



THE HIGHLANDS OF CENTRAL INDIA.

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different lengths. This singularly favourable situation for nest building had been occupied by an immense colony of vultures, the whole face of the rock for miles being whitened by their droppings, while numbers of the birds were perched on the cliff or sailing over the ravine. Among them were a good many of the common brown carrion vulture ; * but the majority were the foul white scavengers † to be seen on every dunghill in the villages of the plains. I had often wondered where these birds bred, for although there are myriads in all inhabited tracts of Central India only a few nests are to be seen here and there in the tops of trees. Here was the puzzle solved, in the grim and retired solitude of the Valley of the Vultures. But a single hill,—a few minutes' flight,—separated them here from the thickly peopled plain where they find their repulsive food ; and yet that ravine is probably as seldom looked on by the eye of man as if it were a guano island in the Pacific Ocean.

A few weeks after our unsuccessful trip to the Hattí hills, I heard from T. that the grass was mostly burnt, and sámbar were plentiful on the northern slope of the hills. He had also come across a preserve of bison, out of which he had bagged a bull. Early in April, therefore, I rode out to his camp at Chóndí—one of the deserted village sites in the valley below Gharri. A lovelier spot for a hunting camp in the hot weather could not be found. Close by a clear and beautiful pool of water stood an enormous banyan tree, so old that many of the suckers thrown out by the branches of the parent tree had themselves become mighty stems, with branches which again had given birth to trunks of considerable girth, while the stem of the original tree had utterly decayed away. Beneath its copious shade were sheltered from the sun several tents, and numerous

* *Gyps Bengalensis*.

† *Neophum Perenopterus*.



servants, lascars, and Bheels, besides our horses, dogs, etc. The grass on the lower hills had mostly been burnt since we were last here, and the Mhowá flowers had been falling for some time. Sámbar nightly visited some fine clumps of that tree in the bottom of the valley, a little higher up than the camp.

The next morning we sent out about half a dozen pairs of Bheels to look out on the hill tops long before daybreak ; and soon after ourselves started up the valley to a point where we intended to separate and take different beats. A colony of monkeys in the trees overhanging the river were "swearing" lustily about half a mile to our left, and presently we found the remains of a sámbar that had been killed during the night under the Mhowá trees by a tiger. The brute himself was doubtless making off up the valley when seen by the monkeys. Many sámbar had been feeding on the Mhowá, and fresh tracks led off in almost all directions. Just where we were about to separate a long spur ran down from the hills on the right to the valley up which we were proceeding ; and as we approached it we saw in the dim grey light a long line of deer file over the top, each pausing for a second on the sky line before passing over to the far side. Watching them for a few seconds, we saw that they were followed by a large stag at a good distance in the rear. In fact he had just commenced to climb the spur when we saw him ; and at the same time he must have seen us pausing on the path, for his leisurely walk then became a run,—the low crouching run, almost like a tiger's, with antlers thrown back, often adopted by a stag who wants to escape quickly and without being seen. We only saw the ridge of his back and the tips of his horns as he stole up the other side of the spur after the hinds. It is of no use for two men to follow one lot of sámbar ; so, as



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it lay in my beat, I took after these deer, while T. held on up the valley. When I got to the top,—a stiff climb of five or six hundred feet,—the eastern heavens were suffused with that beautiful greenish yellow flush which immediately precedes sunrise in an Indian sky. It was light enough (it never is very dark at any time of night at this season of the year) to distinguish a couple of the Bheels perched on a higher peak of the same range; and on seeing me top the rise one of them stole softly down to me, and said that the herd, followed by the stag, had proceeded leisurely down the thickly wooded declivity on the opposite side. After a consultation, it was determined that I should keep along the top of the ridge, while two of the Bheels were to follow the track of the herd, and if they saw them come up and let me know. I went along slowly from one commanding point to another, keeping a little ahead of the Bheels, who tracked the herd along the slope, not very far below the top. In the course of one of these moves I started the herd from some long grass near the top. There were fifteen or twenty of them, but no good stags, so far as I could see as they bustled away along the hill side in a confused mob, the round light-coloured patches on their rumps looking like so many targets as they switched their tails in the air. It was very tempting, but I wanted the fine horns of the stag and let them go. I was rewarded soon after by the appearance of the stag, walking slowly along in the same line, and showing by his dignified gait that he had no suspicion of danger. He was passing about a hundred yards below me when I pulled on his shoulder with the little single "Express" rifle, and he fell to the shot without a sound. The Bheels came running up at once, and as I had not gone down to the stag proceeded to cut his throat in the orthodox Mahomedan fashion, though I am certain he was stone dead



long before they arrived. He was one of the finest harts I ever saw,—in beautiful condition, with much of the cold-weather mane remaining, and of a peculiar and rare rich chestnut colour. His horns were very stout and handsome, though about four inches shorter than those of the Borí stag. The colour of the sámbar of these open light jungles is generally decidedly lighter than that of those which inhabit the more shady forests further east. Sometimes a very black stag will be found, however, even here; and the colour of all varies a good deal at different times of the year. I did not get another shot that morning, and T. returned with an empty bag, having lost the stag he followed in the long grass on the tops of the hills.

The next day we again went out long before daybreak. I was beckoned up a very steep hill by the Bheels on the top; and when I got there some time after the sun was up, and a good deal fatigued by the climb, I found it was only to tell me that they had seen two stags go up the *opposite* hill slope, between which and our hill there lay a valley as deep as that from which I had come up. They had never been at this scouting work before, or they had well deserved a thrashing for their pains. There was nothing for it but to descend to the valley again, which was almost severer work than coming up. The slipperiness of these trap hills when every particle of grass on them has been burnt into fine charcoal is dreadful. I never found the deer that had been seen, and soon got involved in a troublesome series of cross ravines, so that by about nine o'clock I was pretty hot and wearied in the April sun. I had almost given up hunting, and had turned for home, when something caught my eye in the bottom of a slight hollow in the hill. It looked exactly like one of the bunches of twigs that grow out of old teak stumps on these



hills, with one or two dried leaves attached to them ; and yet I fancied I had seen it move. I looked at it intently for at least a minute, trying to make out if it was a bunch of teak twigs or a sámbar's head and horns. It never moved the whole of this time ; and, as the Bheels who were with me said it was only a stump, I turned to pass on. The glint of my rifle barrel must then have caught in the sun, for a noble stag started up from his lair, and without pausing for a second wheeled round and clattered away. My hasty shot missed him clean, and he then plunged into a ravine that lay at the back of the hollow he had been in. I followed across, thinking I might find blood, but there was no sign, and I turned for home, swearing to expend a bullet in future on every teak stump that bore the most distant resemblance to a deer's head. Both T. and I were often mistaken in these hills in the same manner, and have frequently gone up within a few yards of a stump to make sure. The resemblance is so very close between the two objects that I cannot but think that the instinct of the animal leads him to dispose of his head so as to resemble the bunch of teak. Even the motion of the large ears of the sámbar, which they restrain only when actually in the presence of danger, answers exactly to the stirring of a dried teak leaf in a light breeze. Indeed no one can hunt in these scantily covered hills without wondering at the extreme difficulty of making out such large animals as sámbar, bison, and bears on the open hill-side. The bison and bear precisely resemble the large black trap boulders that thickly strew every hill ; and thus the glaring contrast of their black hides with the bright yellow grass frequently attracts no attention whatever. T. again returned without a stag, but he had shot a fine fat young doe for the pot.

On my way back I knocked over a four-horned antelope,



scarcely room for the path we were treading. It was a terrible business getting the baggage camels along these narrow places, studded as they were with trees, and encumbered with boulders of trap; and though we had a number of Bheels with axes to clear a passage for them they did not get in till nightfall. The views at the turns where the plains on both sides could be seen were remarkable, though scarcely to be called picturesque. At our feet steep hill-sides of crumbling basalt, covered with long yellow grass beaten almost flat by the western blasts that sweep the hills at this season, and studded over with large black boulders and the naked yellow stems of the Sâlei tree. Above, short scarps of dark grey trap leading up to the flat tops of the range; and below, so near looking that you would expect a stone thrown over to light on it, and yet so far beneath that towns and groves and corn fields were all melted in one indistinguishable blue haze, the long level cotton-yielding plains of Berâr.

At Bingará the Mahomedan Nawábs of Berâr had, some hundreds of years ago, constructed a pleasure house after their earnest fashion, which, despite the effects of a destructive climate, and the searching roots of the peepul and banyan figs, remains to this day, though probably never repaired, an example of the solidity of their style of construction. The massive domes, thick walls, and narrow openings combine in these buildings to form the coolest structures to be found in India. The building at Bingará is erected on the banks of a small artificial lake, the waters of which, however, now escape a good deal through the rotten embankment, leaving behind a slime which by no means adds to the attractions of the place. The building itself was the habitation of bats and owls; and so we pitched our little tent a short way back from the lake under the shade of some immense banyan trees.



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Just as we arrived some dogs belonging to the Bheels, which had been ranging in the jungle, passed across the dry bed of the lake in full cry after a doe sámbar they had roused. Of course we flew to our rifles, but were just in time to miss her handsomely as she dashed into the thick jungle, followed for a little way by the dogs, who soon came limping back however.

Next morning we took different directions to explore and hunt, each with a few Bheel attendants. My way lay along the backbone of the range beyond Bingará. After walking some miles, examining carefully with glass and eye the declivities on either side, my Bheel henchman, a sharp lad called Chánd, or "the Moon," fixed a longer look than usual on the slope of a distant hill-side, and after a while motioned me up to him, and directed my binocular to the centre of a scrubby patch of teak forest. Presently I caught the glint of the sun on something moving, and made out a noble sámbar stag standing under the trees motionless, except that he slowly turned his antlered head from side to side, sweeping with keen vision the whole semicircle within his ken. He was not more than a mile off in a direct line; but to get to the spot it would be necessary to go several miles round the head of a long ravine. As he was almost certain to lie down where he was we carefully marked the spot, and slipping back over the edge of the saddle started off at a brisk walk to circumvent him. The sun was well up now, and it is very hot in March even at that early hour; so that by the time we had got round into the ravine below our temperature was considerably higher than when we started. Now commenced an excruciating advance on tiptoe, with bended backs, over a stratum of fallen teak leaves of the "tin box" description, to step on a single one of which would be fatal to the stalk. As the only alternative foot ground was on rounded trap boulders, given



and knew every inch of the country. The one who brought us the news rejoiced in the name of Jhingra or "The Shrimp;" and really, by some fortuitous accident, his long attenuated arms and legs, and curiously shrivelled features, with a few long feeler-like bristles in the place of a beard, gave him a very strong resemblance to that innocent crustacean. The name of the other, who had been left perched in a tree to watch the beeves, cannot be handed down to fame, having been lost in the secondary appellation of "The Skunk." I must say the olfactory powers of the bison lost greatly in my estimation when I found that they had remained quietly grazing for half a day within a mile or so of this most odorous of Turvees! The Shrimp was very anxious that we should proceed there and then to attack the bison, urging how uncomfortable the Skunk would be if left clinging to the upper branches of a tree all night, and patting his shrivelled stomach to show how delighted they both would be to be at close quarters with a bison steak. We pitied the Skunk, and pointed out to the Shrimp a quarter of sámbar venison hanging up from which he might satisfy his own cravings; but we had no idea of starting off after bison six miles away in *that* country at three o'clock in the afternoon.

It wanted a good deal of arrangement, in fact, to hunt that country; and we never found out the proper way to do it till just as we were leaving it. As it was we sent round a tent and the needful supplies by a very circuitous road, down our valley to the plain, along the foot of the hills for a good many miles, and then up another valley that was said to run into the heart of the bison country. The people had directions to go as far up the valley as they could find water, and pitch there. We were to go straight across next day, and, after hunting up the bison, come down the head of the further



valley to the camp ;—and dearly we paid for giving such indefinite instructions before we were done.

Next morning we started under the guidance of the Shrimp, and mounted on two redoubtable Deccanee ponies, who we had found could go in these hills wherever we could and saved us a good lot of hard work in the sun. The way lay up a long burnt valley, in which tracks of sámbar, and the pug of a large tiger who had been following them during the night, were plainly visible. It was too late, however, to see any game out in such open country ; and we wound up the rugged pathway leading to the top of the hill without having come across a single animal.

We now came on to a tolerably level plateau, and rode on for some miles, keeping a sharp look-out for animals. The plateau was beginning to shelve down towards a ravine filled with clumps of bamboo, beyond which rose another flat-topped ridge, when my eye rested on a spot of denser shadow in the thin sálei jungle that topped the further ridge. Pulling up to use the binocular, I discovered the whole herd of bison grazing quietly in the cover. We were a couple of miles away at least, and silently withdrew into a hollow that would lead us down into the ravine. T. and I now advanced, with the Shrimp, leaving our ponies and the other Bheels to follow us on hearing a shot. We had a long hot stalk, and on reaching the plateau found that the herd had disappeared. The place was evidently a regular resort of the wild cattle, the long grass being twisted about into wisps by their feet, and all the bushes broken and grazed away. We stalked over the plateau with cocked rifles, the Shrimp swarming trees to look out ahead ; but no beeves did we see, except a cow and her little calf making off over a distant rising ground at a slow trot, the sunlight glancing every now and



again on their beautifully bronzed hides. There were so many tracks that to follow the herd was hopeless; the Skunk was nowhere to be seen; and so we coasted round the edge of the plateau, peering down among the bamboo clumps in the hope of discovering the herd. After going about half round I suddenly almost ran up against a cow in some long grass; and immediately T., who was a little to my right, called out that the whole herd was standing down below among the bamboos. My cow had bolted off in a great fright, and I ran up to T. in time to see ten or twelve bison scrambling up the opposite side of the ravine—a long shot from where we were. A bull brought up the rear, and there was another covered by the clump of cows; so we opened fire on the former, and the third shot broke his leg. He had the other shots too, and, after limping on a bit, staggered and fell over down the hill. Being much fatigued by the heat of a very sultry April day, we waited there till the people came up with our leathern water-sack to have a drink, and then went over to the bull, who was still alive but unable to rise. The Skunk, who had luckily been exactly in the line of the herd's retreat, now came running up, and, standing afar off by special request, told us whither they had gone.

There was a mighty black bull among them, whose horns we determined to have, if possible; so, sending the ponies, and with them, alas! the water, under the guidance of the Skunk, to wait us at a point in the valley beyond for which we thought the herd was making, we started off on their tracks. In going along the edge of a spur T. saw three or four of the bison standing under the ridge of the hill, and we went round to stalk them. It was a long way and the heat was really fearful, so that we were not perhaps so cautious in our approach as we should have been, and the result was that



before we got up we heard the alarmed snort of the sentry, and the crash of the herd through the jungle. We now walked along a ridge between two deep valleys—on the right hand that in which the camp should be, and on the left another leading down to where we had started from in the morning. We saw the startled herd far below us in the latter, crossing over at a swinging trot, and afterwards mounting the range beyond. The Shrimp said they were doubtless making for "Dhowtea"! Further on, the Shrimp pointed to a motionless coal-black form standing against the sky-line, which the telescope showed to be a mighty bull. He stood for a few minutes till the cows came up and passed across him, and then stalked solemnly after them. He, too, was no doubt going to Dhowtea! We were walking on disgusted when my eye caught another jet-black figure among the trees ahead of us, and we crouched into nothing as another bull walked slowly into an open space about half a mile ahead. After gazing round in every direction he slowly began to descend to the same valley. He, too, appeared, like the rest of them, to have started for Dhowtea. But he was not there yet, and we determined at least to give him a run for it; so, waiting till he was concealed by the fall of the ground, we doubled down a rocky watercourse to cut him off, if possible, from the valley. We succeeded; for he evidently got our wind, and sheered off from the pass down to the river, walking slowly and magnificently along the edge of a precipitous fall, apparently looking for another way down. There was none such, however; and we followed him along in short running stalks, gaining on him every time he got hidden for a minute by inequalities of the ground. The hill we were on gradually narrowed to the saddleback form so common in this range, and not far ahead seemed to ter-



minate in an abrupt descent to the valley. There seemed to be no doubt we had him in a trap if we would only have patience; for he must either take that header to reach the valley, or charge back along the ridge over our mangled corpses! He became very cautious as he neared the end, zigzagging across the narrow ridge, and using all his senses to detect the pursuer he evidently suspected. We were slowly roasting on the bare shadeless sheet of basalt that topped the ridge, lying as we had to do prone on it to escape his sight. I would have given a rupee per drop for the contents of our water-sack just then. At last, after what seemed an age, the tall black form of the bull slowly sank over the end of the hill. He was going down, then, after all, and there was nothing for it but a rush. A rush we accordingly made; but suddenly pulled up, much taken aback, as we saw the bull again emerge and stand in full sight of us, though much covered about the body by scrubby *sálei* stems, on the extreme point of the ridge. It was really a most ticklish situation. Had he charged, and our shots failed to stop him, T. might have escaped with a few broken bones by rolling down on his side of the hill; but on mine there was a sheer descent of a hundred feet, and the ridge itself offered not the slightest shelter. But we each had a double-barrelled, breech-loading, twelve-bore rifle—a battery against which few animals can stand. I saw T. sighting him, and heard the bull emit a low tremulous moan that sounded like mischief. His vitals were protected from me by the *sálei* stems, so I kept my double shot in reserve in case of accidents. The ball thudded against something, as it turned out probably a *sálei* tree; and the bull at once disappeared over the edge. We now ran to the spot, and saw him below thundering down the steep hill-side at a tremendous pace. Utterly winded by running, and half dead with



heat and thirst, the remaining three shots had no effect; and then we sat down perfectly exhausted, to watch the bull as he gained the valley and crossed the stream-bed halting for a few seconds under a shady tree to look back ere he set himself to mount the further slope, which he did in the line taken by the other bison. He, too, was fairly off for Dhowtea—and, as it seemed and we hoped seeing that we could not have him, without a wound.

Life was now a blank. The Shrimp had lingered far behind, and there was no one to show us the way, while the Skunk was goodness knows where with the ponies and water. So we slowly and sadly descended the hill to our own valley, and walked on in the probable direction of camp, chewing grass in our speechless mouths. About a mile further on we were joined by the villainous Shrimp, who had taken a line of his own for home when he saw us bent on pushing the big bull to extremities. There was no water in all this valley, he said, excepting one pool miles ahead where our camp should be. After getting the direction, we started him off to find the ponies and water and bring them to meet us. It was now mid-day, and the sun was blazing hot—a quivering haze that made the eyes twinkle playing along the surface of the earth. After plodding along for some miles more, we came to a pathway by which we thought the ponies must pass; and there we sat down completely exhausted in the scanty shade of a wild fig-tree. A mhowa grew close by, and some of its luscious flowers tempted us to try if they would assuage our raging thirst. Bah! never was anything more horrible than the clammy taste and fetid odour of that sickening product. Our mouths were now glued up as well as parched, and when at last the people came we could only make signs for the water, and replied not at all to the Skunk



when he assured us that a big bear had been besieging him and the ponies on the road for ever so long not very far from where we were. After a draught that no one could appreciate unless he has hunted the "bounding bison" through an April day in the trap hills of Nimár, we jumped on the welcome ponies and galloped up the valley to our tent. Revived by breakfast and cold claret cup, we spent the rest of the day in skinning and preserving the head of the bison we had shot. A fine solemn look have the features of a dead bull. The horns alone are nothing of a trophy compared to the complete head, which should if possible be saved entire.*

Next morning our Bheels were out early, and we ourselves made for the hill of Áli-Bál-Kót, or the "High Exalted Fort," which being translated means the ruinous little mud keep of one of these pensioned Bheel chiefs. They are all "Rájás" of course, and maintain standing armies of one or two ragamuffins apiece. We always had the "king" of the territory we were in in our camp, and it was really disappointing to find how little His Majesty differed from any other of these debauched-looking, opium-eating, and utterly ignorant and brutal Mahomedan Bheels. Our shikáris and scouts—Shrimp, Skunk, and Co.—were ordinary unconverted Bheels, and far superior in every respect to the converts, who, however, looked down upon them as an unregenerate lot.

We had not proceeded far towards the foot of the hills when a Bheel on a hill-top waving a cloth caught our sight; and on going up we saw about five or six stag sámbar slowly wending their way along the far side of a valley towards the

* I cannot speak too highly of the artistic manner in which some of these heads have been set up by Mr. Edwin Ward, Naturalist, of 49, Wigmore Street. A woodcut from a photograph of one of them was appended to Chapter III.



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interior of the hills. Our yesterday's shooting had no doubt cleared this part of the hills of all the bison, so we made after these deer, watching them over the rising grounds and then running close in behind them. At last we saw them apparently halted for the day in a shady place. Two of them appeared to have first-rate antlers, and we stalked round a long way to get in on them from above, and without giving them our wind. We blundered it, however, coming down at the wrong point, and the herd broke a long way to our left hand. T. fired into their backs as they struggled up the opposite slope in a confused gang, but without apparent effect; and the last of them was disappearing over the brow when I took a long shot at him with my single "express." It was two hundred and fifty yards at the least, but I had often before killed as far with this rifle,—and down he dropped. Crossing over, we found the stag lying dead; but though it was one of the two we had marked his antlers were very inferior. Nothing is more deceptive than the apparent size of sambar's horns while stalking: as they have all the same number of points, the guide to size and quality afforded by the branches of the red deer is here wanting. On examination we found this to be still another instance of the curious occurrences before mentioned; for it was T.'s ball after all that had killed him, while mine had missed!

After this we made a long round through the hills looking for bison, but without success; and were descending towards the camp by a long narrow spur of bare basalt, when we saw the Skunk near the top of an isolated eminence rising out of the valley violently signalling to us; and soon after we were scanning the proportions of a fine bull bison lying down on the further side under the shade of a small tree. It was a very easy stalk, and we crept in to about seventy yards in the grass. T.

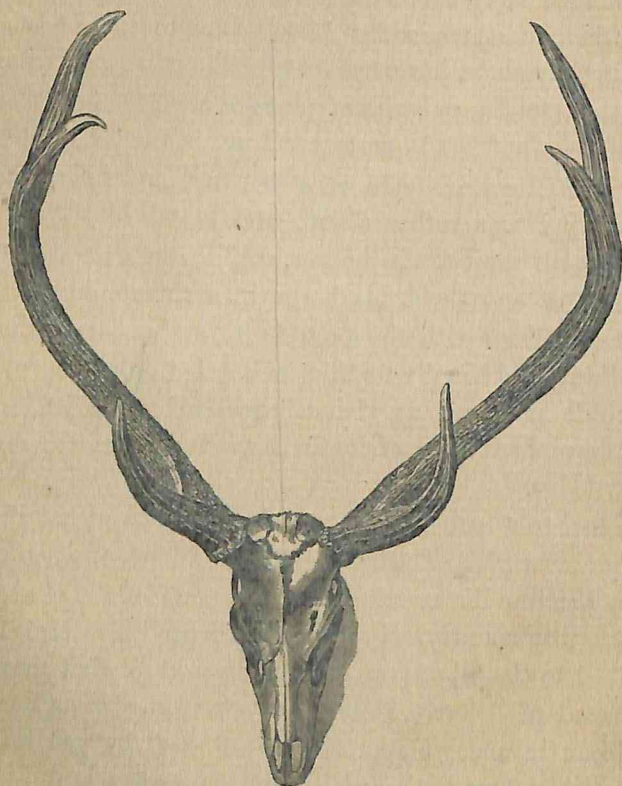


fired both barrels at him as he lay, which is always a mistake, the vital regions being then greatly shielded by the enormous development of the shoulder and dorsal ridge. He sprang up and plunged away across our front, swerving round towards us in a fashion that made the Bheels take to their heels. On receiving my shots, however, he turned again; and, executing a most extraordinary series of plunges, with his head between his fore-legs and hind-quarters and tail in the air, disappeared down a small ravine. We were soon up, and followed along the side. I was rather ahead, and found him lying very sick in the bottom of the hollow. When he perceived me he staggered up and shook his horns in a threatening manner; but it was all up with the poor brute, and a shot in the neck rolled him over finally on his back. I think if our yesterday's bull had been as viciously inclined as this fellow we might have had more of it than we bargained for on that narrow ledge.

We had to return next day to the station, and bid adieu to these singular hills. The hot season was fairly on, when no one can long endure the exertion of hunting on foot the sámbar and bison in hilly country. My readers will probably think I have described to them but poor sport compared to what they have often read of before. It is so easy to throw in half a dozen bull bison in a day's sport by a stroke of the pen that the temptation to meet the wishes of the reader is difficult to resist. I have, however, stuck to the exact facts of a by no means heavy bag, on purpose to give a more accurate idea of what such shooting really means—namely very hard work and much exposure for an average of certainly not more than one head of game a day, and often much less. One of the hardest workers and best shots I ever knew, who had only time for a few weeks' bison and sámbar shooting in the year and

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then went at it tooth and nail, told me he was always proud if he could keep his average up to one a day for the time he was out; and I am certain that very few ever do so much.



(Sámbar Horns. Scale, one tenth.)

By taking every chance at cow bison and doe sámbar of course the bag could be largely increased; and I heard of two men who one year murdered in this way twenty-eight bison in a week. This is not sport, of course, nor are the performers sportsmen. The bison is already, it would seem, diminishing



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in numbers ; certainly his range is becoming greatly contracted. He is one of the most harmless animals in the whole world to the industry of man, and, fairly hunted, affords perhaps the best sport in India ; it would be a pity, then, if his numbers should be unduly diminished by unsportsmanlike conduct.



CHAPTER VII.

THE TIGER.

Tiger-shooting in the hot Weather—Different Sorts of Tigers—The Game-killer—The Cattle-eater—The Man-eater—Haunts of the Tiger—Destructiveness of Tigers—Native Shikáris—Beating for Tigers—Shooting on Foot—Shooting with an Elephant—Difficulty of Finding Tigers—Method of Hunting—Search for Information—Viceregal Tiger-shooting—A Tiger in a Tobacco-field—The Hot Weather Camp—The Village Shikáris—Spying out the Land—Nocturnal Life of Wild Animals—Tyranny of the Tiger—Tiger Tracks—The Monkeys Inform—Death of a Tiger—Franks of Juvenile Tigers—The Monkeys Prevaricate—Almost too Close—Singular Effect of a Shell—An Abrupt Introduction—A Man-eating Tigress—The Monkeys are Right—Alarm Cries of Animals—A Beef-eater Slain—Terrific Heat—Size of Tigers—Baits for Tigers—Caste Objections—Tiger Shikáris—The “Lallá”—He is killed by a Tiger—Revenge—What a Shikáris should not be—The Tiger in his Lair—Trained Elephants—Purchasing Elephants—Their “Points”—Selection of a Hunting Elephant—A Man-killer—Entering Elephants—Elephantine Vices—Keeping Elephants—A Bag of Tigers—Ravages of a Man-eating Tiger—Unfortunate Delay—Denizens of a Mango Grove—Sharp Treatment effects a Cure—Start after the Man-eater—Deserted Villages—A Pilgrim Devoured—Unsuccessful Hunt—A Bait Proposed—Another Victim—On the Trail—A long Day’s Work—Renew the Chase—Exciting Sport—An Elephant killed by a Tiger—Find the Man-eater—He charges Home—Blown up by a Shell—Elephant Anecdote—Destructiveness of Tigers—Proposals for their Extermination—What can be Done—Get Jungle Fever—Return to Puchmurree—A cool Climate—Completion of “Bison Lodge”—Burst of the Monsoon—Advantages of Puchmurree—Selected as a Sanitarium—Return to Jubbulpúr.

WHILE wandering about in 1862, during the months of April and May, in the teak forests of the Betúl district, I devoted a day now and then to the sport of tiger-shooting; and it was the laudable custom of the forest officers to spare, if possible every year, a few weeks during the height of the



hot season for the purpose of making an impression on the numerous tigers which at that time rendered working in the forests and carrying timber so dreaded by the natives, and consequently costly to Government.

Although there is much in the sport of tiger-hunting that renders it inferior as a mere exercise, or as an effort of skill, to some other pursuits of these regions (for many a man has killed his forty or fifty tigers who has never succeeded in bagging, by fair stalking, a single bull bison or a stag sámbar), yet there is a stirring of the blood in attacking an animal before whom every other beast of the forest quails, and unarmed man is helpless as the mouse under the paw of a cat—a creature at the same time matchless in beauty of form and colour, and in terrible power of offensive armature—which draws men to its continued pursuit after that of every other animal has ceased to afford sufficient excitement to undergo the toil of hunting in a tropical country.

It will have been gathered from previous descriptions that the hot season, the height of which is in April and May, is the most favourable time for hunting the tiger. Then the water-supply of the country is at its lowest ebb; and the tiger, being very impatient of thirst, seeks the lowest valleys, where, too, much of the game he preys on has congregated, and where the village cattle are regularly watered. In Central India tigers vary a good deal in their habits and range; and they may be roughly classed into those which habitually prey on wild animals, those which live chiefly on domestic cattle, and the few that confine their diet to the human species. Not, of course, that any tiger adheres invariably to the same sort of prey. But there are a large number that appear to prefer each of the former methods of existence, and a few that select the latter.



The regular game-killing tiger is retired in his habits, living chiefly among the hills, retreating readily from man, and is altogether a very innocuous animal, if not even positively beneficial in keeping down the herds of deer and nilgái that prey upon the crops. His hot-weather haunt is usually some rocky ravine among the hills, where pools of water remain, and shelving rocks or overhanging trees afford him shelter from the sun. He is a light-made beast (called by shikáris a *lodhia bāgh*), very active and enduring, and, from this as well as his shyness, generally difficult to bring to bag.

The cattle-lifter, again, is usually an older and heavier animal (called *oontia bāgh*, from his faintly striped coat resembling the colour of a camel), very fleshy, and indisposed to severe exertion. In the cool season he follows the herds of cattle wherever they go to graze; and then, no doubt, in the long damp grass brings many a head of game also to bag. In the hot weather, however, the openness of the forest and the numerous fallen leaves preclude a lazy monster of this sort from getting at game; and he then locates himself in some strong cover, close to water, and in the neighbourhood of where the cattle are taken to drink and graze about on the greener herbage then found by the sides of streams, and, watching his opportunity, kills a bullock as he requires it, and drags it into his cover. Of course a good many head of game are also killed by such a tiger when they come to drink, but so long as he can easily procure cattle he does not trouble himself to hunt for them.

Native shikáris recognize more or less two kinds of tigers, with the names I have given above. It may be matter for speculation which is cause, and which is effect. Is it that as tigers grow old and heavy they take to the easier life of cattle-lifting? Or has the difference of their pursuits, continued for



generations, actually resulted in separate breeds, each more adapted for its hereditary method of existence? I myself believe the former to be the truth, and that there really is only one variety of tiger in all peninsular India. It is only to extreme specimens that the above distinctive names are applied; and the great majority are of an intermediate character, and not distinguished by any particular name. The larger and older the animal the more yellow his coat becomes, and the fainter and further apart are the stripes. Small tigers are sometimes so crowded with the black stripes as almost to approach the appearance of a *melanoid* variety. A few specimens of white tigers with fulvous stripes have also been mentioned, though I never heard of one in Central India. The tiger, like all animals that I am acquainted with, is subject to slight variations of appearance and conformation amongst individuals; and local circumstances, and perhaps "natural selection," may tend to give the race something of peculiarity in different localities. But none of these has as yet, I believe, reached the point of even permanent variation.

It is useless to devote much time to hunting the hill tigers that prey on game alone. They are so scattered over extensive tracts of jungle, and are so active and wary, that it is only by accident that they are ever brought to bag.

Favourably situated covers are almost certain to hold one or more cattle-eating tigers during the hot weather; and however many are killed, others will shortly occupy their place. A favourite resort for these tigers is in the dense thickets formed of *jáman*, *karóndá*, and *tamarisk*—evergreen bushes whose shade is thickest in the hot weather, and which grow in islands and on the banks of the partially dried-up stream-beds. A thick and extensive cover of this sort, particularly if the neighbouring river banks are furnished, as is often the case,



with a thick scrubby jungle of thorny bushes, through which ravines lead up to the open country where cattle graze, is a certain find in the hot season. Sometimes considerable gatherings of tigers take place in such favourable places. I have twice known five, and once seven, tigers to be driven out of one cover at the same time ; and I think the season of love-making has something to do with these meetings. More usually it is a solitary male tiger, or a tiger and tigress, or a tigress with her grown-up cubs, that are found in one place. The tigress cannot breed more than once in three years, I believe ; for the cubs almost invariably stay with her till they are over two years old, and nearly full grown. The greatest number of cubs I have ever found with a tigress was three. These were small, however, and I never saw more than two grown-up along with the female.

A single tiger will kill an ox about every five days, if not disturbed, eating, if very hungry, both hind quarters the first night. He will not go further than he can help after this meal, but will return again next night to the carcass, which in the meantime he often stores away under a bank, or covers with leaves, etc. This time he will finish all but the head ; next night he will clean the bones ; and then for a couple of days he will not take the trouble to hunt for a meal, though he will strike down another quarry if it comes near him. Should he have been fired at, however, when thus returning to his kill, he will frequently abandon such measures of economy, and kill a fresh bullock whenever he is hungry. A tigress and grown cubs are also far more destructive, finishing a bullock in a night, and like the daughter of the horse-leech always crying for more. The young tigers seem to rejoice in the exercise of their growing strength, springing up against trees and scratching the bark as high as they



can reach by way of gymnastics, and, if they get among a herd of cattle, striking down as many as they can get hold of. The tiger very seldom kills his prey by the "sledge-hammer stroke" of his fore paw, so often talked about, the usual way being to seize with the teeth by the nape of the neck, and at the same time use the paws to hold the victim, and give a purchase for the wrench that dislocates the neck.

Tigers that prey on cattle are generally perfectly well known to the cowherds and others who resort to their neighbourhood. They seldom molest men, and are often driven away from their prey, after killing it, by the unarmed herds. Frequently they are known by particular names; and they really seem in many cases to live among the villagers and their herds much like a semi-domesticated animal, though, from a mutual consent to avoid direct interviews as much as possible, they are chiefly known by their tracks in the river beds and by their depredations on the cattle. They do not, of course, confine their attacks to the cattle of a single village, usually having a whole circle of them where they are on visiting terms, and among which they distribute their favours with great impartiality. The damage they do on the whole is very great, sixty or seventy head of cattle, worth from £5 to £10 apiece, being destroyed by one such animal in the course of a year. Generally there is at least one native in every circle of villages whose profession is that of "shikári," or hunter, and who is always on the outlook to shoot the village tiger. When he hears of a bullock having been killed he proceeds to the spot, and, erecting a platform of leafy boughs in the nearest tree, watches by night for the return of the tiger, who, though he may kill and lap the blood during the day, never feeds before sunset. Generally he does not get a shot, the tiger being extremely suspicious when



approaching his "kill," and the shikáris being usually such bunglers at their work as to disturb him by the noise of their preparations. Often he misses when he does shoot, the jungle-king being somewhat trying to the nerves; and if he kills one tiger in the course of the year he considers himself lucky. His weapon is a long matchlock, which he loads with six "fingers" of powder and two bullets. These fly a little apart, and if they hit are usually the death of the tiger. His method of shooting is sometimes imitated by lazy European sportsmen.

Another way of hunting ordinary tigers is to beat them out of their mid-day retreat with a strong gang of beaters, supplied with drums, fireworks, etc., the guns themselves being posted at likely spots ahead. This plan is often successful, when the operations are directed by someone who knows the ground. Frequently, however, the tiger is not found at all, and moreover he very commonly manages to escape at the sides, or break back through the beat, without coming up to the guns at all. It has also the disadvantage of exposing the beaters to much danger; and there are few who shoot in this fashion who have not had more than one beater killed before them. To stalk in on a tiger in his retreat on foot is generally impracticable, as a man commands so little of a view in thick cover that he rarely sees the tiger in time for a shot. In some places, however, where tigers lie in rocky places inaccessible to elephants, this is the only way to do; and a very certain one it then is, there being generally little cover and plenty of commanding elevations whence to see and shoot. The best way of hunting the tiger is undoubtedly that usually adopted in Central India—namely to bring in the aid of the trained elephant, and follow and shoot him in his mid-day retreat. Anyone who thinks he has only got to mount himself on the



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back of an elephant, and go to a jungle where he has heard of tigers, to make sure of killing one, will find himself very much mistaken on trying. A number of sportsmen with a large line of elephants may kill tigers if they simply beat through likely covers for a long enough time ; and many tigers are thus killed, or by driving the jungle with beaters, without the possession of any skill in woodcraft whatever. But no sort of hunting requires more careful arrangements, greater knowledge of the habits of the animal, perseverance, and good shooting, than the pursuit of the tiger by a single sportsman with a single elephant.

At the outset of one's experience in forest life it is impossible to avoid the belief that the tiger of story is about to show himself at every step one takes in thick jungle ; and it is not till every effort to meet with him has been used in vain that one realises how very little danger from tigers attends a mere Rambler in the jungles. During ten years of pretty constant roaming about on foot in the most tigerish localities of the Central Provinces, I have only once come across a tiger when I was not out shooting, and only twice more when I was not actually searching for tigers to shoot. In truth, excepting in the very haunts of a known man-eater, there is no danger whatever in traversing any part of the jungles of this, or I believe any other, part of India.

Some people affect to despise the practice of using elephants in following tigers, and talk a good deal about shooting them on foot. As regards danger to the sportsman, nine-tenths of the tigers *said* to be shot on foot are really killed from trees or rocks, where the sportsman is quite secure. The only danger then is to the unfortunate beaters, if used ; and when this is not the case the sport generally resolves itself into an undignified sneaking about the outskirts of the covers, in the hope of getting an occasional pot-shot from a secure position. In



this method of hunting many more tigers are wounded than are finally secured, the only danger lying in following up a wounded animal, which is usually avoided ; and thus an innocuous animal is often converted into a scourge of the country side. A very few sportsmen do, for a short period of their lives, make a practice of hunting and shooting tigers really on foot ; but they are seldom very successful, and sooner or later get killed, or have such narrow escapes as to cure them of such silly folly for the remainder of their days. A man on foot has no chance whatever in thick jungle with a tiger that is bent on killing him. He cannot see a yard before him, and is himself conspicuous to every sense of the brute, who can completely hide in a place that looks scarcely enough to conceal a rat, and can move at will through the thickest cover without the slightest sound or stir. At the same time the sportsman who as a rule uses an elephant in thick cover will find quite enough opportunities, in special cases, of testing his nerve on foot, particularly if he marks down and tracks his own game instead of employing shikáris to do so. Even on the elephant all is not perfect safety, instances being not rare of elephants being completely pulled down by tigers, while accidents from the running away of the elephant in tree jungle are still more common. Much of the excitement of the sport depends on the sportsman's method of attacking the tiger. Some men box a tiger up in a corner and push in at all hazards, getting repeatedly charged, while others keep at a distance, circling round and offering doors of escape to the tiger, and never get a charge at all. As a rule, when on an elephant in fair ground, the object should be to get the tiger to charge instead of letting him sneak away, as the hunt is then ended in a short and exciting encounter, while if let away it may be hours before he is found again, if he ever is at all.



The first difficulty is to get reliable information of the presence of tigers in a particular neighbourhood. A great many reasons, besides the simple one to which it is usually attributed, namely that "they are cursed niggers," combine to make the natives in most places very unwilling to give information about tigers. Firstly, it is likely to bring down a large encampment of "Sahibs" on their village, which they, very justly in most cases, dislike. The military officer who scorns to learn the rural language, and his train of overbearing swindling servants, who fully carry out the principle that from him who hath not what little he hath shall be taken away, and that without a price too, stinks in the nostrils of the poor inhabitants of the tracts where tigers are found. The tiger himself is in fact far more endurable than those who encamp over against them to make war upon him, and demand from them grain and other supplies which they have not, and carts, etc., to carry the camp, which they want to use for other urgent purposes. Then they fear that they will be made to beat for the tiger—both those who are willing and those who are not—with a considerable chance of getting killed, and very little of being paid for their services. There are few well-known resorts of tigers where some story of the sort has not been handed down among the people. The first essential towards getting sport is to conciliate the willing co-operation of the people, and make it plain to them that your arrangements for supplies are such as to throw no unbearable burden on a poor country, and that your method of hunting is not one to lead to the constant risk of life. Such, however, is the want of sympathy often engendered in the naturally generous Englishman by the fact of his becoming a member of the ruling caste in India, that sportsmen will sometimes be heard on their return from an unsuccessful expedition



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in which they had harried a quiet population who did not want their tigers killed at all on their terms, cursing and swearing at them, and perhaps even expressing little regret that a few of them had been sacrificed to their bungling ardour. On the other hand a properly organised expedition, where the sportsman provides his own supplies and his means of hunting the tigers, is certain to meet with every co-operation from the people. They will even crowd in to help in driving the jungles, when they know they are to work for a good sportsman and shot who will not unnecessarily risk their lives.

With luck and first-rate arrangements a few tigers may be got in the cold weather. A good many persons will remember a hunt in the month of January, 1861, when we secured a royal tiger for the Governor-General of India, on his first visit to the centre of his dominions, within a mile or two of the cantonment of Jubbulpúr. I mounted sentry over that beast for nearly a week, girding him in a little hill with a belt of fires, and feeding him with nightly kine, till half a hundred elephants, carrying the cream of a vice-regal camp, swept him out into the plain, where he fell riddled by a storm of bullets from several hundred virgin rifles. He had the honour of being painted by a Landseer, by the blaze of torchlight, under the shadow of the British standard; and my howdah bore witness for many a day, in a bullet hole through both sides of it, to the accuracy of aim of some gallant member of the staff!

At this season tigers sometimes venture very close to large towns, and even to the European stations. Several tigers have been shot within the walls of the town and station of Mandlá, and in the "Páu" gardens round about; and at Seoní, in 1864, I formed one of a party who drove a large tiger out of a tobacco field, within a stone's throw of a considerable village, and shot him in the main street thereof. There was nothing



but fields of short green wheat for many miles round about this place; and the only reason we could discover for so singular an appearance of a tiger among the habitations of man was that he had received a slight wound a few days before.

But it is not until the greater part of the grass has been burnt in the jungles, and a hot sun has contracted the supply of water to the neighbourhood of the great rivers, that regular tiger hunting can be commenced with a fair prospect of success. At this season, having discovered a tract where tigers are reported, a good central place should be selected for a camp, in the deep shade of some mango grove near a village, or under the still more grateful canopy of some spreading banyan tree. The graciousness of nature in furnishing such plentiful shade at this arid season cannot but be admired. It is just at the time when all nature begins to quiver in the fierce sun and burning blasts of April that the banyan and peepul figs, and the ever present mango, begin to throw out a fresh crop of leaves, those of the first tree being then moreover charged with a thick milky juice that forms an impenetrable non-conductor to the sun's rays.

Riding up to his camp, pitched in the cool shadowy depths of some grove like this, the sportsman will probably find assembled the village headman, with a small train of cultivators and cowherds, waiting to receive him with some simple offering—a pot of milk, or a bunch of plantains from his garden. If he is welcome, tales will not be wanting of the neighbouring tigers—how Ram Singh's cow was taken out of the herd a few days before, or Bhyron the village watch, going on an errand, went down for a drink to the river, and there came on a tigress with her cubs bathing by its brink. That youth himself will chime in, and graphically describe how he



took to a tree and was kept there all night—the same being probably a euphemism for a night passed with some boon companions at a neighbouring grog-shop. The usual haunts of the tiger will be described; and the size of his footprints and width of his head be drawn to a greatly exaggerated scale. The shikári of the neighbourhood will be present, or can be sent for—a long gaunt figure clad in a ragged shirt of Mhowa green, with a dingy turban twisted round his shaggy locks, and furnished with the usual long small-bored match-lock, with its bulky powder-flask of bison horn, and smaller supply of fine priming powder kept carefully in a horn of the gazelle. Rupees, or a prospect of them, will be wanted to loosen his tongue, and then his statements will likely be studiously vague. His hearty services must be secured, however, for he alone knows intimately the ways and haunts of the tiger, and he alone will have the pluck to accompany you or your shikári to mark him down. If you are known to be a good paymaster he will willingly serve you, otherwise you must promise him a handsome *douceur* in case of success, to induce him to spoil his own chance of claiming the Government reward. This reward was, till financial difficulties reduced it to half, fifty rupees (£5); and, as all sportsmen were entitled to claim it, it used to go far to cover the cost of the hunt. I used always to divide it equally between the village shikári, if he worked well, and my own shikári and elephant driver. Now, however, the sportsman will find himself a good deal out of pocket by every tiger he kills.

