1840

On the anatomy of the breast - Plate IV: Showing the udder of the goat and mammary gland of the rhinocerous

Sir Astley Paston Cooper , Bart.

PL. IV.

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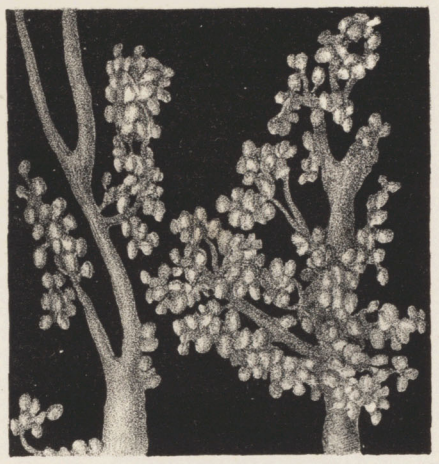

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Plate IV.

Showing the Udder of the Goat and Mammary Gland of the Rhinoceros.

Fig. 1. The two glands in the goat forming its udder, filled with wax.
The teats are of large size, and smooth upon their surface.
They contain each a single tube.
They terminate in a reservoir.
From the reservoir the glandules proceed to form a foliage upon the surface of each gland, which foliage is in one gland turned to the right, on the other to the left.
In the foliage, not only the glandules, but the milk-cells are found.
The two glands are firmly united to each other by a fibrous tissue.

Fig. 2. The milk-cells of the goat magnified ninety-six times. They vary in form and in their size.

I kept a goat in my stable upon hay and oats, and it gave a pint of milk in the morning, and three-fourths of a pint in the evening; but under green food, and abundance of it, a large goat will yield a much greater quantity.

As the milk is very wholesome, and the animal is easily maintained, it is often kept on board ship to supply the wants of the crew and passengers. In the East Indies, goat's milk is much used for the children of European parents, as in that climate the pasture for cows is parched up in the intervals of the rainy season. In the West Indies, also, a great number of these animals are kept, as the milk in that climate agrees well with children.

The cream of the goat's milk is rich, but the butter is not so firm as that of cows. After the cream was agitated for two hours it produced butter of a white appearance.

Abundance of cream is produced after forty-eight hours, although at twenty-four hours it had been skimmed, and the cream removed.

In seven days abundance of curd or albumen was precipitated.
Alcohol also threw down abundance of curd.
The whey has a sweetish taste when the curd is separated.
The milk has sometimes both the taste and an odour of the animal.
Specific gravity, 1·036.

100 parts of the milk contains,—	
Butter	4·08
Curd	4·52
Residue of Whey	5·86
Water	85·50
Luiscius and Bondt,—	
Cream	7·05
Butter	4·56
Casein	9·12
Sugar	4·38

On the Mammary Gland of the Rhinoceros.

Professor Owen, to whose genius and labours the Royal College of Surgeons is so much indebted, gave me a portion of the mammary gland of the rhinoceros that I might investigate its structure, but upon condition that I returned a part of the preparation which I might make from it to the College.

The gland was placed under the skin of the abdomen, forming a thin and expanded substance.

Fig. 3. The teats, two in number, are shown, and each teat contained twelve mamillary orifices. These openings led into large lactiferous tubes, which became arborescent in the gland, and terminated in numerous milk-cells.

Fig. 4. Shows the ducts and the milk cells fifty-two times magnified. It did not contain milk as the animal was not in a state of lactation.