views upon the position of *Stringops*. He regards it, it is true, as a member of a subfamily (*Stringopinæ*) distinct from the *Cacatuinæ*; but both these subfamilies are within one family, *Palæornithidæ*. We quite agree with Prof. Garrod's remark about *Stringops* (P. Z. S. 1874, p. 596) that "as a Parrot it is not so strikingly peculiar as many seem to think. Its wings are useless, and the carina sterni is correspondingly reduced, it is true; but as points of classificational importance, I regard these as insignificant."

The association of *Cacatua* with *Microglossa* and *Calyptorhynchus* is confirmed, though *Cacatua* is perhaps farther off either of these two than they are from each other.

Ara, too, we find to be rather nearer than some have thought it to certain of the Old World genera, such as *Nestor*, *Stringops*, and *Calyptorhynchus*. Considering the superficial resemblance which the Macaws bear to the Cockatoos, this result is of not a little interest.

EXPLANATION OF PLATE XL.

SYRINGES OF PARROTS.

Fig. 1. } *Eos reticulata*.
2. }
3. *Stringops habroptilus*.
4. } *Cacatua cristata*.
5. }
6. *Ara leari*.
7. *Chrysotis erythrura*.
8. *Psittacus temnch*.
9. *Pionus violaceus*.

In figs. 2 & 3 only the intrinsic muscle (*m*) is shown.

2. On some Horns belonging, apparently, to a new Form of African Rhinoceros. By P. L. SCLATER, M.A., Ph.D., F.R.S., Secretary to the Society.

[Received June 2, 1893.]

My friend Mr. Frederick Holmwood, C.B., C.M.Z.S., H.B.M. Consul-General at Smyrna, has kindly lent me for examination two very remarkable horns of an African Rhinoceros, which he obtained at Zanzibar, when Consul-General there a few years ago. Mr. Holmwood gives me the following account of them:—

"From a very careful description of the country I gathered that they came from the country of 'Udulia,' situated at the N.E. point of Usukuma, 50 miles S. of Speke Gulf. The native traveller whom I bought them of thought, however, that the district, which is a jungle interspersed with grassy plains, might form part of the large pastoral country to the W. of Udulia, called by various names, but known generally by caravans as 'Uturu.' He said it was the only district where this Rhinoceros was known. It is only inhabited by hunters whom he described as dwarfs, but I do not take this for granted."

Fig. 1.

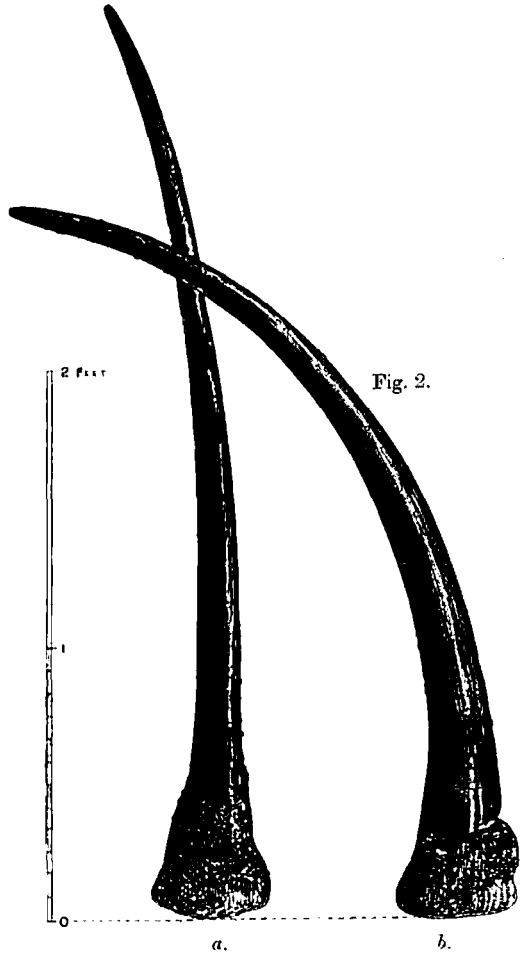

Fig. 2.

Front horns of Holmwood's Rhinoceros.

