

of the head in these two species. In the *Vulture* there is a space between the upper parts of the orbits in which the olfactory ganglions and nerves are situated, and the nasal cavity anterior to these is of a much greater breadth and also longer, as well as exhibiting internally a greater extent of pituitary surface, than in the *Turkey*. In this bird the olfactory nerves are compressed within a narrow interorbital space, which would not admit of the lodgement of ganglions; the olfactory nerves after passing through this space then diverge to the nasal cavity.

"In the *Goose* the olfactory nerves are developed to the same size as in the *Vulture*, and expand upon superior spongy bones of similar form, but placed wider apart, and these supply the middle spongy bones which are longer but not so broad as in the *Turkey*. The olfactory branch of the 5th pair is double the size of that in the *Vulture* or *Turkey*; it gives, however, not a greater proportion of filament to the nose than in those birds, but is mainly expended upon the membrane covering the upper mandible.

"The above notes show that the *Vulture* has a well-developed organ of smell, but whether he finds his prey by that sense alone, or in what degree it assists, anatomy is not so well calculated to explain as experiment.

"I will bring my preparations showing the above at next meeting, and am truly yours,

"Royal College of Surgeons, March 7th."

"R. OWEN."

Mr. Gould brought before the notice of the meeting, from the collection of Mr. Darwin, a new species of *Rhea* from Patagonia, and after offering some observations upon the distribution of the *Struthionide*, and upon the great interest attending this addition to that family, he remarked that the new species is distinguished from *Rhea Americana* of authors, in being one-fifth less in size, in having the bill shorter than the head, and the *tarsi* reticulated in front instead of scutellated, and in being plumed below the knee for several inches. It has also a more densely plumed wing, the feathers of which are broader, and all terminated by a band of white.

Mr. Gould, in conclusion, adverted to the important accessions to science resulting from the exertions of Mr. Darwin, and to his liberality in presenting the Society with his valuable Zoological Collection; to commemorate which he proposed to designate this interesting species by the name of *Rhea Darwinii*.

Mr. Darwin then read some notes upon the *Rhea Americana*, and upon the newly described species, but principally referring to the former.

This bird abounds over the plains of Northern Patagonia and the United Provinces of La Plata; and though fleet in its paces and shy in its nature, it yet falls an easy prey to the hunters, who confound it by approaching on horseback in a semicircle. When pursued it generally prefers running against the wind, expanding its wings to the full extent. It is not generally known that the *Rhea* is in the habit of swimming, but on two occasions Mr. Darwin witnessed their

crossing the Santa Cruz river, where its course was about 400 yards wide and the stream rapid. They make but slow progress, their necks are extended slightly forwards, but little of the body appears above water. At Bahia Blanca, in the months of October and September, an extraordinary number of eggs are found all over the country. The eggs either lie scattered about, or are collected together in a shallow excavation or nest; in the former case they are never hatched, and are termed by the Spaniards *Huachos*. The Gauchos unani- mously affirm that the male bird alone hatches the eggs, and for some time afterwards accompanies the young. Mr. Darwin does not doubt the accuracy of this fact, and states that the cock bird sits so closely that he has almost ridden over one in the nest. Mr. Darwin has also been positively informed that several females lay in one nest, and although the fact at first appears strange, he considers the cause sufficiently obvious, for as the number of eggs varies from 20 to 50, and, according to Azara, even 70 or 80, if each hen were obliged to hatch her own before the last was laid, the first probably would have been addled; but if each laid a few eggs at successive periods in different nests, and several hens, as is stated to be the case, combine together, then the eggs in one collection would be nearly of the same age. Mr. Burchell mentions that in Africa two females are believed to lay in one nest.

Mr. Darwin then proceeds to notice the other species of *Rhea*, which he first heard described by the Gauchos, at River Negro, in Northern Patagonia, as a very rare bird, under the name of *Avestruz Petise*. The eggs were smaller than those of the common *Rhea*, of more elongated form, and with a tinge of pale blue. This species is tolerably abundant about a degree and a half south of the Rio Negro, and the specimen presented to the Society was shot by Mr. Martens at Port Desire in Patagonia, (in latitude 48). It does not expand its wings when running at full speed, and Mr. Darwin learned from a Patagonian Indian that the nest contains fifteen eggs, which are deposited by more than one female. It is stated in conclusion that the *Rhea Americana* inhabits the country of La Plata as far as little south of the Rio Negro, in lat. 41°, and that the *Petise* takes its place in Southern Patagonia.

Mr. Chambers then brought before the notice of the Society a simple process for taking impressions from feathers, which is effected by placing the feathers between two sheets of paper, the lower one being previously well damped, and the upper covered with printers' ink; both are then passed through the rolling press of a copper plate printer, and on removing the upper sheet perfect figures of the feathers will be left, which may be coloured when dry, and will then have the resemblance of feathers placed on paper.