More precise information must be sought for by the sportsman himself. The village shikári knows nothing of our system of hunting by attacking the tiger in his midday lair. His personal experience of him has probably been confined to nocturnal interviews from the tops of trees; but he will be



certain to know his habits and usual resorts, and also whereabouts he is at the time being. It is necessary, therefore, for some one to go out with him who knows our style of work and what particulars to note for guidance when the actual hunt commences; for it is absolutely necessary to have some preliminary knowledge of the ground, and habits of the particular tiger, to ensure success. In my earlier sporting days I always went out to make the preliminary exploration for tigers myself; and this is the only way to learn the business thoroughly, so as to be able afterwards to devolve the labour on your shikáris. A sportsman who is not thoroughly master of this business will never have a reliable shikári; and the best men are those who have been trained up in it along with their masters.

The morning is the best time for this work. It is then cool, and every footprint of the previous night is sharp and clear. All the wild animals, from whose movements much is to be learnt, are then on the move. The movements of the tiger even may often be traced up to eight or nine o'clock by the voices of monkeys and peafowl, the chatter of crows and small birds, and the bark of sámbar and spotted deer. The whole nocturnal life of the beasts of the forest is then displayed in the clearest manner to the hunter whose eye has been trained to read the book of nature; and I know nothing more interesting than a ramble in the cool grey of a summer morning along the stream-beds of a tract in which live a great variety of wild animals. The river beds usually contain large stretches of sand and gravel, with here and there a pool of water, the margin of which will be covered with tracks of deer, wild hogs, bears, etc., and here and there the mighty sign manual of the jungle king himself. All must come here to drink in the cool night succeeding a burning day; and in



the neighbourhood of the water occur most of the tragical interviews between the herbivora and their carnivorous foes. Everywhere the cruel tyranny of the tiger has imprinted itself on the faithful page. His track to the water is straight and leisurely, while that of the nilgái or spotted deer is halting and suspicious, and apt to end in a wild scurry to right and left where it crosses the tiger's. Here and there bleaching skulls and bones show that the whole herd have not always made good their escape. The ambush of dried leaves by the pass down the bank marks, perhaps, an unsuccessful stratagem; and not seldom the trampled soil and patches of blood and hair show where a stubborn boar has successfully resisted the attack of a tiger. Bruin alone is tolerably safe from the assault of the tiger; but he too gets out of his way like the rest, and drinks at a different pool.

The sportsman will not be long under the guidance of the village shikári before he comes on tracks of tigers. Where one or more have been living some time in the neighbourhood footprints of many dates will be found in the sandy bed of almost every nálá. The history and habits of the tigers will generally ooze out of the local hunter at the sight of these marks. When the fresh tracks of the previous night are found his impassive features will be lighted into interest, and, as he follows the trail with the end of his gun, his speech will be low and hurried from suppressed excitement. There is little chance, however, of coming on the brute himself at that early hour. He is probably lying somewhere on an elevated place commanding the approaches to his favourite lair, sunning himself in the soft morning light, and watching against the approach of danger, until the growing heat about ten o'clock shall have extinguished all signs of movement in the neighbourhood, when he will creep down into some shady



nook by the water, and, after a roll in the wet sand, proceed to sleep off the effects of his midnight gorge. Sometimes, however, if the sportsman be out early enough, he will find, from the cries of animals, that the tiger is moving not far ahead of him, and he may then by cutting him off even obtain a shot.

On one occasion I followed a tiger in the early morning for several miles up the bed of a stream, entirely by the demonstrations of the large Hanúmán monkey,* of which there were numbers on the banks feeding on wild fruits. As the tiger passed below them the monkeys fled to the nearest trees, and, climbing to the highest branches, shook them violently and poured forth a torrent of abuse † that could be heard a mile away. Each group of them continued to swear at him till he passed out of sight, and they saw their friends further on take up the chorus in the tops of their trees, when they calmly came down again and began to stuff their cheeks full of berries as if nothing had happened. The river took a long sweep a little further on, and by cutting across the neck I managed to arrive very much out of breath in front of the tiger, and crouched behind the thick trunk of a *Kawá* tree till he should come up. He came on in a long slouching walk, with his tail tucked down, and looking exactly like the guilty midnight murderer he is. His misdeeds evidently sat heavily on his conscience, for as he went he looked fearfully behind him, and up at the monkeys in a beseeching sort of way, as if asking them not to betray where he was going. He was travelling under the opposite bank to where I was, in the

* *Presbytis entellus*.

† The voice of the monkeys on such occasions is quite different from their ordinary cry. It is a hoarse barking roar something like that of the tiger. Is it the first beginning of imitative language?

deep shadow of the overhanging trees ; but, when nearly opposite me, he came out into the middle, in the faint yellow light of the just risen sun, and then he looked such a picture of fearful beauty—with his velvety step and undulating movements, the firm muscles working through his loose glossy skin, and the cruel yellow eyes blinking in the sun over a row of ivory teeth, as he licked his lips and whiskers after his night's feed. He passed within about twenty yards of me, making for a small ravine that here joined the river from the hills. I let him get to the mouth of this before I fired ; and on receiving the shot he bounded forward into its cover—a very different picture from the placid creature I had just been looking at, and with a roar that silenced the chattering of every monkey on the trees. I knew he was hit to death, but waited till the shikáris came up before proceeding to see ; and we then went round a good way to where a high bank overlooked the ravine in which he had disappeared. Here we cautiously peeped over, but seeing nothing came further down towards the river, and within fifty yards of where I had fired at him I saw a solitary crow sitting in a tree, and cawing down at an indistinct yellow object extended below. It seemed like the tiger, and sitting down I fired another shot at it ; but it never stirred to the thud of the ball, while the crow, after flying up a few feet, perched again and cawed away more lustily than before. We now went down, and found the tiger lying stone dead, shot very near the heart.

I think it is the pranks of juvenile tigers, rather than the serious enmity of old ones, that cause such a terror of them to exist among the monkey community. The natives say that the tigress teaches her cubs to stalk and hunt by practising on monkeys and peafowl. The gorgeous plumage



of the latter, scattered about in a thousand radiant fragments, often marks the spot where a peacock has thus fallen victim to these ready learners, but the remains of a monkey are seldom or never seen. Indeed these sagacious Simians rarely venture to come down to the ground when young tigers are about, though this sign is not always to be relied on as denoting the absence of tigers. I thought so for a long time, till one day in the Bétúl country, in 1865, after hunting long in the heat of a May day for a couple of tigers whose marks were plentiful all about, we came up to a small pool of water at the head of a ravine, and saw the last chance of finding them vanish, as I thought, when a troop of monkeys were found quietly sitting on the rocks and drinking at the water. I was carelessly descending to look for prints, with my rifle reversed over my shoulder, and another step or two would have brought me to the bottom of the ravine, when the monkeys scurried with a shriek up the bank, and the head and shoulders of a large tiger appeared from behind a boulder, and stared at me across the short interval. I was meditating whether to fire or retreat, when almost from below my feet the other tiger bounded out with a terrific roar, and they both made off down the ravine. I was too much astonished to obtain a steady shot, and I was by that time too well acquainted with tiger shooting to risk an uncertain one, so they escaped for the time. I quickly regained my elephant, which was standing above, and followed them up. It was exceedingly hot, and we had not gone more than a couple of hundred yards when I saw one of the tigers crouched under a bush on the bank of the ravine. I got a steady shot from the howdah, and fired a three ounce shell at his broad forehead at about thirty yards. No result. It was most curious, and I paused to look; but never a motion



of the tiger acknowledged the shot. I then went round a quarter of a circle, but still the tiger remained motionless, looking intently in the same direction. I marched up, rifle on full cock, growing more and more amazed—but the tiger never moved. Could he be dead? I went round to his rear and approached close up from that direction. He never stirred. Then I made the elephant kick him, and he fell over. He was stone dead—converted, without the movement of a hair, into a statue of himself by the bursting of the large shell in his brain. It had struck him full in the centre of the forehead. We then went on with the track of the other. It led down into the Mórán river, on the steep bank of which there was a thick cover of Jáman bushes in which the tiger was sure to stop. I had just before come through it, and found the place as full of tracks as a rabbit warren. Having a spare pad elephant out that day, I sent her round to keep down the bottom of the bank and mark, while I pushed my own elephant—Futteh Rání (Queen of Victory)—through the cover. About the centre I came on the tiger, crouched like the other, with his massive head rested on his forepaws, the drawn-up hind quarters and slightly switching tail showing that he meant mischief. At the first shot, which struck him on the point of the shoulder, he bounded out at me; but the left barrel caught him in the back before he had come many yards and broke it, when he rolled down right to the bottom of the bank, and fell, roaring horribly, right between the fore legs of the pad elephant. She was a new purchase for forest work, called Motí Málá or “Pearl Necklace” (such are the fantastic names given to elephants by their Mahomedan keepers), and quite untried; but she stood admirably this rather abrupt introduction to her game, merely retreating a few steps and shaking her head at



the contortions of the tiger. There is no more striking incident in tiger shooting than to witness the fearful and impotent rage of a tiger with a broken back. He cannot reach beyond a short circle, but within that limit stones, trees, and the very earth are seized and worried with fearful savageness, and the wretched brute will horribly mangle even his own limbs. It is too ghastly to look on long; and, though the agony is that of a monster who has caused so much himself, a merciful bullet in the head should quickly end the horrid scene.

These were regular cattle-eating tigers, and perhaps had not been molesting the monkeys. On another occasion, however, I was much struck with the caution of the monkeys under very trying circumstances. In May, 1864, I had tracked a man-eating tigress into a deep ravine near the village of Pálí in the Seoní district. She was not quite a confirmed man-eater, but had killed nine or ten persons in the preceding few months. She had a cub of about six months old with her, and it was when this cub was very young and unable to move about that want of other game had driven her to kill her first human prey. I knew when I entered the ravine that this was her regular haunt; for, though every bush outside had been stripped of its berries by a colony of monkeys, I saw them perched on the rocks above the ravine wistfully looking down on the bushes at the bottom, which had strewed the ground with their ripened fruit. They accompanied me along the ravine on the top of the rocks, as if perfectly knowing the value of their assistance in getting the tigress—and better markers I never had. I should probably have passed out at the top without seeing her, as she was lying close under a shelving bank, but for the profane language of an ancient grey-bearded Hanúmán, who posted



himself right above her, and swore away until he fairly turned her out of her comfortable berth. The excitement of the monkeys soon told me she was on the move; and presently I saw her round face looking at me from behind a tree with a forked trunk, through the cleft of which I caught sight of about a square foot of her striped hide. It seemed about the right place, so covering it carefully I put in a shell at about forty yards, and she collapsed there and then, forming a beautiful spread-eagle in the bottom of the nála. The youngster now started out, roaring as if he were the biggest tiger in the country; and, though I fired a couple of snap shots at him as he galloped through some thick bushes, I could not stop him. It is important to extinguish a brute, however young, who has once tasted human flesh; and I followed him up till it grew nearly dark, when I returned to the ravine to take home the tigress, and there I found my monkey friends tucking into the berries in all directions, and hopping about close to the body of the dead tigress. The cub was met, much exhausted with its run, by a gang of wood-cutters, and killed with their axes.

The barking of deer, and the alarm cry of peafowl, also frequently indicate the movements of a tiger. The sámbar, the spotted deer, the barking deer, and the little four-horned antelope, all "bark" violently at a tiger suddenly appearing in the daytime. In April, 1865, having marched nearly a thousand miles exploring in the forests almost without firing a shot, I halted to hunt a very large cattle-eating tiger near Chándvél in the Nimár district. This animal was believed by the cowherds to have killed more than a thousand head of cattle; and one of the best grazing grounds in all that country had been quite abandoned by them in consequence. His haunts lay in a network of ravines that lead down to the



Narbadá river—now included in the Ponásá Reserved Forest, which I was then exploring. The herds of cattle having been withdrawn from the grassy glades on the banks of the Narbadá, where he usually preyed on them, he had lately been coming out into the open country, and had been heard for several nights roaming round about the village of Chándvél on the edge of the forest. I found his tracks within a hundred yards of the buffalo pens of the village the morning I arrived; and a few nights before he had broken into a Banjárá encampment a little way off, and killed and dragged away a heifer, which he eat within hearing distance of the encampment, charging through the darkness and driving back the Banjárá and their dogs when they tried to interrupt him. I picketed a juicy young buffalo for him the night I arrived, about half a mile from the village where his tracks showed he regularly passed at night. Next morning it was found to have been killed and dragged away about a hundred yards to a small dry watercourse; and, after having been cleaned as scientifically as any butcher could have done it, eaten up all but the head, skin, feet, and one fore quarter. If his footprints had not already shown him to be an unusually large tiger, this feat of gormandizing would have sufficiently done so. We started about ten o'clock on his trail. It was the 12th of April, and a hotter day I never remember. Long before midday the little band of cowherds and shikáris who accompanied me had most of their wardrobes bound round their heads to keep off the sun; and I looked for a tussle with such a heavy old tiger, long accustomed to drive off the people he met, if we found him well gorged on such a grilling day as this. We took the track down fully five miles till it entered a long narrow ravine with pools of water at the bottom, and shaded over with a thick cover of trees and bushes. We could not



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go into so narrow a place to beat him out with an elephant ; and after much deliberation we decided to leave a pad elephant at the head of the ravine, and post the people we had with us on the trees round about to mark, while I went down to the other end and quietly stalked along the top of the bank on the chance of finding him asleep below. There never was such a beautiful retreat for a tiger I think. In many places I could not see through the dense shade at the bottom, and several times had to fling down stones to assure myself whether some indistinct flickering object were the tiger or not. I was proceeding quietly along, probing the ravine in this fashion, when the pad elephant we had left at the further end gave one of those tremendous screams that an untrained elephant sometimes emits when suddenly put in pain. She had stumbled over a stone when swinging about in their impatient fashion. There was little chance of finding the tiger undisturbed after this, and I had only to stand and watch for a chance of his coming down the ravine or being seen by the scouts on the trees. The first intimation I had of his presence was from a couple of peafowl that scuttled out of a little ravine on the opposite side ; and then I saw the tiger picking his way stealthily up the face of a precipitous bank, where I could hardly think a goat would have found footing. He was about a hundred and fifty yards from my rifle ; and the first bullet only knocked some earth from the bank below him. When I fired the other he was just topping the bank, and clung for a second as if he would have come over backwards, but by an effort recovered himself and disappeared over the top. Running to a higher piece of ground I saw him trotting sullenly across the burnt plain, and looming as large to the eye as a bull buffalo. He certainly looked a very mighty beast ; but he was a craven at heart, or he would never have left such a



stronghold to face the fearful, waterless, burnt-up country he did. I lost no time in getting round the head of the ravine and giving chase on the elephant. His tracks in the ashes of the burnt grass were clear enough, and we followed him for about two miles, sighting him on ahead every now and then, till he disappeared in a little ravine, and we lost the track in its bare rocky bottom. I was going along the bank, with the other elephant in the bottom of the ravine, when I heard the bark of a sámbar to my left on some high ground, and, urging Futteh Rání at her best pace in that direction, shortly came on the tiger slouching across the open plain,—evidently suffering from a wound, with his tongue hanging out, and wearing altogether a most woebegone look. He made an effort when he saw me, and galloped a hundred yards or so into a patch of bamboo jungle. I knew from the local shikári that he was making for a water-hole about half a mile ahead, and cut across with the elephant to intercept him. I had the pace of him now, and got clean between him and his water. I never saw such an air of disgust worn by any animal as that tiger had when he came down the hill and saw the elephant standing right in front of him. He said as plainly as possible, "Come what will, I don't mean to run another yard; and it won't be the better for anybody that tries to make me." So he lay down behind a large Anjan tree, showing nothing but one eye and an ear round the side of it. I marched up within fifty yards, and now saw the switching end of a tail added to the eye and ear. I could not fire at him thus, and therefore sidled round till I saw his shoulder. He saw the opening thus left, and eyed it wistfully, as if he would rather escape that way, if he could, than fight it out. But I planted a ball in his shoulder before he had time to make up his mind; on which he rose with a languid roar, and lumbered slowly down the hill at the



elephant. So slowly ! He actually hadn't steam left in him to get up a proper charge when he tried. A right and left stopped him at once, and another ball in the ear settled him ; and then Futteh went up and kicked him, and it was all over. He was a very large tiger, measuring ten feet one inch in length as he lay, and was a perfect mountain of fat,—the fat of a thousand kine, as the cowherds lugubriously remarked when they came up. He had a perfect skin, clear red and white, with the fine double stripes and W mark on the head, and long whiskers, which add so greatly to the beauty of a tiger trophy. The whole of the pads of his feet were blistered off on the hot rocks he had been traversing, and his tongue was swollen and blue. We were nearly dead ourselves, and went down to the water he had been making for, while a messenger went to the village for more men,—the dozen lusty cattle-herds and my own men together being totally unable to put him on the pad-elephant to carry home. An ordinary tiger will weigh about four hundred and fifty or five hundred pounds, but this beef-fed monster must have touched seven hundred pounds at least ; and a tiger, from his length and suppleness, is a very awkward object to lift off the ground.

I have said that ten feet one inch is the length of an unusually large tiger. The average length from nose to tip of tail is only nine feet six inches for a full-grown male, and for a tigress about eight feet four inches. The experience of all sportsmen I have met with, whose accuracy I can rely on, is the same ; and it will certainly be found, when much greater measurements than this are recorded, that they have either been taken from stretched skins or else in a very careless fashion. The skin of a ten-foot tiger will easily stretch to thirteen or fourteen feet, if required ; and if natives are allowed to use the tape they are certain to throw in a foot or two "to please master." Master



also, no doubt, sometimes pleases himself in a similar manner. A well-known sportsman and writer, whose recorded measurements have done more to extend the size of the tiger than anything else, informed me himself that all his measurements were taken from flat skins. But the British public demands twelve-foot tigers, just as it refuses to accept an Indian landscape without palm-trees. So a *suppressio veri* went forth; and not only that, but his picture of a dead tiger being carried into camp was improved by a few feet being added to the length of the beast, while, to make room for it, the most of the bearers were wiped out, leaving about four men only to carry a tiger at least fifteen feet long! *Populus vult decipi*, etc.

Sporting stories are apt to breed each other, incident leading on to incident, so that I find I have already killed some five or six tigers while yet only on the threshold of my subject—discoursing of the preliminary exploration of the tiger's haunts. I have little more to say on that matter, however, the sum of it all being that every information regarding the tiger's country, the route he usually takes from one haunt to another, the points where he may be most easily intercepted or come upon unawares, good points for scouts, etc., must be obtained. Places must also be fixed on for tying out baits for him at night. He must be induced, if possible, to kill a buffalo or an ox so tied out; and it must be in such a position that he can be easily tracked from there to one of his usual haunts.

It may seem cruel thus to bait for a tiger with a live animal, but there is no doubt that the death of a tiger saves much more suffering than is caused to the single animal sacrificed to effect it. A natural kill will not do so well for many reasons. It will probably not be discovered in time to hunt the next



day, and the day after it would be useless. Further, it would seldom be conveniently situated with respect to some haunt of the tiger favourable for finding him in, and the whole day might be lost in trying to find him in wrong places. In fine, experience shows that no bag can ever be made worth speaking of without tying out baits. I usually purchased at the commencement of the season a dozen or fifteen half-grown buffaloes, these being the cheapest as well as the most readily killed by tigers. A thin old brute of an ox, or a tough full-grown buffalo, a well-fed tiger will scorn to touch, and often in the morning his footprints will be found all round such a bait, which he has come and smelt, and (metaphorically) poked in the ribs, and left untouched. But a tender juicy young buff. of about three and a half feet high would tempt the most *blasé* of tigers to a meal. The cowherds, being good Hindús, will not sell cattle avowedly to be tied up for tigers; nor will your Hindú shikáris tie them up with their own hands, though few will object to superintend the operation. The flimsiest disguise is, however, sufficient to quiet the consciences of the cattle men, who will sell a herd of young buffaloes in open market to your Mahomedan shikáris dressed up as a trader in kine, though they may have known him for a bloody-minded baiter for tigers all their lives. I remember being very hard up for a bait once in the Nimár district, having come to a place where tigers were very destructive when I had none of my own. All I could say would not induce the Gaolís (cow-keepers) of the place to sell me a single head during the day-time, the owner of the village being a Baghél Rájpút, a clan which claims descent from a royal tiger, and protects the species whenever they can. I was standing outside my tent in the evening, when the village cattle were being driven in, having



given up all idea of halting for the tigers another day, when a fine tall young Gaolí stepped up with a salaam and said, "Sahib, I have lost a very fine young buffalo in the jungle, and it will very probably be snapped up by the tigers; but if you would send some one along that road perhaps he might find it, and we will be pleased if your Highness will keep it, as you are going away from this to-morrow." He grinned a broad grin as he finished, and I spotted his game; so sending along the "Lállá" about a quarter of a mile we found a very sufficient young wall-eyed buffalo tied by a piece of straw rope to a little tree! We had barely time to get the little brute put out in a proper place before nightfall; but he was duly taken, and we shot a fine tigress, and wounded and lost a tiger, the next day!

The morning after the baits have been tied out a shikárí should go to see the result, untying and bringing in those that have not been taken, and following up the tracks from any that have, so far as to ascertain fully whereabouts the tiger is likely to be found later in the day. I have mentioned above "the Lállá," and that brings me to the subject of *shikáris*. A really first-class tiger shikárí is extremely rare. The combination of qualities required to make him is seldom found in a native. I shall best explain what he should be by describing the Lállá. And first as to his name. "Lállá" means in Upper India a clerk of the Káyat caste, to which our friend belonged; so that though utterly ignorant of all letters save those imprinted on a sandy ravine-bed by a tiger's paw, he was nicknamed the Lállá by the people, and thereupon his real name disappeared for ever; and, when he was afterwards killed by a tiger, no one had any idea what it was. He was a little, wee man, so insignificant and so dried and shrivelled up that, as he used to say, "No tiger would ever



think of eating *me*." His early days had been passed in catching and training falcons for the nobles of Upper India, and in shooting birds for sale in the market. He had come down to Central India to make a bag of blue rollers and kingfishers, whose feathers are so much valued in the countries to the east for fancy work, when he was caught, nobody knows how, by a gentleman with a taste for bird-stuffing, from whom he passed into the possession of a sportsman who put him on tigers, and eventually he came to me with a little experience of the business. His early training had made him exceedingly keen of eyesight and in reading the signs of the forest; while in his many wanderings he had accumulated a store of legends of demons and devilry, and a wild jumble of Hindú mythology, that never failed, when retailed over a fire at night to a circle of gaping cowherds and village shikáris, to unlock every secret of the neighbourhood in the matter of tigers. Such an oily cozeners of reticent Gonds never existed. Then, miserable as he looked, he could walk about all day and every day for a week in a broiling sun, hunting up tracks, with nothing but the thinnest of muslin skull-caps on his hard nut of a head, and would fearlessly penetrate into the very lair of a tiger perfectly unarmed. He had a particular beaming look which he always wore on his ugly face when he had actually seen or, as he said, "salaamed to" a tiger comfortably disposed of for the day; and in late years, when I had to leave all the arrangements to him, I hardly recollect ever going out when he reported the find a likely one without at least seeing the game. He could shoot a little, say a pot shot at a bird on a branch at twenty paces, and kept guns, etc., in beautiful order. But he soon came to utterly despise and condemn everything except tiger-hunting, for which he had, I believe, really an absorbing passion. Even



bison-hunting he looked down on as sport not fit for a gentleman to pursue. For ten months in the year he moped about looking utterly wretched, and taking no interest in anything but the elephant and rifles; and woke up again only on the first of April,—opposite which date “Tiger-shooting commences” will be entered in the Indian almanack of the future, when the royal animal shall be preserved in the Reserved Forests of Central India to furnish sport for the nobility of the land!

Poor old Lállá! He fell a victim in the end to contempt of tigers, bred of undue familiarity. I was very ill with fever in the June of 1866, and meditating a trip home, and had sent out the Lállá with a double gun to shoot some birds for their feathers with a view to salmon flies. He came upon the tracks of a tiger, and, contrary to all orders, tied out a calf at night as a bait, and sat over it in a tree with the gun. The tigress came and received his bullet in the thigh, going off wounded into a very thick cover in the bed of a river. The plucky but foolish Lállá followed her in there the next morning by the blood; but soon found that tracking up a wounded tiger with a gun is a very different thing from following about uninjured tigers without intent to disturb them. Before he had gone a dozen paces the tigress was upon him, his unfired gun dashed from his hands and buried for half its length in the sand, his turban cuffed from his head to the top of a high tree by a stroke of her paw that narrowly missed his head, and himself down below the furious beast, and being slowly chewed from shoulder to ankle. He was brought in a dozen miles to Khandwá, where I was, by some men who had gone in for him when the tigress left him. The fire of delirium was then in his eye, and he raved of the tiger's form passing before him, red



and bloody. But he recognised me when I came to him, and conjured me to go out forthwith and bring in her body next day if I wished to see him live. I knew that the natives have a superstition to this effect; and, though I was then in a high fever, I sent off my elephant at midnight to a village near the spot, following myself on horseback at daybreak. Much rain had fallen, and all old tracks were obliterated. The jungle was also very green and thick, and I spent the whole day till the afternoon, hunting, as I afterwards found, in a wrong direction. At last I came on a fresh trail, with one hind foot dragging in the sand, and then I knew I was near the savage brute. We ran it up to a dense jáman cover in the river-bed, and I had barely time to get the people on foot safely up trees when the tigress came at me in the most determined manner. She looked just like a huge cat that had been hunted by dogs—her fur all bedraggled and standing on end, eyes glaring with fury, and emitting the hoarse coughing roar of a charging tiger that no one, to the very close of his tiger-shooting, hears without a certain quickening of the blood. The first two shots hit fair, but did not stop her; and she was not more than a few yards from the elephant's trunk when the third ball caught her clean in the mouth, knocking out one of her canine teeth and passing down the throat into the chest. She could do no more, but lay roaring and worrying her own paws till I put an end to her with another shot in the head. She was a lean greyhound-made brute scarcely bigger than a panther. The Lállá was avenged,—but the poor fellow was beyond any help that the sight of his enemy might have afforded him; and notwithstanding every care—for he was the favourite of everybody who knew him—he sank under the exhausting drain of so many fearful wounds.

Very different from the old Lállá is the usual pattern of



tiger shikarí. He will probably be a tall swaggering Mahomedan, brushing out his whiskers to the likeness of a tiger's, and to add ferocity of expression dyeing them when young a steely blue and when old a rusty red; clad in elaborate jungle-coloured raiment, and hung with belts and pouches of sámbar leather supporting a perfect armoury of cut-throat weapons which he has not the faintest idea of using; bragging sky high of his own and his master's doughty exploits; insufferable to the people and lazy as a pampered lap-dog; with just enough knowledge of his work, gained in his early days by carrying the water-bottle of some real sportsman, to concoct a plausible but utterly fictitious story at every place he comes to; and convicted at every turn of lying, stealing, and every deadly sin;—yet possibly the admiration of a gullible master, on whom a portion of the glory of his whiskers and tall talk is reflected, as he struts about his house in cantonments in full war-paint, snapping the locks of his bran-new sixty-guinea rifles.

How the tiger marked down in the morning is to be hunted and killed at mid-day, when all life in the forest is still beneath the scorching heat of the sun, and the brute himself is least on his guard and most unwilling to move, will have been seen from previous descriptions. To read, the hunting of one tiger is like that of every other; but a different set of incidents marks each day's sport in the memory of the hunter, who pictures vividly the death of each long after the incidents of his sport with every other sort of game have faded away. The main features are the careful preliminary arrangements, the settling the direction of approach so as to cut off all roads of escape to inaccessible fastnesses, the posting of scouts to notify the possible retreat of the tiger, and the cautious silent approach, the excitement gathering as the



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innermost recess of the cover, where the brute is expected to lie, is approached by the wonderfully intelligent and half-human elephant.

A strange affection springs up between the hunter and his well-tryed ally in the chase of the tiger; and a creature seeming to those who see him only in the menagerie, or labouring under a load of baggage, but a lumbering mass of flesh, becomes to him almost a second self, yielding to his service the perfection of physical and mental qualities of which a brute is capable, and displaying an intelligent interest in his sport of which no brute could be thought to be possessed. No one who has not witnessed it would believe the astonishing caution with which a well-trained elephant approaches a tiger,—removing with noiseless adroitness every obstacle of fallen timber, etc., and passing his huge bulk over rustling leaves, or rolling stones, or quaking bog, with an absolute and marvellous silence; handing up stones, when ordered, for his master to fling into the cover; smelling out a cold scent as a spaniel roads a pheasant; and at last, perhaps, pointing dead with sensitive trunk at the hidden monster, or showing with short nervous raps of that organ on the ground that he is somewhere near, though not actually discovered to the senses of the elephant. Then the unswerving steadiness when he sees the enemy he naturally dreads, and would flee from panic-stricken in his native haunts, perhaps charging headlong at his head, trusting all to the skill of his rider, and thoughtless of using his own tremendous strength in the encounter—for a good elephant never attempts to combat the tiger himself. To do so would generally be fatal to the sport, and perhaps to the sportsman too; for no one could stick to an elephant engaged in a personal struggle with a tiger, far less use his gun under such circumstances. The elephant's business is to stand like a rock



in every event, even when the tiger is fastened on his head—as many a good one will do and has done.

It is not one elephant in a thousand that is so thoroughly good in tiger-shooting as this; and such as are command very high prices in the market. From £200 to £400 is now the value of a thoroughly first-rate shooting-elephant, though much sport may be had with one purchased for a much smaller sum. The supply of elephants has much fallen off in late years, since the Government ceased to capture them in the forests of the north of India. In 1864 I visited the great annual fair at Sónpúr, on the Ganges, to purchase elephants for our forest work in Central India. This fair is decidedly one of the sights of India, and well worthy of a longer description than I can give it now. It occurs on the occasion of a great congregation of Hindú pilgrims to worship at a noted shrine of Sívá, and bathe in the Ganges at the full moon of the month of Kártik (September—October). Several hundred thousands of Hindús from every part of India are then collected on the banks of the holy river; and such a gathering together of people is of course seized by traders in every sort of ware, from wild yáks' tails of Tibet to croquet implements in lac varnish, and dealers in every sort of animal, from white mice to elephants. The European gentlemen of Bengal have also here constructed an excellent race-course, with grand stand complete; and some of the best races in India are run during the fair. The year I was there something like twelve thousand horses were brought by dealers for sale—ranging from the tiny woolly-haired pied pony of Nepál, which makes the best child's pony in the world, to Australian thorough-breds and "made-up" casters from the Indian cavalry.

About five hundred elephants offered a considerable choice in my particular department. It is difficult to buy horses



at a fair; but the difficulty is ten times greater in the case of elephants. Every one connected with the keeping of elephants (and camels) is by nature and training from his youth upwards a consummate rascal; and the animal himself is subject to numerous and often obscure vices and unsoundnesses. I have given in an appendix (A) some hints regarding these, as well as on the management of elephants, which would scarcely interest the general reader. Elephants differ as widely in their "points" as do horses; and it is very difficult for an uneducated eye to distinguish these, particularly in the fattened-up condition the animals generally carry at the fair. Furthermore, and fortunately enough for us, a native's idea of good points in an elephant (as in a horse) differs *in toto* from ours. He looks not at all to shape, or good action, or likelihood of standing hard work; but first of all to the presence or absence of certain accidental marks,—such as the number of toe-nails on the foot, which may be five or six but not four; the tail, which must be perfect and with a full tuft; and the colour of the palate, which must be red without spot of black. Some of the best elephants I have known failed in each and all of these points. Then a female or tuskless male is of small value to a native, who wants big white tusks. A rough high action, and a trunk and forehead of very light colour, are greatly in request by the native buyer, who looks entirely to show, and covers up every part of the animal except the face with an enormous parti-coloured cloth. We, on the other hand, dislike the high rough action, and never by any chance purchase a tusker, who is nearly certain to be ill-tempered. We look for a small well-bred-looking head and trunk, and a clear confident eye devoid of piggish expression, fast easy paces, straight back and croup, wide loins, and generally well-developed bone and muscle—a great test of which



is the girth of the forearm, which should measure about three feet eight inches in an elephant nine feet high. A very tall elephant is seldom a good working one, and generally has slow rough paces ; so that in a male nine feet, or a female eight feet four inches at the shoulder, should not be exceeded. A smaller animal than eight feet two inches will be undersized for tiger-shooting purposes. A female makes the best hunting-elephant when she is really staunch with game, as her paces and temper are generally better, and she is not subject to the danger of becoming "must" and uncontrollable, as male elephants do periodically after a certain age. But females are more uncertain as to courage than males ; and it is a risk to buy the former untried for shooting purposes. Most "muknas" (tuskless males) can, I believe, be relied on to become staunch with tigers when properly trained and entered ; and for my own part, if buying an entirely untried elephant, I would always select a "mukna." They are generally more vigorous and better developed than tuskers, though not usually so tall. A not improbable explanation of this was given me by a wild inhabitant of the forests to the east of the sources of the Narbadá, where wild elephants then existed in large numbers. He said he had noticed that the young tuskers, after their sharp little tusks began to prick the mother in the process of sucking, were driven off by her and allowed to shift for themselves, while females and muknas continued to be nourished by her until she got another young one.

After some trouble I bought the ten elephants I wanted—eight of them muknas and two females. Their average price was £150, the dearest being £200, and the cheapest £100. The highest price I heard of being obtained at the fair was £800 for a noble tusker, bought for a Rájá in the Punjáb. So far as I know, none of them had ever seen a tiger ; but they



all became excellent shikáris, except one large mukna in whom I found I had been stuck with a regular man-killing brute. He was quite quiet at the fair, having been probably kept drugged with opium ; but on the march down to Central India he broke out and killed a man, and afterwards became quite uncontrollable. He fetched his full price, however, for a native notable ; for he was a very handsome animal, and a wealthy native is rather proud of having an elephant that no one can go near chained up at his gateway for an ornament.

All elephants intended to be used in hunting tigers must be very carefully trained and entered to their game. A good *mahout*, or driver, is very difficult to obtain. They differ as much in their command over elephants as do riders of horses ; and a plucky driver will generally make a staunch elephant, and *vice versá*. The elephant should first be accustomed to the firing of guns from his back, and to seeing deer and other harmless animals shot before him in company with a staunch companion. He must not be forced in at a tiger, or at a hog or bear which he detests even more, until he has acquired some confidence, though in some few cases he will stand to any animal from the very first. When they have seen a few tigers neatly disposed of most elephants acquire confidence in their human allies, and become sufficiently steady in the field ; but their ultimate qualities will depend much on natural temperament. The more naturally courageous an elephant is, the better chance there is of his remaining staunch after having been actually mauled by a tiger—an accident to be avoided, of course, as long as possible. It will occur sometimes, however, in the best hands ; and then a naturally timid animal, who has only been made staunch by a long course of immunity from injury, will probably be spoilt for life, while a really



plucky elephant is often rendered bolder than before by such an occurrence.

Some elephants which are in other respects perfect shikáris will retain some ineradicable peculiarity which may almost unfit them for use in hunting. For some time I had a female who would stand anything in the way of animals (I once had her charged close up by a whole family of bears—a terrible trial for any elephant), but who bolted invariably in the utmost panic from the loud shout of a human voice. On one such occasion she carried a cargo of native clerks into the middle of a deep river, and left them to swim for their lives. On another, I thought I should die of laughing, though her prank nearly ended in the death of an unhappy Gónd. He had been taken out with her by the attendant whose business it is to cut branches of trees for fodder, and was left on her back to pack the load, while the other went up the tree to cut down branches. In the meantime a loud shout in the neighbourhood sent her off at full speed for camp, and, a deep weedy tank lying in the way, she marched right into it, and began to surge up and down in the water, her unwilling rider piteously screaming at every plunge. He was half drowned and nearly finished with fright before we could release him by sending in two other elephants with their drivers, who drove her with their spears into a corner and secured her.

The keeping of an elephant is very costly at the present prices of the wheaten flour on which they are chiefly fed,—coming in Central India to about £80 or £90 a year. Few people do so, therefore, though it is far more satisfactory if one is pretty constantly in the jungles. The Government has, however, great numbers of elephants, many of them trained shikáris; and there is seldom much difficulty in obtaining the



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use of one for a few weeks. They may also be frequently borrowed from wealthy natives; but in that case will seldom be found to possess the hard condition necessary for severe work in the hot season. In the later years of our forest work we always had several Government elephants allowed for the carriage of baggage and riding purposes; and, as I always kept one of my own besides, I could generally muster enough to drive effectively any tiger ground in Central India. But I rarely took out more than one elephant besides my own when shooting alone, finding that quiet hunting was far more successful than the bustle of many elephants and the rabble of men that usually accompany a tiger hunt.

In the end of April and May of 1862 I bagged six tigers and one panther in the Bétúl jungles, wounding two more tigers which escaped. I was unable regularly to devote myself to tiger-shooting, having much forest work to do, and my shooting was also much interfered with by accidental circumstances. A sprained tendon laid me up for fifteen days of the best weather (the hottest), and there was so much cholera about that many of the best places had to remain unvisited. Another party was also shooting in the same district; and, though they arrived after me in the field, contrary to the well-understood rule in such circumstances, proceeded ahead and disturbed the whole country by indiscriminate firing at deer and peafowl. It is scarcely necessary to say that when after tigers nothing else should be fired at. The Lállá came out strong under these unfavourable circumstances, working ahead and securing by his plausible tongue a monopoly of information, in which he was well seconded by the conduct of our rivals in harassing the people in the matter of provisions, and thrashing them all round if a tiger was not found for them.



when they arrived. On one occasion I reached their ground just as their last camel was moving off to a new camp. They had stayed here a week trying in vain to extort help in finding a couple of tigers whose tracks they had seen. The tigers were all the time within half a mile of their tents; and before ten o'clock that day I had them both padded. During a whole month I believe they only succeeded in getting one tiger, and that by potting it from a tree at night. Some years afterwards, when I shot the same country under much more favourable circumstances, the number of tigers had greatly diminished, owing to the high rewards and the steady attentions of the forest officers, and my bag was then just the same as in 1862. Five or six tigers may, in fact, be considered a very fair bag for one gun in a month's shooting, even in the best parts of the Central Provinces; but two or three guns, with a proportionate force of elephants, should of course do much better.

I spent nearly a week of this time in the destruction of a famous man-eater, which had completely closed several roads, and was estimated to have devoured over a hundred human beings. One of these roads was the main outlet from the Bétul teak forests towards the railway then under construction in the Narbadá valley; and the work of the sleeper-contractors was completely at a standstill owing to the ravages of this brute. He occupied regularly a large triangle of country between the rivers Mórán and Ganjál; occasionally making a tour of destruction much further to the east and west; and striking terror into a breadth of not less than thirty to forty miles. It was therefore supposed that the devastation was caused by more than one animal; and we thought we had disposed of one of these early in April, when we killed a very cunning old tiger of evil repute after several days' severe



hunting. But I am now certain that the brute I destroyed subsequently was the real malefactor even there, as killing again commenced after we had left, and all loss to human life did not cease till the day I finally disposed of him.

He had not been heard of for a week or two when I came into his country, and pitched my camp in a splendid mango grove near the large village of Lokartalâe, on the Mórán river. Here I was again laid up through over-using my sprained tendon; but a better place in which to pass the long hot days of forced inactivity could not have been found. The bare brown country outside was entirely shut out by the long drooping branches of the huge mango-trees, interlaced overhead in a grateful canopy, and loaded with the half-ripe fruit pendent on their long tendril-like stalks; while beneath them short glimpses were seen of the bright clear waters of the Mórán stealing over their pebbly bed. The green mangoes, cooked in a variety of ways, furnished a grateful and cooling addition to the table; and the whole grove was alive with a vast variety of bird and insect life, in the observation of which many an hour that would otherwise have flown slowly by was passed. A colony of the lively chirping little grey-striped squirrel lived in every tree, and from morning to night permeated the whole grove with their incessant gambols. My dogs would have died of *ennui*, I believe, but for the unremitting sport they had in stalking and chasing these unattainable creatures, whose fashion of letting them get within two inches of them while they calmly sat up and ate a fallen mango, and then whisking up and sitting just half a foot out of reach, jerking their long tails and rapping out a long chirp of defiance, seemed highly to provoke them. Clouds of little green ring-necked paroquets flew from tree to tree, clambering over and under and in every direction through



the branches to get at the green mangoes. A great variety of bright-coloured bulbuls, several species of woodpecker, and the golden oriole or mango-bird, flashed about in the higher foliage, while an incessant hum told of the unseen presence of multitudes of the insect world.

I was much amused by the result of my tent being pitched between two trees inhabited respectively by colonies of the common black and red ants, so plentiful in all wooded parts of the province. Each side sent detachments down the ropes of the tent attached to their trees, and numerous were the skirmishes and reprisals I watched between them. At last, on coming in from a short stroll one morning, I found the top of my tent had been the scene of a pitched battle between the entire forces of each party, multitudes on each side having been killed and wounded. Their telegrams to head-quarters in the tops of the trees must have much resembled those of the French and Prussians, for both sides seemed to claim the victory, and each was busily engaged in carrying off the fallen of the *other* side, perhaps with a view to provender in case of a siege! There were far more of the black ones, however, killed than of the red. The latter are most unflinching and venomous little devils, and prefer to leave their heads and shoulders sticking where they have bitten rather than loose their hold. I shall never forget disturbing a nest of these red ants in an overhanging tree when hot on the fresh foot-prints of a tiger. In an instant the elephant, howdah, and myself were covered with a multitude of the creatures rearing themselves on end and watching for a tender place in which to plunge their nippers. No philosophy—not even in the hot pursuit of a tiger—could stand this; and everything was forgotten in a wild rush to the nearest water, where half an hour was lost in clearing ourselves and the half-maddened elephant



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of the tormentors, and in picking out the fangs they had left behind.

A few days of a lazy existence in this microcosm of a grove passed not unpleasantly after a spell of hard work in the pitiless hot blasts outside ; but when the Lállá brought in news of families of tigers waiting to be hunted in the surrounding river-beds I began to chafe ; and when I heard from a neighbouring police post that the man-eater had again appeared, and had killed a man and a boy on the high road about ten miles from my camp, I could stand it no longer. I had been douching my leg with cold water, but now resorted to stronger measures, giving it a coating of James's horse-blister, which caused of course severe pain for a few days, but at the end of them resulted, to my great delight, in a complete and permanent cure. In the meantime, while I was still raw and sore, I was regaled with stories of the man-eater—of his fearful size and appearance, with belly pendent to the ground, and white moon on the top of his forehead ; his pork-butcher-like method of detaining a party of travellers while he rolled himself in the sand, and at last came up and inspected them all round, selecting the fattest ; his power of transforming himself into an innocent-looking woodcutter, and calling or whistling through the woods till an unsuspecting victim approached ; how the spirits of all his victims rode with him on his head, warning him of every danger, and guiding him to the fatal ambush where a traveller would shortly pass. All the best shikáris of the country-side were collected in my camp ; and the landholders and many of the people besieged my tent morning and evening. The infant of a woman who had been carried away while drawing water at a well was brought and held up before me ; and every offer of assistance in destroying the monster was made. No useful



help was, however, to be expected from a terror-stricken population like this. They lived in barricaded houses ; and only stirred out when necessity compelled in large bodies, covered by armed men, and beating drums and shouting as they passed along the roads. Many villages had been utterly deserted ; and the country was evidently being slowly depopulated by this single animal. So far as I could learn, he had been killing alone for about a year—another tiger who had formerly assisted him in his fell occupation having been shot the previous hot weather. Bétúl has always been unusually favoured with man-eaters, the cause apparently being the great numbers of cattle that come for a limited season to graze in that country, and a scarcity of other prey at the time when they are absent, combined with the unusually convenient cover for tigers existing alongside most of the roads. The man-eaters of the Central Provinces rarely confine themselves *solely* to human food, though some have almost done so to my own knowledge. Various circumstances may lead a tiger to prey on man ; anything, in fact, that incapacitates him from killing other game more difficult to procure. A tiger who has got very fat and heavy, or very old, or who has been disabled by a wound, or a tigress who has had to bring up young cubs where other game is scarce,—all these take naturally to man, who is the easiest animal of all to kill, as soon as failure with other prey brings on the pangs of hunger ; and once a tiger has found out how easy it is to overcome the lord of creation, and how good he is to eat, he is apt to stick to him, and, if a tigress, to bring up her progeny in the same line of business. The greater prevalence of man-eaters in one district than in another I consider to be that I have mentioned. Great grazing districts, where the cattle come only for a limited season, are always the worst. Where the cattle remain all



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the year round, as in Nimár, the tigers rarely take to man-eating.

