for medicinal properties,

especially in cases of diarrhoea. Although elephants refuse the Bael fruit unless quite ripe, they will invariably arrive in great numbers during the favourable season in the southern districts of Ceylon. The question arises, "How can an animal remember the month without an almanack?"

There is no doubt that animals possess in many instances a far greater degree of reason than is generally admitted, with which the exercise of memory is so closely allied that it is difficult to separate or define the attributes. An elephant will remember those who have shown kindness, perhaps for a longer period than it will others who may have offended. After seven months' absence in England, an elephant that I had from the Commissariat on my previous visit to India recognised me at once upon my return. I had been in the habit of feeding this animal with sugar-canes and other choice food almost daily during several months' companionship in the jungle; this was not forgotten, and "cupboard love" was harboured in its memory with the expectation that the feeding would be repeated.

In the same manner, but perhaps in a lesser degree, the elephant will remember those whom it dislikes, and during the season of "must" it would be exceedingly dangerous for such persons to venture within reach of the animal's trunk. Stories are numerous concerning the animosity of elephants against their mahouts or other attendants who have cruelly treated them; but, on the other hand, the animals frequently exhibit a wild ferocity towards those who have been innocent of harshness. As characters vary among human beings, and some persons when intoxicated become suddenly brutal, although when sober they have been mild in reputation, so also we find conflicting natures among elephants, and the insane excitement of the "must" period varies in intensity in different animals.

There was a well-known elephant some years ago in the Balaghat district of the Central Provinces which became historical through the extraordinary malignity of its disposition. Having escaped from the fetters, it killed the mahout, and at once made off towards the forests. It is a curious example of nature that creatures (ferae naturae) have a tendency to return to their original state of savagedom when the opportunity is offered. If an elephant is seized with a panic when upon open ground, it will rush for the nearest jungle, probably with the intention of concealment. The animal in question returned to its wild state directly it had escaped from confinement, but the domestication of many years appears to have sharpened its intellect, and to have exaggerated its powers for mischief and cunning. It became the scourge, not only of the immediate neighbourhood, but of a considerable portion of a district which included an area of a hundred miles in length by forty or fifty in width.

No village was safe from the attack of this infuriated beast. It would travel great distances, and appear at unexpected intervals, suddenly presenting itself to the horrified villagers, who fled in all directions, leaving their homes and their supplies of grain to be demolished by the omnipotent intruder, who tore down their dwellings, ransacked their stores of corn, and killed any unfortunate person who came within its reach.

There was a cruel love of homicide in this animal that has rarely been recorded. Not only would it attack villages in pursuit of forage, but it was particularly addicted to the destruction of the lofty watching-places in the fields, occupied nightly by the villagers to scare wild animals from their crops. These watch-houses are generally constructed upon strong poles secured by cross-pieces, on the top of which, about sixteen feet from the ground, is a small hut upon a platform. This is thatched to protect the occupant from the heavy dew or rain. From such elevated posts the watchers yell and scream throughout the night to frighten the wild beasts. To attack and tear down such posts was the delight of this bloodthirsty elephant. Instead of being scared by the shouts of the inmates, it was attracted by their cries, and, unseen in the dark, it was upon them almost before they were aware of its presence. The strong posts upon which the constructions had been raised offered no resistance to the attack, and the miserable watchers found themselves hurled to the ground together with the ruins of their upturned shelter. In another moment they were either caught and stamped to death, or chased through the darkness by the pursuing elephant, and when captured they were torn limb from limb, as

the brute exhibited a cruel satisfaction in placing one foot upon the victim, and then tearing with its trunk an arm, a leg, or the head from the mangled body.

In this manner the elephant killed upwards of twenty people throughout the district, and it became absolutely necessary, if possible, to destroy it.

This was at last effected by Colonel Bloomfield and a friend, who determined at all hazards to hunt it down by following through the jungles, guided by the reports of the natives, who were on the lookout in all directions. The animal showed peculiar cunning, as it never remained in the same place, but travelled a considerable distance immediately after the committal of some atrocity, and concealed itself within the jungles until prompted to another raid in some new direction. I am indebted to Colonel Bloomfield for an interesting description of the manner in which, after many days of great fatigue and patience, he at length succeeded, with the assistance of native trackers, in discovering this formidable opponent, asleep within a dense mass of thorns and grass in the heart of an extensive jungle. The elephant awoke before they could distinctly see its form, owing to the extreme thickness of the covert, but the fight commenced. There was a considerable difference between the attack upon defenceless villagers, who fled before it in hopeless panic, and a stand-up fight with two experienced European shikaris armed with the best rifles; the terror of the district quickly showed its appreciation of discretion, and, badly wounded, it retreated through the forest, well followed by the determined hunters. Again and again it was overtaken, and a shot was taken whenever the dense jungle afforded an opportunity. At length, maddened by pursuit and wounds, it turned to charge, thereby exposing itself in an open place, and both bullets crashed into its brain, the shot from Colonel Bloomfield's rifle passing completely through its head.

It would be impossible to determine whether such an elephant could have been subdued and re-domesticated had its capture been effected. There are many cases on record where a "must" elephant has committed grievous depredations, after killing those who were its ordinary attendants, but when re-captured, the temporary excitement has passed away, and the animal has become as harmless as it was before the period of insanity. Mr. G. P. Sanderson, the superintendent of the Government keddahs in Assam, gives a vivid description of an elephant that escaped after killing its mahout and several villagers in the neighbourhood. This animal, like Colonel Bloomfield's elephant, already described, became the terror of the district, and destroyed many villagers, until it was decided by the authorities to attempt its destruction.

Mr. Sanderson was of opinion that it was too valuable to be heedlessly sacrificed; he therefore determined to capture it alive, if possible, through the aid of certain clever elephants belonging to the keddah establishment.

The police of the district were ordered to obtain the necessary information, and the malefactor was reported after a few days to have destroyed another village, where it remained, devouring the rice and grain in the absence of the panic-stricken villagers.

No time was lost in repairing to the spot with three highly-trained elephants, two of which were females; the third was a well-known fighting male, a tusker named Moota Gutche, who was usually employed to dominate the obstreperous wild elephants when refractory in the keddah enclosures. The necessary ropes and chains were prepared, and the small but experienced party started, Mr. Sanderson being armed only with a long spear, and riding on the pad, well girthed upon the back of Moota Gutche.

A short hour's march brought them in sight of a ruined village on a level plain, which skirted a dense forest. When within a quarter of a mile, a large male elephant was discovered restlessly walking to and fro as though keeping guard over the ruins he had made. This was the culprit taken in the act.

