

THE NATURALIST.

THE SUMATRAN OR HAIRY RHINOCEROS.

THE COLLECTION OF THE ZOOLOGICAL SOCIETY—the richest in the world in large pachyderms—has recently been increased by the addition of a rhinoceros that has never before been seen in a living state in the Western hemisphere. India possesses three distinct species of this genus—the great Indian rhinoceros (R. indicus), of enormous size, capable when wounded of over-turning even an elephant in its desperate charge. This species is sufficiently familiar to the inhabitants of the metropolis, as two specimens, a male and a female, have long been denizens of the Regent's Park Gardens. The lesser Indian species (R. sondaicus) is much smaller, not being more than 3 1/2 ft. high. This is found at present in the Sengal, Soudan, more abundantly in Burmah, and through the Malayan peninsula to Java and Borneo. The third species is widely diffused. It was originally observed in Sumatra, and consequently named Rhinoceros sumatranus, but it is the most common rhinoceros in the Indo-Chinese countries and in the Malay peninsula. It exists in Sumatra only among the islands. Jerdon informs us that it has been shot as high as lat. 23 deg. north, near Sandaway.

This species was first described by Mr William Bell in the Philosophical Transactions for 1793, from a specimen shot near Fort Marlborough. This animal was 4ft. 4in. high at the shoulders, and 8ft. 5in. long from the nose to the end of the tail. The ears were described as edged with short black hair, and the surface of the body was rough and thinly covered with black hair, the skin being soft, and not more than the third of an inch in depth even where thickest, and easily cut through with a common dissecting knife; and the animal was correctly described as not having "that appearance of armour which is observable in the single-horned rhinoceros."

In the untrivalled osteological collection in the museum of the Royal College of Surgeons, Lincoln's-inn-fields, a complete skeleton of this species exists, and also several sets of loose bones; but the

impossible to confine her in an ordinary stall, such as would have served for a horse or ox, or even for a docile elephant. Mr Jamrach therefore had a cage built of teak, in the strongest possible manner. The dimensions of this cage were 12ft. by 9ft., by 8ft. high. As it now stands empty in the Zoological Gardens, it looks as if it would serve for a very fair-sized country cottage. In this the animal safely reached England, in company with five small elephants, a couple of tigers, and a number of smaller animals of various kinds. On arrival at the gardens, it was found that there was no grate sufficiently wide to admit the cage, and a portion of the enclosure had to be taken down to permit the entrance of the huge and intricable beast, which, tied by large ropes, was, not without some considerable risk to all concerned, conducted to the enclosure where she will in all probability spend the remainder of her life.

The so-called Sumatran rhinoceros differs from the better-known Indian species in having two horns, in this particular resembling the two-horned African species, Rhinoceros bicornis, figured and described in The Field for Sept. 19, 1868. It is covered with very coarse hair, which in this specimen is reddish brown on head and shoulders, and greyish on the body and hinder quarters; and the skin, in place of being hard and horny as in the ordinary species, is soft and flexible—a slight fold behind the shoulders serving as an indication of the massive armour-like plates on the greater Indian animal. The hair is particularly abundant on the ears, which form the fringe, which is very accurately rendered by the artist; the tail is also furnished with a tuft of coarse hair. In habit the animal is evidently aquatic, and, despite of the cold season at which she has arrived, has already taken to the bath.

At the present time she is recovering the effects of the voyage, although she still bears on her hinder legs the marks of the ropes by which she was secured in India; and around the fore leg is a huge strap and ring by which she may be secured—a precaution perfectly necessary, as, like the other species, her temper is morose and disposition dangerous.

Should our description lead our readers to import this animal, which is so interesting, as being now seen for the first time in captivity, we would strongly caution them against standing behind her

den snoring anger against its male Dallah; and the conclusion of the operation was of necessity deferred.

Fortunately, however, for all parties concerned, the contact of the horn against the ground during the day broke through the unwarmed portion, and the extremity fell off, leaving the base only attached to the face. The portion thus removed weighs no less than 5 1/2 lb.; the under surface is deeply corroded by the discharge from the sore it had caused. This, however, is healing rapidly in the absence of the exciting cause.