As soon as I could ride in the howdah, and long before I could do more than hobble on foot, I marched to a place called Chárkhérá, where the last kill had been reported. My usually straggling following was now compressed into a close body, preceded and followed by the baggage-elephants, and protected by a guard of police with muskets, peons with my spare guns, and a whole posse of matchlocked shikáris. Two deserted villages were passed on the road, and heaps of stones at intervals showed where a traveller had been struck down. A better hunting-ground for a man-eater certainly could not be. Thick scrubby teak jungle closed in the road on both sides; and alongside of it for a great part of the way wound a narrow deep watercourse, overshadowed by thick jáman bushes, and with here and there a small pool of water still left. I hunted along this nálá the whole way, and found many old tracks of a very large male tiger,* which the shikáris declared to be the man-eater. There were none more recent, however, than several days. Chárkhérá was also deserted on account of the tiger, and there was no shade to speak of; but it was the most central place within reach of the usual haunts of the brute, so I encamped here, and sent the baggage-elephants back to fetch provisions. In the evening I was startled by a messenger from a place called Lé, on the Móran river, nearly in the direction I had come from, who said that one of a party of pilgrims who had been travelling unsuspectingly by a jungle road had been carried off by the tiger close to that place. Early next morning I started off

* A little practice suffices to distinguish the tracks of tigers of different ages and sexes. The old male has a much *squarer* track, so to speak, than the female, which leaves a more oval footprint.



with two elephants, and arrived at the spot about eight o'clock. The man had been struck down where a small ravine leading down to the Mórán crosses a lonely pathway a few miles east of Lé. The shoulder stick with its pendent baskets, in which the holy water from his place of pilgrimage had been carried by the hapless man, were lying on the ground in a dried-up pool of blood; and shreds of his clothes adhered to the bushes where he had been dragged down into the bed of the nálá. We tracked the man-eater and his prey into a very thick grass cover, alive with spotted deer, where he had broken up and devoured the greater part of the body. Some bones and shreds of flesh, and the skull, hands, and feet, were all that remained. This tiger never returned to his victim a second time, so it was useless to found any scheme for killing him on that expectation. We took up his tracks from the body, and carried them patiently down through very dense jungle to the banks of the Mórán,—the trackers working in fear and trembling under the trunk of my elephant, and covered by my rifle at full cock. At the river the tracks went out to a long spit of sand that projected into the water, where the tiger had drunk, and then returned to a great mass of piled-up rocks at the bottom of a precipitous bank, full of caverns and recesses. This we searched with stones and some fireworks I had in the howdah; but put out nothing but a scraggy hyena, which was of course allowed to escape. We searched about all day here in vain, and it was not till nearly sunset that I turned and made for camp.

It was almost dusk, when we were a few miles from home, passing along the road we had marched by the former day and the same by which we had come out in the morning, when one of the men who was walking behind the elephant started and called a halt. He had seen the footprint of a tiger. The elephant's



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tread had partly obliterated it; but further on where we had not yet gone it was found plain enough—the great square pug of the man-eater we had been looking for all day! He was on before us, and must have passed since we came out in the morning, for his track had *covered* that of the elephants as they came. It was too late to hope to find him that evening; and we could only proceed slowly along on the track, which held to the pathway, keeping a bright look-out. The Lállá indeed proposed that he should go a little ahead as a bait for the tiger, while I covered him from the elephant with a rifle! But he wound up by expressing a doubt whether his skinny corporation would be a sufficient attraction; and suggested that a plump young policeman, who had taken advantage of our protection to make his official visit to the scene of the last kill, should be substituted,—whereat there was a general but not very hearty grin. The subject was too sore a one in that neighbourhood just then. About a mile from the camp the track turned off into the deep nálá that bordered the road. It was now almost dark, so we went on to the camp, and fortified it by posting the three elephants on different sides, and lighting roaring fires between. Once in the night an elephant started out of its deep sleep and trumpeted shrilly; but in the morning we could find no tracks of the tiger having come near us. I went out early next morning to beat up the nálá; for a man-eater is not like common tigers, and must be sought for morning, noon, and night. But I found no tracks, save in the one place where he had crossed the nálá the evening before, and gone off into thick jungle.

On my return to camp, just as I was sitting down to breakfast, some Banjárás from a place called Dékná—about a mile and a half from camp—came running in to say that one of their companions had been taken out of the middle of their drove of



bullocks by the tiger, just as they were starting from their night's encampment. The elephant had not been unharnessed; and, securing some food and a bottle of claret, I was not two minutes in getting under way again. The edge of a low savanna, covered with long grass and intersected by a nála, was the scene of this last assassination; and a broad trail of crushed-down grass showed where the body had been dragged down towards the nála. No tracking was required. It was horribly plain. The trail did not lead quite into the nála, which had steep sides; but turned and went alongside of it into some very long grass reaching nearly up to the howdah. Here Sarjú Parshád (a large Government mukna I was then riding) kicked violently at the ground and trumpeted, and immediately the long grass began to wave ahead. We pushed on at full speed, stepping as we went over the ghastly half-eaten body of the Banjára. But the cover was dreadfully thick; and though I caught a glimpse of a yellow object as it jumped down into the nála it was not in time to fire. It was some little time before we could get the elephant down the bank and follow the broad plain foot-prints of the monster, now evidently going at a swinging trot. He kept on in the nála for about a mile, and then took to the grass again; but it was not so long here, and we could still make out the trail from the howdah. Presently, however, it led into rough stony ground, and the tracking became more difficult. He was evidently full of go, and would carry us far; so I sent back for some more trackers, and with orders to send a small tent across to a hamlet on the banks of the Ganjál, towards which he seemed to be making. All that day we followed the trail through an exceedingly difficult country, patiently working out print by print, but without being gratified by a sight of his brindled hide. Several of the



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local shikáris were admirable trackers; and we carried the line down within about a mile of the river, where a dense thorny cover began, through which no one could follow a tiger.

We slept that night at the little village; and early next morning made a long cast ahead, proceeding at once to the river, where we soon hit upon the track leading straight down its sandy bed. There were some strong covers reported in the river-bed some miles ahead, near the large village of Bhádúgaon, so I sent back to order the tent over there. The track was crossed in this river by several others, but was easily distinguishable from all by its superior size. It had also a peculiar drag of the toe of one hind foot, which the people knew and attributed to a wound he had received some months before from a shikári's matchlock. There was thus no doubt we were behind the man-eater; and I determined to follow him while I could hold out and we could keep the track. It led right into a very dense cover of jáman and tamarisk, in the bed and on the banks of the river, a few miles above Bhádúgaon. Having been hard pushed the previous day, we hoped he might lie up here; and, indeed, there was no other place he could well go to for water and shade. So we circled round the outside of the cover, and, finding no track leading out, considered him fairly ringed. We then went over to the village for breakfast, intending to return in the heat of the day.

There I was told by one of the mahouts a story, which I afterwards heard confirmed from the lips of one of the principal actors, regarding a notable encounter with tigers in the very cover where we had ringed the man-eater. It was in 1853 that the two brothers N. and Colonel G. beat the cover for a family of tigers said to be in it. One of the brothers



was posted in a tree, while G. and the other N. beat through on an elephant. The man on the tree first shot two of the tigers right and left, and then Colonel G. saw a very large one lying in the shade of a dense bush, and fired at it, on which it charged and mounted on the elephant's head. It was a small female elephant, and was terribly punished about the trunk and eyes in this encounter, though the mahout (a bold fellow named Rámzán who was afterwards in my own service) battered the tiger's head with his iron driving-hook so as to leave deep marks in the bones of his skull. At length he was shaken off, and retreated; but when the sportsmen urged in the elephant again, and the tiger charged as before, she turned round, and the tiger, catching her by the hind leg, fairly pulled her over on her side. My informant, who was in the howdah, said that for a time his arm was pinned between it and the tiger's body, who was making efforts to pull his shikári out of the back seat. They were all, of course, spilt on the ground with their guns; and Colonel G., getting hold of one, made the tiger retreat with a shot in the chest. The elephant had fled from the scene of action, and the two sportsmen then went in at the beast on foot. It charged again, and when close to them was finally dropped by a lucky shot in the head. But the sport did not end here; for they found two more tigers in the same cover immediately afterwards, and killed one of them,—or four altogether in the day. The worrying she had received, however, was the death of the elephant, which was buried at Bhádúgaon—one of the few instances on record of an elephant being actually killed by a tiger.

About eleven o'clock we again faced the scorching hot wind, and made silently for the cover where lay the man-eater. I surrounded it with scouts on trees; and posted a pad-elephant at the only point where he could easily get up the high



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bank and make off; and then pushed old Sarjú slowly and carefully through the cover. Peafowl rose in numbers from every bush as we advanced; and a few hares and other small animals bolted out at the edges,—such thick green covers being the midday resort of all the life of the neighbourhood in the hot weather. About the centre the jungle was extremely thick, and the bottom was cut up into a number of parallel water-channels among the strong roots and overhanging branches of the tamarisk. Here the elephant paused and began to kick the earth, and utter the low tremulous sound by which some elephants denote the close presence of a tiger. We peered all about with nervous beatings of the heart; and at last the mahout, who was lower down on the elephant's neck, said he saw him lying beneath a thick jáman bush. We had some stones in the howdah, and I made the Lállá, who was behind me in the back seat, pitch one into the bush. Instantly the tiger started up with a short roar and galloped off through the bushes. I gave him right and left at once, which told loudly; but he went till he saw the pad-elephant blocking the road he meant to escape by, and then he turned and charged back at me with horrible roars. It was very difficult to see him among the crashing bushes, and he was within twenty yards when I fired again. This dropped him into one of the channels; but he picked himself up, and came on again as savagely though more slowly than before. I was now in the act of covering him with the large shell rifle, when suddenly the elephant spun round, and I found myself looking the opposite way, while a worrying sound behind me and the frantic movements of the elephant told me I had a fellow-passenger on board I might well have dispensed with. All I could do in the way of holding on barely sufficed to prevent myself and guns from being pitched out; and it was some time before



Sarjú, finding he could not kick him off, paused to think what he would do next. I seized that placid interval to lean over behind and put the muzzle of the rifle to the head of the tiger,—blowing it into fifty pieces with the large shell. He dropped like a sack of potatoes; and then I saw the dastardly mahout urging the elephant to run out of the cover. An application of my gun-stock to his head, however, reversed the engine; and Sarjú, coming round with the utmost willingness, trumpeted a shrill note of defiance, and rushing upon his prostrate foe commenced a war-dance on his body that made it little less difficult to stick to him than when the tiger was being kicked off. It consisted I believe of kicking up the carcass with a hind leg, catching it in the hollow of the fore, and so tossing it backwards and forwards among his feet,—winding up by placing his huge fore foot on the body and crossing the other over it, so as to press it into the sand with his whole weight. I found afterwards that the elephant-boy, whose business it is to stand behind the howdah, and, if necessary, keep the elephant straight in a charge by applying a thick stick over his rump, had had a narrow escape in this adventure, having dropped off in his fright almost into the jaws of the tiger. The tiger made straight for the elephant, however, as is almost invariably the case, and the boy picked himself up and fled to the protection of the other elephant.

Sarjú was not a perfect shikári elephant; but his fault was rather too much courage than the reverse, and it was only his miserable opium-eating villain of a mahout that made him turn at the critical moment. He was much cut about the quarters; but I took him out close to the tents two days after and killed two more tigers without his flinching in the least. The tiger we had thus killed was undoubtedly the



man-eater. He was exactly ten feet long, in the prime of life, with the dull yellow coat of the adult male—not in the least mangy or toothless like the man-eater of story. He had no moon on his head, nor did his belly nearly touch the ground. I afterwards found that these characteristics are attributed to all man-eaters by the credulous people.

Before dismissing Sarjú from these pages, I would like to record an anecdote of his sagacity which I think beats everything I have heard of the elephant's intellect. He was a consummate thief; and had grown so cunning that he could unfasten any chains or ropes he was tethered with, which he often would do of a dark night if not watched, and proceed to roam about seeking what he might devour. His favourite object on such occasions was sugar-cane; and if he got into a field of this would trample down and damage the greater part of it. Many a long bill have I paid for such depredations. He would never allow himself to be caught again after such an escapade while his keepers pursued him with sticks and threats, but surrendered at once as soon as they resorted to persuasion, and promised not to beat him. One night the people of the camp were sitting up late over a small fire, and saw Sarjú unloose his foot-chain and stalk off through the camp. Presently he appeared sniffing about the place where a grain-merchant had brought out his sacks during the day to supply the wants of the camp. A sack of rice, nearly empty, lay under the head of a sleeping lad; and Sarjú paused and seemed to ponder long how he might annex its contents. At last he was seen to gradually withdraw the bag with his trunk, while he replaced it with the sloping edge of his big fore foot in supporting the head of the boy. Having gobbled up the rice with much despatch, he then rolled up the bag, and returning it under the boy's head stalked away! I



was told this story next morning by several respectable natives who saw the whole affair, and who had no object in telling a lie about it. For my own part, knowing what Mr. Sarjú was capable of, I believe it.

Before quitting the subject of tigers I may notice the obstacle presented by the number of these animals to the advance of population and tillage. Between five and six hundred human beings, and an uncalculated number of cattle, are killed by wild beasts in the Central Provinces alone every year. This enormous loss of life and property has been the subject of much discussion; and many schemes for their destruction have been proposed,—most of them unpractical, and some even absurd. For some years heavy rewards were given for every tiger and other dangerous animal killed, special rewards being placed on the heads of man-eaters; and I am convinced that many more were killed during that time than previously, though statistics of former years when there was no reward are not available for comparison. The number destroyed increased every year under this stimulus. Rewards for the killing of 2414 tigers, panthers, bears, and wolves were claimed in 1867 (the last year for which statistics are available), against 1863 in 1865. Tigers are certainly not now so numerous by a great deal in many parts with which I am personally acquainted as they were even six or eight years ago. The reward has now again been much decreased; and the experience of a few years will show whether the tigers again get the upper hand. It is practically only the cattle-killing and man-eating tigers that are productive of injury, those which principally subsist on game being probably more useful than noxious. Poison has sometimes been successful in destroying a man-eater,—a famous tigress, that long ravaged the western part of Chindwára district having been killed



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with strychnine in 1865, just a day before I arrived after a forced march of a hundred miles to hunt her. More commonly, however, poison is of no avail with these cunning brutes; and, as a rule, man-eaters can only be killed by the European sportsman with the help of an elephant, the native shikáris rarely attempting to molest them. Elephants have been made more available than formerly, some of the jungle districts having a Government one attached to them, besides many possessed by various public departments; and man-eaters of a bad type now rarely survive long. I know of eight or ten that have been killed by European officers since 1862, and I have not heard of any more for the last few years. It is a great point to extinguish those brutes at the outset of their career; for, if not killed when he commences to prey on human beings, a tiger becomes so cunning that it is afterwards a most difficult thing to circumvent him.

While, then, I believe that the greater outcry made of late years about the ravages of wild animals is simply due, like many other circumstances of old standing that have discovered themselves of a sudden in India, to more careful gathering of statistics, I certainly think that the evils shown still to exist are sufficient to call for some action on the part of the State. There is no doubt that an application to this matter of the same administrative ability which has reformed other evils would speedily reach to the root of this. Every tiger which really does mischief is perfectly well known locally; and his destruction should be merely a matter of time and arrangement. It should be as much the business of the local officers of Government to kill off destructive tigers as to capture dacoits and murderers. To do this they must, of course, have the means. In a bad district one at least of the resident officers, police or magisterial, should be a known sportsman;



and a staunch elephant should be a part of the regular establishment of every such district. The sums now allowed for rewards should be placed more at the disposal of the local officers than they are. If expended according to local requirements,—in obtaining information, organizing and arming shikáris, paying for the destruction of particular tigers, etc., far more could be done with the money by a competent officer than by the present method of a hard and fast reward for every animal brought in. More than this, I would have the vast resources of the Government in sportsmen and elephants regularly utilised in an annual campaign against the tigers. Every cantonment contains some dozen of ardent sportsmen, who do nothing whatever of value to the state after the drill season is over, and throughout the hot season when tigers can best be destroyed. They would all be only too happy to give their services in this work if their extra expenses were paid. Also, in every commissariat yard are some scores of Government elephants, many of them staunch already, and nearly all capable of being made so. After the marching season they have nothing whatever to do, and from want of sufficient work go out of condition and frequently die. What so obvious then as that these idle riflemen and these idle elephants should be sent forth into the jungles all over India for three months, from March to June, to fetch in their tale of tigers? All that is wanted is a little organization. The different departments of Government must be made to work together—the commissariat officers must be over-ruled when they prophesy the ruin of their dearly beloved elephants. They will in fact be all the better for it. The military authorities must be informed that they can have their officers and animals back again on two days' notice should they require them. The civil officers of the country to be hunted must be got to work



in concert with the expeditions. Without their co-operation nothing can be done. A thorough sportsman, well acquainted with the country, and known to get on among natives, must be placed with sole power at the head of each party. I need not go farther into details. The scheme is so simple, and so certain of success, without even the least extra expense to the state, that it is only surprising that, among so many schemes which have received notice, this, the only possible method of making a real and speedy impression upon the wild animals, should not have been brought forward. Of course it is unnecessary to say that partial and timid experiments of the sort can lead to no result worthy of notice. The scale of operations must be large, while at the same time the arrangement of the details of organization must be careful, and free from anything resembling jobbery. I have said that no extra expenditure need be incurred. The pay of the officers employed and expenses of the elephants would not of course be charged to this work, while all the other expenses of camp equipage, carriage, hunting expenses, etc., should be defrayed from the existing provision for rewards.

On the 27th of May I shot my last tiger for that season in the famous cover of Dapará, being seized the next day with the preliminary symptoms of what turned out to be a severe attack of jungle fever, brought on by constant exposure to the hot sun by day and the malarious air of these close valleys by night; cholera, too, was raging all around us, and so I determined to return to the cool heights of Puchmurree, which I did by the Borí route, in four longish marches. I was sick of the constant severe heat of the burnt-up plains below, and parched with the coming fever as well, and I think I never enjoyed anything so much as when I bared my head to the cool breeze that swept over the Puchmurree



plateau, as I topped its edge after climbing up the stiff ascent of the Rorí Ghát. The thermometer in my tent below had been ranging from 98 degrees to 110 degrees during the heat of the day, and had once reached 120 degrees, when I went out and lay like a tiger under some jáman bushes by the water-side. In the verandah of the lodge on Puchmurree, which was now nearly finished, it stood at 86 degrees, while the nights, which below had not for weeks been free from hot winds, were cool and delicious up here. Soon after coming up I was fairly prostrated with fever, and remained delirious for about a couple of days, emerging at last, thanks to a very attentive native doctor we had, much shaken and weak, but free from the fever. Nearly all my servants and the camp followers who had been through the hot weather with me also got fever on coming up to Puchmurree, and the place presented much the appearance of an extensive hospital for some weeks.

The first rain of the monsoon fell on the 12th of June, a smart shower, that, as if by magic, covered the plateau with the greenest of tints. The wild flowers, too, again burst forth on all sides, under the influence of the gentle showers that now almost daily visited the hill. It was inexpressibly delightful to be up here, in a perfectly English climate, with cool grey skies, and greenery all about, after the terrible grilling we had suffered for two long months down below. My Korkú friends seemed glad to see me back again, and I tried to go out after the bison with them, but I found myself far too weak to negotiate the formidable slopes of Dhúpgarh. The early part of the rainy season which was now approaching is the very best time of all for hunting the bison, tracks being easily followed, while the sky is generally overcast with clouds, and the weather cool in these high regions. Towards

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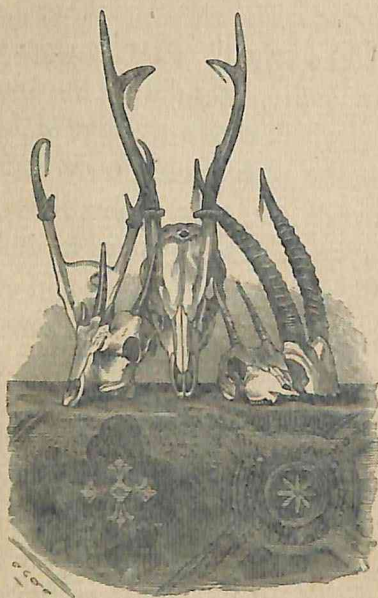
the end of the month the clouds began to bank up into deep purple masses behind the higher peaks, and at night lightning played incessantly round the horizon. By great exertions we got the house roofed just in time to hang a bison's frontlet over the door, and christen it "Bison Lodge," before the full force of the monsoon broke upon the plateau on the last day of June. I must not now tell of the many pleasant days and jovial nights passed between those four walls in after years, when the fire blazing in the arched grate I had builded with my own hands, and the *jorum* of whisky toddy imported from my native hills, deluded us into the belief that we were far away from the exile, if still a pleasant exile, of the highlands of Central India. Such a terrific storm I never saw as on the night of the breaking of the monsoon, crash after crash seeming to burst within the rooms, while a blaze of green lightning incessantly lit up the whole features of the hill. It lasted about the whole night, and nearly four inches of rain fell along with it, but on its clearing up in the morning, such is the beautiful drainage of this plateau that in less than an hour a horse could have galloped over it comfortably in any direction. Rain clouds continued to shroud the higher peaks, and roll round the edges of the plateau, the whole time I remained on the hill, but we never had another heavy storm, and, what is very unusual at such altitudes, the clouds never invaded the centre of the plateau at all. I had repeated returns of the fever, and neither could my people shake it off. Conveniences to help recovery were also wanting, and I left the plateau on the 20th of July to march to Jubbulpur. It was a melancholy procession down the hill, that march of my gaunt and fever-stricken followers, crowded on the backs of the elephants that carried them in several trips to the carts that awaited them below.



Another officer relieved me at Puchmurree, and remained nearly till the end of the rainy season ; meteorological observations being kept up, in order to compare with others which were being taken at the same time by a party resident on the rival plateau of Motúr. The result was that a mean temperature of about 73° , and a rainfall of rather more than 60 inches, were registered for both places during the four months from June to September, which shows a range of heat about 8° or 10° lower than on the plains, and nearly double the rainfall. Unfortunately, however, the comparative difficulty of access to Puchmurree was allowed to tell against its infinitely superior beauty and suitability in other respects ; and swampy, jungly, hideous Motúr, which lies on the trap formation, and very much resembles the country along the Táptí river described in the last chapter, was preferred to this beautiful plateau for trial as a sanatorium for European troops during the ensuing season. It was an utter failure, the climate being bad, and there being nothing to interest the men in such a place. It seems to have been forgotten that in a year or two the railway would pass within thirty miles of Puchmurree on the north, from which side a wheel-road up the hill might be made at small expense.

Since then the Forest Department has regularly occupied the lodge on the hill, and laid out extensive gardens round about. Attempts to cultivate the quinine-yielding cinchona made on a small scale have failed, owing probably to want of the needful attention and knowledge, rather than to unsuitability of the place and climate. The potato, and all sorts of European vegetables and flowers, have been found to thrive admirably at Puchmurree. Another house has been built, and many European and native officials have enjoyed excellent health during visits to the place for some years.

Lately a wheel-road up the hill from the railway station of Bankhéri has been constructed, and one of the loveliest spots in India is now in a fair way of having justice done to it at last.*



Horns of Hog-deer, Barking-deer, male and female Chikára, and Four-horned Antelope.
(Scale, one tenth.)

I shall not say much of my long ride of a hundred miles to Jubbulpúr in the soaking rain, through the stiff black mud and unbridged streams of the Narbadá valley. It was very miserable, with the chills of ague in one's bones. A luxuriant seat in a first-class saloon now whirls the visitor to Puch-murree over those weary miles; and the pioneers of earlier days must not prate of their hardships. With the exception of a few days, when I had the excellent society of my friend

* Since writing the above I have seen that Government has sanctioned the experimental establishment of a sanatorium for European soldiers at Puch-murree. It cannot fail to prove a success if properly managed.



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Captain Pearson, I had not seen a white face during these six months of jungle wanderings ; and though by no means tired of the wild, independent life of a forester, or of the company of the hill people and the kindly little band of dependants I had gathered about me, the society of a pleasant station like the Jubbulpúr of those days was no doubt an agreeable change.



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CHAPTER VIII.

THE HIGHER NARBADÁ.

Jubbulpúr Transformed—Effects of the Railway along the Narbadá—A Station Shikári—The Panther and Leopard—Dangers of Panther Hunting—A Man-eating Panther—Curious Legend—Cunning of Panthers—A Determined Charge—Baits for the Panther—A Hot-weather Excursion—Dance of the Peacocks—Deer Shooting from a “Dug-out”—The Spotted Deer—An Interview with a Tiger—The Monkeys’ Leap—Immense Herd of Deer—A Famous Tiger—A Successful Beat—A Midnight Intruder—The Man-eater of Pouhri—Ghostly Legend—Coursing the Sámbar—Native Dogs—The Wild Dog—Banjára Dogs—The Black Bear—A Family Charge—Bear Shooting—Large Python.

JUBBULPÚR is now rather an important place, being the point of junction of the two lines of railway which between them connect the political with the commercial capital of India, Calcutta with Bombay, and over which pass all the passengers, and much of the goods, in transit between England and Upper India. At the time of which I write it was a small civil and military station, of which few who had not been there knew anything, except that it was situated somewhere in the wilds of Central India. I remember when we first got our orders to march there from Upper India no one could give us a route to it. It was trooped from Madras at that time, and so of course the Bengal authorities could not be expected to know anything about it. We found it the pleasantest of Indian stations; situated in a green hollow among low rocky granite hills always covered with verdure; with tidy hard roads and plenty of greensward about them;



with commodious bungalows embowered in magnificent clumps of bamboo ; remarkable for the delicacy and abundance of its fruits and other garden products, including the pineapple, which will not grow anywhere else in Central India ; and withal, from its land-locked condition forbidding exports, a most absurdly cheap sort of place to live in. All this is now changed. The steam-horse has torn his way through the parks, and levelled the bamboo clumps that were the glory of the place. Hideous embankments, and monstrous hotels, and other truly British buildings, stare one in the face at every turn. Crowds of rail-borne "picturesquers" assail the Marble Rocks and other sights about the place. Everything has run up to the famine prices induced by the rapid "progress" of the last ten years. And progress it is, in every proper sense of the word. The Narbadá valley is now a part of the great bustling world outside, instead of being a mere isolated oasis in a desert of jungle, thinking and caring only about its own petty wants and concerns. The agriculturist, the merchant, and all who "paddle their own canoe" on the great ocean of life, are all the better for it. Their gains have grown in more than proportion to their outgoings. Only such wretches as sail in "foreign bottoms" have to regret the change ; their fixed incomes have not grown with the growth of their expenses. The poor clerk, who could barely in the old times keep body and soul together on his pittance of ten rupees a month, gets no more now that his expenses are doubled. Government schools have flooded his market with competitors, who prevent his wages from rising by their importunity for office ; and the Government, not having yet discovered the way to raise its own income, when appealed to for more, buttons up its pockets, and points to the crowds ready and willing to serve for less. The poor clerk has his



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remedy ; he can pick and steal enough to make up the deficiency ; and he does so. But the subaltern of infantry, or the young civilian, being incommoded with the troublesome commodity called honour, have no such resource ; and so they have nothing for it but to knock off their Arab, and other little luxuries, and fag away through an ill-concealed period of indigence to higher grades and better pay.

All this civilisation has of course greatly deteriorated the place as a residence for him whose pleasures lie with the jungle and its wild inhabitants. In the old times, Jubbulpúr was almost the perfection of a sportsman's headquarters. It lay nearly at the head of the last of the great basins of the Narbadá valley, which have been reclaimed by population and agriculture. These basins are a characteristic of the valley, and within the limits of our province are four in number ; great circular plains surrounded by steep hills, filled with deep alluvial soil, through which the river moves slowly in long silent reaches, with here and there a gentle stream. Between them lie shorter sections of rugged ground, where the hills on either side converge, and through which the river tumbles in a less placid course, short pools being connected by long broken rapids. A little way above Jubbulpúr, the last of these basins is terminated by the again converging hills, and from this point up to the little civil station of Mandlá the river flows through a narrow valley, very scantily cultivated here and there, and generally covered along the river-side by bamboos, and on the hills by a low jungle composed of the commoner sort of trees. Many little tributary streams joined the river in this part of its course. These ran up into the partially cultivated uplands on either side of the valley ; and in the cold season, when they contained water and green vegetation, afforded cover to great numbers of wild animals of



all sorts. When the hot season advanced their waters gradually dried up, and then the game all moved down into the Narbadá valley, congregating at that time, when the great mutiny had for some years prevented their molestation, in very great numbers.

In January, 1863, I marched up this valley, on my way to explore the Sál forests in the eastern part of the province. But want of time then prevented my lingering to shoot. The year before joining the forest department, however, I had made an excursion up this valley during the hot season; and while cantoned at Jubbulpúr, made many excursions through the hilly regions surrounding the valley. Several sorts of game which have not yet been much mentioned were then met with in great abundance; and before taking my readers towards the Sál forests I will devote a little space to these excursions.

I was then a good deal of a "griffin," and was obliged to rely much on the assistance of native shikáris in finding game. The chief of these about Jubbulpúr was an arch-villain who haunted the purlieus of the cantonment messes, and hawked about his news of panthers, bears, deer, etc., to the highest bidder. I don't think I ever heard his name. He was always called "Bamanjee," or the "Brahman," for such was his caste. He knew intimately every inch of the jungle for twenty miles around, and had sons and nephews in close relations with the tigers and other wild animals in all directions. He was thoroughly acquainted with all the different sorts of game and their habits, and really could, when he chose, furnish first-rate sport to his clients. But he was by nature a rogue of the first water, generally taking his information all round the station for offers; and taking out the highest bidder to a hunt which almost invariably ended,



through some perverse accident, in the escape without scathe of the object of pursuit, which he would very likely bring in the next day himself to claim the Government reward. He had "stumbled on it" of course, quite by accident, and in self-defence, etc., he was compelled to shoot it!

His great quarry was the panther, of which he was known to have killed an almost incredible number in the course of his long life. He lived in a little village about four miles out of the station, just under one of the steep isolated granite hills that rise at intervals from the plain; and he once showed me a notched stick, on which fifty-two cuts recorded the number of panthers he had killed on this hill alone. The number of these animals in the districts round about Jubbulpúr is very great. The low rocky hills referred to, full of hollows and caverns, and overgrown with dense scrubby cover, afford them favourite retreats; while the numbers of antelope and hog deer, goats, sheep, pariah dogs, and pigs, supply them with abundant food. A large male panther will kill not very heavy cattle; but as a rule they confine themselves to the smaller animals mentioned. They seldom reside very far from villages, prowling round them at night in search of prey, and retreating to their fastnesses before day-break. Unlike the tiger, they care little for the neighbourhood of water even in the hot weather, drinking only at night, and generally at a distance from their mid-day retreat.

There has been much confusion among sportsmen and writers as to the several species of Cat called "Panther," "Leopard," and "Hunting Leopard." Jerdon, in his "Mammals of India," has at last correctly distinguished them under the above names, recognising two varieties marked with rosettes (the fulvous ground of the skin showing through the black), instead of plain black spots, which are peculiar to the



Hunting Leopard (*F. Jubata*). He calls both *F. Pardus*, considering them only as varieties, not distinct species. In English he calls the larger the panther and the smaller the leopard, and it will be well if sportsmen will avoid future confusion by adopting this appropriate nomenclature. The points of difference between the two varieties of *F. Pardus* he states to be the larger size of the panther, which reaches in fine specimens seven feet eleven inches in length from nose to tip of tail, the leopard not exceeding five feet six inches; the lighter colour, and taller and more slender figure of the panther, and the rounder more bull-dog like head of the leopard. These distinctions I myself recognised, and described in "The Field," of 17th May, 1862.

In my early sporting days I fell into the mistake of most sportsmen in supposing that the panther might be hunted on foot with less caution than the tiger. On two or three occasions I nearly paid dearly for the error; and I now believe that the panther is really by far a more dangerous animal to attack than the tiger. He is, in the first place, far more courageous. For though he will generally sneak away unobserved as long as he can, if once brought to close quarters he will rarely fail to charge with the utmost ferocity, fighting to the very last. He is also much more active than the tiger, making immense springs clear off the ground, which the tiger seldom does. He can conceal himself in the most wonderful way, his spotted hide blending with the ground, and his lithe loose form being compressible into an inconceivably small space. Further, he is so much less in depth and stoutness than the tiger, and moves so much quicker, that he is far more difficult to hit in a vital place. He can climb trees, which the tiger cannot do except for a short distance up a thick sloping trunk. A few years ago a panther thus took a



Sportsman out of a high perch on a tree in the Chindwára district. And lastly, his powers of offence are scarcely inferior to those of the tiger himself; and are amply sufficient to be the death of any man he gets hold of. When stationed at Damoh near Jubbulpúr, with a detachment of my regiment, I shot seven panthers and leopards in less than a month, within a few miles of the station, chiefly by driving them out with beaters; all of them charged who had the power to do so; but the little cherub who watches over "griffins" got us out of it without damage either to myself or the beaters. One of the smaller species, really not more than five feet long I believe, charged me three several times up a bank to the very muzzle of my rifle (of which I luckily had a couple), falling back each time to the shot, but not dreaming of trying to escape, and dying at last at my feet with her teeth closed on the root of a small tree. This animal had about six inches of the quill of a porcupine broken off in her chest. Another jumped on my horse, when passing through some long grass, before she was fired at at all; and after being kicked off charged my groom and gun carrier, who barely escaped by fleeing for their lives, leaving my only gun in the possession of the leopard. I had to ride to cantonments for another rifle, and to get together some beaters. When we returned, I took up my post on a rock which overlooked the patch of grass; and the beaters had scarcely commenced their noise before the leopard went at them like an arrow. An accident would certainly have happened this time had my shots failed to stop this devil incarnate before she reached them. She had cubs in the grass, which accounted for her fury; but a tigress would have abandoned them to their fate in a similar case. The last I killed was a man-eater, which took up his post among the high crops surrounding a village, and killed and dragged in



women and children who ventured out of the village. He was a panther of the largest size, and had been wounded by a shikárí from a tree, the ball passing through his external ear and one of his paws, and rendering him incapable of killing game. I was a week hunting him, as he was very careful not to show himself when pursued ; and at last I shot him in a cowhouse into which he had ventured, and killed several head of cattle, before the people had courage to shut the door.

When a panther takes to man-eating, he is a far more terrible scourge than a tiger. In 1858 a man-killing panther devastated the northern part of the Seoní district, killing (incredible as it may seem) nearly a hundred persons before he was shot by a shikárí. He never ate the bodies, but merely lapped the blood from the throat ; and his plan was either to steal into a house at night, and strangle some sleeper on his bed, stifling all outcry with his deadly grip, or to climb into the high platforms from which watchers guard their fields from deer, and drag out his victim from there. He was not to be baulked of his prey ; and when driven off from one end of a village, would hurry round to the opposite side and secure another in the confusion. A few moments completed his deadly work, and such was the devilish cunning he joined to this extraordinary boldness that all attempts to find and shoot him were for many months unsuccessful. European sportsmen who went out, after hunting him in vain all day, would find his tracks close to the door of their tent in the morning. When, a few years later, I passed through the scene of his chief depredations (Dhúmá), a curious myth had grown round the history of this panther. A man and his wife were travelling back to their home from a pilgrimage to Benares, when they met on the road a panther. The woman was terrified ; but the man said, "Fear not, I possess a charm by which I



can transform myself into any shape. I will now become a panther, and remove this obstacle from the road, and on my return you must place this powder in my mouth, when I will recover my proper shape." He then swallowed his own portion of the magic powder, and assuming the likeness of the panther, persuaded him to leave the path. Returning to the woman, he opened his mouth to receive the transposing charm ; but she, terrified by his dreadful appearance and open jaws, dropped it in the mire, and it was lost. Then, in despair, he killed the author of his misfortune, and ever after revenged himself on the race whose form he could never resume.

The Seoní panther is not a solitary case, several other man-eating panthers having done scarcely less amount of mischief in other parts of the province. Their indifference to water makes it extremely difficult to bring them to book ; and, indeed, panthers are far more generally met with by accident than secured by regular hunting. When beating with elephants they are very rarely found, considering their numbers ; but they must be frequently passed at a short distance, unobserved, in this kind of hunting. In 1862, I was hunting for a tigress and cubs near Khápá, on the Lawá river, in Bétúl. Their tracks of a few days old led into a deep fissure in the rocky banks of the river, above which I went, leaving the elephant below, and threw in stones from the edge. Some way up I saw a large panther steal out at the head, and sneak across the plain. He was out of shot, and I followed on his tracks, which were clear enough for a few hundred yards, till, at the crossing of a small rocky nálá, they disappeared. I could not make it out, and was returning to the elephant, when I saw the driver making signals. He had followed me up above, and had seen the panther sneak back



along the little nála, which led into the top of the ravine, and re-enter the latter. I then went and placed myself so as to command the top of the ravine, and sent people below to fling in stones; and presently the panther broke again at the same place, this time galloping away openly across the plain. I missed with both barrels of my rifle, but turned him over with a lucky shot from a smooth-bore, at more than two hundred yards. I then went up to him on the elephant, and he made feeble attempts to rise and come at me, but he was too far gone to succeed. The panther will charge an elephant with the greatest ferocity. In 1863, near Sambalpúr, a party of us were beating a bamboo cover for pigs, with a view to the sticking thereof, my elephant accompanying the beaters, when a shout from the latter announced that they had stumbled on a panther. They took to trees, and I got on the elephant to turn him out, while the others exchanged their hog-spears for rifles, and surrounded the place on trees. She got up before me, bounding away over the low bamboos, and I struck her on the rump with a light breech-loading gun as she disappeared. Several shots from the trees failed to stop her, and she took refuge in a very dense thorny cover on the banks of a little stream. Twice up and down I passed without seeing the brute, but firing once into a log of wood in mistake for her, and was going along the top of the cover for the third time, when the elephant pointed down the bank with her extended trunk. We threw some stones in, but nothing moved, and at last a peon came up with a huge stone on his head, which he heaved down the bank. Next moment a yellow streak shot from the bushes, and, levelling the adventurous peon, like a flash of lightning came straight at my elephant's head, when just at the last spring I broke her back with the breech-loader, and she fell over under the elephant's



trunk, tearing at the earth and stones and her own body in her bloody rage. She had a cub in the cover, about the size of a cat, which I shot on the way back.

The method usually resorted to by old Bamanjee and other native shikáris for killing panthers and leopards was, by tying out a kid, with a line attached to a fish-hook through its ear, a pull at which makes the poor little brute continue to squeak, after it has cried itself to silence about its mother. No sentiment of humanity interferes with the devices of the mild Hindú. A dog in a pit, with a basket-work cover over it, and similarly attached to a line, is equally effective. I have known panthers repeatedly to take animals they have killed up into trees to devour, and once found the body of a child, that had been killed by a panther in the Bétúl district, so disposed of in the fork of a tree. They are very often lost, I believe, by taking unobserved to trees. Beating them out of cover with a strong body of beaters and fireworks is, on the whole, the most successful way of hunting these cunning brutes; but it is accompanied by a good deal of risk to the beaters as well as to the sportsman, if he is over-venturesome; and it is apt, also, to end in disappointment in most instances. My own experience is that the majority of panthers one finds, are come across more by luck than good management.

In April, 1861, old Bamanjee, with whom I had often been out on short trips with considerable success, induced me to take a month's leave, and accompany him up the Narbadá valley from Jubbulpúr to shoot. The game promised consisted of tigers, bears, sámbar, and spotted deer; and I found that all these were really attainable in no small numbers. The sámbar and bears lived on the hill ranges on either side of the river; while the spotted deer, as usual, kept to the



banks of the river, where a network of ravines, covered with clumps of bamboo, afforded them the plentiful shade and abundance of water they delight in. In attendance on them was the tiger, who revelled in the abundance of game then congregated about the river. The herds of cattle and buffaloes that were grazing in the valley were seldom touched, excepting in one place, where I found a family of tigers wholly subsisting upon them; but nearly every day we stumbled on the remains of spotted deer, sámbar, and nilgái, which had fallen victims to the destroyer. The destroyer himself, however, kept, with a good deal of success, out of our way. I was too green a hand to hunt him then with the silent perseverance which alone ensures success, and could rarely resist a promising shot at other game on the distant chance of finding a tiger. Nor do I think that Mr. Bamanjee much desired to have very many interviews with his jungle majesty. Spotted deer were in immense numbers, and the bucks were everywhere bellowing along the banks, and in the bamboo-covered ravines that radiate from the river. It was very easy to shoot the poor brutes at that time, the best plan being to embark in a canoe dug out of a single log, and paddle slowly down the reaches a little way from the bank, between daybreak and ten or eleven o'clock. The air of repose worn by the whole scene at that time is scarcely broken by the movement of animal life. The lazy plunge of a crocodile, the eddying rise of a great fish, the hover of a gem-like kingfisher, the easy flight of the dark square-winged buzzard, all add to, rather than diminish, the sense of quietness in the scene. Immense numbers of peafowl live on the banks. This is the season of their loves, and almost every bare knoll may be seen covered with a flock of them, the hens sitting demurely in the centre, while the cocks ruffle out their magni-



ficent plumage, and spread their gorgeous trains, and waltz round and round them in a most absurd fashion. The boatmen are fond of trying to catch them when absorbed in this dance of love ; and, though I have never seen one actually secured, I have seen an active fellow get so near as to pluck some feathers from the tail of the collapsed and retreating swain. No riotous sounds offend the ear in this peaceful valley. The Koël, bird of the morning, raises now and then his staccato note from some overhanging tree, or the giant Sârus crane floats his tremulous cry along the calm surface of the lake-like river.

But hark ! From a clump of tangled bamboos, overhanging the mouth of a little burn that joins the river, rings the loud bellow of a spotted buck. The boatman sticks his long pole down to the bottom, and anchors the dug-out, while the sportsman, with cocked rifle, watches in the bow. Presently a rustle and a motion in the fringe of bright-green jâman bushes that edge the river, and the head and shoulders of a noble buck emerge, one fore foot advanced hesitatingly to the strip of yellow sand beside the water. Another instant and he stands, a statue of grace and beauty, on the open beach. Now he has seen the boat, and his careless mien is changed for an attitude of intense regard. Motionless, head thrown up, and antlers sweeping his flanks, he might be photographed for the second or two he stands at gaze. In an instant more he will wheel round and plunge into the thicket, unless stopped by the deadly bullet. The true sportsman will often spare the beautiful creature, even when thus at the point of his rifle, when a week or two of the easy sport has satiated his ardour, and filled his camp with meat and trophies of graceful antlers. It was impossible in those days to walk half a mile along the river bank without seeing deer, and I



have known an indifferent shot kill six bucks here in a morning.