Leaving the two females in the rear, with instructions to follow upon a given signal, Mr. Sanderson on Moota Gutche advanced slowly to the encounter. The rogue elephant did not appear to notice them until within about 200 yards; it then suddenly halted, and turning round, it faced them as though in astonishment at being disturbed. This attitude did not last very long, as Moota

Gutche still advanced until within ninety or a hundred paces. The elephants now faced each other, and Moota Gutche began to lower his head when he observed his antagonist backing a few paces, which he well knew was the customary preparation for a charge. "Reculez pour mieux sauter" was well exemplified when in another moment the vagrant elephant dashed forward at great speed to the attack, trumpeting and screaming with mad fury. In the meantime Moota Gutche coolly advanced at a moderate pace. The shock of the encounter was tremendous. The spear flew out of the rider's hands with the collision, but Moota Gutche was a trained fighter, and having lowered his head, which had for the moment exposed his mahout, he quickly caught his opponent under the throat with its neck between his tusks, and then bearing upwards, he forced the head of his adversary high in the air; now driving forwards with all his strength, he hurled the other backwards, and with a dexterous twist he threw it upon its side and pinned it to the ground. In an instant Mr. Sanderson slipped off and secured the hind legs with a strong rope. The two females quickly arrived, and within a few minutes the late terror of the neighbourhood was helplessly fettered, and was led captive between the females towards the camp from which it had escaped, assisted, when obstreperous, by the tusks of Moota Gutche applied behind.

This elephant completely recovered from its temporary madness, and became a useful animal, affording a striking example of the passing insanity of the male passion, and the power of careful management in subduing a brute of such stupendous force.

After this incident Moota Gutche, with about forty of the keddah elephants, was kindly lent to me by Mr. Sanderson during a shooting excursion of twenty-five days upon the "churs" or islands of the Brahmaputra river south of Dhubri. In India the tiger is so commonly associated with the elephant that in describing one it is impossible to avoid a connection with the other.

Moota Gutche was a peculiar character, not altogether amiable, but it was as well to have him upon your own side. During the trip my friend Sanderson was ill with fever, and could not accompany me. I was therefore at the disadvantage of being the only gun in a long line of elephants, which would on ordinary occasions have been manned by at least four guns. At first I imagined that my trip would be a failure, as I knew a mere nothing of the language, and the elephants and their mahouts were alike strangers to me, but I soon discovered that their excellent training as keddah servants constantly employed in the capture of wild elephants under their indefatigable superintendent, Mr. Sanderson, rendered them capable almost instinctively of understanding all my ways, and we became excellent friends, both man and beast.

I arranged my long line of elephants according to their paces and dispositions, and each day they preserved the same positions, so that every mahout knew his place, and the elephants were accustomed to the animals upon the right and left. In the centre were the slowest, and upon either flank were the fastest elephants, while two exceedingly speedy animals, with intelligent mahouts, invariably acted as scouts, generally a quarter of a mile ahead on either flank.

My own elephant was accompanied on one side by Moota Gutche, on the other by a rough but dependable character whose name I have forgotten. I kept these always with me, as they were useful in the event of a tiger that would not bolt from the dense wild-rose thickets, in which case our three elephants could push him out.

This arrangement was perfect, and after a few days' experience our line worked with the precision of well-drilled cavalry; sometimes, with extra elephants, I had as many as fifty in the field. The result of this discipline was that no tiger or leopard ever escaped if once on foot; although hunted in some instances for hours, the animal was invariably killed. A remarkable instance of this occurred at the large island of Bargh Chur, which includes several thousand acres, the greater portion being covered with enormous grass and dense thickets of tamarisk, which, in the hot season, is the cool and loved resort of tigers. There were also extensive jungles in swampy portions of the island, so intermixed with reeds and marsh grass of twelve or fourteen feet high, that it was difficult to penetrate, even upon an elephant.

I was out at the usual early hour, shortly after sunrise, the shikaris having returned to camp with the news that none of the bullocks tied up for baits during the preceding night had been killed; it therefore remained to try our fortune by simply beating the high grass jungle in line, on speculation, and in the same manner to drive the occasional dense coverts of feathery tamarisk.

We had proceeded with a line of about five-and-thirty elephants, well extended ten yards apart, and in this manner we had advanced about a mile, when our attention was attracted by a native calling to us from a large ant-hill which enabled him to be distinguished above the grass. We immediately rode towards him, and were informed that a tiger had killed his cow the night before, and had dragged the body into jungle so dense that he had been afraid to follow. This was good news; we therefore took the man upon an elephant as our guide towards the reported spot.

The elephants continued to advance in line, occasionally disturbing wild pigs and hog deer, which existed in great numbers, but could hardly have been shot even had I wished, as the grass was so thick and long that the animals could not be seen; there were only signs of their disturbance by the sudden rush and the waving of the grass just in front of the advancing elephants, who were thus kept in continual excitement.

In about twenty minutes we emerged from the high grass upon a great extent of highly cultivated land, where the sandy loam had been reduced to the fine surface of a well-kept garden. Bordering upon this open country was an extensive jungle composed of trees averaging about a foot in diameter, but completely wedged together among impenetrable reeds fully eighteen feet in length, and nearly an inch in thickness, in addition to a network of various tough creepers, resulting from a rich soil that was a morass during the rainy season. Although the reeds appeared tolerably dry, they would not burn, as there were signs among some half-scorched places where attempts had been recently made to fire the jungle.

Our guide soon pointed to the spot where his cow had been dragged by the tiger into this formidable covert. There was no mistake about the marks, and the immense tracks in the soft ground proved the size and sex of the destroyer.

Nobody questioned the fact of the tiger being at home, and the only question was "how to beat him out." The jungle was quite a mile in length without a break in its terrible density; it was about half a mile in width, bounded upon one side by the cleared level ground in cultivation, and on the other by the high grass jungle we had left, but this had been partially scorched along the edge in the attempts to burn.

A good look-out would have spied any animal at a hundred and fifty yards had it attempted to leave the jungle.

As the country was a dead level, it was difficult to forecast the retreat of a tiger when driven from such a thicket, and it was a serious question whether it would be possible to dislodge him.

Whenever you commence a drive, the first consideration should be, "If the animal is there, where did it come from?"–as it will in all probability attempt to retreat to that same locality. There was no possibility of guessing the truth in such a country of dense grass, and with numerous islands of the same character throughout this portion of the Brahmaputra, but there was one advantage in the fact that one side was secure, as the tiger would never break covert upon the cultivated land; there remained the opposite side, which would require strict watching, as he would probably endeavour to slink away through the high grass to some distant and favourite retreat.

I therefore determined to take my stand at the end of the thick jungle which we had passed upon arrival, at the corner where it joined the parched grass that had been fire-scorched, and near the spot where the cow had been dragged in. I accordingly sent the elephants round to commence the drive about two hundred yards distant, entering from the cultivated side and driving towards me, as I concluded the tiger in such massive jungle would not be far from the dead body. At the same time, I sent two scouting elephants to occupy positions outside the jungle on the high grass side, within

sight of myself; I being posted on my elephant at the corner, so that I commanded two views–the end, and the grass side.