The entire proceeding reflects great credit on Mr Bartlett, who has demonstrated that, by the exercise of persistent kindness, aided by pardonable duplicity, it is possible to perform a more dangerous operation than even taking a bull by the horns. W. B. TEGREIFER.

OSTRICH FARMING.

SIR.—I transmit herewith a copy of the Cape Monthly Magazine for September, 1871, in which you will find an article on ostrich farming, which may be instructive to your readers and useful to J. R. B. If he will tell me where I can meet him, I shall be glad to give him information as to land, &c., although his own five years' residence in South Africa ought to have assisted him.

The following is the principal portion of the article alluded to: From the picturesque peninsula of Cape Point, northwards to the Orange River—in the sandy flats of Papeberg in the west to the grassy plains of Albany in the east—numbers of persons are now devoting their attention to this new industry. In one district (Oudshoorn), we have it on good authority, there are nearly a thousand tame birds; the East-Indians and Guests there have each got from one to two hundred; so have the Heathcotes and Murrays at Coleberg. But in most places the flocks as yet are small, for the new occupation of ostrich-farming is but in its infancy, and there is considerable difficulty experienced in getting young birds for the purpose of rearing. Ten years ago they might be had for a mere trifle. We remember, during a visit to the Saldanha Bay district in 1862, having purchased a couple six months old for ten shillings, whilst now the very best flocks, fresh from the coast, fetch 45 sterling a piece, and after a few months as much as £8 and £10. The wild birds are sometimes pursued and caught, but generally they are so exhausted when run down that they do not survive. Their nests, however, when discovered, are watched with much interest, until the young brood make their appearance, when, according to law, they may be removed by the owner or occupier of the land where they are found; and from this source, as well as from the mul-



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living animal had long been a desideratum in our European vivaria. About five years ago a Calcutta paper announced the capture of a young female two-horned rhinoceros, which was taken near Chittagong, after having exhausted itself in its efforts to escape from a quiskind. In this condition it was secured by the united efforts of some 200 men, and being bound with ropes, was secured to a tree. On the arrival of the news at Chittagong, Capt. Hood and Mr Wickes started with eight elephants to secure the prize, which was found to be the two-horned Sumatran species described by Sir Stamford Raffles. After being bound with ropes between the elephants, she was marched into Chittagong, having to be conveyed across two considerable rivers, through one of which she was towed by the elephants, and the second she passed in the ordinary cattle ferry boat. So great was the attention she excited, that the train of followers sometimes reached a mile in length. Arrived at Chittagong, she was placed in charge of an attendant, and by feeding with chupattas and plantain leaves she became somewhat tamer. When first captured she was about 6ft. in length from the forehead to the root of the tail, and upwards of 4ft. in height. The horns were small, not more than 3in. in length, the upper being in front of the eyes.

The existence of the specimen became known to Mr William Jamrach, a well-known natural-history collector, then located at Calcutta, who made three journeys to Chittagong to arrange for her purchase and transport. The animal was confined by ropes and chains some miles from Chittagong, and, from her size and want of docility, the transport was attended with great difficulty. Fortunately, she had become attached to her feeder, and followed him by the forbidden roads to Chittagong, the passage through the villages being forbidden by the authorities. There she was embarked with great difficulty in a small vessel, being chained down on the deck, and conveyed to Calcutta. On her arrival she was so exhausted by her fatigue that she lay down after being landed, and had to be dragged by main force into the bazaar. The length of the journey to England was a matter of the greatest difficulty. The length of the animal is so enormous that it would have been

even at a very considerable distance. This caution is the more necessary, as exceedingly unpleasant results have occurred from its neglect.

AMPUTATION OF THE HORN OF A RHINOCEROS.