There was some excitement in the chance of stumbling on a tiger in the cool thickets of green cover by the river, or, like the sportsman, stalking the spotted deer. I was following a wounded buck once, when I thus almost trod upon a tiger doing the very same thing. It was in the dusk of the evening, when I saw him about twenty paces ahead of me, roading up the bloody trail like a retriever on a winged pheasant. He was passing over a low ridge between two ravines, and I was below him—a situation awkward for a foot-encounter with any dangerous animal. I, therefore, waited till he disappeared on the other side, and then running softly up, peered down from behind a clump of bamboos. Presently I saw the wounded buck and two does start out of some cover beyond the further ravine, and then a motion of the tiger, who had been standing a little below them, as he quickly crouched out of their sight, revealed him to me. I sat down, and took a steady shot at his shoulder at about seventy yards. He rolled back into the nálá, above which I was standing, and, after a good deal of growling and struggling among the leaves, all was still. It would have been folly to go down to him in such uncertain light, so I returned to the boat, going back next morning with an elephant to see the result. It was just as well I had not ventured down in the dark the night before; for, after lying some time where he fell, and leaving a great pool of blood on the ground, he had afterwards recovered himself, and gone slowly and painfully off towards the river. We followed up the track, and about three hundred yards further down found him, by the chattering of birds, lying stiff and stark under a bush. He had never reached the water he sought.



About twenty-five miles above Jubbulpúr is a curious place called the "Monkeys' Leap." A small tributary of the Narbadá, called the Bághorá (or "Tiger River"), here comes down from the southern hills, and, after approaching the Narbadá within about a hundred yards, sheers off again, and runs some miles before it finally joins it. Deep water fills both the channels opposite the narrow neck, and the strip of cover between the rivers is a favourite resort for all sorts of game in the hot season. I was invited by a neighbouring thákúr, a Rájput, to join a drive for game he was arranging at this place, in which he hoped to secure a famous tiger that had long defied every effort to kill him. Long will "Whitehead" of the Gairá Bairá be remembered on the banks of the Narbadá. He furnished sport to a whole generation of the sportsmen of Jubbulpúr, and, so far as I know, never was killed. He disappeared in the course of time. Several hundred beaters were assembled to beat the leg-of-mutton shaped tract, of which the narrow "Monkeys' Leap" between the two rivers formed the shank. A large old stump of a banyan tree stood right in the centre of the neck, hollowed like a cup at the top by the weather, and filled a few inches deep with drift sand. A better post for the gunner could not be, and here the thákúr and I took our places. It was a long drive, and it was not for an hour or more that the game began to appear, and groups of spotted deer gradually collected on all the knolls within sight on the inward side. They grew and grew in numbers, gazing back at the beaters and forward at the tree, where they had often run the gauntlet before. They were very unwilling to come on, but the drive was strong and not to be eluded. I watched for the tiger till many of the deer had gone past; at first a straggling doe with her fawn, then small groups, and finally a great hustling mass of dappled hides and



tossing antlers. There was no tiger evidently in the beat. The thákúr's long matchlock had already been the death of a buck, and he was painfully reloading its long tube from his primitive charging implements. I had a couple of rifles, single and double, and it was the work of as many seconds only to fire the three barrels, killing two and wounding another. There were no breech-loaders in those days; but I had time to reload the double while the stream of deer poured past, and secure two more bucks before the beaters came up. The wounded buck was afterwards recovered. There cannot have been less than a thousand spotted deer in this beat; and I never before or since saw such a sight. With a breech-loader twenty or thirty bucks could easily have been killed. One of the bucks I killed had the largest horns I have ever seen, measuring each thirty-eight inches round the curve.

I had another beat for "Whitehead" afterwards, near the same place. The beaters came on him in a patch of long grass jungle, from which he obstinately refused to move. He had been once wounded in a drive, and never would face the guns again. At last we set fire to the jungle, while I awaited him on a tree at one end. The raging flames must have passed completely over him, and it was not till they had nearly reached my post, and the heat was exploding the dried fruits of a *leael* tree* next to me, with reports like pistol shots, that I retreated from my post. I had barely reached the ground when I heard a shout from the beaters, who were all in the trees round about the cover, and the tiger broke out among them. Then ensued a drawing-up of black legs, and a perfect Babel of abuse of his remotest ancestors was poured on him from the trees as he halted below, and looked up at them

* *Egle marmalos.*



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with a longing gaze. I hurried round, but was just in time to see him pause for a moment on the top of a ridge, his grand form appearing dilated to an unnatural size, from the bracing of the muscles, lashing tail, and bristling coat, bathed in the red glow of the setting sun and the blazing jungle. The next instant, before my rifle could be got to bear on him, he plunged down the farther side and disappeared.

I had one piece of really wonderful luck in this trip, which compensated for a good deal of heavy fagging in vain after the monarch of the jungle. I will quote the account as written at the time, which betrays an enthusiasm I should scarcely be able to call up in such a description now-a-days, and which gives the details of a method of hunting tigers which in later years I abandoned as involving too great a risk of human life, namely, driving with beaters. In such a country as the Upper Narbadá valley, however, the more legitimate method of stalking with the elephant could scarcely be followed, owing to the extent and density of the cover and the abundance of water.

Three tigers, namely, a tigress and her two nearly full-grown cubs, had long been the plague of some villages on the banks of the river. Their depredations extended over about five miles of country, where they found beef so plentiful and easily got that they seldom wandered above that distance from their usual haunts, which lay in a mesh of most difficult ravines bordering the Narbadá, and running up towards the hills. The covert here was of the densest description, though thinner, of course, at this time of the year than at any other. On my arrival in the neighbourhood, I was immediately solicited to go and rid it of these pests, and every assistance promised. So I pitched my camp at the village nearest to their haunts, and began to lay plans for their destruction.



There was no need to tie animals out as baits for the tigers, as is sometimes done, for here they killed a cow or two every other day, although, food being so plentiful, they seldom remained long near the carcasses. The third evening after I came, two cows were killed about a mile from camp. I would not allow them to be touched, trusting that, having eaten well during the night, the tigers would lie up in some place close at hand, to which we might track them next morning, and beat them out in the heat of the day.

When any tracking has to be done, it is of great importance to be at the spot very early in the morning, as the breezes, which generally rise shortly after daybreak, are apt to destroy the fine edges of the impressions left, and by nine o'clock it is often impossible to tell whether the marks are old or new. We accordingly started for the "murrees" before daylight, and had no difficulty in finding the place, which was deeply marked by the feet of both tigers and cows, and a broad trail led off in the direction the tigers had dragged the carcasses. Following this up, it led us shortly into a ravine, where we found the remains of both cows deposited in different narrow clefts, where the tigers had retired to dine at their leisure. Of one the head alone was left, and the head and fore quarters of the other. The carcasses had evidently been most scientifically cleaned out by these professional butchers before setting to work, the dung and other refuse being carefully piled up at a little distance, so as not to come between the wind and their nobility during the repast. Vultures, kites, and crows had already commenced to demolish the remainder—a sure sign that our game had left the immediate neighbourhood.

Taking up the tracks, we followed them for about half a mile along the ravine towards the river. The prints of the old lady and her daughters were nearly the same in size, and



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scarcely distinguishable. The Gónds who were tracking declared that they could tell that the cubs were both females. This, I confess, I was somewhat incredulous of, although I had frequently had occasion to admire their extraordinary skill in tracking; and I thought they were merely trusting to the well-known preponderance of female over male cubs,* to get a little *kudos* in the event of their prediction turning out true. This was subsequently the case, but I have since learned that the footmarks are really distinguishable. On inquiry, I found that while the foot of the male leaves an impression nearly round, that of the tigress is almost oval. On seeing them both together the difference is at once perceived. This is likewise true of the male and female panther. With a single exception, the footprints of all these great cats can be distinguished with certainty after a little practice, which is no small assistance to the hunter at times. The exception is, that a large male panther and a young male tiger leave marks absolutely identical, and not to be distinguished by the best native trackers.

After following the easily-read trail in the sandy bottom of the ravine for some half-mile or so, the ravine branched off into two; the main branch leading straight down to the river, and the other a narrow rock-bound gully striking off almost at right angles to the left. The sturdy little Gónd who was then leading seemed to grow somewhat anxious as we approached the junction, and his swarthy countenance lighted up with a smile pleasant to see, when he found that all three tigers had entered the gorge to the left.

* Natives account for this by saying that the old male tiger kills all the male cubs he comes across when they are young; and they describe so similarly, in different parts of the country, the manoeuvres of mamma to protect her young "hopefuls" against their unnatural papa, that I have little doubt of the truth of the story.



"We have them!" he exclaimed; "they are in the dewur, and as good as killed."

Dewur is the local name for a place where two or three *nálás* meet, and form a hollow in which water remains throughout the hot weather; if sufficiently shady and cool, it is a favourite haunt of the tiger; and it really seemed very likely that the tigers, having gorged themselves at night, had proceeded to lie up in the dewur, as surmised by the Gónd. To make all sure, we described a circle round the place, carefully examining all the *nálás* that led from it, and finding no marks to indicate their exit, returned to camp, pretty confident of having "ringed" the family, and that we would find them asleep about twelve o'clock. A scorching hot wind was blowing fiercely across the plain when I left my tent after breakfast, and mounted the howdah. It was fearfully hot, and the flickering haze that plays over the bare ground at this season, like an exhalation of gas from its surface, playing the strangest pranks with houses, trees, and figures, was exceedingly painful to the eyes. Never mind! all the more chance of finding the tigers at home, and we were soon under way for the dewur. About 150 beaters had collected, for, the whole wealth of these people lying in their herds, they were naturally anxious for the destruction of the family of pests.

On arriving at the scene of operations, they were told off into four parties, each placed under charge of one of the more respectable inhabitants; and, after strict injunctions about taking to trees, etc., were dispatched to their several posts. There were only two places where the tigers were likely to break, of which one led to the river, and the other, a dry watercourse, towards the neighbouring hills. Some peculiarities in the ground induced me to select the latter for my own post, while I intrusted the former to the old shikárí with his



matchlock. I got an excellent position in a thick covert of jaman bushes, while at the same time effectually commanding the pass.

Half an hour elapsed, as agreed on, and then burst forth from the beaters the most terrific Babel of barbarous noises ever heard out of Pandemonium. I had engaged a "band," that had come from some distance to assist at the marriage of a wealthy merchant in the village, and we were, consequently, powerful in instrumental music. Fancy-drums, great and small, "ear-piercing fifes," "rumtoolahs" of formidable dimensions (a hideous copper wind instrument, indescribable in simple English, but which I fancy must be identical with the "cholera horn" of Southern India), mingled with a tempest of watchmen's rattles (each of fifty landrail power), and abundantly supplemented by vocal abuse of the tigers' ancestors to the tenth generation, delivered in the loudest key of native Billingsgate, and you have a faint idea of the row!

As they approached, it of course got more and more exciting, and soon the various inhabitants of the dewur began to make their appearance. First came a peacock and two hens, pattering over the fallen leaves. Sharper in eyesight than any other denizen of the forest, they soon observed me, and, rising in a panic, sailed off with their beautifully steady flight towards the river, the gorgeous plumage of the cock flashing in the sun—six feet of living gold and purple!

Another rustle, and a herd of spotted deer came trotting over a little eminence ahead, led by a well-antlered buck, with two more good ones bringing up the rear. Entirely taken up by the noise of the beaters, they never observed me, and, passing within fifteen paces of my elephant, disappeared in the jungle. I could have shot any one, or perhaps two, of the bucks, but seeing what was more interesting at the time,



held my hand. This was a troop of baboons—hoary-bearded old fellows, and matrons with their young ones in their arms—who were perched on the trees ahead, and had already commenced their angry warnings that *the tigers were there*.

Then came the glorious moment of excitement,—ample reward for days of bootless toil. The tigress came sneaking along amongst the bushes that fringed the nālā, and, halting about sixty paces off, turned round her head for a moment towards the beaters. Steady now! the bottom of the neck is exposed, and the sight of the big rifle bears full upon the proper spot. Bang! and with a gurgling roar, over she rolls into the nālā. Is it she? or the devil, or what? Certainly she fell; but, from the very spot she stood on, bounds forth the image of herself, with blood pouring in torrents from a gaping wound in the neck! More still: a third leaps the nālā just in front of my elephant, and the jungle seems alive with tigers. I had instantly exchanged the single for the double rifle, and as this one passed me at full speed, I rolled her over with a broken back and a bullet through the shoulder. Meantime the wounded one had disappeared behind me, and I proceeded to inspect the field, and count the killed and wounded. The last shot was a cub; so was the one that had rolled into the nālā to the first shot; and it was the old tigress that had escaped behind me. This was all a mystery, till I found that the first one was shot through the heart, the ball entering through the ribs, whereas, the first tiger I had fired at was standing almost facing me when I pulled; and then it was explained. One ball, the crashing two-ounce one, had passed through the tigress, and killed cub No. 1 on the other side.

My little elephant, a female called Kālī, quite untried, which I had borrowed from the Jubbulpur commissariat, had

behaved nobly. Curling her trunk out of harm's way, and placing her sturdy fore legs firmly before her, she stood like a rock in the midst of all the noise (for the trio roared like very bulls of Bashan). I had therefore perfect confidence in proceeding to follow up the wounded tigress. We soon found blood in plenty leading along the nálá towards the hills. I had taken the precaution of placing scouts on all the principal trees, some of whom had seen her cross an open space and enter the nálá where it debouched from a cleft in the hill side; she was going quite strong, they said, although bleeding freely from the neck. On inquiry I found that the gorge in the hill was a mere *cul-de-sac*, having no exit at the other side, except on to an elevated plateau, as bare as my hand, which a wounded tiger would never dare to face. There was no doubt, therefore, that she had stopped in this gully and would fight, so I proceeded to make arrangements for the attack. The first thing done was to send men up the hill, by a circuitous route, to post themselves on trees all round the top of the ravine, as outlooks. This done, I advanced along the nálá till I found the blood again, which I followed up slowly, keeping a bright look-out ahead. The ravine was densely covered on both banks by clumps of bamboo jungle, and I had just reached the first of these when up jumped the tigress with a roar, and galloped off as fresh as ever towards the head of the ravine; I had two snap shots at her, which made her speak still louder, but otherwise had no effect. The people above now shouted out that she had again lain down higher up the nálá, among some bamboos half-way up the banks. It would not do to approach her in this position from below, as a charge would probably have resulted in a general roll to the bottom of the ravine; so, with considerable labour, we climbed up to the table-land,



and went round till we were right above her. Here, however, the bank was too steep to admit of a descent; so, getting a supply of stones into the howdah, I commenced bombarding the bamboo clumps, and at the third shot the tigress charged out. On she came within twenty paces, when her heart failed her; she turned sharp off to the left, and I got two pretty fair shots at her, which told loudly, but still she went on as strong as ever. This time she crossed quite over to the opposite side of the ravine, and ascended the bank, as if with the intention of bolting across the open ground. The scouts kept shouting out to me to come round, which I did, and found them in a terrible panic, for the tigress, seeing them on the trees, kept walking about and eyeing them in a cat-and-mouse sort of manner, growling fearfully and lashing her tail about. The first of them I came to told me she was then lying down at the foot of a tree further on, watching two Gonds in the branches. I soon reached the place: the wretched Gonds were too much frightened to speak, but pointed to the ground below the tree, and sat jabbering like monkeys as I approached. I now made out the tail of the tigress impatiently switching up and down; she herself being crouched in the long grass, I could not see her body. On perceiving the elephant, she jumped up, and, making a short run forwards, crouched again. We steadily advanced, and, finding she could not put us to flight, she took to it herself, and suddenly bounded again towards the ravine. I had another shot as she was disappearing over the bank. This time it was the large rifle, and she caught it unmistakably; for, on coming to the place where she had vanished, we could hear her down below, growling and struggling on the ground. The descent here was more gradual, though the bamboo cover was dreadfully thick. The elephant was sliding down on her



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haunches, stones and earth rolling down before her. The growling grew deeper as we descended, and the noise of struggling ceased, as if the tigress had collected herself for a last charge. The bamboo stems kept whipping me in the face as I stood in the howdah with my double smooth-bore ready for the *coup de grace*. My face was soon covered with blood, and my shooting jacket torn to ribands. A raging thirst parched my throat, for I had now been some five hours in the sun; and my hat having been swept off on first entering the bamboos, its rays had been for some time beating full on my unprotected skull. I felt my head begin to swim, and the bamboo stems to dance before me in an indistinct maze. Had it lasted much longer, I feel certain I must have had a sunstroke; but the last act was playing out. Crash went the elephant into a dense clump of bamboos; a jagged stem seized me by the neck; and as I raised my hand to disengage it, the roar of the tigress burst forth in my very face; a striped form rose in the centre of the clump, in the act of bounding on the elephant's head. Leaning over the railing of the howdah, I levelled the gun, double-shotted in both barrels, at her chest; and the next moment was shouting out: "For God's sake, bring that claret and water, will you, and come down, half a dozen of you, and take up this carcass!"

So I bagged the whole family, to the no small delight of the cattle-keepers of the place.

A large panther was making himself very troublesome at that time in the neighbourhood of the Jubbulpur and Mandla road. He had killed several children in different villages, and promised, unless suppressed, to become a regular man-eater. I encamped for some days in the neighbourhood of his haunts, and the very first night the villain had the im-



prudence to kill and drag away a good-sized baggage pony out of my camp. The night being warm, I was sleeping outside, for the sake of coolness, and was awakened by the riving gurgling noise close to my bed. It was too dark to see ; so I pulled out the revolver, that in those uncertain times always lay under my pillow, and fired off a couple of shots to scare the intruder. Getting a light, I was relieved to find it was only the pony, instead of a human being, as I had half feared, and we proceeded to investigate the condition of the deceased.

The brute had seized him by the neck, which was dislocated ; the jugular was also divided, and he had evidently been drinking the blood when my shots, or perhaps the light, scared him off. The night was too dark for any attempt to kill the panther, who moreover had probably been scared completely away from the neighbourhood of the camp. It was, however, very probable that he would return next evening in quest of the pony before it was too dark to shoot, and I was persuaded by the old shikárí to sit up on a "machan" and watch for him. A small nálá ran from the river nearly up to the camp, as is always the case when a misadventure like this occurs. This I had overlooked when selecting a site for my tent. We dragged the carcass, without touching it ourselves, to the head of this nálá, where there was a convenient tree. The shikárí—an old hand at this sort of work—strewed the ground for some paces round the pony with fresh white wheat chaff, which he said would not prevent the panther coming to feed, while it certainly rendered the chance of hitting in the dark much greater ; and about sunset he and I took our places on the machan. There was small chance of the panther making his appearance so early in the evening, so I commenced a whispered conversation with the old man about



machan-shooting in general, which he evidently considered the finest sport in the world, as well as the safest. He was full of stories of curious events that had occurred to himself and others; and told me many as we sat through the long hours together, of which I only remembered one next morning sufficiently well to note it down in my journal. Somehow we got on the subject of man-eating tigers, and I happened to ask him if he had ever watched for a man-eater over the body of a man he had killed.

"Yes," said he, "but I didn't much fancy it, as it stinks abominably; and besides I don't care to have more to do with ghosts than I can help, after what happened to Pádám Singh, Thákúr of Ponhrí."

With much pressing, I got him to tell me this wonderful tale, which was much as follows:—"The village of Ponhrí, about thirty coss from here, was haunted a few years ago by a perfect *shitan* of a man-eating tiger. He was very old and very cunning. There were two ghâts that led from the village to the open country, and on the hill between these he used to live. Whenever he saw any persons leave the village, he would rush across to the ghât they selected, and waylay them there; springing out with a roar, and carrying off one of the party like a flash of lightning. Often did the people of the village see him thus stalking some wretched traveller, and sometimes were in time to warn him to take to a tree; but still oftener the monster was too cunning for them, and approached his victim in the stealthy manner only a man-eater can. He sometimes left his post for a few days, and was then sure to be heard of at some one of the surrounding villages, at his old tricks. The road by Ponhrí was soon completely blocked up, and no one would pass that way, although it was the high road to several large villages. The tiger soon became



straitened for food, as, having become confirmed in his taste for human flesh, he could now eat no other; so he took to frequenting the outskirts of the village, and two or three times stalked the Aheers who were driving home their cattle up to the very doors. The buffaloes, however, which you know do not in the least fear a tiger when in a body, always discovered him and drove him off before he could do any mischief. Thus repeatedly baffled, the man-eater conceived the bold idea of lying in wait for one of the cowherds in his own house. This he did, somehow managing to smuggle himself in unobserved; and when the wretched man, after securing his charge in their shed, returned blithely home to his dinner, just as he reached the door forth sprang the terrible scourge of the village, and, racing off to the hills with the Aheer in his horrid jaws, disappeared in an instant!

"It was about the hour of sunset, and most of the villagers returned from their work were collected by the image of Mahadeo, under the village peepul tree, discussing the events of the day. Amongst them was a Gónd Thákúr, named Pádám Singh, who had killed his tiger, and was consequently considered the village authority on sporting matters. He was a man of determination, as his after-conduct will show, and at once proposed that they should proceed in a body and rescue the remains of their fellow-villager from the maw of the spoiler. Arming themselves as best they could, and taking all the drums and other noisy instruments in the village, they sallied forth and approached the spot where the man-eater had retired to devour the Aheer. Bold and undaunted, as the tiger is when himself the aggressor, the most terrible man-eater wants the courage to stand the approach of a body of men like this; so he retreated (as indeed the villagers very well knew, he would). They found the corpse half eaten, the upper half



remaining untouched. Pádám Singh, the possessor of the only matchlock in the place, proposed that the remains should be left untouched, that he might sit up in a tree, and, awaiting the return of the tiger, rid the village for ever of the pest. To this the dead man's relations yielded an unwilling assent, and Pádám Singh was left to the ghastly company of the corpse, perched high on a neighbouring tree. Ere long the man-eater returned, and the Thákúr watched his approach with immense satisfaction from his lofty position. The tiger approached within eighty yards or so—thirty too far for a sure aim with the rude matchlock. Then he paused, and to his horror the Thákúr saw the mutilated corpse slowly raise its right arm, and point with a warning gesture at himself! On the signal, the man-eater instantly disappeared in the jungle. Transfixed with horror, the Thákúr remained glued to the tree. Shortly the tiger again returned, and again was the same mute warning given by the dead man, the tiger disappearing as before. A bright idea now struck the Thákúr, who had somewhat recovered his senses; and cutting two sharp stakes with his knife, he slipped down the tree and pegged both hands of the corpse firmly to the ground. Scarcely had he regained his perch when the man-eater again appeared; and, concluding from the absence of the signal that the danger no longer existed, proceeded quietly to resume his horrid feast. He had buried his jaws in the neck of the corpse, when the matchlock of the avenger flashed forth its contents. Struck full on the shoulder by the two bullets with which Pádám Singh had loaded his weapon, the dreaded man-eater rolled over dead on the body of his last victim."

It is singular how widely spread is this superstition regarding the malice against their fellows entertained by the spirits of persons killed by wild beasts. According to Sir J. Lub-



bock, many other savage races, besides those of India, have entertained it ; and it will be seen further on that it forms the ground of a singular ceremony among the wild Bygás of the Mandlá district.

The panther of course never came to the carcass of the pony. I never saw an animal do so yet ; but I have, I confess, only tried it a few times. Some sportsmen have been very successful in this machan-shooting by night ; but it would be poor fun even if one killed a tiger every night.

Sámbar were extremely numerous at that time on the hills on both sides of the valley, but particularly on the north side. Shots at them could be procured by driving almost any of the hills with beaters, and I killed a number of them both this way and by stalking. Although it was near the end of the month of April, when, according to theory, both sámbar and spotted deer should have cast their horns ; yet, out of the immense number of both species that I saw in this trip, only one sámbar, and two or three spotted bucks, were without horns. Some of the most interesting sport I have had in this valley has been in coursing the sámbar with dogs. During this trip I fell in with a gang of Gónd woodcutters, who possessed a number of fine large red-coloured dogs, with the aid of which they were able to run down and spear many deer and wild pigs.

— This red breed of pariahs is certainly the indigenous one of these parts, whether or not, as I suspect, descended from the wild species which frequents these jungles. The large parti-coloured animals, seen about Hindú villages in the open valley, were probably imported along with their masters. The wild dogs live in packs of fifteen or twenty, and prey exclusively on game, running down all sorts of deer like a pack of hounds. Where a pack has been hunting for any time, most



of the game naturally disappears. This applies to the tiger even, which they are said to attack wherever they meet him. Tigers would naturally follow the herds of deer on which they prey, if they were moved by the wild dogs; but there is such a consensus of native opinion as to the wild pack actually hunting, and even sometimes killing tigers, that it is difficult altogether to discredit it. I do not believe that any number of the dogs could overcome a tiger in fair fight; but I think it quite possible that they might stick to him, and wear him out by keeping him from his natural food. Many stories are related of tigers climbing into trees (which of course is quite against their nature) to escape from them; and I once saw the bones of a tiger lying on a ledge of rock, where more than one person assured me that they had seen him lying surrounded by a large pack of the wild dogs.

The wild dog of this part of India* is about the size of a small setter, and the colour of the old "mustard" breed of terriers. In shape, however, he is more vulpine than any European breed of dogs, with a long, sharp face, erect but not very long or pointed ears, and slouching tail never raised higher than the line of the back. In these respects he very much resembles the red pariahs above mentioned, the most noticeable distinction being that the latter raise their tails at times a good deal higher, with something of a curl. Very often, however, and particularly when moving fast, the pariahs carry their tails just like the wild dog; and so close is sometimes the resemblance between them, that I remember on one occasion, near Mandlā, I allowed what afterwards proved to be really a wild dog to escape from before my rifle, as he trotted across the road before me, thinking him to be one of those red pariahs strayed from some village. There is of

* *Cuon rutilans*.



course the considerable distinction, that the wild dog cannot bark, while the tame one can. But how readily the voice of the latter reverts to the howl of the wild animal must have been remarked by everyone who has passed by a village when they came forth to salute him.

But to return to our muttons. I arranged with the owners of some of these red dogs to have a morning's sámbar-hunting with them, assisted by two capital hounds of my own. Scouts were out before daybreak, and marked down a herd of about twenty sámbar on a spur which jutted out into the plain from the main range of hills. This spur was covered with mhowá trees, the deciduous flowers of which have a strong attraction for all sorts of deer, as well as bears and Gónnds. The former come long distances at night to eat the flowers that drop in great profusion as soon as ripe, Bruin, if too late for the feast, having no objection to scramble up and get some for himself. The plan was to send a strong body of beaters round to the neck of the spur, while we were to post ourselves with the dogs where it ended in the plain. I call it plain, but it was so only comparatively speaking. Broken and treacherous "cotton-soil" it was, intersected by numerous nálás, and about as bad ground to ride over as could well be wished.

We were wending our way down a somewhat precipitous pathway that led from the village to the scene of operations, when the Gónd to whom I was talking dropped behind on some pretence or other, and shortly afterwards we passed one of the primitive altars they erect near almost every pathway. This consists of a platform of hard mud, on which are constructed, of the same material, small models of the necessary implements of their simple life, such as a cooking-place, flat plate, etc. Near the platform is a stake planted in the



ground, from which project two wooden arms, drilled with holes; through these a peeled wand is passed, the top of which is decorated with a streamer of red cloth. Close by is a cairn of stones, to which every passer-by adds another. These altars are generally erected to the manes of some one of their race who bore a saintly reputation during life, and offerings placed on them are supposed to propitiate his spirit. On this occasion the Gónd who had dropped behind, and who was the leader and concocter of the present hunt, stopped before the altar; and, after a prostration, extracted from the folds of his waistcloth, and placed on the plate constructed for such purposes, a peeled onion! Each of the band then added a stone to the heap, muttering at the same time something I could not make out, and passed on. This was for luck.

We soon reached our station, and taking up a properly concealed position, awaited the approach of the game. The beaters had a long way to go round, and we had waited about an hour when their voices began to be heard, as they advanced in a long line that stretched completely across the spur. They were still about a quarter of a mile off, when I made out that something unexpected had occurred, by their shouts suddenly ceasing, and then breaking out into a terrific and concentrated yell! By my glass I saw that some of them had taken to trees, and that all were looking down the hill-side to the left of the line. Advancing my Dollond in that direction, I made out some black objects trundling down the hill, and a few moments afterwards, as they emerged on the plain, I saw that they were a bear and two cubs; they were making for another spur of the hill that ran parallel to the one we were beating, at a distance of about half a mile. Between them ran the dry bed of a nála, formed of a natural pavement of huge flag-



stones, and strewn with boulders that had been rolled down from the hills above. Jumping on my pony, I started up this nála at a rattling pace, scrambling and sliding in a most wonderful manner over the stones, till I again caught sight of the bears going leisurely about two hundred yards ahead. I had gained about fifty more on them before they saw me, and was just going to pull up and fire, when they set off at a shambling gallop, which, owing to the badness of the ground, soon left me far in the rear. Coming to a better place, I rapidly gained on them again, but the hill was too near, and I was full 150 paces behind when they commenced the ascent. Pulling up, I administered my two barrels with as much steadiness as my panting steed would admit of; the second shot told somewhere, as testified by the growls it elicited from the old "she," but it was too far for such a snap shot, and their movements seemed to be only accelerated. Throwing my bridle over a branch, I was reloaded in a few seconds, and scrambling up in Bruin's tracks, I heard them above me on the hill-side rustling among the dried leaves, but could not get another shot; nor did I find any blood. This was very unlucky, for if I had had a suspicion of there being bears on the hill, I would never have taken up the position I did, as a bear would break back through an army of beaters rather than take to an open plain, where he had no stronghold to make for. The bear is very sweet upon the "mhowá," and these had evidently come down to feed on it; for, had they been regular residents, the villagers must have been aware of it from seeing their tracks and excavations.

The beaters, who had suspended operations to witness the result of the bear chase, now resumed their beating, while I rode slowly along the bed of the nála, in case there might be any more of the family left. We had reached within about



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200 yards of where the dogs were concealed, when I observed a dun hide glance between two bushes, and shortly afterwards the whole herd of sámbar filed slowly down the face of the hill. Indecision still swayed them, and, fearing lest they might yet break back, I fired off my rifle; at the same time a round stone from the beaters rolled down the hill among them, and down they galloped straight for the hounds. The Gónds, in their eagerness, slipped their dogs too soon, and about half the herd broke back through the beaters after all; the rest took across the plain in the direction of the spur the bears had reached. Shouting to my man to let loose the greyhounds, as the deer were in full view, I started off at the best pace I could muster over such ground. Had it not been for my own dogs, the sámbar would probably have reached the hills and been safe; but, as it was, they shot ahead of the Góndi pack, and the sámbar, finding they could not make the hills, turned off towards the river. By cutting off an angle here I gained a good deal on the chase, and could see that my hounds, dog and bitch, were well up. The dog is a heavy, powerful, Rampúr hound, while the bitch, more lightly made, has considerably the speed of him. As I came up, she made a gallant rush at the hindmost stag, and, springing at his hocks, deer and dog rolled over together. She wanted power, however; and, before the dog was up to help her, the stag was up and pegging away as fast as ever. Two or three of the Góndi dogs now joined in at a respectful distance, but going as if they meant something. Shortly afterwards I came up to a deep nála, and missing the pass by which the deer and dogs had crossed, lost a deal of distance in trying to find it out. Everywhere else the bank was about twenty feet deep, and nearly perpendicular. At last I found the place, and, crossing over, had the satisfaction



of finding that I was utterly alone, dogs and deer having disappeared.

I knew the direction of the river, and rode for that, but soon got into the labyrinth of nálas that fringe its bed, and had the greatest difficulty in forcing my nag through amongst the bamboos. The nálas themselves were a perfect puzzle; in and out and roundabout, they twisted like the alleys in fair Rosamond's bower; and I several times found myself in the place I had just left. At last I got into the bed of one of the principal of them, that led straight down to the Narbadá; and, by dint of occasionally putting my head under my pony's neck and forcing him through the bamboos, and here and there leaping a fallen tree, I soon emerged on the shingly banks of the river, and, pulling up to listen, I thought I heard a faint yelp far, far up the stream.

A broad belt of sand and shingle intervened between the jungle and the shrunken river, along which I galloped for about a mile, the baying of the dogs becoming more and more distinct as I rode. A few minutes after, I reached the scene of conflict—a shady nook of the river, arched in by the massive boughs of trees, interspersed with the feathering stems of the bamboo. A giant forest tree lay felled by the brink of the pool, worm-eaten and water-logged, as if it had lain there for centuries, and beyond this stood the stag at bay, chest deep in the water. Four of the Góndi dogs and my greyhound bitch were baying him from the log; and just as I arrived a black little Gónd, spear in hand, emerged from the forest and jumped on to the tree. Two or three prods he made at him with his weapon failed to reach him; and he was just about to leap into the water, when the greyhound, encouraged by our arrival, made a fierce leap at the stag, falling short by about a yard of her intended mark. Instantly



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the deer bounded forward, and with his fore feet struck the hound under water; but in so doing he forgot his fence, and exposed his flank within striking distance of his human foe. The spear was buried twice in his side, and the dark water was streaked with crimson as the blood poured from the wounds. The poor brute now tries to struggle to the shore, but in vain; the dogs are upon him in a body, and their united weight bears him down; a few more spear thrusts, and the gallant stag is bubbling out his life under water.

The distance run must have been about four miles, but I had ridden probably double that distance. The dogs were a good deal done up, as the heat was by this time tremendous; but a swim in the river, and half an hour in the cool shade made them all right again. These Góndi dogs must have wonderful noses to follow deer by scent over the burning ground at full speed, as they are said to do. They had not much trouble on this occasion, as the greyhound bitch had never lost sight of the stag to the finish, and cut out the work for the others.

At other times, I have had excellent sport with the fine breed of dogs possessed by the Bunjárá carriers referred to in a former chapter. If the wild dog were available to breed from, a still better hound for sámbar-hunting might probably be obtained. With more regular organisation, better dogs, and more sportsmen, sámbar-hunting in this country might give admirable sport. The best breed, if the wild dog is, as is probable, unavailable, would be the cross between the Scotch deerhound and the Bunjárá dog, the former being the mother. Pups of a Bunjárá bitch almost invariably grow up with "vernacular" habits, and a hatred of Europeans. A real specimen of the Bunjárá should however be selected, and



this is not easy, the breed having got much mixed with the common village pariah dog. The true Bunjárá is a fine, up-standing hound, of about twenty-eight inches high, generally black mottled with grey or blue, with a rough but silky coat, a high-bred, hound-like head, and well feathered on ears, legs, and tail. He shows a good deal of resemblance to the Persian greyhound, but is stouter built, and with a squarer muzzle. Probably this wandering race of gipsies may have brought the originals with them from Western Asia, the subsequent modification of them being due to a cross with some of the indigenous breeds. The Bunjárá breed possesses indomitable pluck, can go about as fast as a foxhound, and will run all day. His nose is superior to that of any other domestic breed in a hot climate; but he wants better speed for coursing deer, and attachment to Europeans.

The common black sloth-bear of the plains of India* is very plentiful in the hills on either side of the Narbadá, between Jubbulpúr and Mandlá. Indeed, there are few parts of these highlands where a bear may not at any time be met with. They are generally very harmless until attacked, living on roots, honey, and insects, chiefly white ants, which they dig out of their earthen hillocks. The natives call them *ádam-zád*, or "sons of men," and, considering them half human, will not as a rule molest them. Really, their absurd antics almost justify the idea. Sometimes, however, a bear will attack very savagely without provocation—generally, when they are come upon suddenly, and their road of escape is cut off. As a rule, in frequented parts, they do not come out of their midday retreats, in caves and dense thickets, until nightfall; but, in remoter tracts, they may be met with in the middle of the day. I was once charged by

* *Ursus labiatus*.



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four bears all at once, which I had come upon near the high road between Jubbulpur and Damoh, feeding under a mhowá tree. I had two guns, and hit three of them ; but had to bolt from the fourth, who chased me about a hundred yards, and then dived into a ravine. Returning to the scene of action, I found one sitting at the foot of a tree, bewailing his fate in most melancholy whines, and finished him with a ball in the ear. The other two had gone down the slope of a hill, and I started off to head them. The ground was rocky and very slippery, and I had not gone far when I fell, my rifle sliding away down the hill, to the considerable damage of its stock and barrels. I picked myself up, however, and by dint of hard running, arrived above and parallel to the bears, and commenced a running fight with them, in which my chances would have been a good deal better, had I had a breech instead of a muzzle loader. As it was, I had to keep one barrel unfired in case of a charge, and peg away at long intervals with the other. At last, one of them came round up the hill at me, rising on his hind legs, pulling down branches, and dancing and spluttering in so ludicrous a manner, that I could scarcely shoot for laughter. When I did, he got both barrels through the chest, and subsided. I never got the other, as it had sufficient headway to escape into some hollow rocks near the river-side. A wounded bear will often charge with great determination. He comes on like a great cannon ball ; and the popular idea, that he will rise on his hind legs in time to give a shot at the "horse-shoe" mark on his chest, to penetrate which is fatal, is, as a rule, a mistake. But a shot, when he is ten or fifteen yards off, will nearly always turn, if it does not kill him. The most successful way of getting bears is to get up very early, and go up to some commanding position, that overlooks the



pathways taken by the animals on their return from the low ground, where they go nightly to feed. They can then either be intercepted, or marked into some cover, and afterwards beaten out. It is a sport of which a little is great fun; but one soon tires of it, the animals being generally so easily killed, and furnishing neither trophy (an Indian bearskin being a poor affair), nor food. Most sportsmen ere long come to agree with the natives, and let the ádam-zád alone, except when they turn up by accident.

It was in these jungles that I first saw the great rock python of India, which is the subject of so many wonderful tales. I was following the track of a wounded deer, and, the day being very hot, had mounted my horse, a chestnut Arab, from which I could shoot, carrying a rifle. The horse almost trod upon him, lying on a narrow pathway, and started back with a snort, as the great snake slowly twisted himself off the road, and down the slope of the hill, along which it wound. A loud rustling, and here and there the wave of a fold in the grass, told me that something was moving down the bank, and I forced the horse after it, very unwillingly on his part, till with a loud hiss, and a swish of his folds, the serpent gathered himself into a great coil, just under the horse's nose. A very unpleasant sound, like the boiling of a big kettle, came from the gathered pyramid of coils, and I lost no time in leaning over and firing both barrels of the rifle into the mass, at the same time drawing the horse back to the pathway, as I did not know the customer I had to deal with. The snake made off down the hill, and my horse refused to follow, so that, before I could dismount and get down on foot, all trace of him was lost. I was taken by surprise, or should perhaps have made a better business of it. My impression was that the creature was



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about twenty-five feet long, of a leaden colour, and about as thick as a large man's thigh. I have seen one killed in the same jungles, which measured sixteen feet in length. They are of a very sluggish disposition, and do not molest man. The stories of their swallowing spotted deer whole, antlers and all, I believe to be utter myths.



Horns of Spotted Deer. (Scale, one tenth.)



CHAPTER IX.

THE SÁL FORESTS.

Head Streams of the Narbadá—The Mandlá Plateau—A Prairie Country—Character of the Uplands—Scenery—Climate—Scanty Population—Gónds—Bygás—Their retired Habits—Poisoned Arrows—Courage of the Bygás—Patriarchal Institutions—A singular Race—The Bygá Medicine Man—Tiger Charming—A pleasant Custom—Bygá Seers—Religious Sentiments—Destruction of Sál Trees—The *Dammer* Resin—Traffic of the Bygás—Character of the Sál Forests—Forest Products—Lac Dye—*Tusser* Silk—A grazing Country—Value of Cattle—Prospects of the Country—Its Resources—Causes of Backwardness—Wanting Population—Distance of Markets—Malaria—Advantages of the Tract for Settlers—European Colonisation—Field for Enterprise—A Missionary Attempt—Land Jobbing—Prospects of Missions—Wild Animals—The Red Deer—Its Habits—Variety of Game—A Christmas Party—Beating with Elephants—A Tiger Shot Flying—The Hálon Valley—A Mendicant Killed by a Tiger—Stalking the Red Deer—Kill a Stag—A Run at a Hind—A Wild Elephant—Singular Freak—Range of Wild Elephants—Tigers Roaring at Night—A remarkable Serenade—Large Herds of Red Deer—The Wild Buffalo.

ABOVE Mandlá, the valley of the Narbadá opens out into a wide upland country, the main river, between this and Jubulpúr, joined by few and unimportant tributaries, here radiating like the fingers of a hand, and draining the rainfall of an extensive triangular plateau, known as the Mandlá district. These converging valleys rise in elevation towards the south, where they terminate in a transverse range of hills, which sends down spurs between them, subdividing the drainage. The valleys themselves also successively rise in general elevation, by a step-like formation from west to east. Furthest to the west, that of the Banjar river possesses a general height

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of about 2,000 feet ; next is that drained by the Hálon and the Phén at about 2,300 ; still further to the east the basin of the Khormér has risen to about 2,800 feet ; and furthest east of all is the plateau of Amarkantak, the chief source of the Narbadá, which attains a general altitude of about 3,300 feet, with smaller flat-topped elevations reaching to 4,000 feet above the sea. The hilly range which runs along the southern border of the district is called the Mýkat, and overlooks, in a steep descent to the southward, a flat low-lying country called Chattísghárh, or “the land of thirty-six forts.”



Sál forests in the Hálon valley.

The elevated cradle of the infant Narbadá, thus described, contains within its outer circle of hills an area of not less than 7,000 square miles ; much of it, of course, of a broken and unculturable character, but comprising also in the valleys much



of what may properly be called virgin soil of the finest quality. The Mýkat range, and the radiating spurs which separate the plateau, are mostly clothed with forests of the sál tree, which, here as elsewhere, almost monopolizes the parts where it grows. The sáj alone grows in any quantity along with it. Some of the hills are covered with the ordinary species of forest trees of other parts; the species of vegetation appearing, as I have said before, to depend much on the geological formation.

The valleys themselves are generally open and free from all underwood, dotted here and there by belts and islands of the noble sál tree, and altogether possessing much of the character ascribed to the American prairies. In their lowest parts the soil is deep, black, and rich, covered with a growth of strong tall grasses. As the valleys merge into the hilly ranges, the soils become lighter and redder, from the lateritic topping that here overlies the basaltic and granitic bases of the hills; the grasses are less rank and coarse; and in many places springs of clear cold water bubble up, clothing the country with belts of perpetual verdure, and conferring on it an aspect of freshness very remarkable in a country of such comparatively small elevation in the centre of India. Everything combines to deprive this region of the sterile and inhospitable appearance worn by even most upland tracts during the hot season. The sál tree is almost the only ever-green forest tree in India. Throughout the summer its glossy dark-green foliage reflects the light in a thousand vivid tints; and just when all other vegetation is at its worst, a few weeks before the gates of heaven are opened in the annual monsoon, the sál selects its opportunity of bursting into a fresh garment of the brightest and softest green. The traveller who has lingered till that late period in these wilds



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is charmed by the approach of a second spring, and it requires no slight effort to believe himself still in a tropical country. The atmosphere has been kept humid by the moisture from the broad sheets of water retained by the upland streams, which descends nightly in dews on the open valleys. The old grasses of the prairie have been burnt in the annual conflagrations, and a covering of young verdure has taken their place. Now and then the familiar note of the cuckoo* (identical with the European bird), and the voices of many birds, including the deep musical coo of the grand imperial pigeon, heighten the delusion. But for the bamboo thickets on the higher hills, whose light feathery foliage beautifully supplements the heavier masses of the sál that cling to their skirts, the scene would present nothing peculiar to the landscape of a tropical country.

The climate of these uplands is very temperate for this part of India, showing a mean of about 77° of the thermometer during the hot season. The variation between the temperature of day and night is however considerable, ranging from about 50° to 100° as extremes during the hot season under canvas. It would of course be much more equable in a house, and the range is also far less on the higher plateaux than in the lower valleys. In the cold season (which corresponds to our winter) it generally descends at night to freezing-point in the open air, rising in a tent no higher than 65° or 70° in the middle of the day.

The country can scarcely be said to be populated at all, except within a short distance of Mandlā itself, where the rich soil has been cultivated by an outlying colony of Hindús from the Lower Narbadá valley. Mandlā was at one time the seat of one of the Gónd-Rájpút ruling dynasties, and the

* *Cuculus canorus*.



remains of their forts and other buildings still crown in crumbling decay the top of many a forest-covered mound. I think it very doubtful if any part of the interior was ever colonized further than by the scattered religious settlements of the advancing Aryans in early times. The wide open valleys of deep soil are now utterly untilld; while the hills are scantily occupied by aboriginal races, who subsist in the primitive and destructive manner, by cutting and burning the jungle, described in Chapter III., on the Puchmurree Hills.