My signal, a loud whistle, having been given, the line of elephants advanced towards my position. The crashing of so many huge beasts through the dense crisp herbage sounded in the distance like a strong wind, varied now and then by the tearing crunch as some opposing branches were torn down to clear the way.

I was mounted upon a female elephant, a good creature named Nielmonne, who was reputed to be staunch, but as the line of beaters approached nearer, and the varied sounds increased in intensity, she became very nervous and restless, starting should a small deer dart out of the jungle, and evidently expecting momentarily the appearance of the enemy. There are very few elephants that will remain unmoved when awaiting the advance of a line of beaters, whether they may be of their own species or human beings. On this occasion the rushing sound of the yielding jungle, which was so thick as to test the elephants' powers in clearing a passage through it, was presently varied by a sharp trumpet, then by a low growl, followed by that peculiar noise emitted by elephants when excited, resembling blows upon a tambourine or kettle-drum. This is a sound that invariably is heard whenever an elephant detects the fresh scent of a tiger; and Nielmonne, instead of standing quiet, became doubly excited, as she evidently understood that the dreaded game was on foot, and advancing before the line.

As I was posted at the sharp angle of the corner, I presently observed several elephants emerge upon my left and right, as the line advanced with wonderful regularity, and so close were the animals together that it was most unlikely any tiger could have broken back.

My servant Michael was behind me in the howdah. He was a quiet man, who thoroughly understood his work, and seldom spoke without being first addressed. On this occasion he broke through the rule. "Nothing in this beat, sahib," he exclaimed . . . . "Hold your tongue, Michael, till the cover's beaten out. Haven't I often told you that you can't tell what's in the jungle until the last corner is gone through?"

Nearly all the elephants were now out, and only about half a dozen remained in the jungle, all still advancing in correct line, and perhaps a dozen yards remaining of dense reeds and creepers forming the acute angle at the extremity. They still came on. Two or three of the mahouts shouted, "The tiger's behind, we must go back and take a longer beat." Nothing remained now except six or seven yards of the sharp corner, and the elephants marched forward, when a tremendous roar suddenly startled them in all directions, and one of the largest tigers I have ever seen sprang forward directly towards Nielmonne, who, I am ashamed to say, spun round as though upon a pivot, and prevented me from taking a most splendid shot. The next instant the tiger had bounded back with several fierce roars, sending the line of elephants flying, and once more securing safety in the almost impervious jungle from which he had been driven.

This was a most successful drive, but a terrible failure, owing entirely to the nervousness of my elephant. I never saw a worse jungle, and now that the tiger had been moved, it would be doubly awkward to deal with him, as he would either turn vicious and spring upon an elephant unawares from so dense a covert, or slink from place to place as the line advanced, but would never again face the open.

I looked at my watch; it was exactly half-past eight. The mahouts suggested that we should not disturb him, but give him time to sleep, and then beat for him in the afternoon. I did not believe in sleep after he had been so rudely aroused by a long line of elephants, but I clearly perceived that the mahouts did not enjoy the fun of beating in such dreadful jungle, and this they presently confessed, and expressed a wish to have me in the centre of the line, as there was no gun with the elephants should the tiger attack.

I knew that I should be useless, as it would be impossible to see a foot ahead in such dense bush, but to give them confidence I put my elephant in line, and sent forward several scouting elephants

to form a line along a narrow footpath which cut the jungle at right angles about a quarter of a mile distant.

Once more the line advanced, the elephants marching shoulder to shoulder, and thus bearing down everything before them, as I determined to take the jungle backwards and forwards in this close order lest the wary tiger might crouch, and escape by lying close.

Several times the elephants sounded, and we knew that he must be close at hand, but it was absolutely impossible to see anything beyond the thick reedy mass, through which the line of elephants bored as through a solid obstacle.

Three times with the greatest patience we worked the jungle in this searching manner, when on the third advance I left the line, finding the impossibility of seeing anything, and took up my position outside the jungle on the cultivated land, exactly where the footpath was occupied by the scout elephants at intervals, which intersected the line of advance.

Presently there was a commotion among the elephants, two or three shrill trumpets, then the kettle-drum, and for a moment I caught sight of a dim shadowy figure stealing through some high reeds upon the border which fringed the jungle. I immediately fired, although the elephant was so unsteady that I could not be sure of the shot; also the object was so indistinct, being concealed in the high reeds, that I should not have observed it upon any other occasion than our rigid search. Immediately afterwards, a shout from one of the mahouts upon a scouting elephant informed us that the tiger had crossed the path and had gone forward, having thus escaped from the beat!

Here was fresh work cut out! Up to this moment we had managed to keep him within an area of a quarter of a mile in length, by half a mile in width; he had now got into new ground, and was in about a three-quarter mile length of the same unbeaten jungle.

There was nothing else to do but to pursue the same tactics, and we patiently continued to beat forward and backward, again and again, but without once sighting our lost game. It was half-past twelve, and the sun was burning hot, the sky being cloudless. The elephants once more emerged from the sultry jungle; they were blowing spray with their trunks upon their flanks, from water sucked up from their stomachs; and the mahouts were all down-hearted and in despair. "It's of no use," they said, "he's gone straight away, who can tell where? When you fired, perhaps you wounded him, or you missed him; at any rate, he's frightened and gone clean off, we shall never see him again; the elephants are all tired with the extreme heat, and we had better go to the river for a bath."

I held a council of war, with the elephants in a circle around me. It is of no use to oppose men when they are disgusted, you must always start a new idea. I agreed with my men, but I suggested that as we were all hot, and the elephants fatigued, the tiger must be in much the same state, as we had kept him on the run since eight o'clock in the morning, I having actually timed the hour "half-past eight" when he charged out of the last corner. "Now," said I, "do you remember that yesterday evening I killed a buck near some water in a narrow depression in the middle of tamarisk jungle? I believe that is only a continuation of this horrible thicket, and if the tiger is nearly played out, he would naturally make for the water and the cool tamarisk. You form in line in the jungle here, and give me a quarter of an hour's start, while I go ahead and take up my position by that piece of water. You then come on, and if the tiger is in the jungle, he will come forward towards the water, where I shall meet him; if he's not there, we shall anyhow be on our direct route, and close to our camp by the river."

This was immediately accepted, and leaving the elephants to form line, I hurried forward on Nielmonne, keeping in the grass outside the edge of the long jungle.

I had advanced about three-quarters of a mile, when the character of the jungle changed to tamarisk, and I felt certain that I was near the spot of yesterday. I accordingly ordered the mahout to turn into the thick feathery foliage to the left, in search of the remembered water. There was a slight descent to a long but narrow hollow about 50 or 60 yards wide; this was filled with clear water for an unknown length.

I was just about to make a remark, when, instead of speaking, I gently grasped the mahout by the head as I leaned over the howdah, and by this signal stopped the elephant.

