

of  $2\frac{1}{2}$  inches, divides into the right and left common carotids. This disposition is very much like that of the Llama as drawn by Prof. Owen. The thickness of the ventricular septum is  $1\frac{1}{2}$  inch.

The *lungs* are extremely simple, coniform, and undivided, except at their apices, where, as in many animals, they send down small lobes which overlap the auricles of the heart. They are nearly equal in size, being 25 inches long by 15 deep and 5 broad. They weigh each  $9\frac{1}{2}$  lb. (uncongested).

The *uterus* is two-horned. The corpus uteri is  $3\frac{1}{2}$  inches long by  $2\frac{1}{2}$  inches broad; the cornua are  $16\frac{1}{2}$  inches, by 2 inches broad; they are both very distinctly longitudinally plicated. The os uteri is much folded, and the orifice is quite small; from it to the orifice of the urethra is 12 inches. The vagina is lined with a squamous epithelium, and it presents a few transverse folds about 3 inches apart. Its circumference in the middle is 15 inches, at its orifice 9 inches. The urethra is 2 inches long, and admits two fingers.

The length of the elongate fringed orifices of the Fallopian tubes is 5 inches.

The clitoris and vulva are similar to those of the Indian species.

### 3. On the Birth of a Sumatran Rhinoceros.

By A. D. BARTLETT, Superintendent of the Society's Gardens.

[Received January 7, 1873.]

(Plate XI.)

The steamship 'Orchis' arrived at the Victoria Docks from Singapore on December 7, 1872, having on board an adult female Sumatran Rhinoceros (*Rhinoceros sumatrensis*). About 7 o'clock in the evening of that day the keeper was surprised to hear a feeble squeaking voice proceeding from the den containing the Rhinoceros. He was soon made aware of the cause of this small voice; for upon examining the den he found the beast had produced a young one, which was still fixed or attached by the umbilical cord; and while looking at it he distinctly saw the mother turn her head towards the young one and with her teeth bite or sever the connecting band. He found also that the mother, who had been always rather savage, appeared quite quiet and, as he called it, perfectly tamed; she allowed him to enter her den and milk her, and afterwards place the young one in a position that enabled it to suck. Having carefully closed the canvas all round and over the den, he left, thinking that rest and quietness would perhaps be desirable for the then tired and exhausted mother.

It appears, however, that the little Rhinoceros was not inclined to be shut up in the den, and was found soon afterwards walking about in the dark and rain on the deck of the ship. The cold and wet had produced the effect of almost depriving it of the use of its limbs; it was soon restored by being rubbed all over and placed in warm blankets. On the following morning I found the mother and young one on board the ship and about to be landed. I advised having the