The Gónds are here a very poor and subdued race, long since weaned from their wild notions of freedom, with its attendant hardships and seclusion; but still unreached by the influence of the general advancement which has in some measure redeemed them in most parts from their state of practical serfdom to the superior races. They usually plough with cattle, instead of depending on the axe, and are nearly all hopelessly in debt to the money-lenders, who speculate in the produce they raise. There is no local market, and the difficulty of exporting grain over the seventy or eighty miles of atrocious road to the open country is such that the prices obtained for their produce are contemptible. They congregate in filthy little villages, overrun by poultry and pigs, and innocent of all attempt at conservancy.

Far superior to them in every respect are the still utterly unreclaimed forest Bygás, another aboriginal race, whose habitat is in the hills of the Mýkat range and its spurs, which intersect these valleys. The same tribe extends over a vast range of forest-covered country to the west of Mandlá, where we shall subsequently meet them again under the name of Bhúmiás; and in all this country they number no more than about eighteen thousand souls. A few of these have



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somewhat modified their original habits, and live, along with the Gónds, in villages lower down the valleys. These have been slightly tainted with Hindúism, shave their elfin locks, and call themselves by a name denoting caste. But the real Bygá of the hill ranges is still almost in a state of nature. They are very black, with an upright, slim, though exceedingly wiry frame, and showing less of the negretto type of feature than any other of these wild races. Destitute of all clothing but a small strip of cloth, or at most, when in full dress, with the addition of a coarse cotton sheet worn cross-wise over the chest, with long, tangled, coal-black hair, and furnished with bow and arrow and a keen little axe hitched over the shoulder, the Bygá is the very model of a hill aborigine. He scorns all tillage but the dhyá-clearing on the mountain-side, pitching his neat habitation of bamboo wicker-work, like an eagle's eyrie, on some hill-top or ledge of rock, far above the valleys penetrated by pathways; and ekes out the fruits of the earth by an unwearying pursuit of game. Full of courage, and accustomed to depend on each other, they hesitate not to attack every animal of the forest, including the tiger himself. They possess a most deadly poison wherewith they tip their little arrows of reed; and the most ponderous beast seldom goes more than a mile, after being pierced with one of these, without falling. The poison is not an indigenous one, but is brought and sold to them by the traders who penetrate these wilds to traffic in forest produce. I believe it to be an extract of the root of *Aconitum ferox*, which is used for a similar purpose by some of the tribes of the eastern Himaláya. The flesh is discoloured and spoilt for some distance round the wound. This is cut out, and the rest of the carcass is held to be wholesome food. Their bows are made entirely of the bam-



boo, "string" and all; they are very neat, and possess wonderful power for their size. A good shot among them will strike the crown of a hat at fifty yards. Their arrows are of two sorts; those for ordinary use being tipped with a plain iron head, and feathered from the wing of the peafowl, while those intended for poisoning and deadly work have a loose head, round which the poison is wrapped, and which remains in the wound. These poisoned arrows are altogether remarkably similar to those used by the Bushmen of South Africa. Their axes are also of two sorts—one, like the ordinary axes of the Gónds, for cutting wood, and the other, a much more formidable implement, called a *tongiá*, with a long semicircular blade like an ancient battle-axe in miniature. All the iron for these weapons and for their agricultural instruments is forged from the native ore of the hills, by a class called Águriás, who seem to be a section of the Gónds. A Bygá has been known to attack and destroy a tiger with no other weapon than his axe. This little weapon is also used as a projectile, and the Bygá will thus knock over hares, peafowl, etc., with astonishing skill.

Though thus secluded in the wilderness, the Mandlá Bygá is by no means extremely shy, and will placidly go on cutting his dhyá while a train of strangers is passing him, when a wild Gónd or Korkú would have abandoned all and fled to the forest. They are truthful and honest almost to a fault, being terribly cheated in consequence in their dealings with the traders; and they possess the patriarchal form of self-government still so perfectly, that nearly all their disputes are settled by the elders without appeal, though these, of course, under our alien system, possess no legal authority. Serious crime among them is almost unheard of. The strangest thing about them is that, though otherwise cer-



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tainly the wildest of all these races, they have no aboriginal language of their own, speaking a rude dialect of which almost every word can be traced to the Hindí. They can also communicate with the Gónnds in their language, though they do not use it among themselves. A similar case is that of the Bheels, in the western continuation of these hills, who, though also extremely wild, have no peculiar language of their own, and never have had, so far as history informs us. There are many points of resemblance between the Bygás and the Bheels, and there seems to be no evidence to connect either with the Kolarian or the Dravidian families of aborigines. Further inquiry may show them to be remnants of a race anterior in point of time to both, and from which the Hindí may have borrowed its numerous non-Sanscrit vocables. We know that, at an early period in Hindú history, Bheels held the country up to the river Jamná, which they do not now approach within many hundred miles.

There is every reason to believe that these Bygás are, if not autochthonous, at least the predecessors of the Gónnds in this part of the hills. They consider themselves, and are allowed to be, superior to the Gónnds, who may not eat with them, and who take their priests of the mysteries, or medicine-men, from among them. Theirs it is to hold converse with the world of spirits, who are everywhere present to aboriginal superstition; theirs it is to cast omens, to compel the rain, to charm away the tiger or disease. The Bygá medicine-man fully looks his character. He is tall, thin, and cadaverous, abstraction and mystery residing in his hollow eyes. When wanted, he has to be sent for to some distant haunt of gnomes and spirits, and comes with charms and simples slung in the hollow of a bottle-gourd. A great necklace, fashioned



with much carving from the kernels of forest fruits, marks his holy calling.

The Bygá charmer's most dangerous duty is that of laying the spirit of a man who has been killed by a tiger. Man-eaters have always been numerous in Mandlá, the presence during a part of every year of large herds of cattle fostering the breed, while their withdrawal at other times to regions where the tigers cannot follow causes temporary scarcity of food, too easily relieved in the abundant tall grass cover by recourse to the killing of man; the desultory habits of the wild people, and the numbers of travellers who take this short route between the Narbadá valley and the plains of Chattís-gárh, furnishing them with abundant and easy victims. The Bygá has to proceed to the spot where the death occurred, which is probably still frequented by the tiger, with various articles, such as fowls and rice, which are offered to the manes. A pantomime of the tragedy is then enacted by the Bygá, who assumes the attitude of a tiger, springs on his prey, and devours a mouthful of the blood-stained earth. Eight days are allowed to pass; and should the Bygá not, in the interval, be himself carried off by the tiger, the spirit is held to be effectually laid, and the people again resort to the jungle. The theory rests on the superstition, prevalent throughout these hills, that the ghost of the victim, unless charmed to rest, rides on the head of the tiger, and incites him to further deeds of blood, rendering him also secure from harm by his preternatural watchfulness. To remove pestilence or sickness, they have a pleasant notion that it must be transferred to some one else; and so they sweep their villages, after the usual sacrifices, and cast the filth on the highway or into the bounds of some other village.

The real Bygá medicine-man possesses the gift of throwing



himself into a trance, during which the afflatus of the Deity is supposed to be vouchsafed him, communicating the secrets of the future. I never saw the performance myself, but persons who have affirm that it is too severe in its physical symptoms to be mere acting ; and there is sufficient evidence from other quarters, to prove that some persons can educate themselves into the power of passing into such fits at will, to lead us to credit the Bygá at least with nothing worse than self-deception in the matter. In religion the Bygás have admitted a few of the Hindú deities of the destructive type ; but their chief reverence is paid to the spirits of the waste, and to Mother Earth, who is their tribal god. One of their tribal names is Bhúmiá, meaning "people of the soil," and it is curious that among every aboriginal tribe of these hills, including the Bheels, the priests or medicine-men are called by the same name. The rite of charming the souls of deceased persons into some material object, before described, and which seems peculiar to these hills, is practised also by these Bygás.

A male Bygá is easily distinguished from a Gónd ; but their women are scarcely in any respect different,—perhaps a little blacker, but dressing in a similar manner, wearing the same ornaments (including a chignon of goat's hair), and like them also tattooed as to the legs. Though the Bygás are, like the Bheels, less given to congregate together in large villages than some other tribes, often indeed living in entirely detached dwellings, there are a good many villages of a considerable number of houses. These are arranged with much neatness in the form of a square, and the whole place is kept very clean.

The Bygá is the most terrible enemy to the forests we have anywhere in these hills. Thousands of square miles of sál forest have been clean destroyed by them in the progress of



their dhyá-cultivation, the ground being afterwards occupied by a dense scrub of low sál bushes springing from the stumps. In addition to this, the largest trees have everywhere been girdled by them to allow the gum resin of the sál (the dammer of commerce) to exude.

The dammer resin, called here *dhók*, is extensively used as a pitch in dockyards, and for coating commercial packages. It is extracted by cutting a ring of bark out of the tree three or four feet from the ground, when the gum exudes in large bubbles. Several half-circles are, however, equally effective, and do not destroy the life of the tree, like the former method. The ringing of sál trees has now been entirely prohibited within our territories; but I do not think that any more economical method has as yet been substituted, the vast area of sál in native states being sufficient to supply the present wants of the trade. The dammer is collected, and, together with lac dye, is exchanged for salt, beads, and arrow-poison, brought by peripatetic traders with pack-bullocks, who annually visit their wilds for the purpose. This may be said to be the only commercial transaction of the Bygá in the whole year. He rarely visits the low-country markets like the other tribes, and has scarcely a knowledge of coined money.

Fortunately the sál tree, unlike the teak, is possessed of a most inextinguishable reproductive power, the seeds being shed by every mature tree in millions, and ready to germinate at once in a favourable position. The seedlings shoot rapidly above the danger of jungle-fires, and grow straight and tall before branching out. Many of the young forests now springing up in these valleys resemble more the regularly tended saplings of an English plantation than self-sown trees. The country has never been surveyed, and we have no accurate



information of the extent of the sál forests. The area they already cover with good timber, and that which may with conservation be recovered for the production of timber, is very great ; and as, from its preferring the skirts and slopes of the hills to the open valleys, it need never interfere with the settlement of these splendid uplands, there is every reason to believe that this must in future years be one of the chief sources of timber-supply to the country. The timber of the sál, if inferior to the teak for some purposes, such as carpentry and transverse beams, is superior for others, such as wheel-work and uprights, its straight firm grain giving it immense power of resistance to crushing. It is almost the only timber tree of Upper India, where teak is unknown. The unlimited water-power of these rivers will supply the means of converting it on the spot ; and the Narbadá will form a highway for floating it to the open valley. Sál will not swim by itself, until seasoned for several years ; but the hills produce an unlimited quantity of the finest bamboos, a bundle of which tied round a log will support it, and which are themselves of the highest economic value. At present these forests have scarcely been drawn on for the supply of timber, being distant from the Narbadá some thirty or forty miles, without a road capable of conveying heavy timber. I have already remarked on the appearance of the sál tree. Singly it is a little formal in outline, though possessing a fine firm aspect from its horizontal branching, bright evergreen leaves like broad lance-heads, and straight tapering stem covered with grey and deeply fissured bark. Its great charm, however, resides in the fresh cool aspect of the masses and belts in which it chiefly grows.

Besides the dammer resin of the sál, several other kinds of minor forest produce are collected here, as in other tracts, for



sale to the traders of the plains. Some of these have already been mentioned. Another is the stick-lac of commerce, which is deposited by an insect on the smaller twigs of several species of trees, among which *Butea frondosa*, *Schleichera trijuga*, and *Zizyphus jujuba* are the principal. The twigs are broken off, and sold as they stand, looking like pieces of very dark red coral. About twenty pounds will be procured annually from a tree, so long as any of the insects are left on it to breed. But just as often as not the improvident wild man will cut down the whole tree to save himself the trouble of climbing. The inborn destructiveness of these jungle people to trees is certainly very extraordinary: even where it is clearly against their own interest, they cannot apparently refrain from doing wanton injury. A Gónd or Bygá passing along a pathway will almost certainly, and apparently unconsciously, drop his axe from the shoulder on any young sapling that may be growing by its side, and almost everywhere young trees so situated will be found cut half through in this manner. The stick-lac is manufactured into dye in considerable quantities at a factory in Jubbulpúr, established by a gentleman (Mr. Williams) who has long since retired, after realising the success so well deserved by his remarkable foresight and enterprise. The agents of this factory penetrate the remotest corners of these jungles in search of the raw material; and the development of this profitable business, during many years of patient and fair dealing with these timid savages, is a valuable example to those who would follow Mr. Williams's steps in the development of the many latent resources of these regions.

The cocoons of the wild *tusser* silk-moth are also collected in great numbers for sale to the caste of silk-spinners who live by this business in the villages of the plains. Experience



has shown that these moths will not breed a second generation of healthy silk-producing insects in captivity, and a fresh supply is therefore procured annually from their native hills. They live chiefly on the leaves of the saj tree, whose foliage, being deciduous, would not afford safety to the insect in its chrysalis stage, if the cocoon were attached, as other species are, to the leaf alone. The instinct of the little creature teaches it therefore to anchor its cocoon by a strong silken rope to the leaf-stalk, where it sways about in safety after every leaf has dropped from the tree. The cocoons brought from the jungles by the breeders are attached to pollarded saj trees, grown near their villages, till the moths have hatched and paired, when the females are captured and made to lay their eggs in close vessels, where they are incubated by heat. The worms reared from the eggs are again placed on the saj trees, where they form their cocoons, which are then spun into the rough silk known as "tusser." The business is a very precarious one, much depending for success on favourable weather. Superstition of course seizes this uncertainty for her own; and the purchased blessings of the Bygá priest must accompany the cocoons from their native hills, if the breeder of the plains is to expect success.

Besides such scanty exportation of the minor produce of these wilds as I have described, almost their only economic use has hitherto been the splendid grazing they afford for countless herds of cattle, annually brought to them from great distances in the open country on both sides during the hot season. Fine grass and abundance of shade and water make this one of the finest grazing countries in all India; and the amount of wealth which thus actually seems to depend on its continuance as a waste is very great.

At first sight some hesitation might be felt at the prospect



of these great grazing-grounds being reclaimed for cultivation, when it is considered how all-essential to the life of a country like India is the breeding of large stocks of oxen. Here the draught ox takes the place of the farm-horse and the steam-engine of England. Cattle are bred, not as an article of food, but as affording perhaps the only description of power by which the operations of agriculture could be performed at all. Horses could not take their place in converting the hard, burnt-up soils, under the blazing sun of the season, when ploughing and sowing the autumn crop goes on ; nor, so far as we know the resources of the land, could steam power, even if otherwise suitable, find sufficient fuel at anything like a moderate cost. Thus it may not have been without a teaching of far-seeing policy that the Hindú has been prohibited by his religion from converting the race of horned cattle to the purposes of food. Few of the precepts of any religious system which are directed towards the regulation of mundane affairs will be found to be wholly unconnected with some object of sound policy. It may be true that the rigid prohibition against touching the carcasses of such animals, or in any way trafficking in their death, may have excluded the Hindú cattle-owner from much legitimate profit in the way of leather, horn, tallow, glue, etc. ; but it is impossible to draw fine shades of distinction in religious sanctions ; and if, as is probable, the slaughter of cattle useful for the plough could not be otherwise prevented, then the sanctification of the animal from all such uses was probably a measure of the highest policy. Even looked on as an article of food, it is probable that the sacredness of the cow has been productive of more gain than loss, milk and butter being much more wholesome articles of diet than beef in a hot climate. Certainly, any measure which would be likely to endanger the



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existing supply of plough-cattle would be highly objectionable. But I think that no apprehension of the sort need be entertained from the probable reclamation of such tracts as the Mandlá savannahs. Sufficient forest land must always remain in the higher regions to furnish the green bite at the end of the hot season, which is all that is necessary to tide the herds over the most trying part of the year; and, for the rest, the people will soon learn to do as other countries have done, and as other parts of India even have done, namely, devote a part of the cultivated area to the raising of green pasture, by irrigation, for the cattle. This fine natural pasture is no doubt a great advantage; but it is not at all indispensable even in India.

It is indeed impossible that such a country as this can long remain a wilderness occupied by herds of buffaloes and wild beasts. In natural capabilities it is favoured beyond most regions of India. Soil of every character abounds; and almost every known product of eastern agriculture thrives admirably where trial has been made. Wheat, grain, rice, cotton, and especially flax, have been proved to flourish; and there can be little doubt that sites might be found in which every other article that has been grown in India, including the potato, tea, coffee, and cinchona, might be successfully raised. The breeding of stock, including horses, but probably excepting sheep, would no doubt be most profitable in a region where natural pasture, shade, and water are so abundant.

The resources of the country in iron and other mineral wealth have never been fully examined, though it is evident on the surface that they are abundant. Gold is washed out of the sands of more than one of the streams, in small quantities, however, which barely repay the labour; and it is probable that its lodes are buried in the quartz of the



primitive rocks deep below the flow of volcanic material that has overlaid them.

What, then, it may be asked, has so long excluded this favoured region from colonisation? The reply is simple, if the old conception of India, as being a country thickly populated by industrious races in fabled ages of the past, be exchanged for the truer one that in great part it is a young country, only now beginning to be occupied by the slow expansion from the north of that Aryan element which alone has anywhere opened out the dark regions of the earth. The wave of population which, within these last three centuries, has driven the wild elephant from the Lower Narbadá valley, and planted a white expanse of wheat where grew the virgin forest, has not yet reached this more secluded tract. There are unusual obstacles to its doing so; but these would not long stand in the way, were the population outside to attain the density and straitness of means sufficient to induce so domestic and unadventurous a race as the Hindús to throw off another swarm, as they did when they overleaped the Vindhya range in their first great emigration from the Gangetic valley. Their natural unprogressiveness is not now tempered, as of yore, by the spur of foreign invasion or domestic oppression; and as yet they but thinly occupy the fertile regions of the lower valley, scratching its rich soils for a poor return of five or six fold, and with abundance of nearly as good waste land still to break up not far from their doors. It is natural, no doubt, for the superficial observer to exclaim against the unimproved condition of these vast uplands, and to feel astonished when he sees the most tempting offers fall fruitless on the ears of the neighbouring people. The explanation is simply as I have said. The pressure of population outside is not sufficient to induce them to attempt to meet the diffi-



culties in the way of their overflowing into this neighbouring region.

Some of these difficulties I will now mention. They are principally the inaccessibility of the tract, and the conflict that awaits the new settler with the forces of nature, in the shape of unhealthy climate, luxuriant jungle, and noxious animals. Much of the popular dread of these matters is the work of imagination, though not of course for that the less a real influence; but much, too, is undeniable fact. The country is doubtless very difficult of access, the nearest available wastes lying upwards of eighty miles from the railway line or a market, without any road that is worthy of the name. Towards the south some attempt has been made, within a few years, to open out the lowest of the valleys (of the Baiyar river), by constructing passes through the hills which separate it from the Nágpur plain. The adjacent country is more thickly peopled than that of the Narmadá valley; and the encouragement given them by this road, and by the establishment in the middle of the wilds of a European civil officer and his following, has now begun to show some signs of result, in attempts to colonise portions of the land above the pass. But much cannot be looked for, even here, for many years. The nearest good market would be a hundred miles away, and over very imperfect roads. There is no great amount of population to spare, and there is still plenty of waste land to take up much nearer at hand. The experiment, I fear, is one of those which have always ended in the same result—heavy expenditure vainly endeavouring to support a naturally languishing settlement that has been planted some distance ahead of the natural expansion of the population.

In the matter of climate, like all uncleared regions in this



latitude at so low an elevation, the tract is subject to malarious fever during the months of October to January. But experience shows that this influence lasts only so long as the country continues uncleared. It is probable that the Lower Narbadá valley was equally unhealthy at one time, yet it is now as healthy as any part of the country. Several stations in these provinces have been set down in the middle of jungles with as evil a reputation as this, and along with the clearance of the jungle the fever was found to disappear. The Wynaäd, Ássám, and Cachar are also standing instances of the successful occupation of malarious countries by the help of European enterprise. The malaria excepted, the climate is highly favourable to colonisation, considering the situation of the tract. No region out of the great mountain ranges could probably be pointed to as possessing such advantages of coolness and freshness as are here conferred by the elevated situation, abundance of moisture, and its attendant evergreen verdure.

As for the obstacles supposed to be presented by the rank vegetation and noxious animals, they are chiefly imaginary. Immense plains lie ready for the plough, if merely the coarse natural grasses were cleared away, there being no brush-wood or heavy timber to speak of. The luxuriance of these grasses is only evidence of the fatness of the land that lies below; and a torch applied in the month of May will, over large tracts, remove all obstacle to the immediate application of the plough. The wild animals, here as elsewhere, would retire before the axe and plough of the settler. Such as are noxious to human life are not really more so here than in many other much more open parts of the country. In the districts of Doní and Bétúl there is certainly a larger number of tigers in the same area than in Mandlá, and there



they have not been found to constitute any serious obstacle to the steady advancement of population and tillage.

I have thus remarked, at considerable length on the prospects of this tract, because it furnishes an excellent though perhaps extreme example of the difficulties in the way of reclaiming the waste regions of these highlands. Many other tracts besides this are almost similarly circumstanced, though perhaps there are none which can be compared with it in extent and importance, or in the advantages it offers to the settler, and especially to the European settler. I am not one of those who believe that Europeans can ever labour profitably with their own hands in the "plains" of India; and even at this elevation I believe that the power of the sun, although much alleviated by the coolness of the breezes, the low temperature of the nights, and the freshness of the vegetation, would still be prohibitive of severe manual labour by natives of a temperate region. But I think that we have here a tract eminently fitted to yield results from the application of European energy, intelligence, and capital to the supervision and direction of native labour.

The great difficulty would be to obtain the labour to supervise. I doubt if the regular Hindú cultivators of the plains outside could be induced to move into these wilds by any temptation, so long as they can obtain a pittance where they are. The aborigines are too timid and unstable to furnish reliable workmen. I would rather look to the teeming millions of the coast districts to furnish the needful supply of labourers, if these inland wastes are to be reclaimed within any reasonable period of time. It really seems to be matter for astonishment that these littoral races have for many years shown themselves to be ready to cross the seas to the West Indies, the Mauritius, and other distant countries, and have



actually been transported thither in great numbers, while all the time vast areas of the finest land are pining for labour in the interior of their own country. There cannot be a doubt which they would most willingly go to, in order to escape from their densely crowded condition at home, were the inducements offered to them the same. What has tempted them to other countries has been the superior wages which their industries could afford to offer; and in India, wherever, as in Ássám, Cachar, and the Wynaäd, such articles of European demand as coffee, tea, etc., have attracted European enterprise, and where similar wages have been held out, an abundant supply of labour has been furnished by these fountains of population. What appears to be necessary, then, to effect the rapid reclamation of these wilds is the introduction of some special industry which will attract the European energy and capital which alone can ever effect the movement of Indian labour in large bodies from one part of the country to another. That there are such industries capable of introduction there cannot be a doubt. Leaving such exotic subjects as tea, coffee, and cinchona out of the question, as not having yet been proved to be suitable, India is fast attaining a point at which it will pay imported capital to invest in the culture of her old and well-tried staples, particularly under such improved scientific conditions and methods as may be hoped for from European knowledge. Improved communications have so much equalised values in different parts of the country, that the extension of cotton tillage in Western India alone has more than doubled the local value of all sorts of agricultural produce throughout the greater part of India. Cattle are worth about three times what they were ten years ago. Such a rise in the value of the produce of the earth, and all that is connected with it, as has taken place since the



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rebellion of 1857 is perhaps unprecedented in any country in the world. It is so startling that cautious persons do not believe that it can be permanent. Its permanency seems to hang on the balance of what the next few years may bring forth. If the price of cotton holds up, everything may be hoped for; and it is a symptom which every well-wisher of India must rejoice to see, that this year we have nearly as large an American crop as before the war, with the price of cotton still remaining steady in the market, while the American growers are refraining from extending their area for fear of bringing down the price. No doubt some fall in the price of cereals must be looked for in India in the next few years. There is no doubt that something of the late enormous rise in their prices has been due to actual scarcity induced by the appropriation of the land for cotton. This is being rapidly remedied by extension of tillage, and the prices must shortly come down to their proper level. Many circumstances indicate this as the position of prices at present. It may be hoped then that before long it will remunerate foreign capital to engage in some one of the numerous agricultural pursuits possible in these regions, on a sufficiently extensive scale to lead to the importation of masses of labour from the hives of population on the coast. At present cattle-breeding would seem to be the most promising opening, both because it wants the fewest hands, and because the absence of roads is of less consequence in such a business. Whether it would not remunerate the Government to take the first steps in the settlement of these unimproved parts of their property may be a question. The Indian Government has already led the way in many such enterprises with success; and signs are not wanting of willingness to do so again where the case is made sufficiently clear. It certainly appears to me that the con-



struction of a decent road through the Mandlá district, connecting its culturable wastes and its splendid sál forests with the railway at Jubbulpúr, is one of the most obvious necessities of the time. This has been often urged before, and its urgency has as frequently been admitted. The money only has always been wanting; and so it may probably continue for many a year to come.

We have heard much of the recent financial distress in India, and much violent criticism has been levelled at the Government in directions the most incompatible with each other. It has been blamed equally for the imposition of additional taxes and for its penury in expenditure on matters affecting the development of the country. Few or none of these critics have really seen the present situation of the country. That situation is one of much peculiarity, which, while creating the greatest embarrassment at the present time, is yet full of hope for the future. I have referred to the state of prices, and this appears to me to furnish the key to all the existing difficulties. The value of labour has about doubled in ten years, while the cost of provisions has nearly trebled. Government derives most of its revenue from the land; and in such times of agricultural prosperity it should be able, by a great increase in its rents, to meet the large enhancement of its expenses, owing to the rise in prices and wages. But it has been found impossible to raise its rents very much without interfering with the advance of agriculture. The reason is plain. The appropriation of the land for cotton unduly diminished the area under food. Several dearths also occurred, and the food supplies of the country were unduly contracted. Prices rose immensely, higher than the rise in wages,—to a scarcity point, in fact. Land began to be taken up to meet this, in consequence of the very great



profits yielded to agriculture. This process is now going on, but it requires all the existing profit to enable it to do so; and as to increase the Government rent very greatly would be to diminish this profit, it proves to be impossible to do so at present. Further, the scarcity has affected all incomes from other sources than land, and thus all other branches of taxation are also unproductive. The profits of commerce, which mainly deals with the produce of the land, are also at present low, and taxation of them is very difficult to effect. But all this must pass away before long. The extension of tillage having taken place, the people will soon have sufficient food again; prices will steady themselves at a somewhat lower though still remunerative point; and the Government, if gifted with sufficient foresight, will be able to adjust its income to the altered circumstances of the country. It may then be expected that such enterprises as the opening up of such extensive waste regions as the Mandlā district will receive a share of the public attention. Another danger to such enterprises is, however, looming in the distance. Interprovincial jealousy bids fair to form a serious obstacle to the proper development of the great public property vested in the soil of India. It is scarcely credible that a clamorous school of Indian public writers exists, whose continual cry is levelled at the policy of expending any portion of the revenues raised in one province of the empire on the development of another; who would have wealthy thriving Bombay or Madras allowed to expend the whole of its revenues within itself, and such poor half-reclaimed regions as the Central Provinces allowed nothing for their improvement but what they can raise themselves. The policy aimed at would be identical, it seems to me, with that of a gardener who should refuse to expend anything in the cultivation of



one or two particular beds of his garden, because they had previously been neglected in favour of the others, and yielded no income towards his general funds.

Before leaving the subject of these waste lands, I should refer to the only attempt ever made to form a settlement in them under European supervision, and which ended in lamentable failure. Some thirty years ago four German missionaries attempted to form a colony among the aboriginal tribes, on the Moravian system, in one of these upland valleys. They selected a spot just under the Amarkantals plateau, near a small village called Karinjeá, in the middle of a fine plain of rich soil, a few miles south of the Narbadá. The place had an elevation of about 2,700 feet, and was well situated in every respect but one. In a country abounding with shade and water they pitched on a bare mound without an evergreen tree, and more than two miles distant from the nearest running water. They went out in the hot weather, and failed to prepare sufficient shelter before the arrival of the rainy season. Thus they remained exposed to constant damp and cold winds, and dependent for their water on a small stagnant pool polluted by the drainage of decaying vegetation. The result was the death from cholera, or some other malignant bowel-complaint, of three out of the four, and the retreat of the only survivor. However worthy of praise, such an enterprise cannot be looked on as a fair experiment. But it cast a gloom over the prospect of further attempts of the same sort, and has never again been repeated. The example of the missions to the Kóls of Bengal and the Karens of Burma, where the combination of profitable industrial enterprise with theological teaching has been found to be singularly effective in the propagation of the Gospel among aboriginal races, may point to the desirability



of some such system being attempted among the unsophisticated savages of these wilds by those who are now preaching in vain to the semi-Hindú tribes further west.

Some time ago a French gentleman took up a considerable tract of the finest land in one of these valleys. But it soon appeared that he had no intention of real colonisation, and had in fact been merely speculating on the value of the forest produce of the land. This and other symptoms of land-jobbing have, I believe, induced some reconsideration of the rules for the sale of the fee simple of waste lands. I have given the existing rules in an Appendix; but possibly these may now be subjected to modification. One thing may be relied on, however—that whatever title a settler may here obtain from the Government will be an absolute one, every existing or possible private interest having been fully determined before the available wastes were declared by law to be state property.

In such a well-watered, shady, and grassy region as this Upper Narmadá valley, it is inevitable that wild animals should abound. The hilly ranges which separate the valleys contain the bison, the sámbar, and the black bear, like similar tracts in other parts of the province. These are animals peculiar to no part of India, and the same may be said of the spotted deer, which affects the densely wooded banks of the larger streams. But, as I have said, we are here within the limits of the great sál belt, and come upon some animals which I have noticed as coinciding in range therewith.

Chief in interest among these is the beautiful twelve-tined deer (*Rucervus Duvaucellii*), called by some the Bárá-singhá, a name which simply means "twelve-tined," and which is applied also to the Káshmir stag (*C. Cashmiriensis*). In size it is intermediate between the sámbar and the spotted



deer, and almost the same as the red deer of Scotland. In colour it is a reddish brown during the cold season, passing through a bright rufous chestnut in spring to a rich golden red in summer. The antlers are very handsome, and differently shaped from those of any other deer in the world. They have but one basal tine over the forehead, no median tines at all, and all the other branches arranged at the summit of the beam. Here they show a tendency to approach the *Rusina* type, to which belong the sámbar and the axis, the beam being first divided into a terminal fork, each branch of which afterwards splits into several points. Usually the outward or anterior branch bears three such points, and the inward or posterior two, making, with the brow-antler, six points on each horn. Very old stags sometimes have more; but, as in the *Rusina*, when there are more than three the extra ones are abnormal monstrosities, and the antlers are usually unsymmetrical and stunted in size. The horns are greyish in colour, and of a smoother surface than those of the sámbar. They are not nearly so massive, nor so long, but have a very handsome outward sweep, which renders them, I think, more effective as a trophy for the deerstalker. They are very difficult to procure fully developed and perfect. They are cast more regularly, I think, than those of the *Rusina*; and as the stags seem to be very combative, some of the points are usually broken off soon after they lose the velvet at the close of the rainy season, when their haunts first become accessible to the sportsman. In form the *Rucervus* is one of the most beautiful of the family,—lightly and gracefully made, and with a stately carriage; and altogether, with his splendid golden colour and finely shaped antlers, this stag is not surpassed, I think, in appearance by any member of the deer tribe.



This animal has been called in north-eastern India the "swamp deer," but here he is not observed to be particularly partial to swampy ground. They graze in the mornings and evenings, chiefly along the smaller streams, and by springs, where the grass is green, in the open valleys, and rest during the day about the skirts of the sál forest. A favourite mid-day resort is in the shade of the clumps of sál dotted about the open plain, at some distance from the heavy forest. They are not nearly so nocturnal in habits as the sámbar, being often found out grazing late in the forenoon, and again early in the afternoon; and I do not think they wander about all night like the sámbar. Their midday rest is usually of a few hours only, but during that time they conceal themselves in the grass much after the manner of the sámbar. I have never heard of their visiting cultivated tracts, like the latter; nor can I learn that their apparent adherence to the sál forest is due to their employing any part of that tree as food.

In the middle of the day the red deer (so they are called by natives, and often by Europeans) may be shot by beating the grass with elephants in the manner before described. During the height of the cold weather many parts of this tract can hardly be traversed except on an elephant; and in such places shooting would otherwise be impossible, owing to the height and thickness of the grass jungle. In the course of a day's beating of this sort in the Mandlá district a very great variety of game may easily be met with. On one occasion, when spending the Christmas of 1864 with two friends in the lovely Matíáí valley, a day's march east of the station of Mandlá, we secured, I think, a specimen of nearly every kind of game to be found in the country, excepting the bison and the panther. On the 26th we marched from a place called Bartólá to Gobrí, both on the Matíáí—a clear



sparkling stream that here runs through a valley, filled with long grass cover, and bounded on either side by chains of low hills, flat on the tops, and clothed with low tree jungle and bamboos on their sides. We took separate lines, F. going by the pathway, D. along the tops of the hills on one side, while I beat along the river below on an elephant. I had not gone far before I put up a large herd of sámbar in long grass, and, firing right and left, dropped one small stag, and heavily wounded a very large fellow with splendid antlers and as black as a buffalo. I got off, and tracked the wounded animal for about three miles by his blood through the long dewy grass, till I was as thoroughly wetted through as if I had been wading in a tank, when, as the deer had reached heavy bamboo cover, and seemed to be still strong, I gave it up, and again made for the river. On the way I came on a herd of red deer, grazing about in an opening in the low jungle, where a fine spring kept the grass beautifully green. They saw me before I was within shot, however, and retreated into grass cover. Waiting a little, I got on the elephant, and proceeded to beat the long grass; and, after going about a quarter of a mile, started the herd, which must have contained fully thirty individuals. They dived into a deepish hollow, filled with low brushwood, in front of me, and I waited on the edge for their appearance on the far side. Presently they clattered up in single file, stags and does intermixed, the last of all being a very large dark red stag, with beautiful antlers that seemed almost to overpower him as he slowly trotted up the rise. I had the sight of the double rifle bearing full on his broad back, and was just touching the trigger, when the man behind me seized and detained my arm in a vice-like grasp. The moment was lost, and I turned viciously on the culprit,



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who, however, pointed silently to an object in a tree close to our heads. It was a huge colony of bees—the terrible *Bouhrá*, whose swarms had, a march or two before, routed our whole following, leaving a good-sized baggage-pony dead upon the ground. Lucky it was I had not fired, and I thought little of the lost stag in the hurry to get out of so dangerous a vicinity. About half a mile further on, near the river, a spotted doe leaped out of a patch of grass, and scoured across the plain. It was too tempting, she looked so round and fat; and a snap shot rolled her over, shot through the loins. We were now not far from camp, and I was beating through some longish grass, when a full round countenance was seen peering over the top of it at the advancing elephant. I did not make it out for a while, and presently it disappeared, the motion of the grass showing the progress of a large body towards the river. A little further on it stopped, and the round face again glared at me over the grass. Surely it must be a tiger? A glimpse of a striped red hide settled the question, and I moved a little down to cut her off from the river bed. All was motionless for a few minutes, and then again the slowly waving grass showed the stealthy progress towards the deep gully in which ran the river. A shallow ravine was a little ahead, down which she could steal unobserved, except in one place, where a little jungle pathway crossed it, and I took up a place commanding this at about sixty yards, waiting with cocked rifle and beating heart. Now she is close to the opening, the grass rustling gently above her. Now she sneaks rapidly across, crawling low, but halts for a moment to look again before entering the further cover. Fatal pause! A ball speeds through her shoulder, and, turning with a roar, she gallops back again up the hollow. I thought she meant a charge,



and hastily reloaded the discharged barrel of my breech-loader, as I had only one gun out, being on a pad. But she left the nálá, when nearly opposite me, on the wrong side. I think she must have forgotten, for she evidently looked out for her assailant, jumping high above the grass at every bound—a really beautiful sight, with her very bright-coloured skin, hair erect, and tail streaming behind her. About the third bound I caught her with another bullet, and she fell, crumpled up in mid-air, for all the world just like a partridge struck full by a charge of shot. She was lying stone-dead when I came up, and no wonder, for the ball had entered near her tail, traversed the whole length of her body, and was resting under the skin of her forehead. The rifle was a twelve-bore breech-loader, on my own spherical ball principle, the penetration of which may be judged of by this performance. The first shot was a little high on the shoulder, but would soon have killed her, and fully accounted for her confusion of ideas. She had evidently been lying on the watch for spotted deer coming to drink. A large herd of them broke out of the grass while our interview was in progress. Coming to camp, I found that F. had shot a black buck antelope on the road; while D. returned with a young *bará-singhá* stag and a spotted deer. In the evening F. went out, and killed a large bear, which came down to the river to drink beside him. Next day we were almost equally fortunate, though no tiger was met with; and we spent a Christmas of considerable joviality in that remote wilderness, the dinner consisting, as far as I recollect, of a (peacock) turkey and sámbar tongue, supported by roast haunch of red-deer venison, as *pièces de résistance*, with cheetul cutlets and fillet of nilgái veal as *entrées*, followed up by boiled quails and roasted teal, and concluded by the orthodox plum-



pudding and mince-pies out of Crosse and Blackwell's tins. Sundry glasses of whisky-toddy, imbibed round a rattling bonfire lit in front of the tents, were fully justified by the really severe cold after sunset. Stalking the *bārā-singhā*, however, affords the finest sport; and from the less exclusively nocturnal habits of the animal, as well as the open character of the country, resembles deer-stalking in Scotland more than any other of our field sports.

When hurrying through this country in January of 1863, *en route* to the eastern forests, I halted for two days in the upper valley of the Hálón to stalk the red deer, which I had never before seen. The grass was very thick and long, and, being still green, was entirely unburnt. At a place called Motínálá, where a deep branching watercourse crosses the pathway several times, I was walking ahead of my followers, when I came on the remains of a poor wanderer, who had evidently not long before been killed by a tiger. He was a religious mendicant; and his long iron tongs, begging-bowl hollowed from a skull, and cocoa-nut hooka were scattered about in the bottom of the nálá, where he had been resting on his weary march, together with tresses of his long matted hair and a shred or two of cloth. The bones were all broken to pieces, and many of them were missing altogether. A Bunjárá drover had been taken off near the same spot about a week before, so that it was not without some misgivings that I wandered off the road through the long grass to look for red deer towards the skirts of the hills. To hunt for the tiger in such an ocean of grass-cover would have been hopeless. I skirted the hills to the right of the road from here to the camping-ground at Manglí, very soon getting drenched to the skin in passing through the high grass dripping with the morning dew. Towards the hills the grass was shorter,



and the plain much cut up by deep fissures in the black, heavy soil. I saw several small herds of deer, wending their way towards the clumps of sál forest on the skirt of the hills, before I found any in a position that would admit of stalking. At last I marked a small parcel of hinds, with two fair-looking stags, disappear over a low rising ground, slowly feeding their way towards the forest; and making a long détour to gain the shelter of a deep crack, which led into the valley they had entered, I stalked almost into the middle of them before I was aware. My first intimation of the fact was the sharp bark of a hind, who had observed the top of my head over the bank, and the next moment a rush of feet informed me that the herd was off. Stepping on to the bank, I made a clean miss of the first running shot; but, taking more time with the second barrel, I saw the hindmost stag reel and almost fall over to the shot. He made off, however, along with the herd; but presently left them, and took a line of his own towards the long grass-cover in the middle of the plain. I soon hit on his track where he had entered the grass, and found a little blood; but as the grass was a long way over my head, I sent back for the elephant with which to beat him out. Following the blood-marks on the yellow stems for about a mile, we started him out of a patch of grass near the river, and I shot him through the back as he ran away.

The next day, being encamped at Toplá, in the centre of a wide valley among the sál forest, I went out in the afternoon towards the Hálon river. Here the country was open and prairie-like, short grass plains, dotted with clumps of sál, intervening between the heavier masses of forest. The river was very bright and clear, running over a pebbly bed. I took out two young half-bred hounds, between the Rámpúr



Breed and the Scotch deerhound, in the hope of getting them a run at a wounded red deer, as they were as yet guiltless of blood. Their mother, and the bull mastiff "Tinker," of wolf renown, accompanied to help them in the kill. A couple of lithe blacks, and nearly naked Bygás, with their war-axes, guided the party. We wandered a good many miles in the early afternoon without coming on game, but I, at least, was gratified by the delightful park-like scenery. About four o'clock, by the advice of the Bygás, we sat down on a little eminence crowned by a clump of sál trees, to watch for deer coming out to drink or feed. Very soon a good-sized herd suddenly appeared in the middle of a long flat stretch of grass-land beyond the river; and after stretching themselves, and enjoying a game at romps, commenced feeding pretty quickly down towards the banks of the river. We at once retreated over the bank of our knoll; and, getting into a hollow protected by a fringe of bushes, crept up to the banks and again reconnoitred. They were quite unsuspecting, the wind being highly favourable; and they seemed likely to come and drink in our very faces. When within a few hundred yards, however, they halted a long time behind a little rising ground. I was in agony lest the dogs should make us known, as they were dreadfully excited by the restraint of the stalks, and seemed to know perfectly well that there was something to hunt at hand. Presently a single hind topped the rise, and for full five minutes stood sniffing round in all directions, her great ears cocked in aid of her sense of smell. At last she seemed to be satisfied, and moved slowly forwards, now pausing to crop a mouthful of grass, and then again starting and looking about as if she had heard or smelt something. A stag now walked up past her, and without the least precaution came boldly on to the water, which he entered about



a hundred yards above our post. The rest of the herd were still mostly hidden by the rise. Creeping through the bushes I prepared to fire at the stag, and gave orders for the hounds to be slipped at once after I should fire. I was barely in time to secure a shot, before the stag, alarmed by a yelp from one of the dogs, turned to flee up the bank. As it was I dropped him on the pebbly bank, shot through the shoulder; and, turning the rifle on the hind who was pausing startled at the shot, the other bullet passed through her thigh, injuring the hip joint. She fell on her hind quarters for a few moments, but presently recovered, and made off after the herd across the flat. The four dogs had sprung from the slips, and splashed through the shallow stream before she had well got on her legs; and they very nearly had her before she got fairly into her pace. Then, however, she distanced them at once for a few hundred yards, when the old bitch "Bell," who was extremely fast, began to draw steadily up to her. The pups were a hundred yards behind, giving tongue like foxhounds, and old Tinker laboured along scarcely half way from where they had started. Bell was very near the hind, when I saw her disappear bodily into a hole. But the deer was now failing fast; and, seeing no chance of making the forest, turned round and came back towards the river. The pups and Tinker now made up considerably by cutting off the corner, and very soon the brindled one, "Sheroo," who was rather the faster, was racing alongside of her, making uncertain snatches at the shoulder. The yellow dog soon joined him, and together they managed to throw over the deer just as she reached the bank of the river. They all three rolled down the bank together; and before the deer could recover herself Tinker was up and pinned her by the throat. The bitch was not far behind, and among them they nearly tore



the poor animal limb from limb. Fearing a row between Tinker and the young dogs I ran up as fast as possible ; but a Bygá with his axe was before me, and attempted to get the quarry from the dogs. He didn't know Tinker, however, who loosed his hold on the deer's throat only to fly at the Bygá. The latter defended himself as well as he could with his axe handle, very thoughtfully for such a savage, not attempting to use the head ; but he had several pretty severe bites in the arms and legs before I could arrive to his rescue. As a rule Tinker was as quiet as a lamb with men ; but when roused by blood he was a perfect devil ; and as his size and weight were immense I was often rather afraid of him myself. Poor fellow, his formidable aspect and a few outbursts of this sort were the death of him, being poisoned by a dog boy a few months afterwards. Bell broke her neck by chasing an antelope down a blind well, a few marches after the hunt I have related ; the best of the two pups was carried off by a leopard or hyæna ; and altogether I was so disgusted with the bad luck I had always had in keeping large dogs in India that I gave it up altogether ; and I cannot say that I found very much loss accrue to my sport in consequence. I believe they lose more wounded animals, by driving them out of reach, than they recover.