There was a lovely sight, which cheered my heart with that inexpressible feeling of delight which is the reward for patience and hard work. About 120 yards distant on my left, the head and neck of a large tiger, clean and beautiful, reposed above the surface, while the body was cooling, concealed from view. Here was our friend enjoying his quiet bath, while we had been pounding away up and down the jungles which he had left.

The mahout, although an excellent man, was much excited. "Fire at him," he whispered.

"It is too far to make certain," I replied in the same undertone.

"Your rifle will not miss him; fire, or you will lose him. He will see us to a certainty and be off. If so, we shall never see him again," continued Fazil, the mahout.

"Hold your tongue," I whispered. "He can't see us, the sun is at our back, and is shining in his eyes – see how green they are."

At this moment of suspense the tiger quietly rose from his bath, and sat up on end like a dog. I never saw such a sight. His head was beautiful, and the eyes shone like two green electric lights, as the sun's rays reflected from them, but his huge body was dripping with muddy water, as he had been reclining upon the alluvial bottom.

"Now's the time," whispered the over-eager mahout. "You can kill him to a certainty. Fire, or he'll be gone in another moment."

"Keep quiet, you fool, and don't move till I tell you." For quite a minute the tiger sat up in the same position; at last, as though satisfied that he was in safety and seclusion, he once more lay down with only the head and neck exposed above the surface.

"Back the elephant gently, but do not turn round," I whispered. Immediately Nielmonne backed through the feathery tamarisk without the slightest sound, and we found ourselves outside the jungle. We could breathe freely.

"Go on now, quite gently, till I press your head; then turn to the right, descending through the tamarisk, till I again touch your puggery" (turban).

I counted the elephant's paces as she moved softly parallel with the jungle, until I felt sure of my distance. A slight pressure upon the mahout's head, and Nielmonne turned to the right. The waving plumes of the dark-green tamarisk divided as we gently moved forward, and in another moment we stopped. There was the tiger in the same position, exactly facing me, but now about 75 paces distant.

"Keep the elephant quite steady," I whispered; and, sitting down upon the howdah seat, I took a rest with the rifle upon the front bar of the gun-rack. A piece of tamarisk kept waving in the wind just in front of the rifle, beyond my reach. The mahout leaned forward and gently bent it down. Now, all was clear. The tiger's eyes were like green glass. The elephant for a moment stood like stone. I touched the trigger.

There was no response to the loud report of 6 drams of powder from the '577 rifle, no splash in the unbroken surface of the water. The tiger's head was still there, but in a different attitude, one-half below the surface, and only one cheek, and one large eye still glittering like an emerald, above.

"Run in quick,"–and the order was instantly obeyed, as Nielmonne splashed through the pool towards the silent body of the tiger. There was not a movement of a muscle. I whistled loud, then looked at my watch–on the stroke of 1 P.M. From 8.30 till that hour we had worked up that tiger, and although there was no stirring incident connected with him, I felt very satisfied with the result.

In a short time the elephants arrived, having heard the shot, followed by my well-known whistle. Moota Gutche was the first to approach; and upon observing the large bright eye of the tiger above water, he concluded that it was still alive; he accordingly made a desperate charge, and taking the body on his tusks, he sent it flying some yards ahead; not content with this display of triumph, he followed it up, and gave it a football-kick that lifted it clean out of the water. This would have quickly ended in a war-dance upon the prostrate body, that would have crushed it and destroyed the skin, had

not the mahout, with the iron driving-hook, bestowed some warning taps upon the crown of Moota Gutche's head that recalled him to a calmer frame of mind. A rope was soon made fast to the tiger's neck, and Moota Gutche hauled it upon dry ground, where it was washed as well as possible, and well scrutinized for a bullet-hole.

There was no hole whatever in that tiger. The bullet having entered the nostril, broken the neck, and run along the body, the animal consequently had never moved. The first shot, when obscured in thick jungle, had probably deflected from the interposing reeds–at all events it missed. This tiger, when laid out straight, but without being pulled to increase its length, measured exactly 9 feet 8 inches from nose to tail.

CHAPTER III

THE ELEPHANT (continued)

The foregoing chapter is sufficient to explain the ferocity of the male elephant at certain seasons which periodically affect the nervous system. It would be easy to multiply examples of this cerebral excitement, but such repetitions are unnecessary. The fact remains that the sexes differ materially in character, and that for general purposes the female is preferred in a domesticated state, although the male tusker is far more powerful, and when thoroughly trustworthy is capable of self-defence against attack, and of energy in work that would render it superior to the gentler but inferior female. (The female differs from other quadrupeds in the position of her teats, which are situated upon the breast between the fore legs. She is in the habit of caressing her calf with her trunk during the operation of suckling.)

It may be inferred that a grand specimen of a male elephant is of rare occurrence. A creature that combines perfection of form with a firm but amiable disposition, and is free from the timidity which unfortunately distinguishes the race, may be quite invaluable to any resident in India. The actual monetary value of an elephant must of necessity be impossible to decide, as it must depend upon the requirements of the purchaser and the depth of his pocket. Elephants differ in price as much as horses, and the princes of India exhibit profuse liberality in paying large sums for animals that approach their standard of perfection.

The handsomest elephant that I have ever seen in India belongs to the Rajah of Nandgaon, in the district bordering upon Reipore. I saw this splendid specimen among twenty others at the Durbar of the Chief Commissioner of the Central Provinces in December 1887, and it completely eclipsed all others both in size and perfection of points. The word "points" is inappropriate when applied to the distinguishing features of an elephant, as anything approaching the angular would be considered a blemish. An Indian elephant to be perfect should be 9 feet 6 inches in perpendicular height at the shoulder. The head should be majestic in general character, as large as possible,—especially broad across the forehead, and well rounded. The boss or prominence above the trunk should be solid and decided, mottled with flesh-coloured spots; these ought to continue upon the cheeks, and for about three feet down the trunk. This should be immensely massive; and when the elephant stands at ease, the trunk ought to touch the ground when the tip is slightly curled. The skin of the face should be soft to the touch, and there must be no indentations or bony hollows, which are generally the sign of age. The ears should be large, the edges free from inequalities or rents, and above all they ought to be smooth, as though they had been carefully ironed. When an elephant is old, the top of the ear curls, and this symptom increases with advancing years. The eyes should be large and clear, the favourite colour a bright hazel. The tusks ought to be as thick as possible, free from cracks, gracefully curved, very slightly to the right and left, and projecting not less than three feet from the lips. The body should be well rounded, without a sign of any rib. The shoulders must be massive with projecting muscular development; the back very slightly arched, and not sloping too suddenly towards the tail, which should be set up tolerably high. This ought to be thick and long, the end well furnished with a double fringe of very long thick hairs or whalebone-looking bristles. The legs should be short in proportion to the height of the animal, but immensely thick, and the upper- portion above the knee ought to exhibit enormous muscle. The knees should be well rounded, and the feet be exactly equal to half the perpendicular height of the elephant when measured in their circumference, the weight pressing upon them whilst standing.