C. Berjeau lith.

RHINOCEROS SUMATRENSIS *vnt.*

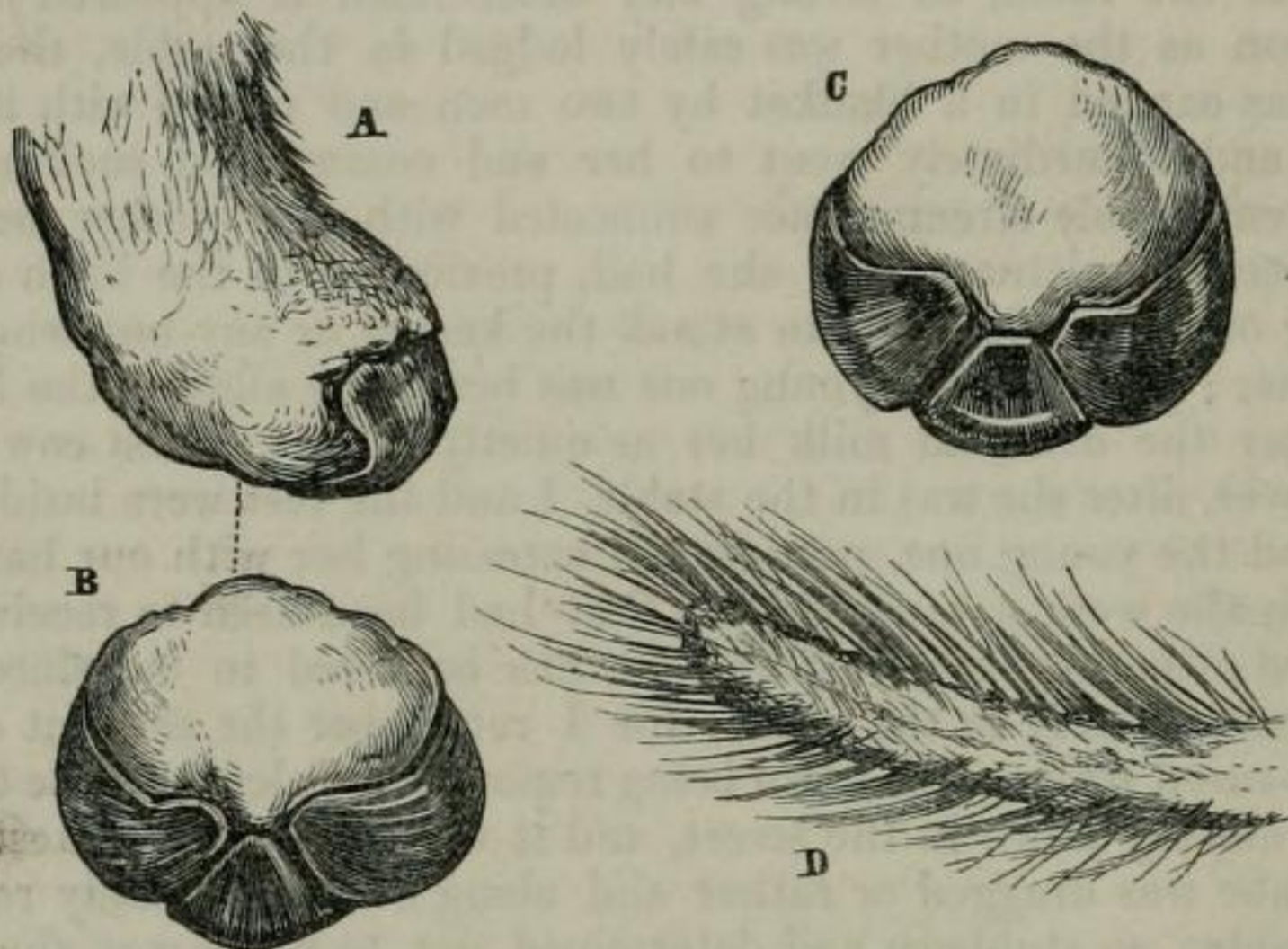
M & N. Hanhart imp

little one removed from the den, fearing that, during the lifting and moving to the van or trolley, she might be thrown or tumbled on to the little one and crush it. No sooner, however, was the den safely landed on the carriage, than she exhibited signs of restlessness, and it was thought desirable that the young one should be replaced with its mother; this was done, and the keeper, Mr. Auguste Engelecke, entered the den and remained with the animals during the journey from the tidal basin of the Victoria Docks to the Commercial Road.

On arriving at the stables of Mr. Rice in the Commercial Road it required some time to unload the large den from the trolley and get it into the stable; and in order to prevent accident to the young one we again removed it from its mother and conveyed it at once into the house, taking it in blankets into the parlour, where there was a good fire. Here we had quite enough to do to keep it from running all over the room, so strong and determined it appeared to be. As soon as the mother was safely lodged in the stable, the little one was carried in a blanket by two men and placed with its mother, and immediately went to her and commenced sucking. A very remarkable circumstance connected with the mother was her unexpected quietness; for she had, previously to the birth of the young one, been inclined to attack the keeper or any one who went near her; but after the young one was born, she allowed the keeper to enter the den and milk her as quietly as the tamest cow; and moreover, after she was in the stable, I and the rest were inside with her and the young one, patting and caressing her with our hands as though she were a tame old pet that had been used to receive this marked attention from visitors. It has occurred to me since that she was probably in the sulks; for I remember the account of the Hairy-eared Rhinoceros when being removed in Calcutta: she turned sulky and lay down in the street, and it was with the greatest difficulty she was dragged or rather slid along over the muddy road to the stable; so stubborn and determined not to move was she that, although hundreds of pails of water were thrown over her, she would not rise. Was our animal now under consideration quiet by being under the influence of the sulks? I think this must have been the case; for she allowed the men to enter the den, and some were pushing at her nose, others pulling her ears to back her out, and all this was done without any attempt on her part to resent or injure her tormentors\*. Now, believing the statement of Mr. Engelecke, this animal had been captured but little over seven months on her arrival in the docks; and Mr. Engelecke told me that her captors had witnessed the act of her copulation just before she was caught in the pitfall: we may presume, therefore, that the period of gestation does not differ much from that of the Hippopotamus.

\* Since the foregoing was written, my suspicion has been fully confirmed; for only a few days afterwards her savage disposition and temper caused Mr. Rice and his assistants the utmost alarm, lest she should escape from the stable or kill some of the men who attended to her; for she broke and smashed almost every thing within her reach, and they had the greatest difficulty in getting her into the den in which she was shipped to America.

In appearance the young Rhinoceros (see Plate XI.) reminds one of a young Ass, viewing its long legs and general mode of moving its large long head and meagre-looking body. The front horn on the nose is about  $\frac{3}{4}$  of an inch high: the posterior horn is not developed; but a smooth spot indicates its position. Nearly black and covered with short crisp black hair, its ears very hairy inside as well as outside, the tail quite like a brush at the tip, it was thin and bony, looking much like a starved pig. One thing appeared to me remarkable—the condition of the hoofs; they were turned under the feet, as will be seen by the drawings (figs. A, B, C). The extreme points of the hoofs were quite soft, like the same parts of a newly born calf. It is quite evident, from the manner of the turning-under of these horny appendages, that, as they are worn through, the proper form is produced by the pointed portion being got rid of.



A. Side view and, B, sole of the right fore foot of the young Rhinoceros. C. Sole of right hind foot of same. These three figures show how the nails or hoofs are long and inturned immediately after birth, as described above. D. Sketch of the tail of the adult male.

It was 3 feet in length, 2 feet high at the shoulder; and its weight, as near as I was able to judge by lifting it, was rather over 50 lb.

I observed that as soon as the young one had sucked sufficiently it walked away from its mother and entered a dark corner in a box provided for it and lay down to sleep; by this I am led to think that in a wild state it would be left by the mother in the same way that many vegetable-eating animals leave their young while they roam about in search of food, returning to suckle their young at the proper time.

I have to express my regret at the death of this young animal, as by this misfortune we have lost the opportunity of noting the progress of growth, milk-dentition, and other facts connected with the history of the family. I learn also that the mother and the dead young one have been sent across the Atlantic.