On the way back I shot another hind, who stood too long to gaze at the unwonted intruders, and saw the tracks of a wild elephant sinking deep into the soft black soil. I was told afterwards that this elephant was one which had broken loose from captivity about ten years previously, and had since inhabited the dense covers about the head of the Hálon river. He afterwards annoyed the forest officers not a little by systematically demolishing all the masonry boundary pillars erected by them round the reserved forest. Really wild ele-



phants do not now come so far west as this; the country to the east of Amarkantak (the source of the Narbadá), or at the most the Samní valley, a little nearer than that place, being their most westerly range in this part of India. Formerly, however, the whole of this country, and far to the west of it, was the home of the wild elephant. The etymology of many names, such as the "elephant enclosure," the "elephant pool," etc., would suffice to indicate this; but besides we have it distinctly recorded, in that valuable work the "Institutes of Akber," that in the 16th century elephants were found and captured in the Narbadá valley as far west as the Bijágarh and Hándiá Sirkárs,* which lie partly to the west of the meridian of the present military stations of Mhow and Ásígarh. This is probably the most westerly range of the wild elephant that has been recorded; and their subsequent disappearance over so large a tract of country speaks volumes for the advancement which has taken place in that period.

The night I was at Toplá, two tigers roared loudly round about the camp. We were pitched in a little glade in the sea of grass, and the effect in the clear cold night was very fine. The night voice of the tiger has a very impressive sound, conveying, though not nearly so *loud* as the bray of a jackass, the idea of immense power, as it rolls and trembles along the earth. Four months later, when I was encamped near Mátín, in the forests of the far east, I listened one night to the most remarkable serenade of tigers I ever heard. A peculiar long wail, like the drawn out mew of a huge cat, first rose from a river course a few hundred yards below my tent. Presently from a mile or so higher up the river came a deep tremulous roar, which had scarcely died away ere it was

* Gladwin's "Azeen Akbery," vol. ii. p. 249.



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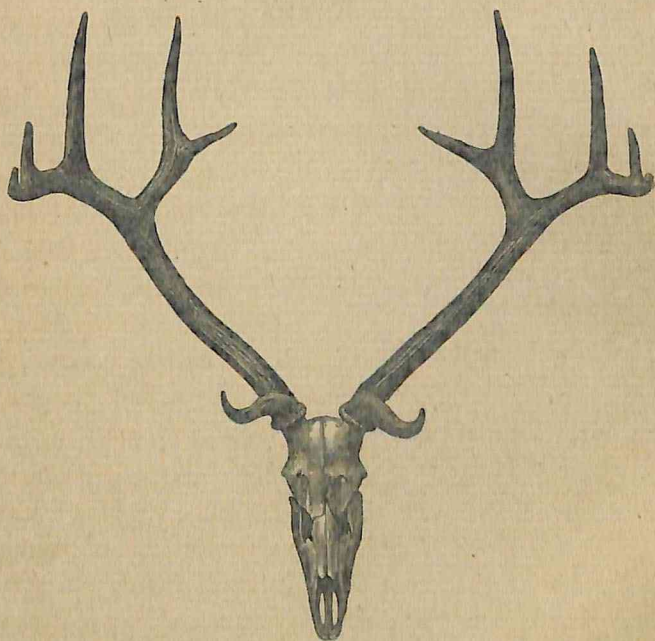
* Gladwin's "Azeen Akbery," vol. ii. p. 249.



answered from behind the camp by another pitched in a yet deeper tone, startling us from its suddenness and proximity. All three were repeated at short intervals, as the three tigers approached each other along the bottoms of the deep dry watercourses, between and above which the camp had been pitched. As they drew together the noises ceased for about a quarter of an hour; and I was dozing off to sleep again, when suddenly arose the most fearful din near to where the tigress had first sounded the love note to her rival lovers, a din like the caterwauling of midnight cats magnified a hundred fold. Intervals of silence, broken by outbursts of this infernal shrieking and moaning, disturbed our rest for the next hour, dying away gradually as the tigers retired along the bed of the river. In the morning I found all the incidents of a three-volume novel in feline life imprinted on the sand; and marks of blood showed how genuine the combat part of the performance had been. For the assurance of the timid I may as well say that I have never had my camp actually invaded by a tiger, though constantly pitched, with a slender following, and without any sort of precaution, in the middle of their haunts. It strikes a stranger to jungle ways a little oddly perhaps to see a man in the warm summer nights calmly take his bed out a hundred yards from the tents, lie down under the canopy of heaven, listen, pipe in mouth, for half an hour to the noises of wild animals, and then placidly fall asleep. He soon learns to do the same himself.

About the end of the rains, in September and October, the red deer collect in large herds on the tops of the plateaux; and I have been told of assemblages of several hundred head at that season. They are then beginning to rut, and are very easy to get at, the Gonds and Bygás killing great

numbers with their axes, aided by their strong tall dogs. The best heads are to be got from these people; and that figured below, which is a very typical one, was killed either thus or by a tiger. I myself never got a complete head with more than ten points, though I have secured some heavier than the twelve-pointed one figured below. Its



Horns of Bárá Singhá Deer. (Scale, one tenth.)

length is $33\frac{1}{2}$ inches round the curve of each antler, and extreme spread 36 inches. There are few larger in the forests.

In the rains the wild buffalo wanders in herds all over these Mandlá highlands. They mostly disappear, however, when the tame cattle are brought up to graze in



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the open season, a few only lingering in the most secluded valleys; and they must then be sought in the less accessible jungles to the south and west. Thither I must carry the reader to introduce him to the animal, as I never was in the Mandlā district at the time when the buffaloes are found there.

CHAPTER X.

AN EXPLORATION IN THE FAR EAST.

A Commanding Promontory—The Source of the Narbadá—Sivite Legends—Fine View—A long Exploration—The Wild Buffalo—Its Range and Habits—Criminal Trespass—The Police called in—We slay the Invader—Toughness of the Buffalo—Size of his Horns—A Voyage down the Máhánadí—The Country of the Khonds—More Buffaloes—A Feverish Region—Buffalo Hunting on Horseback—A Vicious Cow—Upset by a Bull—"Tinker" to the Rescue—A Curious Sentinel—Treed by Buffaloes—The Enemy Retires—Danger of Buffalo Shooting—A Cumbersome Trophy—March for the Elephant Country—A Decayed City—An Unfortunate Seizure—Retire to Laáfágarh—A Hospitable Chief—The Bygás again—A Primitive Pipe—An Amazing Spectacle—The Elephant God—Life at Laáfágarh—The Doctor discomfited—Jungle Delicacies—The Thákúr's Yarns—A Tiger Shot with an Arrow—An Elephant done to Death—A "Loathly Worm"—Wild Animals on the Hill—An Irksome Prison—Make another Start—A Splendid Game Country—A Herd of Elephants—A Solitary Tusker—Almost an Adventure—A Villanous Termination—Explore the Country—Bhúmiá Trackers—Fate of a Herd of Elephants—A vast Sál Forest—The Way Lost—Beat out a Bhúmiá—Habits of the Bhúmiás—Aspect of the Country—A Primitive Measure of Distance—Haunts of the Buffaloes—Capture of Wild Elephants—Coal Measures—Prospects of the Country—The Plateau of Amarkantak—A Terrible March—End of the Exploration—Effects of Exposure—The Forest Question—Utility of Forests—Prospects of the Forests—Central India as a Field for Sport—Where to Go—Outfit—Guns and Rifles—Conclusion.

THE Highlands of Central India may perhaps properly be said to terminate where the steep southern face of the Mykal range, trending away to the north-east, culminates in the high bluff promontory of Amarkantak. Standing here on this prominent point, the very focus and navel of India, the eye



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ranges over a panorama perhaps inferior in extent to no outlook in the whole peninsula. The rain that clothes this little plateau of a few square miles with the greenest of verdure, having the peculiarity of seldom ceasing for more than a few days at any part of the year, forms the first beginnings of three great rivers, whose waters flow in opposite directions to the seas on either side of India. The infant Narbadá bubbles forth at the feet of the observer, enclosed by religious care in a wall of masonry, and surrounded by Hindú temples, and thence meanders on for some miles through a narrow glade, carpeted with beautiful grass, and fringed by forests of sál; at first a tiny burn, but growing rapidly by union with others, till, some three miles from the fountain, it leaps over the edge of the plateau in a clear shoot of about thirty feet. Seven hundred and fifty miles further on it rolls, a mighty river, into the waters of the Arabian Gulf. In the local Sivite Mythology the Narbadá is the maiden Mykal-Kanyá, daughter of the Mykal Mountain, from whose brow she springs. Resistless in her divine might, at her first birth she overflowed the earth in a destructive flood, till, in answer to the prayers and sacrifices of men, the Great God sent the Vindhya Mountain and his seven stalwart sons * to restrain her, when she shrank into her present channel, leaving behind her the Ganges and other rivers, as pools are left by the receding tide. Hence the sanctity of the Narbadá is superior to that of all other rivers, though the gods gave the preference for the first five thousand years of the Kálí-Yug to the Ganges. Twenty-eight years only of this period now remain unexpired, when the local Brahmans fully expect the Narbadá to surpass as a place of pilgrimage all other rivers of India. As it is, the parent

* Thence the name Sât-purá, applied to these highlands, *Sât putrá* meaning literally the "Seven Sons."



spring at Amarkantak and many places along its course, are places of great sanctity to pilgrims from all parts of India ; and the help of the railway, which is by no means scorned by the devout Hindú (who likes to "boil his peas"), bids fair to realize in some degree the prophecy of the Puránás. A little to the north of the source of the Narbadá rises the Johillá, a stream which shortly joins the Sone, also born in these hills, and flows north into the Ganges ; while, still only a few steps from these, another little stream, the Arpá, bubbles forth, and shortly tumbles over the sheer cliff to the south, and mingles with the great Máhánadi, which drains the plains of Chattisgarh into the Bay of Bengal. From this height of 4,000 feet the eye embraces a view of three-fourths of a circle, uninterrupted by anything but the blue haze of distance which limits the vision. Far below to the south, lying like a chessboard, is the open cultivated plain of Chattisgarh, stretching out to the uttermost range of vision. To the east and north, 2,000 feet below, appears a flat sea of greenery, broken here and there by an isolated peak that appears to reach the level of the observer. In the faint distance beyond rises another wall of rock, visible only on a clear day as a faint violet-coloured shade across the sky. The green plain is a vast forest of sál, unbroken by tillage, and scarcely inhabited by man, and the rocky rampart beyond is the buttress of another table-land called Sirgújá, the land of the Kól aborigines, and beyond the limits of our province. My mission for the succeeding six months was to explore this vast region of sál forest, lying to the north and east of Amarkantak, and stretching far beyond and to the south of the plain of Chattisgarh, in the semi-independent country called the Garhját States.

Over all this country roams the wild buffalo, and in the forests north and east of Amarkantak were then found large



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herds of wild elephants, which descended at the ripening of the crops of Chattis'garh to the skirts of the forest, doing immense damage, and forming a serious obstacle to the cultivation of the country. To penetrate to their haunts, ascertain their numbers, and propose means for their destruction, was another object of our expedition.

In the end of January I descended the Rajádhár pass from the Mandlá district, and marched across the Chattis'garh plain, where antelope, ducks, snipe, etc., afforded perpetual occupation for the gun, to the station of Rái'púr, where I met the Chief Commissioner's camp and my future companion in this expedition—Captain B., of Her Majesty's — Regiment. Thence we proceeded to the eastern and southern forests, marching rapidly to get from one portion of these forests to another, where days and weeks would be passed in tramping about the hills and making notes, the great part of which would possess no interest for the general reader. We never allowed ourselves to linger for sport; but the herds of buffaloes are in some parts of this country so numerous that it would have been almost impossible to avoid encountering them.

The extreme western range of the wild buffalo* in Central India is almost exactly marked by the 80th meridian of longitude, or in physical features by the Wyn-Gangá tributary of the Godávarí river, and below their junction almost by the latter river itself. I say *almost*, because in a trip down the Godávarí river which I made during the rains of 1865 I saw the tracks of a herd of buffaloes on the western side of that river, at the "third barrier" † south of the station of Chándá,

* *Bubalus arni*.

† These "barriers" are points in the course of this river where its otherwise still, lake-like character is broken by spaces in which the river assumes more the



that is, a short distance to the west of the 80th meridian. The natives, however, told me there that they only cross the river in the rainy season, and that they do not penetrate very far to the west, so that so slight an exception may fairly be held to prove the general rule. So far then from the common adage of the sportsman being true that the wild buffalo does not extend *south* of the Narbadá (see Shakspeare's "Wild Sports of India," p. 210), the truth is that the animal is unknown to the *north* of it, in the longitude of that river. It has been stated that the feral buffaloes of these parts are only the descendants of tame ones run wild, an idea that will not hold water for a second. They have all the habits of fully wild animals, are extremely numerous in the parts they inhabit, and exactly correspond in size and every particular with the aboriginally wild buffaloes of Eastern Bengal. Two varieties are recognized in India, differing chiefly in the length and shape of the horns. They have been called by Hodgson *B. Macroceros*, and *B. Speiroceros*, the horns of the former being long, straight, and more slender, and of the latter, shorter, thicker, and more curved. All the Central Indian species that I have seen pertain to the latter race, the average length of the horns of a mature bull being three and a half to four feet. No animal has changed so little in domestication as the buffalo. In appearance the wild animal is extremely like the tame one, but fully a third larger, and showing fine, plump, sleek condition, instead of the slouching, scraggy appearance of the domestic "buff," and possessing the free action and air of a denizen of the wilds. I have never heard an authentic case of their interbreeding with the domestic race, though ind-character of a mountain stream. They interrupt what would otherwise be an unbroken stretch of water-way into the heart of the country, and are now being dealt with by a staff of skilful engineers. Probably a herd of buffaloes would find it easier to cross at one of these barriers than elsewhere.



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viduals of the latter sometimes join the wild herds and become difficult to reclaim. In height I have never seen a wild buffalo exceed sixteen hands; but though thus less in stature than the bison, the buffalo stands on much shorter legs, and is altogether a heavier-built animal, so that in bulk and weight he must a good deal exceed the wild bull of the hills. They never interfere with each other, the bison adhering to hilly tracts, while the buffalo is essentially a lover of plains and level plateaux, where the extensive swamps he delights in can be found. The very different structure of their hoofs would suffice of itself to indicate this, those of the buffalo being broad and platter-like, to support him on soft ground, while those of the bison, who has to pick his way among rocks, are wonderfully small for his size, as neat and game-like and little larger than those of the sámbar deer. The buffalo is also much less intolerant of man and his works than the bison, invading the rice cultivation, and often defying all attempts to drive him from the neighbourhood of villages. They are altogether very defiant of man, and, unlike the bison, will generally permit a close approach without any concealment where they have not been much molested, trusting apparently to their formidable aspect to secure the retreat of the invader, which is usually successful. If the attack be followed up, however, they almost always make off at last, and are then not so easily got at again. The favourite resorts of the buffalo are on the skirts of the lower sál forests, where they run out into the open plain, and between them and the rice cultivation of these regions, in the great open swampy plains where long rank grass affords the sort of cover they like.

Our first introduction to the wild buffalo in this trip was near the high road between Rái'púr and Sambalpúr, when B.,



who had the shot (in stalking a herd together we always arranged by turns who should have the first shot), killed a cow. We followed the herd a long way, and wounded another, but could not bag. For a long time after this we were employed in the forests, and though we saw a few, never had time to hunt them, until, near the Māhānādī river, we came out on a cultivated plain, of which a large bull and four cows had completely taken possession, devastating the rice, and charging indiscriminately at all who approached. A Baboo from the nearest police station had come out a little while before to rid the place of the invader, but contented himself with firing away all his ammunition at half a mile's distance from the top of a house, and the bull remained monarch of all he surveyed. We had scarcely entered on the plains when the owner of the ruined rice-fields pointed out his enemy looming against the horizon as large as an elephant, and we at once made preparations for the attack. The place was as level and open as a billiard-table, so we had to rely on our rifles alone. We were both heavily armed with two-ounce rifles, however, and several smaller guns in reserve, so we marched straight on the foe, with our very miscellaneous pack of dogs under orders to be let go at the first shot. The bull and his harem came boldly down to meet us, and as we approached commenced his usual demonstrations to put us to flight,—pawing the earth with his feet, tossing his mighty horns, and making short runs in our direction. But we steadily advanced, and when within about eighty yards separated a little, so that one should get a flank shot, the full front of the buffalo being practically proof against lead. It was my turn for first shot, and when about sixty yards intervened I knelt down and brought the heavy rifle to bear on the point of his shoulder. Crash went two ounces of lead,



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propelled by eight drachms of powder, against his tough hide, and he fell upon his knees. Bang went several more of our shots, and he stumbled off dead lame and very much crest-fallen. Following him up with the dogs, who were now baying round him, we overhauled him in an open field, and repeated the dose again and again till he fell heavily against the embankment of a rice-field, and then, stepping up, I put a three-ounce shell behind his shoulder, and with a quiver of the limbs he gave it up. He was a fine animal, in the prime of life, and we were amazed at the bulk and strength exhibited by his massive form. The horns were each three feet ten inches long, which is nearly the extreme length they ever attain here.* He had sixteen bullets in him before he died, several of large calibre, and at close quarters. We were, however, shooting with bullets of plain lead, and I found that my first two-ounce ball, propelled by eight drachms of powder, had flattened out on his shoulder, pulverising the bones, however, and completely laming him. After this we shot with hardened projectiles.

Next day we embarked in a long canoe, hollowed from the stem of a mighty *sál* tree, on the bosom of the *Máhanadí*, and sailed down to Sambalpúr in two days and a night. It was mighty exciting work, the stream passing at intervals over long rapids, where the water, broken into many channels, rushed between narrow banks overhung with bushes, the boatmen steering the canoe with long poles in the most dexterous manner, now warding her bows from a rock on which the stream broke in a sheet of foam, then prostrating themselves at the bottom of the boat to avoid the sweep of the branches while the canoe shot through some narrow passage, and pre-

* Fossil horns of much larger size have been found in the *Narbadá* gravels, along with bones of the *hippopotamus*, &c.



sently emerging, after a final shave against a sunken rock, into a deep and silent pool, where the splash of huge fish, and the eye-knobs and serrated backs of crocodiles sailing about, showed that we had entered one of the long silent reaches that break at intervals the torrent of these mountain rivers. My companion had got a severe attack of fever, which marred what would otherwise have been a sufficiently jolly trip. After resting awhile at this most secluded of stations (they get their supplies from Calcutta, several hundreds of miles away, on men's heads, and a convoy had just been trampled up by wild elephants before we arrived), we started again for the Garhjáť States, where the next month was spent in unremitting toil among their rugged hills. Here we were among the Khónd aborigines, famous for the Meriá sacrifices of human beings to the dread goddess Kalí. How they can have been confounded with our Central Indian Gónds I cannot imagine. They are much blacker and more negro-like in their physique, and speak a wholly different language, a few words only of which approximate, like Góndí, to the Támil of the south. Their country is wholly beyond the limits of the central highlands; and it would be out of place to enter here into a detailed description of the tribe, even did the few weeks I passed among them justify such an undertaking. We returned from this trip with most of our following severely ill of fever, contracted in these close jungles, where water is so scarce and bad at this time of year (April) that we rose, like river gods, from our daily bath hung with the green slime of the fetid pools from which our supplies were drawn. As we marched northward again we entered the valley of the Jónk river, a tributary of the Máhánadí, and here we fell in again with great herds of buffaloes, and halted for a day or two to recruit our followers and shoot. Our camp was pitched



below a great spreading tree at the deserted site of the village of Jildá. Eaten up by the buffaloes, the people had moved off to a less open place. Around us was a sea of long grass, bounded by low hills and sál forests on the far horizon. Here our poor fever-stricken people paraded themselves in rows to let the sun into their shivering bones, and three times a day got a dose of quinine all round, a course of treatment (preceded by a smart dose of jalap) which soon frees a native from this hot-weather fever.

When marching in the morning, about a couple of miles from camp we saw a herd of fifty or sixty buffaloes standing up to their knees in a swamp among long grass. It was B.'s turn for the shot, and we spent several hours trying to get near enough to shoot. The buffaloes were very wild, having been much fired at a few weeks before by a sportsman with long-range small-bore rifles. As we approached on one side they waded through the swamp and went out on the other, reversing the process when we changed the direction of approach. At last I got on my horse, and took a light breech-loading gun, to try and get round and drive them across to B. They now got alarmed, and made off towards the head of the swamp; and on our following them on either bank, left it altogether, and started at their best pace across a rising ground. The ground seemed very favourable for riding for that country, so I could not resist the temptation to breathe my little nag at them, and was soon galloping full speed in their rear. My animal was an Arab pony, about thirteen three in height, but game as a bantam, and wonderfully sure-footed over bad ground. To my surprise and delight, I found myself ahead of them in less than half a mile; and, shooting past, looked out for a worthy quarry among the labouring mass. I fixed on a bull with long horns, whose shining tips danced in



the sunlight conspicuous above them all, and was just ranging alongside to fire when a tremendous bound of my little nag nearly unseated me, and we just escaped the long pointed horns of a lean brute of a cow that shot past my quarter, and then pulled up beyond me, shaking her head and looking very wicked indeed. I sheered off, and let her proceed to rejoin the herd, giving her a broadside of two barrels as she passed, which was followed by another end-on charge for several hundred yards. Eventually she went off again towards the retreating herd ; but, though the ground had now become very bad, cut up in all directions by deep rifts in the black soil and pitted by the old footmarks of the buffaloes, I was not going to decline the challenge of this fighting cow. So after reloading my breech-loader, which was a very light snipe gun pressed into ball service, and wholly unfit for this sort of work, I cantered after her, and, when within distance, made a rush past, intending to fire into her at close quarters. But she was too quick for me, and we almost met, my gun going off, I believe harmlessly, in her face. I had another narrow shave as she again charged me, the little horse stumbling heavily several times in the frightful ground. Again she sheered off, and once again I rode up, though not so close as before, and gave her both barrels, holding the gun out like a pistol. She felt these, and, though shaking her head in a threatening manner, did not charge again. She now held on slowly behind the herd ; and as I felt I could not kill her with this weapon, I waited behind, hoping she would lie down and the heavy rifles come up. Presently she slackened her pace to a walk, and I watched her from behind a bush. Peering cautiously all round, she went on a little further, and then, after standing about five minutes' watching, lay down in the long grass. I marked the spot carefully, as I thought, by a



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bush, and then rode back full split for a heavy rifle. About a mile behind I met B. with the rifles and dogs, and we proceeded together to finish off the cow. My large rifle had got bulged in one barrel some time before, being unable to bear the proper charges for buffalo-shooting, so I had only one barrel to depend on. We walked up through the grass close to the spot I had marked, but she was not there. I soon lost the bearings, there being fifty bushes just like the one I had marked her by, and we wandered about, a little apart, looking for her. I had stood up on an ant-hill to get a better look, when just below me up started her savage-looking head and long horns, and she plunged towards me in the grass. A ball from the heavy rifle in the neck turned her, and she passed between B. and me, preventing both of us from further firing. The dogs now tackled her, "Tinker" in particular (whose deeds of valour in the wolf line have already been recorded) striving to seize her by the nose as she tore along. A couple of hundred yards further on she stopped in another patch of grass, the dogs baying round her, and Tinker, exhausted by the great heat, lying down in the shade of a bush, but flying at her the moment she tried to move. We marched up, at a short interval from each other, and, arriving first on her blind side, I saw her glance at B., shake off the dogs, and creeping forward in a stealthy manner like a tiger, watch for him, with horns laid back, behind the screen of grass and bushes that intervened. Before he arrived, however, I took a steady shot at her neck with the little double fourteen-gauge rifle, dropping her stone dead. We found she had an old bullet wound in the flank, which was full of maggots, accounting for her extremely poor condition and unusual savageness. The small-bore rifle of our predecessor in these hunting-grounds was probably the cause. Her horns were of



full cow length, the pair measuring eight feet four inches round the curve and across the skull.

The herd was now clean gone of course in the meantime, and we turned towards camp. On the way B. shot a cow, and I wounded a bull, and lost him in the long grass. While smoking our pipes after breakfast, one of the men who had remained to look after B.'s wounded bull came in to say that he had been found lying down in an open plain, about a mile away, looking very savage. We sallied forth immediately to encounter him, and found him lying close to a little ridge that had been the embankment of a rice field when the country was cultivated, and was now overgrown with tall grass. He had taken up a position which commanded all approaches, and, as there was no cover, there was nothing for it but to march up on foot. When within about sixty yards I took a shot with a small rifle, on the accuracy of which I could rely, at his broad forehead reclining on the bank. But the angle was wrong, and the ball glanced off without injury to the bull, who sprang on his feet and retreated to the middle of the field. The dogs were now loosed, and bayed round him till he began to chase them all round the field; but as soon as our heads appeared over the fringe of grass, he left them and charged down at ourselves. There was no sort of shelter, and everyone had to look out for himself. I stood till he was within about half-a-dozen paces, and then jumped out of his course in the grass, not a moment too soon, my rifle being whirled out of my hands and its ramrod broken. Recovering it, I fired the undischarged barrel into the back of his shoulder, and at the same time the report of B.'s rifle in front of him rang in my ears. Next moment I saw B. fall spinning to one side, while the bull came down on his knees, Tinker, who had dashed past along with him, clinging nobly to his nose.



Neither spare gun, gun-bearer, nor dog-boy was within sight, as I dashed about, looking for the wherewithal to finish the struggling bull. At last I saw them, shrunk into nothing, in a shallow hollow in the black soil, and, seizing a couple of the guns, was hurrying up to the scene of action, when I met B., safe and sound, though rather pale, and at the same time heard the report of a rifle, and saw the bull fall over dead. My Mahomedan shikári, a man accustomed to shoot, had fortunately ensconced himself with my spare rifle close to where the bull stopped after knocking B. over; and putting the muzzle to his head had pulled the triggers of both barrels at once! Tinker was covered with mire and blood from the bull, but otherwise uninjured, while the nose of the buffalo showed how determined had been his grip. B. had been caught fortunately with the *outside* edge of his horns, and but slightly, in the arms and ribs, and was not hurt beyond loss of wind and the shock of his fall.

The next day B. had fever, and was so shaken as to require a rest, and I went out alone in another direction. I came on a herd of about forty, grazing in an open plain some two miles south of the camp, and proceeded to stalk them. I had an elephant with me, and sent him round a long circuit to attract their attention while I crept in. Getting within about a hundred yards I saw that the buffaloes had a bull nilgai along with them, which maintained a sharp outlook all round, while the buffaloes gazed stupidly at the elephant. I was crouched in grass about three feet high, and could not get any nearer for this singular sentinel. So I remained still, and presently the elephant disappeared in some low jungle, and the herd began again to graze. They fed down towards me, and when about seventy yards off I fired at the leader, who was standing end on to me, and was raked fore and aft by



the heavy hard ball, falling prone, toes upwards, on the ground. Instead of retreating, the herd now gathered about their comrade, and trotted round, snuffing the blood, and looking about for their concealed enemy. The wreathing smoke of my rifle betrayed our position, and it was not without some alarm that I saw them draw up in a semicircle of pawing hoofs and snorting nostrils, surmounted by forty pairs of monstrous horns. My gun-bearer, Peer Khán, and I thought discretion the better part of valour under such circumstances, and espying, some way to our right, the pollarded trunk of a sáj tree, we retreated, snake fashion, through the grass, and clambered up it. Getting to the top, I sat on its smooth summit, while Peer Khán roosted crow-like on a branch, the only one, a foot or two lower down. I now opened fire on the herd, the first shot from the large rifle almost knocking me off my perch with the heavy recoil; I believe Peer Khán, who had reloaded it, had put in a double charge of powder. I then fired two rounds from the fourteen-bore, the herd pausing irresolute, and finally breaking into panic-stricken flight. The balls had knocked the dried mud in clouds from their hides, and one remained standing on the ground, while another lagged, very lame, behind the retreating herd. I went up and finished the first, and then tracked up the other a long way, till it went with the herd into a heavy swamp, when I returned to camp. I did not see in the confusion what became of the nilgái; but he was not with the herd when it retreated.

Our experience of the wild buffalo was thus different from that of some, who have reported it to be a timid, inoffensive animal. As is the case with most wild beasts, it all depends, I believe, on whether you press them hard or not; and probably many might be slaughtered at long ranges without even eliciting a charge. If followed up on foot, I believe the buffalo to



be a much more dangerous opponent than the bison, being less timid, and also found in country where there is usually no protection to be derived from trees or rocks. In Bengal they are scarcely ever shot in any way but from elephants; and then have been known to prostrate an elephant in their charge. The prime sport with buffaloes is on horseback; but it is rare that ground is found fit to ride them on with any degree of safety, and I never heard of its having been accomplished excepting on the occasion above related. I am sure, though, that with a horse clever over rough ground, and a light breech-loading carbine, capital runs at buffaloes might often be secured by watching them into favourable ground. To kill them with the spear would, I conceive, be utterly out of the question. We cut open one bull down the chest with an axe, to see what stopped our balls so strangely in front shots, and found that a bullet fired into the chest has to pass through more than two feet of hide, bone, and gristle before reaching the cavity of the lungs. Nor is the brain more accessible, the animal holding its head either elevated till the nose is level with the eyes, or, if charging, down between its fore legs and quite protected from a shot. A plain leaden bullet of an ounce weight, with three drachms of powder, will go clean through the skull if hit perpendicularly, which, however, it is nearly impossible to do. The best places to fire, both at bison and buffalo, are through the point of the shoulder, if the rifle be powerful enough, or, if not, then behind and a little above the elbow. The centre of the neck is also very deadly, if the aim be true; natives almost always fire there with their matchlocks. The skull and horns of a bull buffalo are so large and heavy as to form a considerable encumbrance as a trophy to the sportsman marching fast with a light camp. Its value is completely spoilt, however, by



sawing off the horns, and throwing away the skull, as is often done. The better way is to boil away the flesh, and wait a few days till the horn-sheaths loosen on the bony cores, when they can be taken off, and the cores sawn down, leaving only a few inches to give the set of the horns. In doing this, the wonderful provision for giving requisite strength to the structure, without undue weight, by constructing the bony cores like hollow cells, crossed by stays in every direction, will not fail to be perceived.

We marched on down the valley of the Jónk through tracts of sál, mostly devastated by dhyá cultivation, to the Máhá-nadí river, and then along it and its tributary, the Arpá, to the little civil station of Bíláspúr, where we arrived on the 28th of April, and began to make arrangements for an expedition to the elephant haunts in the great sál forest to the north of that station. This country had never been explored by Europeans, excepting one small party of sportsmen who, a good many years before, had traversed a part of it and shot an elephant. It was reported to be scarcely inhabited except by a few utterly savage Bhúmiás; and it was certain that no supplies of any sort would be procurable. Our first business was, therefore, to hire a large herd of Bunjárá bullocks, with their drivers, and load them up with grain; and such was then the land-locked condition of this fertile country that we purchased as much wheat, gram, and rice as we required at the rate of about 100 lbs. for a shilling! Five years later the price of all agricultural produce had so greatly risen, owing to large tracts of land to the westward having been turned to the cultivation of cotton, and improvements in the communications, that from 16 to 25 lbs. for a shilling had become the usual rate in the same district.

On the 3rd of May we rode out to Ratanpúr, the ancient



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capital of a Rájput dynasty which ruled over the greater part of this eastern country from the earliest times till the invasion of the Maráthás in the eighteenth century. This ancient place is an example of the decay which has overtaken many of the old Hindú cities since the extinction of the native dynasties, and the decay of orthodox Hindú religious sentiment. Standing on a little central hill, on whose summit the white painted dome of a temple forms a landmark to the surrounding country, the eye looks over great vistas of enormous bányan and mango groves, embosomed in which sleep the waters of a hundred and fifty tanks, and shrouded in whose recesses, with here and there a ribbed spire visible above, lie the crumbling ruins of a vast number of temples, palaces, and forts. A day's ramble scarcely discovers a tithe of the archæological treasures which here await the inspection of the curious. Much of the city has already fallen to pieces. Great untenanted masonry buildings attest the former wealth and state of its inhabitants, while mean little mud shanties and thatched hovels clustering against their walls witness to the poverty of the diminished number of its modern residents. As the temples of the old faith have suffered decay, so, too, has the religion itself; and orthodox Hindúism has over all this country been extensively displaced by a deism, planted less than fifty years ago among the Chamár inhabitants of Chattis'garh by a prophet of their own race. It is, like the Búddhism of old, an uprising of the down-trodden low castes against the tyranny of Bráhmánism, its leading principles being abjuration of priesthood and caste, and substitution for the Bráhmánistic pantheon of the worship of one God, whom they call *Sal Nám*, or the "True One." It is one of the most singular social and religious revolutions in Hindú history, and is but an example of similar movements which are stir-



ring the old fabric of Hindúism to its very foundations. Whether or not these movements towards a purer faith will, like their great predecessor, degenerate after a time into another and lower form of idolatry than that from which they have emerged, remains to be seen.

Lying in a low hollow between surrounding eminences, the foul water-tanks, fetid with the slime of centuries, breed among the people of Ratanpúr every sort of loathsome disease; and everywhere the hideous leper, and sufferer from elephantiasis, are seen stalking gloomily about in the shadows of these decaying groves. I was myself destined to share in the pestilence that is rapidly depopulating the place. Coming in heated from our ride, and the tents not having arrived, I was foolish enough to throw myself down on a string bedstead I found under a tree and go to sleep, and in the evening found myself overtaken by a sensation which I did not recognise. It was fever, but not that of the malaria I had become accustomed to. Next morning I marched, though very ill, ten miles to the next halting-place; and the day after, being much worse, was carried on six miles further. After tossing about all night I suddenly felt relieved from the burning fever, and became aware of a fine crop of small-pox pustules on my feet. This promised to be the end of my explorations; but, as I had been duly vaccinated, I hoped the attack might be a light one, and determined not to return to the station while a hope remained of accomplishing my desire to see the elephant-country. It was very hot where we now were; but about seven miles further on rose a high conical hill, crowned by an old fortress, called Laäfágarh, which seemed to possess an elevation of at least 3,000 feet; and as, on inquiring about it, I found there was shade and water on the top, I determined to get myself carried up there to a cooler temperature, and



fight through it with the help of the worthy though not very skilful native apothecary attached to our camp, while B. went off to do as much of the exploration as possible in the meantime. Next morning I was carried up to a small village half way up the hill, and which the aneroid showed to be about 2,450 feet above the sea. Here I was met by the thákúr of Laáfá, the landowner of a considerable hilly tract round about Laáfágarh, who, with the utmost civility, led the way to a commodious hut he had prepared for my accommodation, of leafy boughs from the forest, under the shade of a large bán-yán tree, while my tent was being made comfortable in the old fort on the top of the hill. A gang of wild Bhúmiás from the thákúr's hill villages had been collected to carry up my things; and throughout the day I was "interviewed" by little knots of them, who would steal to the door of the hut, squat down on their hams, with their axes hitched over their arms, and their funny little leaf pipes stuck behind their ears, and remain perfectly contented as long as we let them, drinking in the strange appearance and surroundings of the sahibs. Without his formidable battle-axe (tongíá) and his leaf pipe (chongee) you will rarely see the Bhúmiá of these eastern regions. The pipe is twisted in a few seconds out of the leaf of the palás tree,* a peculiar twist making the bowl and its narrow neck in the most perfect manner. It looks simple, but I never could acquire the knack of it, and my pipes always came to pieces before they were well lit. The Bhúmiás smoke them once or twice, and then make another. They spoke capital Hindí, and were not at all shy in conversation, though wilder in appearance even than those of their race who live in the Mandlá district. Here the tribe is known only by the name of Bhúmiá, the term Bygá, which is their commoner

* *Butea frondosa*, after which the whole district of Biláspúr is named.



tribal name in Mandlá, being restricted to their priests and medicine-men in these more eastern regions. It was queer to see what trifles sufficed to bring a grin of delight on their black and unhandsome but good-humoured countenances. Their broadest grins were elicited by my three lemon-and-white spaniels, when they sat up in line to beg—"Wah Kookur ! Koo-oo-Koo-rá !" exclaimed among them, testifying their delight ; and when the visitors who had been initiated to this awful mystery were excluded from the hut to let me have a sleep, I saw them, through the leafy wall, form a deputation from the whole population of the place, to solicit my dog-boy to give one more exhibition, by the aid of a bone, of the wonderful performing "kookurs." For days afterwards fresh parties of these simple savages used to come up to my tent on the hill, and sit down over against me in the hope of seeing the wonderful spectacle, the news of which was carried, I believe, to the uttermost ends of this wilderness. When our elephants arrived from below with my tent and things (there was a pathway as far as the village), all the Bhúmiás saluted them by placing a hand on their broad footprints and then touching their foreheads. The wild elephants were truly, as they said, the rájás and demons of their country at that time, wandering whither they listed, and devastating their fields of hill rice at will. So, as usual with the offensive powers of nature among these tribes, they were ranked and propitiated as an expression of the Deity. The next morning I was carried up to the top of the hill, where my tent had been pitched under a shady tree by the banks of a small tank, which in olden days had been excavated for a supply of water to the fort. The way up was a steep zigzag of 730 feet. Near the top a clear scarp of light grey rock rises out of the sloping forest-covered hill-side, sweeping right round the hill, an in-



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accessible barrier excepting at the point we ascended, where a pathway has been formed by excavation, and piling up huge blocks of rocks. The entrance itself lay through a massive double gateway of great blocks, laid without mortar ; and a low wall, of similar cyclopean structure, had surmounted the top of the precipice. Much of this had now fallen into ruins, which could be seen lying in great heaps in the jungle below ; but in some places, particularly at the bastions, it was still almost complete. The top was a tolerably level plateau, broken by a few knolls, and was at that time covered by long yellow grass, and dotted with trees. Among the latter I found some specimens of the ebony tree,* which had evidently been cultivated, their plum-like luscious fruit being much larger and more fleshy than the wild species, and with very small stones. The only building on the top is a small temple dedicated to the consort of Sivá. The extreme elevation of the hill, on a rising ground above my tent, was shown by the aneroid barometer to be 3,410 feet, which is almost identical with that of the source of the Narbadá at Amarkantak.

I stayed up here till the 15th of May, rapidly recovering from my attack, for which I took no medicine but siedlitz powders, to the discomfiture of the "doctor," who wanted to drench me with cathartics, diaphoretics, and goodness knows what else, out of his tin boxful of very miscellaneous dispensary kit. The only physic I ever took from our worthy medico was what he called a "carminative," valuable in fits of ague—brandy and soda, to wit. But he had a great effect, with his purges, and emetics, and seven-leagued medical talk, on the native following. The thákúr was exceedingly kind, visiting me constantly, and sitting for hours talking about the affairs of his jungle domain. He was a fine, tall, middle-

* *Diospyros melanoxylon*.



aged man, claiming to be a pure Rájput, and a descendant of the ancient dynasty of Ratanpúr, whose stronghold for many years was the fort of Laäfágarh. He brought me numerous delicacies produced by his wilds, among which two were particularly acceptable, namely, a fine pure arrowroot (*Tikúr*), made from the roots of the wild *Curcuma Angustifolia*, and a beautiful small grain called *Sikér*, which is nothing but the produce of old plants of the grain called *Kútkí* (*panicum*), generally cultivated by those hill tribes in their dhyá clearings. After a clearing has been abandoned, the plants of *Kútkí* rapidly degenerate, and in their third and fourth year the grain has become this *Sikér*. It is much smaller than the fully cultivated grain, but also much sweeter, and with a nutty flavour about it, which is particularly delicious. Very little of it is gathered, the labour being great for a small result; but it is so much appreciated as to be generally kept for the *Purshád*, or sacrificial food of the gods. It made the best porridge I ever tasted. The *Thákúr* had been a mighty hunter in the days of his youth, and was full of yarns of his sport. I remember few of them, and was too listless at that time to note them down. He showed me a scar received from a man-eating tiger, which he and another had done to death with their bows and arrows. He told me much about the wild elephants, which wandered all over his own and the neighbouring chieftaincies, their head-quarters being in Mátín and Uprorá, about twenty-five miles to the north. He only knew of one of these animals having ever been killed by a native. He was a very old male, with a broken tusk, and was shot in the trunk with a "bisár," or poisoned arrow, from a tree by the Bhúmiá, whose rice-field he was devastating below. He wandered long in the neighbouring jungle, growing thin and weak, and at last sank down helpless in a

water-pool, where he had gone to bathe his miserable body. Then a neighbouring Thákúr came and fired all day into him from his match-lock, *two bushels* of bullets being taken from his carcass after he expired.

He had another story, of a "loathly worm" that haunts the forests of the Uprorá country—slimy and horrid like a great caterpillar, a cubit and a half in thickness, and dull grey in colour, with a scarlet head, to look upon which was death. Many had seen it, but none had lived to tell the tale. On pressing him as to the source of the accurate portrait of the monster he had drawn for me, since all who had seen it had died, he was at no loss for a reply. The Thákúr of Uprorá was travelling, with an attendant behind him, when at the crossing of a stream the latter called out, "What is that great slimy caterpillar-like monster with a scarlet head, etc.?" on which his master warned him not to look at it, and did not do so himself. He was too late, however, for the servant was dead in a few moments.

Evening after evening I sat on the highest point of the hill listening to the incessant music of the "myriad crickets" that seemed to permeate every nook and cranny of the hill and its covering of trees, and gazing over the vast forest prospect spread below. To the south the open plain of Chattisgarh from which we had come, to the north the great green wilderness of the elephant country, dotted here and there with isolated hills. A long valley led up into this region from the foot of Laäfágarh, in which a few specks of village clearings could be seen. Everywhere else was utter waste. Far to the west a pink promontory glowed hazily in the setting sun. That was Amarkantak, the source of the Narbadá, to which I took the reader at the opening of this chapter.

Many wild animals had their haunts in the wooded sloping



skirts of the hill. The harsh grating roar of the panther was heard nearly every night; Sámbár deer were sometimes seen picking their way up the hill from the plains in the early morning; and once I saw a black bear hurrying up the rocks to his cavern long after the sun had risen. Gangs of Hanu-mán monkeys stalked about the ruined ramparts and the precipice they crowned. On the top were many hares, peafowl, and painted partridges; and my dogs had endless chases after the yellow wild cat,* and the tree cat,† which were both more numerous on this hill than anywhere else I have seen them. Once when strolling round the camp in the dusk, looking for a shot at the green pigeons which every night came to feed on the wild fruits, I saw a pair of gleaming eyes looking down on me from the dark shadow of an overhanging bányán tree; and a charge of No. 4 brought down among the dogs a fine red lynx,‡ which they soon despatched in his wounded condition. It takes hard fighting for the best of dogs to kill an unwounded lynx, as my pack knew to their cost.

I pined sadly over my imprisonment on the top of this hill. The climate was milder by many degrees than it had been below, with no hot wind even at this height of the summer season; and was in particular delightfully cool at night. But there were only a few weeks remaining of the dry season; and we had to march nearly two hundred miles after leaving the elephant country to get into Jubbulpúr; so as soon as I could move at all I descended the hill, and marched on an elephant for Mátín. At a place called Sirkí, fifteen miles from Laáfá, a tiger had just been killed with a poisoned arrow. His companion was reported to be still in the jungle, and I foolishly went out to hunt him in the heat of the day, ending in my

* *F. chaus*.† *Paradoxus musanga*.‡ *F. Caracal*.



being brought fainting back to camp. When I reached Mátín, I was again very ill. It was far hotter than in Laäfágarh, lying as it does in a low valley surrounded by hills. B. did not rejoin me for the next eight days, and I had a very dreary time of it indeed. There was abundance of game about, and several cow elephants drank daily at a pool not a mile from camp. Shooting females, or anything but old males, had been prohibited by the Government, as there was an intention of establishing a *khedda* here to capture them alive. But there was an old "rogue" about; who had killed several persons not long before, and I sent some Bhúmiás out to search for him. The second night after my arrival I was sleeping outside for coolness, when I was rudely awakened, and sat up to listen to the crashing and trumpeting of a herd of elephants on the slope of the hill above the village. All night long, till within a few hours of daybreak, they kept on breaking the bamboos and crying shrilly at intervals. Our tame elephants were very uneasy the whole time; and I took the precaution of securing them by additional ropes, and stationing people with spears beside them to suppress any attempt at an *émeute*. In the evening I went out to the place, and found the hill-side completely levelled, bamboos torn down, crushed between their teeth, and many of their young shoots eaten away, and many trees of the *Boswellia* and other scantily rooted species overthrown and stripped of the tender bark of their top branches. The limit of their powers in overthrowing trees appeared, however, to be confined to those of not more than about eight inches in diameter, and my experience with trained tame elephants leads to a similar conclusion. Even these are not torn up by the roots, but merely borne down by the application of their full weight, by means of the forehead and one foot, or, as the natives here assured me, of the stern. The tales



of some African travellers of elephants employing large trees as projectiles (one declares he saw two trees of eighteen inches diameter torn up and hurled ten or twelve yards) must be utter myths. A broad track through the jungle, like a high road, led off in the direction taken by the herd; and, where they had crossed the dry sandy bed of the *Mátín* river, their tracks of every size, ranging from that of the tusker of a foot and a half diameter to the youngster's the size of a teacup, showed that the herd must have numbered some fifty or sixty individuals. I was of course quite unable to follow them in my present condition.