The skin generally ought to be soft and pliable, by no means tight or strained, but lying easily upon the limbs and body.

An elephant which possesses this physical development should be equal in the various points of character that are necessary to a highly-trained animal.

When ordered to kneel, it should obey instantly, and remain patiently upon the ground until permitted to rise from this uneasy posture. In reality the elephant does not actually kneel upon its fore knees, but only upon those of the hinder legs, while it pushes its fore legs forward and rests its tusks upon the ground. This is a most unnatural position, and is exceedingly irksome. Some elephants are very impatient, and they will rise suddenly without orders while the ladder is placed against their side for mounting. Upon one occasion a badly-trained animal jumped up so suddenly that Lady Baker, who had already mounted, was thrown off on one side, while I, who was just on the top of the ladder, was thrown down violently upon the other. A badly-tutored elephant is exceedingly dangerous, as such vagaries are upon so large a scale that a fall is serious, especially should the ground be stony.

A calm and placid nature free from all timidity is essential. Elephants are apt to take sudden fright at peculiar sounds and sights. In travelling through a jungle path it is impossible to foretell what animals may be encountered on the route. Some elephants will turn suddenly round and bolt, upon the unexpected crash of a wild animal startled in the forest. The scent or, still worse, the roar of a bear within 50 yards of the road will scare some elephants to an extent that will make them most difficult of control. The danger may be imagined should an elephant absolutely run away with his rider in a dense forest; if the unfortunate person should be in a howdah he would probably be swept off and killed by the intervening branches, or torn to shreds by the tangled thorns, many of which are armed with steel-like hooks.

It is impossible to train all elephants alike, and very few can be rendered thoroughly trustworthy; the character must be born in them if they are to approach perfection.

Our present perfect example should be quite impassive, and should take no apparent notice of anything, but obey his mahout with the regularity of a machine. No noise should disturb the nerves, no sight terrify, no attack for one moment shake the courage; even the crackling of fire should be unheeded, although the sound of high grass blazing and exploding before the advancing line of fire tries the nerves of elephants more than any other danger.

An elephant should march with an easy swinging pace at the rate of 5 miles an hour, or even 6 miles within that time upon a good flat road. As a rule, the females have an easier pace than the large males. When the order to stop is given, instead of hesitating, the elephant should instantly obey, remaining rigidly still without swinging the head or flapping the ears, which is its inveterate and annoying habit. The well-trained animal should then move backward or forward, either one or several paces, at a sign from the mahout, and then at once become as rigid as a rock.

Should the elephant be near a tiger, it will generally know the position of the enemy by its keen sense of smell. If the tiger should suddenly charge from some dense covert with the usual short but loud roars, the elephant ought to remain absolutely still to receive the onset, and to permit a steady aim from the person in the howdah. This is a very rare qualification, but most necessary in a good shikar elephant. Some tuskers will attack the tiger, which is nearly as bad a fault as running in the opposite direction; but the generality, even if tolerably steady, will swing suddenly upon one side, and thus interrupt the steadiness of aim.

The elephant should never exercise its own will, but ought to wait in all cases for the instructions of the mahout, and then obey immediately.

Such an animal, combining the proportions and the qualities I have described, might be worth in India about / 1500 to any Indian Rajah, but there may be some great native sportsmen who would give double that amount for such an example of perfection, which would combine the beauty required for a state elephant, with the high character of a shikar animal.

Native princes and rajahs take a great pride in the trappings of their state elephants, which is exhibited whenever any pageant demands an extraordinary display. I have seen cloths of silk so closely embroidered with heavy gold as to be of enormous value, and so great a weight that two men could barely lift them. Such cloths may have been handed down from several generations, as they are seldom used excepting in the state ceremonies which occur at distant intervals. A high caste male elephant in its gold trappings, with head-piece and forehead lap equally embroidered, and large silver bells suspended from its tusks, is a magnificent object during the display attending a durbar. At such an occasion there may be a hundred elephants all in their finery, each differing from the other both in size and in the colours of their surroundings.

The outfit for an elephant depends upon the work required. The first consideration is the protection of the back. Although the skin appears as though it could resist all friction, it is astonishing how quickly a sore becomes established, and how difficult this is to heal. The mahouts are exceedingly careless, and require much supervision; the only method to ensure attention is to hold them responsible and to deduct so many rupees from their pay should the backs of their animals be unsound.

With proper care an elephant ought never to suffer, as the pad should be made to fit its figure specially. The usual method is to cover the back from the shoulders to the hips with a large quilted pad stuffed with cotton, about 2 1/2 inches thick. In my opinion, wool is preferable to cotton, and, instead of this coverlet being compact, there should be an opening down the centre, to avoid all pressure upon the spine. A quilted pad stuffed with wool, 3 inches thick, with an opening down the middle, would rest comfortably upon the animal's back, and would entirely relieve the highly-arched backbone, which would thus be exposed to a free current of air, and would remain hard instead of becoming sodden through perspiration. Upon this soft layer the large pad is fixed. This is made of the strongest sacking, stuffed as tight as possible with dried reeds of a tough variety that is common in most tanks; this is open in the centre and quite a foot thick at the sides, so that it fills up the hollow, and rests the weight upon the ribs at a safe distance from the spine.

There are various contrivances in the shape of saddles. The ordinary form for travelling is the char-jarma; this is an oblong frame, exceedingly strong, which is lashed upon the pad secured by girths. It is stuffed with cotton, and neatly covered with native cloth. A stuffed back passes down the centre like a sofa, and two people on either side sit dos-a-dos, as though in an Irish car. Iron rails protect the ends, and swing foot-boards support the feet. This is, in my opinion, the most comfortable way of riding, but some care is necessary in proportioning the weights to ensure a tolerable equilibrium, otherwise, should the route be up and down steep nullahs, the char-jarma will shift upon one side, and become most disagreeable to those who find themselves on the lower level. Natives prefer a well-stuffed pad, as they are accustomed to sit with their legs doubled up in a manner that would be highly uncomfortable to Europeans. Such pads are frequently covered with scarlet cloth and gold embroidery, while the elephant is dressed in a silk and gold cloth reaching to its knees. The face and head are painted in various colours and devices, exhibiting great taste and skill on the part of the designer. It is curious to observe the dexterity with which an otherwise ignorant mahout will decorate the head of his animal by drawing most elaborate curves and patterns, that would tax the ability of a professional artist among Europeans.

The howdah is the only accepted arrangement for sporting purposes, and much attention is necessary in its construction, as the greatest strength should be combined with lightness. There ought to be no doors, as they weaken the solidity of the whole. The weight of a good roomy howdah should not exceed two hundredweight, or at the outside 230 pounds. It must be remembered that the howdah is not adapted for travelling, as there is a disagreeable swinging motion inseparable from its position upon the elephant's back which is not felt upon either the pad or the char-jarma. The howdah is simply for shooting, as you can fire in any direction, which is impossible from any other contrivance where the rider sits in a constrained position.