The old female Indian rhinoceros that has been for a dozen years a denizen of the Regent's Park Gardens has for some time had the single horn characteristic of the species growing in an irregular manner, its direction being straight forwards instead of upright. As a consequence of its great weight the under side of the horn pressed upon the upper part of the nose, and produced a considerable amount of irritation, ending in necrosis. This disease could not be remedied until the horn, which was the exciting cause, was removed, and the continuance of the open wound would have inevitably proved fatal to the animal in the forthcoming summer, as it would have soon been fly-blown.

The difficulty of its removal would at first sight have appeared almost insuperable, as the natural moroseness of the beast was intensified by the irritation set up by the pressure of the horn on the nose. Mr Bartlett, however, who possesses that wonderful tact in the management of animals which is the result of a familiar knowledge of their habits, has succeeded in removing the horn without the least difficulty, in spite of the savage disposition of the rhinoceros, which renders the entrance into its den a proceeding of the greatest danger. He commenced by feeding the animal through the window of the cage with bread and cakes every day, and whilst it was eating he rubbed and caressed the face of the huge beast with his hands. These delicate attentions were perfectly appreciated, and as Mr Bartlett shampooed her face and eyes she closed the latter and resigned herself to the soothing sensation as a parrot does to the scratching of her poll. Arrived at this pass, a rough stick was rubbed with a saving motion backwards and forwards across the horn. This performance also was not objected to, when one fine morning a sharp-stick saw was substituted for the stick, whilst Mr Bartlett became doubtless his false carcasses, until at last three-fourths of the horn were severed. A few more strokes, and the operation would have been completed; but whether the movement of the saw irritated the sore, or, as is more probable, the leverage of the nearly-severed horn caused it to press on the tender place beneath, the suspicions of the animal were excited; she grunted loudly; the saw was instantly withdrawn; the animal rushed round its

duplication of the domesticated bird, the supply will in course of time be considerably augmented.

One of the first, if not the very first person to make the experiment of domesticating the ostrich in the Colony for commercial purposes was Mr Kinross, of Beaufort West. He commenced about ten years ago, and his success in breeding and rearing has been such as to induce many, far and wide, to enter upon what he has proved to be an interesting and highly remunerative undertaking. His establishment is a marvel of simplicity and compactness, and will astonish those who fancy that large tracts of land are indispensable to the farming of the ostrich. On eight acres of garden ground attached to his residence in the town of Beaufort, he has a flock of thirty birds, mostly reared by himself. This space is well hedged in and sown with lucerne; and we are assured that if well irrigated, it is capable of maintaining three times the number throughout the year. Adjoining it there are one or two out-houses and sheds, where the young birds are sheltered in cold weather, and where the old ones are penned at the time of feather-gathering, and quietly submit to be relieved of their eye-plumage. "Plucking" or "nipping" are the methods adopted by taking the feathers; but the former is considered injurious, and the latter is preferred as the better of the two. The feathers are cut, and the stumps of the quill allowed to remain for two months, and then plucked out. When only eight months old the bird yields the young or chicken feathers, which are comparatively small; but, eight or nine months afterwards they are ready to be "nipped" again, and improve in quality with each successive occasion. From three pluckings of fifteen of the birds in full plumage, Mr Kinross last year received on the spot £240, which is at the rate of £120 a year, or £8 a bird; and this year, having forwarded the feathers direct to the London market, the amount realized was equal to £10 a bird.

A portion of the little plot of eight acres is divided off into small kraals or enclosures, where some of the birds are paired and the process of incubation is carried on. The old stories of the indifference of the ostrich as to sex, or its young are quite contradicted by their habits in the domesticated state. The natural solitude with which they watch over their eggs, and the denoting their fear in hatching. But when, as is the case of Mr Kinross's flock, there are equal numbers of cocks and hens, they are separated into pairs and left together. This is not generally done before they are three or four years old, some birds laying at three, some at four, and some not till five; but there are, of course, exceptions to the rule. It is to be noted, however, that the incubation commences near the beginning of August, and continues with daily regularity for about six weeks when they commence hatching, which they conclude, say, in October,