In the afternoon, when I was asleep, some of the *Bhúmiás* came in with news of the solitary tusker being within half a mile of the camp. Ill as I was I could not stand this, so getting on my pony, in sleeping drawers and slippers just as I was, I went out at least to see him. He was standing in the sandy bed of the *Mátín* river, where he had dug out a great hole down to the moisture below the surface, and plastered himself all over with the wet sand to keep off the flies. He was a very large tusker, resembling the *Nepál* breed in shape. The only striking difference I noticed between him and domesticated elephants was the much greater fleshiness of his neck and fore-quarters, a circumstance also to be remarked in the wild buffalo bull, as compared with the tame species. He stood leaning on his tusks against the bank, gently swaying his tail about, and seemingly half asleep. There was no way of getting nearer him than about a hundred and fifty yards—much too far to shoot at an elephant; and I sat long watching him in the hope that he would move, but he didn't. Then I went and found the road he had taken down the steep bank of the river, and posted myself behind it, sending a *Bhúmiá* round a long way to give him his wind. It was interesting



to see the elephant when he caught the first whiff of the savage. He still stood leaning on his tusks, but his tail ceased to sway, and the point of his trunk was curled round below his ear in the direction of the scent, while his ears stood cocked to catch the faintest sound. Long he stood thus, perfectly motionless. The Bhúmiá soon got more directly to windward, though still unseen by the elephant, and got up a tree. Those wild creatures had a wholesome dread of this jungle deity of theirs it seemed. Then the elephant gently walked out of his hole, and never a look did he take towards the foe; slowly and heavily making for another pass up the bank a couple of hundred yards from where I was. I stole along through the grass as near this point as I could without coming into his view, and again sat down by an elephant path up which I hoped he would come. And I was not mistaken, for after a breathless pause of a minute or so, his great solemn forehead and gleaming tusks appeared, waving to and fro as he moved, and within eighty or ninety paces of my post. I felt sure of him with my big rifle if he came along the path, and determined not to fire till he was quite close. About forty yards only now intervened between us, and I was lifting the rifle to my eye, when a short cough behind caused me to look round, and there, oh horror! was a tall figure, clad in a yellow coat and bright red turban, standing on an ant-hill and striving to get up a tree! Instantly I turned again to the elephant; but all I saw was his vast round stern in full retreat through the trees. It was a little provoking, and I did not bless very much the owner of that yellow garment as I sped along frantically after the vanishing tusker. I remember no more than this, till I found myself being supported on my pony back to camp. They said I had fallen senseless in the grass after running about a hundred yards. The culprit was



a relative of the Thákúr of Mátín, who had stolen out after me, and, coming up unperceived in the grass, had lain still enough till the formidable aspect of the man-killer had overcome his opium-shaken nerves. He looked so utterly wretched and ashamed of himself that I could not tell him all that I thought of him. There was also rather a panic abroad just at the time, as not long before a young son of the Thákúr of Uprorá had been taken out after some elephants which had come down near the plains, by some sportsmen from Biláspúr; and a large tusker charging down on them, after having been followed and shot at for half a day, was trampled up before he could get clear. It was a terrible disappointment, and neither B. nor I ever had another chance at an elephant which we might shoot. I made a number of little excursions from Mátín to the principal elephant haunts of the neighbourhood. All about there were great quantities of game of other sorts, spotted deer along the Nálás, and red deer in nearly every glade of the sál forest. Bears were numerous, and I saw a few prowling about in the early morning, but, being unable to work on foot, never got a shot. I picked up four or five deer, of sorts, shooting from the elephant; and, having to follow up the tracks of several which were wounded, had an opportunity of admiring the wonderful tracking powers of these wild Bhúmiás. An ordinary track that I could barely see, they ran breast high, and scarcely looking at the ground, and it was not till all sign disappeared to other eyes that real interest in the work began to be displayed. No natives of these highlands can compare with a Bhúmiá in real knowledge of woodcraft. A short distance north-east of Mátín is a small hill called Málíndeh. Many bones of elephants lay strewn about below the steep precipice at one end of this hill; and it seemed that, the year before we were there, a singular acci-



dent had led to the destruction on this spot of almost the whole of a small herd. The Thákúr and villagers were going up the narrow path, by which alone it is accessible, to pay their annual devotions to the god of the hill. The procession was accompanied by the noise of drums and much shouting in honour of the deity; and they were wholly unaware that they were driving before them a herd of five elephants which had been ahead of them on the path. Arrived at the summit, and the noise still pursuing them, the elephants became panic-stricken, and four of them tried to descend on the opposite side. Here a slope of loose shingle led down from the top, ending in a sheer cliff. Once embarked on this there was no retreat for their ponderous weight, and the poor brutes were hurried over the perpendicular fall. The fifth—the big tusker whom I had so recently encountered it was said—charged back through the procession, scattering them like chaff, and made his escape down the path.

On the 26th, B. rejoined me, having covered a great extent of country by dint of hard marching, and explored the eastern portion of the sál forest and elephant country which belongs to the Thákúr of Uprorá. He had seen little game, and had never stayed to shoot. From Mátín we proceeded again together, due north, to examine the country between this and Amarkantak; and till the end of the month we travelled on through an unbroken forest of the sál tree. This wild is very scantily peopled by a few utterly primitive Bhúmiás, a sight of whom could only be secured by sending on an embassy of some of their own tribesmen whom we took with us from Mátín. On one occasion I had wandered off the elephant track, that served for a road in these parts, into the thick sál forest, without a guide, trusting to regain it after a short détour. But the country is here so level, and the prospect so



circumscribed by the never-ending array of great grey stems of the sál, that I soon found I had entirely lost my way, while the mid-day sun, hanging like a globe of glowing silver right overhead, threw only vertical shadows, which afforded no guide to the points of the compass. I was riding on an elephant, and we wandered on for some hours through glade after glade and clump after clump of the sál trees, each exactly like the one before it, till at last we emerged into a little open space, where a few tall naked stems of sál trees killed by ringing stood up from among a thick copse of bushes sprung from the roots of the cleared forest. In the middle was a small Bhúmiá hamlet of a few huts of bamboo basket-work, surrounded by a fence of the same material. We marched up to the little wicket-gate of this enclosure, and the barking of a dog brought out the two or three inhabitants. To stare wildly like startled deer at the amazing sight of an elephant ridden by a white man, fly over the fence with a shriek, and plunge into the thick copse-wood of the little clearing, was the work of a moment. But I could not do without a guide to regain the road, and pushed in the elephant after them. It was just for all the world like beating hog-deer out of thick bush-cover, the naked black savages lying close in the thickets till the elephant put her foot almost on the top of them, when they bolted out and ran crouching across to another patch. I thought we would never catch one, until the man behind me slipped down the elephant's tail and ran round, intercepting a lad in the act of leaving the last of the underwood for the open forest. When laid hold of he struggled a little, but soon resigned himself, trembling in every limb, to his fate. It was many minutes before we could get him to speak at all, a blank shake of the head meeting every question before he could have heard it. At last, after much reassuring and comforting,



with presents of tobacco and the almighty rupee, and the withdrawal of the elephant to a distance, he found a tongue, and that in good broad Hindú, but only to declare that he knew nothing of the road; and, indeed, as we were making for nothing more definite than a water-hole in the forest rejoicing in the name of *Boogloogee*, I dare say the poor youth spoke the truth. We insisted on his trying, however, and at last he started, taking the way back to the huts, and peering about among the bushes as if he had lost something. Presently he put his hand to his mouth and gave a succession of piercing yells, the last of which was answered from the copse-wood, and in a while a very old wrinkled little man crept out, holding his hands across his shrivelled stomach to deprecate the wrath of the riders on the elephantine gods of the forest. More tobacco and another bright rupee, and the sight of the youth safe and sound after his awful adventure, brought a grin over the highly Simian countenance of this ancient; and the pair of them, first diving into a hut for their pipes and axes, stalked away before us through the trees. Soon they got quite chatty, gabbling and grinning to themselves about the elephant and its riders, on whom, however, they kept a sharp look-out over their shoulders. Once or twice I made the elephant take short runs close up behind them to try their nerves; and the alacrity with which they skipped behind the nearest trees, and chuckled and grinned from their secure positions, was worth seeing. They took us straight across country to *Boogloogee* without a mistake; and when we got there, and set them down among their tribesmen to fill themselves with venison, and wheat-flour from our store, they were perfectly happy.

The Bhúmiás of these parts are much wilder than those of the Mandlá district, cultivating not at all, and subsisting solely



by their bows and arrows, and the roots and fruits of the jungle, and collecting the dammer resin of the sál tree to barter for the few necessities of life not produced by their wilds with the traders who reside at the head-quarters of their Thákúrs. They have scarcely an idea of the use of coined money, the rare rupees that reach them being pierced and worn as ornaments by the women. They are said to have, besides their little hamlets in the forest, a retreat in some still more secluded wild, known only to the family it belongs to, in which all their worldly substance beyond a few days' supply is kept, and to which they are ready to fly at a moment's notice. The sál forest has thus here escaped much of the devastation it has suffered where the tribe is more numerous, and where they cut it down for dhyá cultivation. Many of the trees are annually ringed for the extraction of dammer; but the forest is too extensive to be much injured by the operations of this handful of savages; and as it is the oldest trees that are selected, which, if not cut down, soon become useless from heart-shake and dry-rot (a peculiarity of the sál), probably little harm is done by them in so remote and inaccessible a region. The general elevation of the country we traversed is about 1700 feet above the sea. It is very level, and with a light porous soil formed by the detritus of the primitive rocks, which here mostly lie near the surface. The water-courses are broad, shallow, and sandy, showing that large floods do not occur. Thus in the summer there is little or no water on the surface, but a little below it the soil is everywhere full of moisture; and the brilliant greenery of the sál forest thus plentifully supplied with sap, melting in the distant vistas with startling rapidity into wonderful blues, is unspeakably delicious at that torrid season of the year. Wild animals are very scarce, owing to the absence



of water, though in the rainy season elephants, buffaloes, bison, and innumerable red deer are reported to frequent the forest. In this march the dainty footmarks of a few four-horned antelopes at the water-holes, the voice of the cuckoo in the early morning, and rare glimpses of some hornbill or woodpecker glancing among the foliage of the *sál*, was all the sign we saw of the presence of animal life.

It is very difficult to ascertain distances in these extensive level forests, where there are no eminences from which the country can be examined; and we had some tremendous marches in consequence of relying on statements of distance made in "*coss*" by the *Bhúmiás*. Considering that their *coss* is derived from so indefinite a basis as the distance at which a yell from a hill-top can be heard, it is little surprising if the *coss* itself should be uncertain. This is their table of long measure:—

2 yells	=1 <i>daab</i> (or " <i>bittock</i> "),
2 " <i>bittocks</i> "	=1 <i>coss</i> ,
12 <i>coss</i>	=1 day's march;

which seems to be about thirty miles.

In the jungles of *Kéndá* and *Péndrá*, which form the most easterly section of this forest, and lie right under the range of the *Mýkal* hills, great numbers of wild buffaloes were reported to us; but we had not time at this season to stop to look after them. Doubtless it is chiefly to these regions that they retire from the *Mandlá* uplands when the latter are invaded by the grazing of domestic cattle.

So far as we could learn, an area of about 1200 square miles was occupied by herds of wild elephants, whose numbers we estimated, from all accounts, to range from two hundred to three hundred. They undoubtedly did very serious damage to the crops in the neighbourhood; and for many



years the annual tribute of the Thákúrs whose possessions they disturbed had been remitted on this account. The people were totally unable to defend themselves from such powerful foes, and most of the villages I met with on the borders of the jungle are furnished with platforms in high trees, to which the people were accustomed to retreat on the occurrence of an invasion. Shooting at wild elephants only increases the damage they occasion, by breaking up the herds and spreading their ravages over a larger area ; and, besides, to shoot an elephant is like hanging a man, the worst use that can be made of him. After a good deal of reporting and correspondence, the Government of India was induced to send down one of its regularly organised elephant-catching establishments to these wilds, which attacked the herds during the years 1865 to 1867. The system pursued in this country was somewhat peculiar, and has been thus described by an eye-witness.*

“Several modes of capture were tried here, but the most successful was a simple stockade erected hurriedly in one of the runs near the spot where the elephants were tracked. To make this process successful, a very large establishment is required, for all necessary arrangements to be of any use must be made at once. A rough ring-fence of bamboos is thrown round a large area, traversing in circumference some two or three miles, within which the elephants have lots of moving room. This enclosure must contain water and fodder, or the elephants are certain to break through. At every few paces there are two coolies who relieve one another, and by striking the fence with a stick, keep up a continual clatter. Then at every hundred yards or so, there is a matchlock-man

* Report on the Settlement of the Biláspúr district of the Central Provinces, by J. W. Chisholm, Esq.



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supplied with blank ammunition. Near this fence the jungle is cleared, so that at any point the elephants make for, they are at once visible, and when they are seen approaching, a rush of men occurs to the threatened locality with an immense shouting and firing of matchlocks. This has the effect of driving the herd back, and as it is at night that these efforts are chiefly necessary, they entail much watchfulness and labour. In fact, at night the whole circle is, as it were, a blaze, for each party has lighted a grand pile of wood. These fires surround the elephants in a ring of light, which they believe themselves powerless to break through, especially as they are assailed with all the din of battle if they approach too near, so that it is a sheer case of desperation or gross carelessness, or a weak establishment, if they succeed in getting out. From a neighbouring camp the scene is exciting enough, for the hill-side resounds with shouting, and the discharge of blank ammunition seems incessant, partly from necessity, and partly from the inherent affection an Asiatic has for noise. All this time the stockade is progressing, made of immense piles of wood, capable of standing any charge, and enclosing a few hundred square yards of ground. The elephant runs are clearly marked-out tracks, to which they usually keep. The stockade is on one of them, with an open gate at one extremity, from which an immense arm of piled logs stretches on either side, so that the rush may be, once the arms are entered, into the single opening that has been left. The first day after the stockade is finished the driving commences. If fortune smiles, once the herd is started by shouting and firing in their rear, they make a rush for the stockade run and are enclosed without further trouble; if not, they require to be driven several times—a service often of difficulty and danger. When enclosed, the decoy



elephants with trained men are employed for noosing and tying them."

Doubts have been expressed whether these elephants are really indigenous to this part of India, or are the descendants of some tame elephants which broke away from a train belonging to one of the Rájás of Nágpur, when passing through the country about a century ago. Lieutenant Johnstone, who superintended the Kheddá operations here, says that the Central Indian elephant more nearly resembles the species of Ceylon and the Eastern Archipelago (*Elephas Sumatranus*) than the species of the Indian Peninsula (*E. Indicus*), particularly in having an extra pair of small ribs peculiar to the former, and in having fewer tusked males than is usual with the Indian elephant.* But it would seem that the osteology of the elephants of Asia (if there really be more than one species) has not yet been properly determined; and there are other arguments which lead to the belief that these elephants are really indigenous. It is fully ascertained that wild elephants at one time extended much further to the west in these central regions than they now do; and the nomenclature of localities in the intermediate districts, in which the Hindú name for the elephant still forms a common element, supports the belief that they were gradually driven east by the advance of civilisation. Again, these herds are not isolated, but are only the most westerly extension of a vast elephant region in the hills of Sirgújá, Chotá Nágpur, and Cuttáck. Lastly, it is wholly impossible, considering the rate of birth and growth of the animal, that a few individuals could have so increased by mere breeding in so short a period. Possibly the introduction of one or two Cingalese elephants from captivity

* *Vide* Proceedings of the Bengal Asiatic Society for May, 1868.



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may have led to some variation in an otherwise indigenous race. During the operations of the Kheddá, 117 of the elephants were actually caught, of which thirty-five subsequently died from exposure and disease in so remote a tract, where proper facilities for keeping newly caught elephants were wanting. The total expenditure amounted to £8000, and the value of those which survived was £9650, leaving the State by so much a gainer in mere money by the undertaking, besides removing so serious an obstacle to the progress of tillage and the realisation of the public revenue. About fifty more elephants were supposed to be left in this part of the country, besides a good many which probably retreated further east. These it would not pay to pursue further, so they were left alone. But they were thoroughly cowed into harmlessness, and it may not be a matter for regret that a breeding stock of this most useful of wild animals has been left in a tract which for many years can scarcely be useful for any other purpose.

An enormous area of the tract we travelled over, in the neighbourhood of the Hásdú river and its tributaries, was found to be full of coal measures, which have since been professionally examined, and reported to furnish mineral of a highly valuable character. But the extreme remoteness of these regions from any of the great centres of commerce or transport must certainly put out of the question any immediate utilisation either of the coal or the rich store of timber which are now ascertained to exist. The same reason renders all idea of colonising these wilds, except by the slow process of extending population, a matter which it would not be useful to discuss. Far superior lands in every respect, whether of natural quality or situation, exist in great areas in the Mandlá highlands, which must come to be taken up



before a plough can furrow the remote regions to the east of Amarkantak.

On the 1st of June we climbed the steep ascent leading up to Amarkantak from the east, and rested there for two days. I was still very ill and weak, and obliged to travel on an elephant; and though it was very tempting to linger on this elevated region, where, at this season of excessive heat below, the temperature in a small tent all day was delightful, while at night it was cold enough to enjoy a couple of blankets, the season was getting very late, and banks of clouds collecting on the horizon threatened heavy rain, which might block the way to Jubbulpúr. So we determined to march straight to that station by the direct road to the north of the Narbadá. That frightful march still lives in my dreams. For the first ten days we kept to the elevated country south of the river, which we then crossed. The country to the north is an utterly bare sheet of black basalt, without a field or a tree, or, I believe, hardly a blade of grass. Sharp glancing flakes of white quartz alone relieved the inky black of the horrible rocks. The sun was at its very hottest, and heavy thundrous clouds now gathered round the sky, oppressing the air with a sultry stillness far worse than the fiercest hot blast of the earlier summer. Day after day we toiled along in the fierce heat, pitching in a burning plain, without a particle of shade; and I really thought that before we reached Jubbulpúr on the 16th of July, I should have had to sit down decently and give up the ghost. I had marched close on a thousand miles in changes of camp alone since I left the station in the preceding January. How much more should be added for our explorations it would not be easy to say.

The monsoon burst a day or two after; and in the comfort



of the beautiful little station, and its pleasant society, I soon got over my troubles. I was very much broken in health, however, by constant exposure to the malaria of the jungles, at all seasons of the year. I had never lost the remains of the fever I had contracted the previous year; and, I may add, never did so till I had a trip to England in 1867. I was therefore induced to leave the forest department shortly afterwards, and go into a less physically laborious line of civil work; but only to return again in less than a year to relieve for a time my friend Major Pearson, who had also got completely knocked up by exposure. The necessity for such exposure, consequent on having to explore in a short time the large areas of forest comprised in the province, is now over; and work in that department is not necessarily more unhealthy than any other; while my readers will be able to judge of the opportunities it affords for the excitement of adventure and sport.

I have no intention of attempting a treatise on Indian forestry, for which, indeed, there are as yet few available materials; but a few remarks on the present aspect of the question may not be out of place before concluding my work.

The Government of India has within the last ten years been fully awakened to the necessity of watching over the important part of their trust which resides in the forest regions. Even now it is doubtful whether the clearances already effected have not seriously deteriorated the rainfall of the country, as they certainly have much impaired the supply of useful timber; and the example of many countries, ancient and modern,* is a warning against rash interference with the life-giving forests of hilly regions where rivers are born, such

* A pamphlet, admirable for learning and research, on this subject, by Dr. Dalzeil, Conservator of Forests in Bombay, exhausts the subject.



as that I have attempted to describe. I have pointed out in another place a few mistakes which I think we have made in our administration of these central forests; but I think that, considering how little knowledge of the matter we had to commence with, the results already attained are really wonderful. The scientific forester must now take the place of the explorer; and the Government have taken the proper course in seeing that all newly-appointed forest officers shall in future go through a course of instruction in the advanced schools of forestry in Germany and France. The only danger now remaining is lest a too purely professional view of forest questions be allowed to exclude considerations bearing powerfully on the general economy of the masses of the people, and particularly of the hill tribes: and perhaps lest cut-and-dried theories, based on the example of moist temperate regions, be applied without sufficient caution to the very different conditions of tropical forests. For example, one of the practices of Continental forestry, the working of forests in blocks by rotation, though probably quite inapplicable to a hot country, where stripping the soil of all the trees at once converts it into an arid desert, is still aimed at in our Indian forests, and is the cause of much, and I believe wasteful, expenditure of money. Many important matters can even now be dealt with only in a tentative manner; and the wisdom of the administrator must always be joined to the technical skill of the forester to secure the best results. One word more. Outcry has not been wanting on the part of some shallow writers, who deem themselves the representatives of the vast silent opinion of the Indian peoples, against the apparent absence of immediate result, in the shape of great supplies of timber and a full exchequer, from the exertions and outlay of these few years in the forests. It



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is forgotten that the reproduction of an exhausted timber forest is the work, not of a few years, or even of a generation of men, but of a generation of trees—that is, a period ranging from fifty to a hundred years. And it is the supreme advantage of the forests of a country remaining, as here, in the hands of its Government, that it alone is, or should be, superior to the desire of immediate personal gain, which has generally led to the improvident conversion into money of the standing forests of private owners. England alone of countries where the forests had passed into private hands escaped such a catastrophe as the near extinction of her forests, by means of her system of entail, which unites several generations in a joint guardianship of landed properties. It may be added that in the Central Provinces the forests have even now more than returned in revenue the outlay upon them, while their prospective value to future generations, both as a source of supply for the country's wants, and in mere money, is wholly beyond estimation.

My narrative is now done, having carried the reader over every portion of these Central Highlands, and even taken a step with him below their eastern termination. In the course of our rambles he has made the acquaintance of every wild animal he is likely to meet with in the forests; and it only remains for me to offer a few hints to the traveller or sportsman who may contemplate an excursion in these regions. Few men would probably come to India merely to shoot over this central wilderness. But as a field for general travel, and even as a sporting ground, India is rapidly coming into favour among the wandering section of Englishmen. I need not dilate on the general interest of the country. It may be hoped that most Englishmen will benefit as much from a tour through this greatest of our dependencies, as India herself will



assuredly benefit from having the bull's-eye of outside observation turned on to her obscurity. I will here speak only of the glorious field that the country offers to the sportsman—incomparably the finest in the whole world. Africa may be thought to be better, but it is not so if India be looked at as a whole. Perhaps more animals in number or in size may be slaughtered in Central Africa; but that does not surely imply superior *sport*. In reading accounts of African shooting, I have often wondered how men could continue to wade through the sickening details of daily massacre of half-tame animals offering themselves to the rifle on its vast open plains. In India fewer animals will perhaps be bagged; all will have to be worked for, and some perhaps fought for. The sport will be far superior; and the sportsman will return from India with a collection of trophies which Africa cannot match. Africa and India both have their elephants. We cannot offer a hippopotamus; but we have a rhinoceros superior in a sporting point of view to his African relative. We have a wild buffalo as savage and with far superior horns to the Cape species; and we have *four* other species of wild bovines besides, to which there is nothing comparable in Africa. In felines, besides a lion, a panther, and a hunting-leopard, almost identical with those of Africa, we have the tiger, and one, if not two, other species of leopard. Our black antelope is unsurpassed by any of the many antelopes of Africa; and besides him we have fourteen species of antelopes and wild goats and sheep in our hills and plains, affording the finest stalking in the world, to compare with the other antelopes of Africa. Africa has no deer properly speaking at all, except the Barbary stag, which is out of the regular beat of sportsmen. India, on the other hand, has nine species of antlered deer. We have three bears; Africa has none at all. There is no country in the world that



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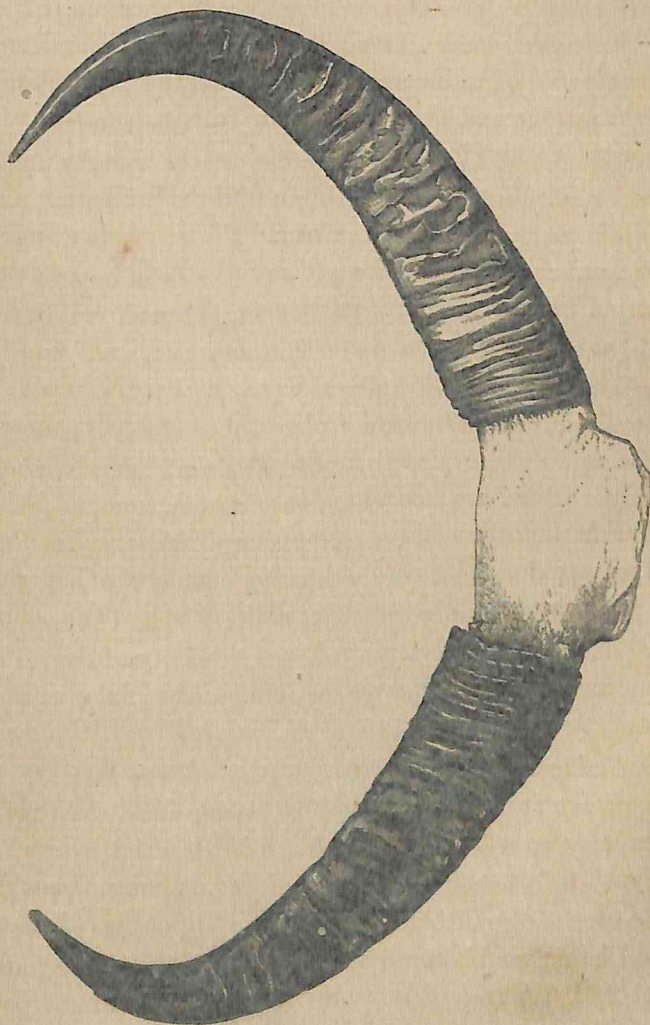
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can show such a list of large game as we can in India. And for minor sport, what can compare with our endless array of pheasants, partridges, and wildfowl?

All this, too, is now so easy of access. Twenty-one days by overland passage lands the traveller in Bombay, where he may step ashore, with nothing more than a carpet-bag if he pleases, and at once fit himself out for a year's tour through the country. If he joins a regular camp in the "plains," he will find the most perfect system of open air life that has anywhere been devised. Though an Indian camp may not, as, according to Mark Twain, did that of the Yankee pilgrims in Palestine, contain "a thousand boot-jacks," he will find pretty nearly everything that civilized man can want, ready to move about with him at the rate of from twelve to twenty miles a day. By the help of railways, he may see almost the whole country south of the Himalayas, and shoot specimens of all its game, during the pleasant cold months from October to March; and by the time that April ushers in the hot blasts of summer, he may find himself, if he pleases, stalking the ibex among the snows of Káshmir.

For mere sport England need not be left earlier than December; but should the traveller, as is probable, have other objects in view, he should take an extra month or two to see the lions of the civilized parts at their best, which he may combine with some small game shooting and pig sticking, if he likes, in November and December. Should these central regions be selected by the sportsman, the shooting camp should be organized, if possible, beforehand, at some station on the Great Indian Peninsular Railway, the exact spot depending much on whether the sportsman has any friends on the spot who would assist him. The help of the local civil authorities is of course of the greatest value; and I may say that it is

AN EXPLORATION IN THE FAR EAST.



Horns of Bull Buffalo. (Scale, one tenth.)



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always freely rendered to gentlemen projecting a tour through their charges. Some previous acquaintance with the language, and the general requirements of such a trip on the part of at least one of the party, is almost essential to ensure success. In the absence of inducements to take another line of country, I would recommend the traveller to leave the railway at the large city of Burhánpúr, in the district of Nimár, and commence his hunting in the country round the head-waters of the Móná tributary of the Táptí river. Bison, sámbar, and bears are as numerous and easy to get at there as in any part of the country I know. Painted partridges, jungle fowl, and other small game, would also diversify the sport, and supply the pot. Thence he should cross over to the Bétúl district, north of the Táptí, where tigers are plentiful, and devote the month of March to their pursuit. Spotted deer, antelope, nílgái, and other game, are also abundant in this tract, and the end of March might see the sportsman stalking the bison on the Puchmuree hills. If he means to devote the hot weather also to these regions, the district of Mandlá and the sources of the Narbadá should be selected, where plenty of tigers will be found, and the sámbar, red deer, and wild buffalo, will add to the variety of the sport.

The cost of such an expedition need not be very great. Most of the outfit required would be re-sold at the conclusion at no very great loss. One hill tent, ten feet square, and a small "pál," would be sufficient for two sportsmen; and would cost at the Jubbulpúr School of Industry (whence they should be ordered beforehand and sent to the railway station) about 30/. A strong rough pony is the best animal to ride, unless hunting on horseback is contemplated, when a good Arab should be bought in the Bombay stables. The former are not always to be picked up on the spot, but can generally



be bought in Bombay at a cost of about 20*l*. A good Arab, fit to hunt under eleven stone, will cost 80*l*. or 100*l*. Arrangements should be made to get the loan of or purchase a staunch shooting-elephant and howdah; for, though much good sport can be got without one, a far heavier bag will be realized with the help of an elephant. They are difficult to obtain, however, at any time; and a really good one will not be bought for less than 200*l*. to 300*l*. Decent shikáris can generally be obtained on the spot, though they will not of course come up to men who have been brought up by the sportsman himself to the work. The current expenses, after the outfit has been bought, will come to about 30*l*. per *ensem* for each sportsman. Of course a man accustomed to rough it could get on, and obtain the best of sport at a much less expense than this, which is laid down for a party wishing to enjoy all the comforts of the Indian style of travelling in camp. Such an adventurous sportsman need only get for himself a small *pál* tent and a few necessary implements of travel, and hire a camel to carry them, buy a rough pony for 5*l*. or 10*l*., hire a couple of servants, and plunge with his rifle into the wilderness. If capable of speaking the Hindí language, and conciliatory towards the wild men, he would soon have about him a knot of real jungle hunters who would take him up to every sort of game; while his monthly expenses would not exceed 10*l*. or 15*l*. Saddlery, hunting implements of all sorts (excepting boar spears which are made better in India), ammunition, and clothes, should be brought from England.

In the matter of guns and rifles, improvements are still so rapidly progressing that the *dicta* of one year are very likely to be upset before the next. Since I published the last edition of my little work on sporting rifles in 1867, a perfect revolution



has taken place in their construction, by the universal introduction of breech-loading, and application of what has come to be called the "Express" system. Regarding breech-loading it is sufficient to say that by the universal consent of sportsmen the use of the muzzle-loader is now confined to exceedingly remote countries where the cartridge cases cannot be carried. No part of India answers to this description, and a muzzle-loader is now rarely seen there. The Express system consists in the use of a short conical bullet, hollowed at the point like a shell, but without any bursting charge, and propelled by a very great charge of powder in proportion to its weight. The first result of this is that the bullet, striking with extreme velocity, has its hollow point opened out by the shock into the shape of a mushroom, or even, when the hollow is very deep and the speed great, broken altogether into fragments, which take different courses through the animal and inflict a terrific wound. This complete breaking up of the bullet has as yet been effected only with very small gauges, not larger than the half inch (.500) diameter; but projectiles of even this size have been found to be amply sufficient to kill effectually all animals of the deer class, and hardly any other description of rifle is now used for that purpose.

Their only serious disadvantage is the smallness of the hole they make on entering, while they rarely pass through an animal of any considerable size, rendering the work of tracking, should the animal leave the spot, a matter of some difficulty. I have found that generally a deer struck by the Express bullet, even in the lungs, will run from fifty to a hundred yards before falling. It is then generally stone dead, having bled internally. But very often there will not be the slightest mark of blood on the track. The very first two shots I ever fired with an Express were remarkable illustrations



of this. The first was at a lovely spotted buck, who suddenly stood before me like an apparition, drinking at the margin of the mirror-like lake of Lachórá, as I rounded the point of one of its bays on my way back, tired and muddy, from an evening's snipe shooting. It was over two hundred yards across the arm of the lake from where I was. I had taken out a single Express by Henry, to raise the flocks of wild fowl that sat in safety in the centre of the lake, and this my gun-boy now thrust unloaded into my hand. The buck had turned, and was picking his way leisurely up the bank, before I had the cartridge in ; and his graceful form and long tapering antlers stood out clear against the sky line as I fired point blank at his shoulder. With a startled toss of the head, and a desperate bound over the top of the bank, he was off into the thick cover that here surrounds the lake. We tracked his footprints in the gravelly soil for near a hundred yards, when, light failing us altogether, we had to give it up. Next morning I returned, and a solitary crow cawing on a branch pointed out the buck lying dead and stiff within a few paces of where we had left the trail. The next chance I had with this rifle was equally unexpected. Walking along near midday in the Punásá forest, by a little travelled pathway, the ridge of a great black back appeared through the trees, slowly passing behind a little eminence. It was a splendid stag sámbar, who had, very unusually, ventured down to that silent valley in the midday heat to drink at a little stream. He seemed to be dazed by the sunlight as he came out on the pathway, and failed to notice a cortége of three or four horses with their riders, an elephant, and ten or a dozen men on foot. I fired at about a hundred and seventy yards, and heard the little bullet strike against his brawny shoulder. But he galloped away up a little glade, leaving no blood ; and I felt inclined



to throw down the little rifle in disgust. Less than a hundred yards from the pathway, however, the great stag lay perfectly dead, shot through the middle of the shoulder. I afterwards acquired complete confidence in this weapon, and killed a far larger percentage of the animals I fired at than I had ever accomplished with any other. On one occasion I shot three out of a herd of five Chikará antelopes running across me, the nearest being over a hundred yards. This little creature offers an extremely small mark to fire at, and these were fairly struck in the shoulder. I could not have done such work as this with any other rifle of my acquaintance.

These small bores, however, have not been found so effective for destroying the larger animals, such as tigers, buffaloes, bison, etc., the small fragments into which the bullets are broken up not possessing sufficient penetrative power to reach the vitals. It is a great object, too, with these large and dangerous animals to break the large bones, so as to cripple them at once and prevent accidents; and this the small Express, with its very hollow bullet, is quite unable to effect. The bone-breaking and penetrative power of these bullets can, however, be much increased by diminishing, or altogether omitting, the hollow in the point. A good many elephants have been killed dead, by the head shot, with the smaller gauge, using solid hardened projectiles; and the larger rifle, with a short hollow, has been effectively used against tigers and bears. Much of the shock to the system caused by the spreading of the hollow bullet is of course lost if a solid ball be employed.

The next advantage of the Express system, where it is suitable as regards killing power, is the very flat trajectory at sporting ranges obtained by the use of a light ball and heavy charge of powder. Two sizes of the small Express are now made, the smaller, .450 of an inch, having a charge of nearly



four drachms, and the larger, .500, shooting five drachms of powder. The first gives a perfectly point-blank range of a hundred and sixty yards, with an extreme effective range of two hundred and fifty; the latter a point-blank of rather more than two hundred, and an extreme of four hundred. They both shoot with extreme accuracy at these ranges. The smaller weighs seven and a half pounds, and the larger eight and a quarter as a minimum; though the addition of half a pound to the weight of each gives more steadiness and regular shooting.

The very great improvement thus effected in the shooting of any one who uses an Express rifle, goes a long way towards compensating for any loss of smashing power in comparison with the old wide-bored rifles. I unhesitatingly therefore recommend the adoption of the .450 or .500 Express for *all ordinary* purposes. If its greater weight be not objected to, the larger is certainly preferable in every other respect; but very good work can be done with the smaller bore, and the saving of weight is a great advantage for work in the hills.

For dangerous game such as tigers there is nothing better yet available for sportsmen than the large rifle firing the spherical ball, or the explosive shell of my invention, which I have described in my former work. This should be at least twelve gauge, and eleven pounds in weight. The application of breech-loading to these rifles renders it possible also to use a spherical or short conical ball with the same rifle, either of which gives flatter trajectory than the shell, and which are preferred to it by some sportsmen. If the shooting is to be from an elephant I think the spherical twelve bore is amply sufficient. This ball, or the short conical hardened with one twelfth part of mercury or tin, with four and a half or five drachms of powder, will also form an excellent charge for buffalo or bison shooting.



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I have lately been experimenting, in order to obtain a projectile of considerable weight, which should have a corresponding effect on these large animals to that of the small Express on deer, etc. So far as target experiments go, I think this has been well effected by employing a twelve or sixteen gauge short conical, built up in segments, which may be of any number desired (by preference four), and held together by a jacket of lead, either cast or "swedged" on. The object is to get the ball to split up like an Express, with the comparatively smaller charge of powder which the limit of weight in the rifle will allow us to employ in such a gauge. The "segment" bullet, as it may be called, effects this perfectly, while the shock required to do it is still so great as to ensure full penetration nearly to the vitals before the breaking up commences. I incline to think that this projectile will be found more destructive than the explosive shell of similar gauge. The latter requires to have a large chamber to break it up into fragments, which diminishes the weight of its material, and also causes the pieces to be of uncertain, and often very small, dimensions. The explosion of the shell checks its progress a good deal, while with the segment bullet there is no such action, and the breaking up of it in the animal is effected by the resistance it meets and overcomes, in process of which it of course effects a large amount of damage. A sixteen gauge, with a bullet of this kind one and a half diameter in length, carries four drachms of powder pleasantly enough at nine and a half pounds' weight; and a twelve gauge takes five drachms at eleven pounds' weight, and six drachms (the utmost that the longest cases will hold) at twelve pounds'. Half a pound more might be required in the weight of each by those who object to a moderate amount of recoil. I believe that these rifles will



be found to be the most effective for large game of any yet introduced. I write without having put them to the test of actual trial on our Indian quadrupeds; but since I got the gunmakers to make them, several sets have been sent out to different parts of the world, and we shall shortly learn the result. In any case, the same rifle might be used with a short, solid conical, or a hollow Express, or even a spherical bullet. Were I myself going back to my old hunting grounds to-morrow, I would take with me two rifles, namely, a .500 Express, with mould made to allow of a hollow of any length being made by a movable "plunger," and also fitted with a solid mould; and a twelve gauge with segmental, and also solid, bullet, weighing about twelve pounds, and taking six drachms of powder as the charge. For hill work only I would take the .500 Express, and a No. 16 weighing 10lbs., to take a "segment" ball and five drachms.

As regards choice of a maker, so many now turn out admirable weapons on the old large-bore plan for spherical ball or shell, that it would be invidious to make any very close selection. Doubtless there are many others equally capable, but I *know*, from actual experience, that Messrs. W. W. Greener of Birmingham, Reilly of London, and Henry of Edinburgh, are to be depended on for such weapons. My only successful experience with the Express system has been with Mr. Henry of Edinburgh. These rifles are not easy to make; and those of many makers I have tried have proved either not to be really on that system at all—shooting a heavier bullet with less powder,—or else have shot in a very inferior manner. Almost any proper gunmaker should be able to make a "segment" ball; Messrs. Greener and Henry have made them for me.

All rifles should, by preference, be double-barrelled. To



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use a single rifle is to sacrifice many chances, while it possesses no advantage whatever over a well-made double. A good price will, however, have to be paid for a really true-shooting double rifle; and when this is a matter of the first consideration, a breech-loading single Express rifle will be found to give a wonderful command of shots. There is, in my opinion, no system of breech-loading for single rifles at all comparable with that of Mr. Henry of Edinburgh. It is probable that considerations foreign to the mere merits of the actions will induce our Government to adopt the Martini in preference to the Henry breech for the new military arm; but sportsmen will probably always continue to prefer that of Mr. Henry, which is much more simple and enduring, more certain of ignition, and possesses the incalculable advantages of allowing the barrel to be inspected and cleaned from the breech end, and of possessing a half and full cocking action, exactly like that of ordinary guns. The Martini has no such action; and consequently the rifle must be carried either unloaded altogether or on full cock. This would never do for emergencies; and in the opinion of all practical men forms a fatal objection to both the Martini and the new Westley-Richards actions. There is no plan of breech-loading superior for double rifles to the "double grip" action commonly adopted by gun-makers. Some patented actions are probably equal in strength and durability to the double grip, when really well made; but they usually require more careful workmanship, while the monopoly of the patentee is apt to lead to the reverse; so that on the whole my experience is that the sportsman had better avoid them for his rifles. None of the "snap" actions have sufficient power for a heavy rifle, I believe, though I certainly prefer them for shot guns. The best for the latter



purpose is, in my opinion, that of Messrs. Powell and Son of Birmingham, and next to it is the *Spring* double grip of Messrs. Reilly and Co., both of whom I may say may be relied on to build a gun excellent in all other respects.

The rifles should be fitted in small, handy, solid leather cases, unincumbered by much apparatus, or by space for cartridges. The latter should be soldered up in tin cases, to hold two hundred and fifty each, and should be carried unloaded until about to take the field.

I have added in Appendices some information which may be useful to travellers in the region I have thus attempted to describe.



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APPENDICES.

Appendix A. Note on the Diseases of Elephants, and the Treatment of the Animal in Captivity—B. Rules for the Sale and Lease of Waste Lands in the Central Provinces—C. Useful Trees of the Forests of Central India—D. Vocabulary of Local Terms—E. Hints on the Preservation of Natural History Specimens.

A.—SELECTION AND TREATMENT OF ELEPHANTS.

THERE are few subjects on which so little is generally known as that of the diseases and unsoundnesses, and the general management, of tame elephants. Although there are many elephants under the charge of officers of different public departments in India, as well as a good number which belong to private persons, it always seems to be assumed that to attain to any acquaintance with the nature of the animal and its veterinary treatment is a hopeless task. The consequence is that their mahouts, or native keepers, than whom a more ignorant and careless class does not exist, are commonly allowed to do with them what they choose, very often to their serious detriment, and sometimes complete disablement. They profess to possess many secret specifics, most of which are useless, and only intended to extract money from their masters on the pretence of purchasing drugs: and many of them founded on the grossest superstition. For instance, it is common among them to give the elephant a piece of a tiger's liver to make him courageous! and, in order to make him see well at night, to thrust down his throat the great yellow eyes of the brown horned owl torn fresh from the living bird!

Having had much to do with elephants, both in my private possession and in the forest establishment, I am induced to put on record what I know of their management, not with the idea of furnishing a complete guide to their treatment, but in the hope that it may go some way towards obviating some of the mismanagement they are now so generally subjected to, and also be of assistance to persons engaged in purchasing elephants. In a rough country like the forest tracts of Central India, elephants, when properly looked after, are the most useful of animals, whether for riding purposes or for carrying baggage and other heavy works. When neglected, however, they are subject to numerous small ailments, which have led some persons to reject them for such services.

On looking over an elephant, the most inexperienced eye would at once detect the presence of the disease called by natives *Zérbád*. There are two varieties of it, called *Asl* and *Súkhá*. The former is a dropsical affection, in which the neck, chest, and stomach fill up to an enormous size. It occurs most frequently in newly caught animals, and is probably attributable to a sudden change of food. I once had an elephant attacked with it immediately after changing from wheat to rice, on entering a district where the former was not procurable. Generally an elephant that has been two or three years in captivity is considered pretty safe from it. *Súkhá Zérbád* is usually developed out of the other, but sometimes comes on at once. It is a sort of general atrophy, or falling away; and is characterised by a shrivelled, cracky skin, much emaciation, and weakness. It is apt to become complicated with troublesome sores in various parts of the body. In purchasing an elephant it is not likely that the actual presence of *Zérbád* would be overlooked; but without care it is easy to buy an animal so recently caught as to be still likely to develop it. Such an animal should be got for much less money than one longer domesticated. The state of training the animal has reached will generally indicate the period of his capture. If thoroughly obedient to its driver, lying down patiently to let you examine its feet, &c., it will probably have been sufficiently long in hand to be pretty safe.