A good howdah should be made of exceedingly strong and tough wood for the framework, dovetailed, and screwed together, the joints being specially secured by long corner straps of the best iron. The frame ought to be panelled with galvanised wire of the strongest description, the mesh being one-half inch. The top rail, of a hard wood, should be strengthened all around the howdah by the addition of a male bamboo 1 1/2 inch in diameter, securely lashed with raw hide, so as to bind the structure firmly together, and to afford a good grip for the hand. As the howdah is divided into two compartments, the front being for the shooter, and the back part for his servant, the division should be arranged to give increased strength to the construction by the firmness of the cross pieces, which ought to bind the sides together in forming the middle seat; the back support of which should be a padded shield of thick leather, about 15 inches in diameter, secured by a broad strap of the same material to buckles upon the sides. This will give a yielding support to the back of the occupant when sitting. The seat should lift up, and be fitted as a locker to contain anything required; and a well-stuffed leather cushion is indispensable. The gun-rack should be carefully arranged to contain two guns upon the left, and one upon the right of the sitter. These must be well and softly padded, to prevent friction. The floor should be covered either with thick cork or cork-matting to prevent the feet from slipping.

It must be remembered that a howdah may be subjected to the most severe strain, especially should a tiger spring upon the head of an elephant, and the animal exert its prodigious strength to throw off its assailant. The irons for fastening the girths should therefore be of the toughest quality, and, instead of actual girths, only thick ropes of cotton ought to be used. A girth secured with a buckle is most dangerous, as, should the buckle give way, an accident of the most alarming kind must assuredly occur. The howdah ought to be lashed upon the elephant by six folds of the strong cotton rope described, tightened most carefully before starting. It should be borne in mind that much personal attention is necessary during this operation, as the natives are most careless. Two or three men ought to sit in the howdah during the process of lacing, so as to press it down tightly upon the pad, otherwise it will become loose during the march, and probably lean over to one side, which is uncomfortable to both man and beast. A large hide of the sambur deer, well cured and greased so as to be soft and pliable, should, invariably protect the belly of the elephant, and the flanks under the fore legs, from the friction of the girthing rope. The breastplate and crupper also require attention. These ought to be of the same quality of cotton rope as used for the girths, but that portion of the crupper which passes beneath the tail should pass through an iron tube bent specially to fit, like the letter V elongated, U. This is a great safeguard against galling, and I believe it was first suggested by Mr. G. P. Sanderson.

A fine male elephant, well accoutred with his howdah thoroughly secured, and a good mahout, is a splendid mount, and the rider has the satisfaction of feeling that his animal is well up to his weight. I do not know a more agreeable sensation than the start in the early morning upon a thoroughly dependable elephant, with all the belongings in first-rate order, and a mahout who takes a real interest in his work; a thorough harmony exists between men and beast, the rifles are in their places, and you feel prepared for anything that may happen during the hazardous adventures of the day.

But how much depends upon that mahout! It is impossible for an ordinary bystander to comprehend the secret signs which are mutually understood by the elephant and his guide, the gentle pressure of one toe, or the compression of one knee, or the delicate touch of a heel, or the almost imperceptible swaying of the body to one side; the elephant detects every movement, howsoever slight, and it is thus mysteriously guided by its intelligence; the mighty beast obeys the unseen helm of thought, just as a huge ship yields by apparent instinct to the insignificant appendage which directs her course, the rudder. All good riders know the mystery of a "good hand" upon a horse; this is a thing that is understood, but cannot be described except by a negative. There are persons who can sit a horse gracefully and well, but who have not the instinctive gift of hand. The horse is aware of this

almost as soon as the rider has been seated in the saddle. In that case, whether the horse be first-class or not, there will be no comfort for the animal, and no ease for the rider.

If such a person puts his horse at a fence, the animal will not be thoroughly convinced that his rider wishes him to take it. There are more accidents occasioned by a "bad hand" than by any other cause. If this is the case with a horse well bitted, what must be the result should an elephant be guided by a mahout of uncertain temperament? The great trouble when travelling on an elephant is the difficulty in getting the mahout to obey an order immediately, and at the same time to convey that order to the animal without the slightest hesitation. Natives frequently hesitate before they determine the right from left. This is exasperating to the highest degree, and is destructive to the discipline of an elephant. There must be no uncertainty; if there is the slightest vacillation, it will be felt instinctively in the muscles of the rider, and the animal, instead of obeying mechanically the requisite pressure of knee or foot, feels that the mahout does not exactly know what he is about. This will cause the elephant to swing his head, instead of keeping steady and obeying the order without delay. In the same manner, when tiger-shooting, the elephant will at once detect anything like tremor on the part of his mahout. Frequently a good elephant may be disgraced by the nervousness of his guide, nothing being so contagious as fear.

Although I may be an exception in the non-admiration of the elephant's sagacity to the degree in which it is usually accepted, there is no one who more admires or is so foolishly fond of elephants. I have killed some hundreds in my early life, but I have learnt to regret the past, and 1 nothing would now induce me to shoot an elephant unless it were either a notorious malefactor, or in self-defence. There is, however, a peculiar contradiction in the character of elephants that tends to increase the interest in the animal. If they were all the same, there would be a monotony; but this is never the case, either among animals or human beings, although they may belong to one family. The elephant, on the other hand, stands so entirely apart from all other animals, and its performances appear so extraordinary owing to the enormous effect which its great strength produces instantaneously, that its peculiarities interest mankind more than any smaller animal. Yet, when we consider the actual aptitude for learning, or the natural habits of the creature, we are obliged to confess that in proportion to its size the elephant is a mere fool in comparison with the intelligence of many insects. If the elephant could form a home like the bee, and store up fodder for a barren season; if it could build a nest of comfort like a bird, to shelter itself from inclement weather; if it could dam up a river like the beaver, to store water for the annual drought; if it could only, like the ordinary squirrel or field mouse, make a store for a season of scarcity, how marvellous we should think this creature, simply because it is so huge! It actually does nothing remarkable, unless specially instructed; but it is this inertia that renders it so valuable to man. If the elephant were to be continually exerting its natural intelligence, and volunteering all manner of gigantic performances in the hope that they would be appreciated by its rider, it would be unbearable; the value of the animal consists in its capacity to learn, and in its passive demeanour, until directed by the mahout's commands.

Nothing can positively determine the character of any elephant; every animal, I believe, varies more or less in courage according to its state of health, which must influence the nervous system. The most courageous man may, if weakened by sickness, be disgusted with himself by starting at an unexpected sound, although upon ordinary occasions he would not be affected. Animals cannot describe their feelings, and they may sometimes feel "out of sorts" without being actually ill, but the nervous system may be unstrung.

I once saw a ridiculous example of sudden panic in an otherwise most dependable elephant. This was a large male belonging to the Government, which had been lent to me for a few months, and was thoroughly staunch when opposed to a charging tiger; in fact, I believe that Moolah Bux was afraid of nothing, and he was the best shikar elephant I have ever ridden. One day we were driving a rocky hill for a tiger that was supposed to be concealed somewhere among the high grass and broken boulders, and, as the line of beaters was advancing, I backed the elephant into some thick jungle,

which commanded an open but narrow glade at the foot of the low hill. Only the face of the elephant was exposed, and as this was grayish brown, something similar to the colour of the leafless bushes, we were hardly noticeable to anything that might break covert.

The elephant thoroughly understood the work in hand; and as the loud yells and shouts of the beaters became nearer, Moolah Bux pricked his ears and kept a vigilant look-out. Suddenly a hare emerged about 100 yards distant; without observing our well-concealed position it raced at full speed directly towards us, and in a few seconds it ran almost between the elephant's legs as it made for the protection of the jungle. The mighty Moolah Bux fairly bolted with a sudden terror as this harmless and tiny creature dashed beneath him, and although he recovered himself after 5 or 6 yards, nevertheless for the moment the monster was scared almost by a mouse.

It is this uncertainty of character that has rendered the elephant useless for military purposes in the field since the introduction of fire-arms. In olden times there can be no doubt that a grand array of elephantine cavalry, with towers containing archers on their backs, would have been an important factor when in line of battle; but elephants are useless against fire-arms, and in our early battles with the great hordes brought against us by the princes of India, their elephants invariably turned tail, and added materially to the defeat of their army.

Only a short time ago, at Munich, a serious accident was occasioned by a display of ten or twelve elephants during some provincial fete, when they took fright at the figure of a dragon vomiting fire, and a general stampede was the consequence, resulting in serious injuries to fifteen or sixteen persons.

I once had an elephant who ought to have killed me upon several occasions through sheer panic, which induced him to run away like a railway locomotive rushing through a forest. This was the tusker Lord Mayo, who, although a good-tempered harmless creature, appeared to be utterly devoid of nerves, and would take fright at anything to which it was unaccustomed. The sound of the beaters when yelling and shouting in driving jungle was quite sufficient to start this animal off in a senseless panic, not always for a short distance, as on one occasion it ran at full speed for upwards of a mile through a dense forest, in spite of the driving-hook of the mahout, which had been applied with a maximum severity.

It is curious to observe how all the education of an elephant appears to vanish when once the animal takes fright and bolts for the nearest jungle. That seems to be the one idea which is an instinct of original nature, to retreat into the concealment of a forest.

I was on one occasion mounted upon Lord Mayo in the Balagh district when the beaters were not dependable. A tiger had killed a bullock at the foot of a wooded hill bordered by an open plain. As the beaters had misbehaved upon several occasions by breaking their line, I determined to take command of the beat in person. I therefore formed the line in the open, with every man equidistant, there being about a hundred and twenty villagers. I had placed my shikari with a rifle in a convenient position about 200 yards in advance, upon a mucharn or platform that had been constructed for myself.

Having after some trouble arranged the beaters in a proper line, I gave the order for an advance. In an instant the shouts arose, and three or four tom-toms added to the din.

I was mounted upon Lord Mayo near the centre of the line in the open glade. No sooner had the noise begun, than a violent panic seized this senseless brute, and without the slightest warning it rushed straight ahead for the thick forest at a pace that would nearly equal that of a luggage train. It was in vain that the mahout dug the iron spike into its head and alternately seized its ears by the unsparing hook, away it ran, regardless of all punishment or persuasion, until it reached the jungle, and with a crash we entered in full career!

Fortunately there was no howdah, only a pad well secured by thick ropes. To clutch these tightly, and to dodge the opposing branches by ducking the head, now swinging to the right, then doubling down upon the left to allow the bending trees to sweep across the pad, then flinging oneself nearly over the flank to escape a bough that threatened instant extermination; all these gymnastics were performed and repeated in a few seconds only, as the panic-stricken brute ploughed its way, regardless

of all obstructions, which threatened every instant to sweep us off its back. The active mahout of my other elephant, knowing the character of Lord Mayo, had luckily accompanied us with a spear, and although at the time I was unaware of his presence, he was exerting himself to the utmost in a vain endeavour to overtake our runaway elephant. At first I imagined that the great pace would soon be slackened, and that a couple of hundred yards would exhaust the animal's wind, especially as the ground was slightly rising. Instead of this, it was going like a steam-engine, and if there had been the usual amount of thorny creepers we should have been torn to pieces.

" Keep him straight for the hill," I shouted, as I saw we were approaching an inclination. "Don't let him turn to right or left, keep his head straight for the steep ground;" and the mahout, who had been yelling for assistance, and had lost both his turban and skull-cap, did all that he could by tunnelling into the brute's head with his formidable hook to direct it straight up the hill. I never knew an elephant go at such a pace over rocky ground. Young trees were smashed down, some branches torn, others bent forward, which swung backwards with dangerous force, and yet on we tore without a sign of diminishing speed. How I longed for an anchor to have brought up our runaway ship head to wind! We had the coupling chains upon the pad, and my interpreter, Modar Bux, at length succeeded in releasing these, and in throwing them down for any person following to make use of. After a run of quite half a mile, we fortunately arrived at a really steep portion of the hill, where the rocks were sufficiently large to present a difficulty to any runaway. The mahout who had been following our course, breathless and with bleeding feet, here overtook us. Placing himself in advance of the elephant, who seemed determined to continue its flight among the rocks, he dug the spear deep into the animal's trunk, and kept repeating the apparently cruel thrusts until at length it stopped. Several men now arrived with the coupling chains, which were at length with difficulty adjusted, and the elephant's fore legs were shackled together. It was curious to observe the dexterous manner in which it resisted this operation, and had it not been for the dread of the spear I much doubt whether it could have been accomplished.

This was the first time that I had experienced a runaway elephant, but I soon found that both my steeds were equally untrustworthy. A few weeks after this event we had completed the morning's march and found the camp already prepared for our arrival, at a place called Kassli, which is a central depot for railway sleepers as they are received from the native contractors. These were carefully piled in squares of about twenty each, and covered a considerable area of ground at intervals. A large ox had died that morning, and as it was within 50 yards of the tent it was necessary to remove it; the vultures were already crowded in the surrounding trees waiting for its decomposition. As usual, none of the natives would defile themselves by touching the dead body. I accordingly gave orders that one of the elephants should drag it about a mile down wind away from the camp. Lord Mayo was brought to the spot, and the sweeper, being of a low caste, attached a very thick rope to the hind legs of the ox; the other end being made fast to the elephant's pad in such a manner as to form traces. The elephant did not exhibit the slightest interest in the proceeding, and everything was completed, the body of the ox being about 6 or 7 yards behind.