This brings me to unsound feet—the most common failing in an elephant. It is of two kinds, called by natives *Kándi* and *Sájhan*. The former is a sort of canker, that begins on the sole and gradually eats deep into the structure of the foot, until at length it breaks out above the toe nails. In its earlier stages it is easily concealed by plugging the holes; and many of the elephants brought to the great fairs, like that of *Sónpúr*, are in fact affected with *Kándi*, though to outward appearance perfectly sound. It can generally be discovered by making the elephant lie down, and administering a series of smart raps with a stick all over the soles of the feet, when, if *Kándi* be present, the animal will be sure to show it by shrinking.

Sájhan is what would be called “cracked heels” in a horse. Its deep cracks, discharging matter, situated about the junction of the horny sole with the skin, can hardly be passed over in a bad case, though a slight one may escape observation. It is a serious unsoundness, being generally constitutional, and often rendering useless during every rainy season elephants that are subject to it.

The eyes of the elephant are extremely delicate, and appear to possess in an unusual degree a sympathetic connection with the digestive organs. Nearly every indisposition of the animal is accompanied by a clouding or suffusion of the eyes. Few elephants that have been long caught, especially if in the hands of natives, have perfect eyes. Heating food, or undue exposure to bright sun is often followed by the appearance of a film over one or both eyes, which, if not attended to, and its cause remains in operation, increases till the cornea becomes quite opaque, and the animal loses its sight. The leaves of the peepul fig-tree, which form excellent fodder in the cold season, are almost sure to produce this affection if given for any considerable time in the hot season. I would not reject an elephant, otherwise suitable, merely because it had a



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slight film over the eye; for it is easily removed when attended to in time. But its presence would of course lessen the value the animal would otherwise bear.

Another very tender point in the elephant is the back. A highly-arched back is very liable to get galled; and such sores, when fairly established, are exceedingly obstinate. Such a back will almost always show traces of old sores about the ridge, and frequently they are only healed over on the surface, leaving deep sinuses below ready to break out on the slightest pressure. Such a back should be avoided, and a flat back, showing as nearly as possible a straight line from the withers to the croup, should be selected. Besides its immunity from galling, such a back always carries a load, or the howdah, well and steadily.

The above are almost all the external points to which the attention of the purchaser requires to be directed. Old strains will sometimes affect the paces, but this can be seen at once. I have alluded, in the text, to the points of build and carriage that should be looked to in choosing an elephant. There is no critical test of the animal's age. The ears are always a good deal split and frayed at the edges in an old animal; but so they sometimes are also in young ones. The general appearance will, however, indicate the age sufficiently well for practical purposes. The full size and development is attained at from thirty-five to forty years, and from that age till about sixty, the elephant is in the prime of life. It is desirable to buy an elephant of full age if required for shooting, young animals being nearly always timid and unenduring. A very old, or "aged" elephant will be easily recognized by the loose, wrinkly state of the skin, deep hollows above the eyes, and very deeply-cracked ears. I do not think that the number of concentric rings in the ivory of the tusk is a reliable criterion, though the natives talk a good deal about it.

At the great Sônpûr fair, mentioned in the text, which is the principal market for elephants, the animals offered for sale are usually the property either of landowners from the districts of Bengal, or of Mahomedan dealers who move about between the places where they are captured and the chief markets and native courts. The former are much the safest to purchase, having generally been purchased young by the landowner, and brought up among his own people at his farm, with plentiful food and good treatment. It is quite a part of their business this buying of youngsters, which they prefer for their own riding, keeping them till of full size, and selling them at a good round profit. The dealer's strings, on the other hand, are too often made up of the halt and the blind. There is no end to their tricks. A dangerous man-killer is reduced to temporary harmlessness by a daily pill of opium and hemp. Kândi sores are plugged, and Sâjhan cracks "paid" with tow. Sore backs are surface-healed; and the animals are so bedizened with paint, and so fattened up with artificial feeding, that it is hard to tell what any one of them would look like if "stripped to the bones." Then the space is so confined, and the crowd so great, that very little "trotting out" is possible; so that altogether buying elephants at such fairs is anything but plain sailing.

The usual food of elephants in Upper and Central India consists of cakes of

wheaten flour, baked without leaven, to a weight of about 2lbs. each, and given with a slight spreading of clarified butter. In the South and East, where wheat is scarce, plain uncooked rice is given instead. The daily ration of a full-sized animal of, say 8½ feet high, is 24lbs. of flour, or 32lbs. of rice. When one of these sorts of food is substituted for the other, it should be done gradually; and when rice is first given a part of it should be boiled for some weeks. The above rations are for an animal in hard work. In the Government Commissariat Department, where great numbers of elephants are kept almost in idleness for a great part of the year, lower rations are given. But the treatment of these elephants is by no means a model for imitation. In a state of nature the animal takes an immense deal of exercise. Here they get no work to speak of between the close of one marching season (March) and the beginning of the next (November). They pass quite out of condition during this time; and many are lost from complaints generated by these sudden alternations of work and idleness. In the text I have urged the employment of these elephants during this season in the organized destruction of wild beasts. Of course the amount of the ration will vary somewhat with the size of the animal, and elephants, like horses, have their idiosyncrasies in the matter of feeding. A sharp look-out requires to be kept over the mahouts at feeding-time, otherwise great part of the allowance will probably go to Moula Bux, wife, small family, and the several fathers, brothers, and cousins, who usually aim at getting "half a seer of flour" apiece out of their great milch cow—master's elephant. About half a pound of clarified butter, and the same amount of salt should be allowed daily with the food; and spice-balls should be administered about once a week. Besides these rations an elephant devours an enormous amount of fodder. The principal substances given him are the branches of various trees of the fig tribe, bányán, peepul, and goular. The leaves of the peepul are eaten, but should be avoided in the hot season for reasons before mentioned. Of the others the inner bark of the larger branches, and the whole substance of smaller twigs alone are eaten. It is astonishing to observe the adroitness with which the elephant peels off the delicate inner bark in long strips, and rejects all the rest. This fastidiousness necessitates an immense supply of branches every day; and the elephant always goes out with his keeper to bring in as much as he can carry at a time. The bamboo is also eaten, but will not be accepted very long at a time. Other trees are also eaten in the jungle, but as they are seldom accessible to tame elephants, they need not be referred to. A long species of grass (*Typha elephantina*), which grows in many tanks and rivers during the rainy season, forms excellent fodder for elephants, who are very fond of it; and when they have been much pulled down by a season's hard work, they should, if possible, be sent to pick up again where this fodder is plentiful. In the absence of the above descriptions of fodder, the stalks of millet, called "Kurbec," or even dry grass, may be given, but it will not satisfy them long without a mixture of green food. Sugar-cane is a great treat, and in moderate quantities is very good for them, particularly if in poor condition.

Elephants should be picketed on dry ground, standing in damp being a



great cause of diseased feet. They do not require any protection from the weather but the shade of a tree, and a *Jhool* or *Nunda* (cloth of string or felt) thrown over them in cold nights. They should be bathed as often as possible in tanks and rivers; and a small quantity of clarified butter should afterwards be rubbed over their foreheads, ears, chests, and such parts as are liable to crack, or suffer from the rubbing of the accoutrements or from the sun. They should be allowed to drink as much water as they like. They are often very nice about it, and reject it when muddy or stagnant. The pad should be of full size and well stuffed with grass. The felt cloth that goes under the pad (*Gadéla*) should always be in proper repair, or a sore back is the certain consequence. Both these articles require to be renewed about once a year, if a whole season's work has been done. The smaller felted cloth on which the driver sits should be made large enough to project a little in front of the elephant's forehead, and protect him from a vertical sun. It is not the nature of the animal to remain out in the open in the heat of the day; and I am sure that he suffers from it if made to do so unprotected. If not allowed a tree to stand under in the heat of the day, an elephant always heaps all the leafy branches he can get on his head and back.

After much marching on stony ground, the feet are apt to get tender from undue wearing away of the horny soles. This is to be remedied by the process called "*Chóbing*," which consists in the application to the feet of a boiling hot mixture of a good many ingredients, generally resembling coal tar. Its principal component is the gum resin of the *Sál* tree; but every mahout professes to have a mixture of his own, which he keeps a profound secret, and which it is as well to let him use, so long as the desired result ensues, and it does not cost more than about five shillings. There is no doubt that the process is beneficial, the most foot-sore elephant getting round under it in about a week. It requires to be done about twice a year, if the animal is regularly worked on hard ground.

In dropsical *Zérbád* the food must be reduced to a minimum, about 4 lbs. of wheat or 6 lbs. of rice; and if the latter be the diet it should be given boiled. No green fodder should be allowed, only dry grass or "*Kurbee*." A purgative should also be given; and the following recipe, which I got from a very experienced elephant doctor, is as good as any:—

Croton seed	1 ounce,
Calomel	1½ drachms,
Aloes	6 drachms,

made into a ball with rice flour and "*goor*" (crude sugar). Most elephants take physic without any trouble. In a bad case the swellings will have to be tapped. Many mahouts know how to perform this operation. The skin should be pierced about the middle of the abdomen where the greatest quantity of liquid is usually collected, and a fleam of 1½ inch blade will be required. The fluid which comes out is said to be infectious to other elephants if they are allowed to stand near it. The root of the *Mudar* plant (*Calotropis gigantea*), is often given by the mahouts in this disease in doses of one drachm twice a day,

apparently with good effect. This is also their great remedy in the more advanced stage of the disease called *Sākha, Zērbād*. It should be accompanied, however, by abundance of food, including green fodder and sugar-cane, plenty of bathing, and regular exercise.

For *Kāndi* in the foot, the horny sole must be pared down till the sinuses can be got at, and well washed out with warm water. The holes should then be filled with an ingredient, composed of

Tar	1 part.
Leaves of the Nīm tree (<i>Melia Azadirachta</i>)	1 part.
Gum of the Sālei tree (<i>Boswellia thurifera</i>)	2 parts.

A piece of stout leather should then be fastened over the open parts with small tacks driven into the adjoining horny sole, or tied on if there is no place for the tacks.

Sājhan, or cracked heels, cannot be remedied unless the feet are kept dry. This alone will suffice to cure moderate cases. The following lotion was recommended me by the experienced friend above alluded to; but I never had occasion to use it myself. Take $\frac{1}{2}$ lb. of dry tobacco and boil it down in a quart of water till it becomes a pint. Then mix with it 2lbs. of quicklime, with 4 ounces of bluestone, and apply at intervals to the cracks.

For dimness in the cornea of the eye caused by heating food, change the diet, particularly avoiding peepul leaves. Give the elephant grass if in season. In the earlier stage of the disease this treatment, and bathing the eye with a weak solution of nitrate of silver (5 grains to the ounce of water), will usually effect a cure. If a film has been formed it may generally be removed by blowing a pinch of very finely powdered glass into the eye once or twice a day.

Sore backs are the most troublesome of all elephant affections to cure effectually. They must not on any account be allowed to heal up superficially; and should sinuses or a sac have formed, they must be cut open and kept open until they heal up from the bottom. A downward orifice should, if possible, be secured to permit the escape of the matter. Cutting open a sore back is generally a terrible business, as the elephant, not realizing the utility of the operation, fights against it with all his might. He must be well secured and held down, and a sharp razor is the best weapon to use. The wounds should then be thoroughly washed out with a solution of alum; and then filled with a stuffing composed of two parts of Nīm leaves and one part common salt well pounded together. If they should slough or throw up proud flesh, they must be touched with bluestone at intervals. This cleaning and dressing will have to be repeated at least twice a day; and the practitioner will have his hands full while it lasts in keeping the lazy elephant attendants up to their work. They will always, if allowed, let a sore back heal up superficially only to break out again on the first pressure. They rather like their elephant to have a sore back, as it saves them the trouble of loading it and going out to cut fodder. I have known them cause a sore back on purpose by inserting a stone below the pad; and I knew one case in which an elephant was destroyed by these ruffians, by the continued application of quicklime to a sore near the spine.



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Elephants are very liable to intestinal worms. They generally cure themselves, when they get very troublesome, by swallowing from ten to twenty pounds of earth. They always select a red-coloured earth for the purpose. In about twelve hours after, purging commences and all the worms come away. When this occurs the hard food should be stopped for a week, fodder only being given; and a ball of spices should be given every day. Some elephants will not eat earth when they require it; and they are considered a very bad lot in consequence. I do not know how to treat them for worms. Should an elephant get wounded by a tiger, or otherwise, the places should be well cleaned and kept moistened with cold water. If they get foul apply Holloway's ointment. The mahouts have a cruel practice in such cases of heating balls of elephants dung in the fire and splitting them open, applying them hot and hot to the wounds. I believe it to be as useless as it is barbarous. Fomentations and rest are required in the rare event of a strain.

The above are the commonest cases that will call for treatment by the elephant owner. They seldom prove fatal (excepting *Zerbād*), but are very troublesome when not properly attended to. Besides these elephants are subject to several obscure internal diseases, which fortunately are of very rare occurrence, but when they do occur usually prove fatal from the difficulty of diagnosing or treating them. Among them are fever and inflammation of the internal organs. Bleeding can, I believe, be effected from some small arteries behind the ears; but I have never seen it done. It would probably offer the only chance of a cure in such cases.

Occasional injuries and complaints will give an opportunity for the display of ingenuity in the application of remedies. One of the most singular operations of dentistry I ever heard of was the removal of a large excrescence on the back tooth of an elephant, which had grown into the poor brute's cheek, and almost prevented his feeding. One of the best mahouts I ever knew volunteered to remove it. He got a good thick log of wood, and made a hole through it large enough for his arm to pass. Outside he covered it all over with nails, leaving about a quarter of an inch of each sticking out of the wood. The elephant was made to lie down and fastened with hobbles, while the log thus prepared was placed in his mouth like a bit, and bound with ropes across his neck. Twenty or thirty persons now sat upon his head and trunk (if these be kept down an elephant cannot rise from his side), and the operator introduced his arm through the hole and began to saw off the protuberance. He took several hours to effect it, the elephant after awhile lying perfectly still, with the expression of a martyr in his upturned eye. The piece sawn off was as large as one's fist; and the animal got perfectly well very soon afterwards.



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B.—RULES FOR THE SALE AND LEASE OF WASTE LANDS IN THE
CENTRAL PROVINCES.*

I. The maximum limits of the quantity of land which will be sold in one lot in the several districts are as follows:—In the districts of Raipúr, Belaspúr, Sambalpúr, Mandlá, Upper Godávarí, Hoshungabád (5,000) five thousand acres. In other districts (3,000) three thousand acres.

II. The upset price of the lands to be sold will, ordinarily, be as follows:—In the Raipúr, Belaspúr, and Mandlá districts eight annas (one shilling) per acre. In the Sambalpúr and Upper Godávarí districts, one rupee (two shillings) per acre. In other districts, two rupees and eight annas (five shillings) per acre.

III. On payment of one-tenth of the purchase-money, and of the expenses of survey, demarcation, advertisement, and sale, the purchaser will receive a deed, signed by the Deputy Commissioner, conveying to him the lot in full hereditary and transferable proprietary right, free from all demand on account of Land Revenue for ever, but subject, nevertheless, to all general taxes and local rates imposed by Law or by the Local Government. There is no prohibition against the same person applying for two or more lots of land, provided that each application contains no more than the maximum of acres prescribed for the District or locality on which the said lots are situate. Every lot must be compact, and shall not include more than one tract of land in a ring-fence. Reserves of grazing land and forests; of land for the growth of firewood near towns and stations; of building sites, parks, recreation-grounds; of tracts possessing mineral wealth, stone quarries, and the like; and of land required for other special purposes, are not to be sold under these rules without the express sanction of the Chief Commissioner.

IV. It being found that many natives, who would not purchase under the above rules, would yet be desirous of taking leases of small quantities of waste, it was decided to offer further facilities for this object, tending to the reclaiming of the waste bit by bit, and thus to the gradual increase of the land revenue. Accordingly rules have been promulgated for the grant of waste lands on clearance leases, on the following terms:—

(1) The leaseholder shall be allowed a rent-free tenure of three years from the date of the grant coming into operation.

(2) The minimum area to be granted shall be 100 acres.

(3) On expiry of the terms of rent-free tenure, the grantee shall pay two annas (3d.) per acre per annum on the whole grant for the next seven years, and a rent of four annas (6d.) per acre during the next ten years.

* These rules have been extracted from the Provincial Administration Reports.



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(4) From the beginning of the twenty-first year the grant shall be liable to assessment, at the same rate and on the same terms as the surrounding lands.

(5) The lessee shall engage, as a condition of his lease, to break up six per cent. of the area of his grant every three years, until the cultivated portion reached thirty per cent. on the whole area of the grant; and when the lessee shall have brought forty per cent. of the area of his grant under cultivation, he shall become proprietor thereof.

(6) In any case where a clearance grant faces, or is bounded by, a road, river, or canal, the face of the grant opposite such river, road, or canal shall not be more than one-half the length of the grant perpendicular to such road, river, or canal.

Most of the accessible culturable waste lands have been surveyed and divided into blocks, of which descriptive registers may be *seen* at the head-quarters of Districts. The valuable wastes of the Mandlā District, however, which are most attractive to Europeans, are still unsurveyed.



C.—LIST OF USEFUL TIMBER TREES, AND OTHER VEGETABLE PRODUCTS, OBSERVED IN THE FORESTS OF THE CENTRAL PROVINCES.

Botanical Name.	English Name.	Vernacular names in different parts.	Remarks.
<i>Acacia arabica</i>	Gum Arabic tree	Hind. <i>Babool</i> ; in the eastern parts, <i>Bussim</i>	Yields a light red wood, very tough and durable, much used for wheels and agricultural implements; also a clear, fine gum sold for the gum Arabic of commerce; pods eaten by goats and wild animals; bark and pods for tanning.
<i>Acacia Catechu</i>	Catechu tree	Hind. <i>Kheir</i>	A red timber, not much used; the astringent substance called Catechu or <i>Terra Japonica</i> is extracted from the wood, bark, and roots, by boiling; it is a fast red dye, and is also useful in tanning.
<i>Acacia leucophlœa</i>	—	Hind. <i>Renja</i> ; in the east, <i>Gohera</i>	A hard yellow wood of small size; used for pegs, posts, &c.; pods eaten by goats.
<i>Acacia paniculata</i>	—	Hind. <i>Doobein</i>	A light wood, not much used except for fuel.
<i>Acacia procera</i>	—	Hind. <i>Gurbari</i> ; in the east, <i>Gurkur</i>	Hard wood, used for agricultural tools. Not common.
<i>Acacia speciosa</i>	—	Hind. <i>Siris</i> or <i>Sirsa</i>	A light, easily-worked timber, used for planks. Yields a gum sold with that of <i>A. arabica</i> as gum Arabic. A remarkably fast growing tree.
<i>Ægle Marmelos</i>	Bael tree	Hind. <i>Bel</i>	Not very common. The pulp of the fruit a very useful remedy in bowel-complaints.
<i>Andropogon Martini</i>	Rusa grass	Hind. <i>Rusa</i>	A fragrant oil is distilled from the grass, considered valuable as an external application for rheumatism. Very plentiful in the eastern parts, particularly the Nimar District.



Andropogon muricatum

Bambusa arundinacea . . . Bamboo .

Bassia latifolia . . . Mahwah tree .

Bauhinia racemosa . . . —

Bauhinia scandens }
Bauhinia Vahlia } . . . Giant creeper .

Bignonia chelonoides . . . —

Bombax malabaricum . . . Red cotton tree

Boswellia thurifera . . . Olibanum tree .

Hind. *Kuskus* . . .

Hind. *Bans*; large variety,
Kuttung; by Korkoos,
Mad

Hind. *Mhowá* or *Mhow* .

Hind. *Kan Raj* . . .

Hind. *Mahwal*

Hind. *Pader*

Hind. *Semul*

Hind. *Sálei*

Extract used medicinally as a stimulant; roots made into "tatties" for cooling-houses.

Grows everywhere, and universally useful for a vast variety of purposes; seeds and dies once in about thirty years; seed is eaten, resembling grains of rice; particles of pure silica, *Bans lochun*, are found in the joints and are eaten medicinally.

A cinnamon-coloured wood, tolerably durable; seldom used as timber however, the flowers being much eaten by man and animals, and also distilled into the common ardent spirits of the country; seeds yield a concrete oil, valuable in commerce. Very common everywhere in low grounds.

Small tree; bark used for matches of match-lock guns, and making small ropes.

Bark made into ropes; seeds roasted and eaten by wild tribes.

Red wood, used for implements; flowers used in temples.

A large tree, with a light strong timber, excellent for common boxes, &c.; seeds embedded in a white fibre, used for padding, &c., instead of cotton.

A very common tree in all parts. Wood useless as timber; grows well from stakes planted during the monsoon; yields plentifully the fragrant gum resin called *labanu*, long supposed to be the *olibanum* used as incense by the ancients; is still used as incense in Hindú temples, but possesses no commercial value at present; probably capable of utilization in the arts; leaves eaten by elephants.

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Botanical Name.	English Name.	Vernacular names in different parts.	Remarks.
<i>Buchanania latifolia</i> . .	—	Hind. <i>Achar</i>	Wood little used; seeds called <i>Chironji</i> , much eaten by natives, resembling almonds; oil is expressed from them.
<i>Butea frondosa</i>	Kino tree . .	Hind. <i>Palas</i> and <i>Dhāk</i> ; in east, <i>Pursha</i>	Does not attain the dimensions of timber. The <i>Butea Kino</i> of commerce, useful for tanning and dyeing, is yielded by its juice; the large brilliant flowers are used in ornaments, and yield a fine yellow dye; ropes are made from the roots; the leaves are commonly employed instead of paper for covering bazaar packages, making temporary cups, pipes, &c.; the lac insect principally lives on this tree; wood makes excellent charcoal for gunpowder.
<i>Careya arborea</i>	—	Hind. <i>Pilu</i>	Bark used for ropes, and matches for guns.
<i>Carissa carandas</i>	Karunda . .	Hind. <i>Karunda</i>	A large evergreen bush, which makes the best possible hedge.
<i>Chloroxylon Swietenia</i> . .	Satinwood . .	Hind. <i>Girya</i> or <i>Bihra</i>	Fruit slightly acid, makes an excellent preserve. Found of good size in Seonie district. A highly ornamental wood, a little liable to split; makes beautiful furniture and picture frames.
<i>Cochlospermum gossypium</i> .	—	Hind. <i>Gooloo</i> ; in the west, <i>Koor</i>	Wood only used for torches; yields the gum <i>Kuteela</i> , a substitute for Tragacanth; seeds embedded in a fibre similar to that of Bombax, and used for same purpose. A very common tree in most parts.
<i>Conocarpus latifolius</i> . . . <i>avogranus, l.</i>	—	Hind. <i>Dhowra</i> or <i>Dhow</i>	Hard, tough, yellow wood, chocolate colour in centre; much used for cart-axles, posts, beams, &c.; yields a very fine, pure gum Arabic, superior to any other; is seldom, however, exported without adulteration. Very plentiful in some parts.



Corocarpus myrtifolius . . . —

Cordia angustifolia . . . —

Cordia Macleodii . . . —

Croton tiglium . . . —

Curcuma angustifolia . . . Arrowroot . . .

Cynodon dactylon . . . Doob grass . . .

Dalbergia latifolia . . . Blackwood . . .

Dalbergia Ujenensis . . . —

Diospyros melanoxylon . . . Ebony tree . . .

Diospyros montana . . . —

Elaeodendron paniculatum . . . —

Embllica officinalis . . . —

Hind. *Kardahi* . . .

Hind. *Gondi* . . .

Hind. *Deughan* . . .

Hind. *Jumalgota* . . .

Hind. *Teekur* . . .

Hind. *Doob and Huryali* . . .

Hind. *Shceshum*; in eastern parts, *Siris* . . .

Hind. *Tinnus* or *Tinsa* . . .

Hind. *Tendoo* or *Temroo*.
Heartwood, *Abnoos* . . .

Hind. *Kanchan* and *Kadal* . . .

Hind. *Jumrassee*; in eastern parts, *Kalamooka* . . .

Hind. *Aola* . . .

Reddish white wood, similar in properties to *C. latifolia*. Not very common.

Not very common, but yields the best wood of all for making gunstocks.

A beautiful figured grey wood, excellent for furniture, found only in central Districts (Jubbulpur, Seonie).

Seeds yield the croton oil of commerce. Is found in most forests.

Arrowroot is prepared from the root, of excellent quality.

An excellent pasture grass; grows along the banks of streams.

Found of large size in central and eastern parts. Yields the "blackwood" of Bombay, here used for furniture, and making combs, &c.

Yields a hard, close-grained, and durable wood, much like the Bengal Sissoo (*D. Sissoo*).

The heart wood is East Indian ebony. In large trees it reaches one foot or more in diameter. The white wood is soft, but good for purposes of ordinary carpentry; the fruit is fleshy and sweet, and much eaten by natives. A cultivated variety, without stones, grows in a few places.

Produces a beautifully variegated wood with black and white streaks; does not grow to very large size; a fine furniture wood.

Yields a light variegated wood, useful for ornamental purposes; bark a virulent poison.

A mottled red and yellow wood, used for matchlock stocks, and common purposes; bark used for tanning; every part of the tree used in

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Botanical Name.	English Name.	Vernacular names in different parts.	Remarks.
<i>Epicarpus orientalis</i>	—	Hind. <i>Seora</i>	native medicine; fruit made into pickle or preserve. An excellent hedge shrub, with an edible fruit; used also in medicine; stem produces a fibre.
<i>Eugenia Jambulana</i>	—	Hind. <i>Jamun</i>	Wood used for lining wells, being very durable under water; fruit edible and astringent; bark gives a brown dye; grows as a bush in nearly all stream beds, and attains the size of a large tree on higher plateaux, as on Puchmuree.
<i>Feronia elephantum</i>	Elephant apple	Hind. <i>Kawet</i>	A grey-coloured timber of small usefulness; fruit is edible and slightly astringent; produces a fine gum used in medicine and the arts. Not very common.
<i>Ficus glomerata</i>	—	Hind. <i>Gular</i>	Timber used in wells, &c., being durable under water; fruit eaten by wild tribes and birds.
<i>Ficus indica</i>	Banyan	Hind. <i>Burr</i> or <i>Burgut</i>	Fruit eaten.
<i>Ficus religiosa</i>	Peepul	Hind. <i>Peepul</i>	Timber sometimes used for cart frames, but being a sacred tree, is rarely cut down. Lac insect sometimes frequents it.
<i>Gmelina arborea</i>	—	Hind. <i>Seewun</i>	Produces a light-coloured wood, well adapted for gunstocks, for which it is much used in the Nagpore arsenal; it requires to be stained the usual dark colour, however.
<i>Grewia elastica</i>	Lancewood	Hind. <i>Dhamin</i>	This produces an elastic wood almost equal to the lancewood of commerce for gig-shafts, bows, &c., for which it is much employed. Very large trees of it are found in the remoter forests, but where accessible it has been nearly exterminated.
<i>Hardwickia binata</i>	—	Hind. <i>Unjun</i>	A large handsome tree, plentiful in a few localities,



Inga xylocarpa . . .	—	Hind. <i>Jamba</i> . . .	Hard, tough wood, used for handles of tools, &c. Not common.
Lagerströmia lanceolata . . .	—	Hind. <i>Leudya</i> ; in the west, <i>Bundarya</i> . . .	An excellent timber for ordinary building purposes.
Mangifera indica . . .	Mango . . .	Hind. <i>Am</i> or <i>Amba</i> . . .	A durable timber; scarcely used, however, the fruit being in great demand. Grows wild in ravines of higher hills.
Melia Azadirachta . . .	Neem . . .	Hind. <i>Neem</i> . . .	Mature timber makes a fine furniture wood; leaves used in a fomentation for strains and bruises, for which they are very effective; oil is yielded by the seeds.
Nauclea Cadamba . . .	—	Hind. <i>Kadam</i> or <i>Kuluni</i> . . .	A light red wood, very straight in the grain and easily worked; a good common building timber, and also for planks, boxes, &c.
Nauclea cordifolia . . .	—	Hind. <i>Hurdoo</i> ; in east, <i>Halun</i> . . .	A yellow wood, good for all common carpentry, also furniture, boxes, &c.; one of the best common woods we have, resembling in qualities yellow pine.
Nauclea parviflora . . .	—	Hind. <i>Kaim</i> . . .	A reddish yellow wood, with a fine even grain, inferior to above in strength, but excellent for common furniture.
Odina Wodier . . .	—	Hind. <i>Gunjak</i> , also <i>Moyen</i> ; and in east, <i>Burna</i> . . .	A coarse-grained wood, sometimes used in common housebuilding, and for firewood.
Phoenix farinifera (?) . . .	Wild Date . . .	Hind. <i>Sendi</i> . . .	A dwarf species of date-palm, grows wild on higher plateaux; pulp of seeds, and a substance found in the stalks eaten by wild tribes.



Botanical Name.	English Name.	Vernacular names in different parts.	Remarks.
<i>Pterocarpus marsupium</i>	Kino tree . . .	Hind. <i>Beeja Sāl</i> or <i>Bee</i> ; in the east, <i>Bijra</i> . . .	Yields a fine building timber, rather heavier than teak, but nearly as strong; when wet gives out a yellow stain; yields from the juice a gum resin, which is one of the Kinins of Commerce.
<i>Schleichera trijuga</i> . . .	—	Hind. <i>Kosum</i>	A hard heavy wood, used for sugar and oil mills; seeds yield an oil; lac insect commonly prefers this tree.
<i>Schrebera Swietenioides</i> . . .	—	Hind. <i>Moka</i>	A greyish brown timber, used for common purposes, of no great value.
<i>Shorea robusta</i>	Sāl	Hind. <i>Surye</i> ; and in east, <i>Rinjāl</i>	The principal timber tree in the eastern parts, and an excellent building timber; yields the <i>Dammer</i> resin of commerce; seeds eaten by wild tribes.
<i>Soyimida febrifuga</i>	Ironwood	Hind. <i>Rohun</i> or <i>Ruggut-Rora</i>	A very hard, heavy, red wood, extremely durable; bark a valuable febrifuge, and is also employed in dyeing and tanning.
<i>Strychnos nux-vomica</i>	—	Hind. <i>Koochla</i>	Of small size; seeds and other parts used in medicine; seeds also to poison fish.
<i>Strychnos potatorum</i>	—	Hind. <i>Nermulti</i>	Nut used, like alum, for clearing muddy water, and also in fish-poisoning.
<i>Tamarindus indica</i>	Tamarind	Hind. <i>Imli</i>	Wood used for oil mills, &c.; fruit eaten.
<i>Tectona grandis</i>	Teak	Hind. <i>Sagon</i> and <i>Sag</i>	Our best timber tree in western and central parts.
<i>Terminalia Arjuna</i>	—	Hind. <i>Kowa</i> ; and in some parts, <i>Ajun</i>	A very large tree, growing generally on river banks. Mature wood, dark brown and durable, but little used from difficulty of cutting and working.



Terminalia Belerica . . . —

Terminalia Chebula . . . —

„ *tomentosa* (? *coriacea*) Black Eyne . . .

Zizyphus jujuba . . . —

Hind. *Bahera*

Hind. *Hurra*

Hind. *Saj*; and in west,
Sadur; in east *Sijra* . . .

Hind. *Ber*

Grows to a great size, but timber is little valued; nuts are the *Myrobolan* of commerce, but are little exported here.

A handsome tree, very common in many parts; the nut is the *Kadukai* of commerce, and is extensively used in indigenous manufactories for dyeing, tanning, &c.

One of the best timbers of the second class; much used for building and all common purposes; bark used for tanning; Tusser silkworm lives on the leaves.

Fruit tastes like a crab-apple, and is eaten by wild tribes and many animals; wood small, but extremely tough, and used for a few purposes; parts of the tree are used in medicine.

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D.—VOCABULARY OF A FEW USEFUL TERMS IN THE LOCAL HINDI,
GOND, AND KORKOO LANGUAGES.

ENGLISH.	HINDI.	GOND.	KORKOO.
Antelope . . .	Hirn . . .	Hirn (H) . . .	Kutsar
„ four-horned	Chonsingha . . .	Bun-Bher (H) . . .	Bherki
Axe, common . . .	Kulhari . . .	Maro . . .	Akae
„ battle . . .	(Bygas) Tonngya.	Pharchia . . .	_____
Bamboo . . .	Bans . . .	Bans (H) . . .	Mad
Bear . . .	Reech . . .	Yedjal . . .	Bana
Bison . . .	Bun-Boda . . .	Bun-Bhainsa (H) . . .	Hela (H)
Blood . . .	Looch . . .	Nattur . . .	Puchna
Buffalo (wild) . . .	Arna-Bhainsa . . .	_____	_____
Camp . . .	Dehra . . .	Bungla (H) . . .	Purno
Deer, barking . . .	Kakur . . .	Bherki . . .	Bherki
„ hog . . .	Bher-Samur . . .	Bher-Samur (H) . . .	_____
„ red . . .	Bara Nerwaree or Sal-Samur . . .	Gowna . . .	_____
„ sambar . . .	Samur . . .	Mauk . . .	Stag, Kakur; Hind, Samri
„ spotted . . .	Cheetul; Buck, Jank . . .	Kurs . . .	Darkar
Dog . . .	Kutta . . .	Nae . . .	Seeta
Elephant . . .	Hathi . . .	Yani . . .	Hathi (H)
Fever . . .	Bokhar or Tup . . .	Yerki . . .	Rua
Fire . . .	Angar . . .	Kis . . .	Sengal
Food . . .	Khana . . .	Nena . . .	Jojam
Forest . . .	Jungal . . .	Kaira . . .	Tharee (H)
Fowl . . .	Moorghee . . .	Pitte . . .	Seem
Fox . . .	Lom . . .	Khekree . . .	Kakree
Gazelle . . .	Chikara . . .	Hirni (H) . . .	_____
Guide . . .	Agwa . . .	Agwa (H) . . .	Agwa (H)
Gum . . .	Gond . . .	Dhok . . .	Deek
Gunpowder . . .	Barood . . .	Burko . . .	Daroo
Hare . . .	Kargosh . . .	Malol . . .	Koarli
Hill . . .	Dongur . . .	Mata . . .	Bulla
Horn . . .	Singh . . .	Kor . . .	Singh (H)
Hyena . . .	Turra's . . .	Renhra . . .	Dhopre
Jackal . . .	Geedur . . .	Kolia . . .	Kolea
Jungle fowl . . .	Bun-Moorgh . . .	Bun-Moorgh (H) . . .	Komba
Leather . . .	Chumra . . .	Chumra (H) . . .	Kutrae
Leopard . . .	Bobacha . . .	Go dag . . .	Sonora
„ hunting . . .	Cheta . . .	Chitra . . .	_____
Man . . .	Admi . . .	Maursal . . .	Koro

ENGLISH.	HINDI.	GOND.	KORKOO.
Milk	Doodh.	Pal	Deedum
Monkey (Hunoo- man)	Lungoor.	Lungoor (H)	Sara
Morning	Bunsare	Sukre	Pathar
Nilgai	Rojh (male)		
	Gorayen (female)	Goorya	Rooi
Panther	Tendwa and Adh- naira	Burkal	Kairea
Partridge, painted	Kala Teetur	Kukkura	Chitree
Peafowl	Mór	Mal	Mara
Pigeon, wild	Kabutur	Parewal	Kubdoor (H)
Plains, the	Khulotee	Maidan (H)	Sehwan
Plateau	Mal	Dadur	Tor
Porcupine	Seyal	Hoigu	Jekra
Quail	Batair	Batte	Ore
Rain	Bursaät	Pirr	Salla
Ravine	Khudda	Kori	Lór
River	Nuddee (small, Nala)	Dhoda	Gada
Road	Rasta	Sarri	Kora
Rock	Dhata	Tongung	Gota
Rope	Rursee	Dor (H)	Dora (H)
Sál tree	Sal and Renga	Surye	Surye
Sand	Balu	Waroo	Beetil
Snake	Surp	Turás	Beeng
Spurfowl	Chota Bun-moorgh	Bunteetur (H)	Toteang
Stone	Puthur	Puthur (H)	Gota
Teak tree	Sagon	Sag	Seepna
Tiger	Bagh and Nahr	Poolie	Koola
Torch	Massal	Dote	Marsal (H)
Track	Pug and Punja	Koj (H)	Mang (H)
Tree	Per.	Mara	Seeng
Valley, or low ground.	Neechwas	Daáb	Borro
Village.	Bustee	Naru	Gaon (H)
Wild boar	Dookur	Puddce	Bun-Sookree
„ dog	Son-Kutta	Nerka	Bun-Seeta
Wolf	Bherya	Landgal	Lendya (H)
Wound	Ghao	Chot (H)	Gaae (H)

Numerals.

One	Ek	Oondi	Meea
Two	Do	Rand	Barya
Three	Tin	Moond	Apya
Four	Char	Nalu	Opoonya
Five	Panch	Saighan	Moonya
Six	Cheh	Sarung	Toorae
Seven	Sát	Yedung	Aie
Eight	Ath	Yermud	Elar
Nine	Nau	Nau (H)	Araie
Ten	Dus	Daha (H)	Goolya



E.—DIRECTIONS AS TO THE PRESERVATION OF THE SKINS AND OTHER TROPHIES OF ANIMALS ON THE FIELD.

Contributed by EDWIN WARD, F.Z.S.

GENERAL.—It must always be borne in mind that the value of any object secured and preserved depends on the completeness with which all its natural features are saved, as well as the condition in which they are kept. This is true in degree for whatever purpose the object is designed; but it is an absolute essential in regard to specimens for the illustration of natural history.

LARGE GAME.—Those met with in the Central India district will most generally be: the *Felidae*, most important of which is the Tiger; many smaller *Carnivora*; of horned beasts, the gigantic Gour—*Bos Syllhetanus*—commonly called the Indian Bison; Buffalo, Sambar, Cheetal, and other deer. There is also the elephant, largest of all, and other pachyderms.

When the great game is secured, first turn the animal on its back, and stretching apart the fore and hind legs, proceed to remove the skin. In all cases where the skin is wanted entire, this is best done by making incision from one corner of the mouth through the medial line of belly to the extremity of tail. Next make lateral incisions in order to strip the limbs; for the fore legs, from the edge of central incision through the armpit along the inner side of the limb, the line of incision inclining slightly to the outer portion, in order that the seam may be less perceptible when the perfect specimen is mounted. A like process through the groin is necessary for the hind legs. The incisions thus made leave the skin in form of tongue pieces over the breast. First apply the knife to these points and detach the skin round to the spine. In doing this it is necessary to clear the limbs, and great care must be taken to leave intact the natural features of the foot. The last metacarpal and metatarsal bones must be left in the skin, whether in the case of *Felidae* or *Cervidae*. Now turn over the carcase and draw back the whole skin over the head, exercising particular care in separating the ears and the eyes from the skull. Similar care must be taken as to the lips. For if the rim of the eyelids be severed by the scalpel the injury spreads in a remarkable manner, often so badly as to render the damage seriously conspicuous. As to the ears, they should be separated from the skull close to the bone, or the lower structure will present too large an aperture. The lips must be cut off close to the gums. Having thus taken off the skin, it must be cleaned of all superfluous fat and flesh. The cartilage of the ear must be turned through. The lip must be treated thus: pass the knife between the mucous lining and the outer skin all round the mouth so as to unit of the preservative penetrating this thick portion of the specimen completely. The eyelids and feet must each be treated in a similar manner for the



same reason. Now peg the skin out with the fur downwards for drying, and anoint it thoroughly with arsenical soap if preferred; but at the same time use freely a sufficient quantity of powdered alum, especially on the lips, eyelids, ears, feet and all other fleshy parts. In regard to the employment of arsenical soap as a preservative against insect ravages, it is not in my opinion always completely efficacious. I therefore recommend that spirits of turpentine should at the same time be freely poured over both sides of the skin. When the skin is sufficiently dried it can be folded and packed.

Although the process just described is a very good one, I should myself adopt the following, which would be much more simple, and is thoroughly successful. The skin having been removed from the carcase and cleaned, instead of being pegged out for drying, should be thickly covered over the flesh side with powdered alum, then folded in convenient form, and thus immersed in a barrel of brine, what we technically call "liquor;" add parts of alum and common salt in the proportion of six pounds of alum and two pounds of salt to a gallon. A number of skins may be placed in the same barrel, which is thus ready either for storing or transit. They are quite exempt from the ravages of insects; native dressing with lime and other deleterious material is avoided. They will keep safely for a long period, and the process is at once inexpensive and a saving of time. In the case of horned beasts where the head only is frequently preserved, I have no hesitation in recommending this system as the best. Of course in such case the skull and horns are cleaned and packed separately. In cutting off bison and stags' heads be sure to leave a long neck; they are too frequently cut close to the jaws, and this considerably mars the effect when mounted.

It is important for the proper preservation of the skulls of *Felidae* that they should be protected from injury to or loss of the teeth. This is best done as follows. When the skull has been boiled and cleaned it should be tied up in a calico bag and placed in a separate compartment of the packing case designed for it. Stuffing should moreover be put into each compartment to prevent the skull from injury from being shaken.

SMALL MAMMALIA, ETC.—In the case of the small mammals the skull and bones of the legs are to be left in the skins. The animal being placed on its back, incision is made from the sternum (breast bone) to root of the tail. The skin is then separated from the carcase as far as can be conveniently reached, and the limbs are severed from the body at the shoulder and thigh. Each limb can then be drawn out—as a glove might be turned inside out—but the bone must not be separated at its junction with the toe, or the skin of the foot or leg in any way injured. The muscles can then be removed from the bone, and this can best be done by cutting the tendons near the toes, and carefully drawing the whole mass away at one operation. It must come in one piece, not piecemeal. The bone will now be clean. Clean the skin of the limb, and at the same time the remainder of the skin of all superfluous flesh and fatty matter. Dress the inside all over with arsenical soap, and apply freely powdered alum all over it, but particularly to the fleshy parts, as the eyes, nose, lips, feet, etc. Then replace the bones in the limbs, having previously, if possible, bound them with tow or similar material, so as to replace the muscle



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that has been removed. A portion of stuffing should be placed in the skin of the head and trunk, and the whole can be suspended to dry.

BIRDS.—First of all plug up with cotton wool the throat, nostrils, and all shot holes. Place the specimen on its back, the head towards you. Break the wing bones (*humeri*) near the body. Next separate the breast feathers carefully, and make an incision along the medial line from chest to vent; having done which turn back the skin and raise the specimen to a perpendicular position, resting it on the vent. Now skin round the chest, cut through the neck, windpipe and gullet, detach the wings from the body, and remove the skin all down the back to the thighs. Push the thigh through at the same time, carefully drawing off the skin, and having cut the tendons near the tarsus remove the muscle of the thigh in one piece, leaving the bone clean. This bone must be cut near the femur joint, leaving the head of the bone, which is useless, with the flesh attached to the thigh and body. Having treated both legs thus, skin round root of tail; but in cutting the vertebrae take care to leave the small bone which supports the tail. The next operation is to turn back the skin of the head with care so that the eyes and ears may not be injured. Cut away the back part of the skull with neck, tongue and palate. Remove the brain and eyes, skin the wings and trim the tail, and the whole skin is in condition to be cleaned and prepared. Having taken away all fat and superfluous flesh, dress it with arsenical soap, bind tow in place of the muscles on the bones, and return them to their places. It is not desirable to use powdered alum to bird skins, as it tends to make them brittle. The specimen should be filled out to natural size, and a band of paper placed round it in order to keep the wings and other parts in proper position till dry. During the whole operation wood dust or other dry powder should be freely employed to absorb blood and grease, so that the plumage may be kept clean.

THE END.

KDB