No sooner did Lord Mayo move forward in obedience to the mahout's command, and feel the tug of the weight attached, than he started off in a panic at a tremendous pace, dragging the body through the lanes between the piles of sleepers, upsetting them, and sending them flying in all directions, as the dead ox caught against the corners; and, helter-skelter, he made for the nearest jungle about 300 yards distant. Fortunately some wood-cutters were there, who yelled and screamed to turn him back; but although this had the effect of driving him from the forest, he now started over the plain down hill, dragging the heavy ox behind as though it had been a rabbit, and going at such a pace that none of the natives could overtake him, although by this time at least twenty men were in full pursuit.

The scene was intensely ridiculous, and the whole village turned out to enjoy the fun of a runaway elephant with a dead ox bounding over the inequalities of the ground; no doubt Lord Mayo imagined that he was being hunted by the carcase which so persistently followed him wherever he

went. There was no danger to the driver, as the elephant was kept away from the forest. The ground became exceedingly rough and full of holes from the soakage during the rainy season. This peculiar soil is much disliked by elephants, as the surface is most treacherous, and cavernous hollows caused by subterranean water action render it unsafe for the support of such heavy animals. The resistance of the dead ox, which constantly jammed in the abrupt depressions, began to tell upon the speed, and in a short time the elephant was headed, and surrounded by a mob of villagers. I was determined that he should now be compelled to drag the carcase quietly in order to accustom him to the burden; we therefore attached the coupling chains to his fore legs, and drove him gently, turning him occasionally to enable him to inspect the carcase that had smitten him with panic. In about twenty minutes he became callous, and regarded the dead body with indifference.

Although an elephant is capable of great speed, it cannot jump, neither can it lift all four legs off the ground at the same time; this peculiarity renders it impossible to cross any ditch with hard perpendicular sides that will not crumble or yield to pressure, if such a ditch should be wider than the limit of the animal's extreme pace. If the limit of a pace should be 6 feet, a 7-foot ditch would effectually stop an elephant.

Although the strength of an elephant is prodigious whenever it is fully exerted, it is seldom that the animal can be induced to exhibit the maximum force which it possesses. A rush of a herd of elephants, with a determined will against the enclosure of palisades used for their capture would probably break through the barrier, but they do not appear to know their strength, or to act together. This want of cohesion is a sufficient proof that in a wild state they are not so sagacious as they have been considered. I do not describe the kraal or keddah, which is so well known by frequent descriptions as the most ancient and practical method of capturing wild elephants; but although in Ceylon the kraal has been used from time immemorial, the Singhalese are certainly behind the age as compared with the great keddah establishments of India. In the latter country there is a ditch inside the palisaded enclosure, which prevents the elephants from exerting their force against the structure; in Ceylon this precaution is neglected, and the elephants have frequently effected a breach in the palisade. In Ceylon all the old elephants captured within the kraal or keddah are considered worthless, and only those of scarcely full growth are valued; in India, all elephants irrespective of their age are valued, and the older animals are as easily domesticated as the young.

The keddah establishment at Dacca is the largest in India, and during the last season, under the superintendence of Mr. G. P. Sanderson, 404 elephants were captured in the Garo Hills, 132 being taken in one drive. It is difficult to believe that any district can continue to produce upon this wholesale scale, and it is probable that after a few years elephants will become scarce in the locality. Nevertheless there is a vast tract of forest extending into Burmah, and the migratory habits of the elephant at certain seasons may continue the supply, especially if certain fruits or foliage attract them to the locality.

This migratory instinct is beyond our powers of explanation in the case of either birds, beasts, or fishes. How they communicate, in order to organise the general departure, must remain a mystery. It is well known that in England, previous to the departure of the swallows, they may be seen sitting in great numbers upon the telegraph wires as though discussing the projected journey; in a few days after, there is not a swallow to be seen.

I once, and only once, had an opportunity of seeing elephants that were either migrating, or had just arrived from a migration. This was between 3 degrees and 4 degrees N. latitude in Africa, between Obbo and Farajok. We were marching through an uninhabited country for about 30 miles, and in the midst of beautiful park-like scenery we came upon the magnificent sight of vast herds of elephants. These were scattered about the country in parties varying in numbers from ten to a hundred, while single bulls dotted the landscape with their majestic forms in all directions. In some places there were herds of twenty or thirty entirely composed of large tuskers; in other spots were parties of females with young ones interspersed, of varying growths, and this grand display of elephantine

life continued for at least 2 miles in length as we rode parallel with the groups at about a quarter of a mile distant. It would have been impossible to guess the number, as there was no regularity in their arrangement, neither could I form any idea of the breadth of the area that was occupied. I have often looked back upon that extraordinary scene, and it occurred to me forcibly in after years, when I had 3200 elephants' tusks in one station of Central Africa, which must have represented 1600 animals slain for their fatal ivory.

The day must arrive when ivory will be a production of the past, as it is impossible that the enormous demand can be supplied. I have already explained that the African savage never tames a wild animal, neither does he exhibit any sympathy or pity, his desire being, like the gunner of the nineteenth century, to exterminate. It may be readily imagined that wholesale destruction is the result whenever some favourable opportunity delivers a large herd of elephants into the native hands.

There are various methods employed for trapping, or otherwise destroying. Pitfalls are the most common, as they are simple, and generally fatal. Elephants are thirsty creatures, and when in large herds they make considerable roads in their passage towards a river. They are nearly always to be found upon the same track when nightly approaching the usual spot for drinking or for a bath. It is therefore a simple affair to intercept their route by a series of deep pitfalls dug exactly in the line of their advance. These holes vary in shape; the circular are, I believe, the most effective, as the elephant falls head downwards, but I have seen them made of different shapes and proportions according to the individual opinions of the trappers.

It is exceedingly dangerous, when approaching a river, to march in advance of a party without first sending forward a few natives to examine the route in front. The pits are usually about 12 or 14 feet in depth. These are covered over with light wood, and crossed with slight branches or reeds, upon which is laid some long dry grass; this is covered lightly with soil, upon which some elephant's dung is scattered, as though the animal had dropped it during the action of walking. A little broken grass is carelessly distributed upon the surface, and the illusion is complete. The night arrives, and the unsuspecting elephants, having travelled many miles of thirsty wilderness, hurry down the incline towards the welcome river. Crash goes a leading elephant into a well-concealed pitfall! To the right and left the frightened members of the herd rush at the unlooked-for accident, but there are many other pitfalls cunningly arranged to meet this sudden panic, and several more casualties may arise, which add to the captures on the following morning, when the trappers arrive to examine the position of their pits. The elephants are then attacked with spears while in their helpless position, until they at length succumb through loss of blood.

Конец ознакомительного фрагмента.

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