The question is to what species of Rhinoceros these two horns (which I now exhibit) are to be referred. It will be seen that they are remarkable for their length, thinness, and especially for their comparative roundness and their small size at the base.

Since the publication of Mr. F. C. Selous's excellent paper on the African Rhinoceroses (P. Z. S. 1871, p. 725), it has been generally agreed by naturalists that there are only two known species of this genus in Africa—the Black Rhinoceros (*R. bicornis*) and the White Rhinoceros (*R. simus*). Of the Black Rhinoceros a fine series of horns has been figured by Mr. Selous (*l. s. c.*), showing the variations that exist in the comparative length of the anterior and posterior horns. The anterior horn of the Black Rhinoceros, though, save in very exceptional cases, always longer than the posterior horn, seldom reaches more than 24″ inches in length, though occasionally longer[1]. On the other hand, the front horn of *R. simus* grows, as is well known, to an extraordinary length, varying from 18 to 48 inches, and reaching even 57 inches in abnormal specimens. This horn is, however, of great thickness at the base and much more compressed laterally than is the case with the specimens now in question, and in fact of quite a different character. Moreover *R. simus*, now almost extinct[2], has never been known to occur north of the Zambesi. It is not possible, therefore, to refer Mr. Holmwood's specimens to *R. simus*. There remains the question whether they can belong to abnormal individuals of *R. bicornis*, to which form of Rhinoceros they would appear from general characters to be most nearly related. Before considering the question I will shortly describe the specimens.

a (fig. 1) is 42 inches in length from the base of the thickened pedicel along the curve to the top of the horn. The pedicel is nearly circular, about 5 inches across on its lower surface. It is rounded, not flattened in front. At about 5½ inches from the base the true horn emerges from the pedicel; here it is ovate in shape, about 2·5 from front to back and 2·1 from side to side. It is nearly straight at the base, but curved gently backwards in the last third of its length. It is very smooth and of a uniform dark brownish black in colour.

b (fig. 2) is generally similar, but not quite so long (41 inches), thicker at the base, where the horn emerges from the pedicel, and much more rapidly curved backwards. It is also much paler in colour.

On comparing these horns with anterior horns of the Black Rhinoceros (two pairs of which Mr. Selous has kindly lent me for the purpose), it will readily be seen that they are at once recog-

[1] There are two horns in the British Museum, referred to this species (1520 A and 1520 *b*), 42 and 40 inches in length respectively. See Hand-l. Edent. p. 52 (1873).

[2] A recent letter, addressed to the 'Field' by Mr. Selous (Field, vol. 80, p. 803, Nov. 26th, 1892), shows that the White Rhinoceros still exists in Northern Mashonaland, a herd of six having been met with by Messrs. Eyres and Coryndon about 100 miles N.W. of Salisbury.

nizable by their great length, their thinness, and the small size of the pedicel.

I am told that these peculiar horns are well known as articles of trade at Zanzibar, where they are brought by the caravans from the interior. I do not propose to found a new species on them, because it is possible that they may be abnormal horns of the female Black Rhinoceros, which we know is found all through Eastern Africa up to the White Nile and plains of Upper Nubia[1]. But it is highly probable that they belong to a different animal, of which we may hope some day to receive perfect specimens. In the meantime they may be provisionally named Holmwood's Rhinoceros, *Rhinoceros bicornis holmwoodi*.

8. On some Bird-bones from the Miocene of Grive-St.-Alban, Department of Isère, France. By R. Lydekker.

[Received May 17, 1893.]

(Plate XLII.)

For the second time I am indebted to my friend Dr. C. J. Forsyth Major for the opportunity of adding something to our knowledge of the fossil birds of Europe—the small collection which he has on this occasion confided to my care having been obtained from the Miocene beds of Grive-St.-Alban, in the Isère. Those beds belong to the middle division of the Miocene period, and probably correspond approximately in age to those of Sansan in the Gers. So far as I am aware, the only bird-remains hitherto recorded from the Grive-St.-Alban deposits are a few described by Dr. C. Depéret[2]. These remains, which are but few in number, were regarded as indicating the existence of an undetermined Accipitrine of the size of the Common Buzzard, of a peculiar species of Woodpecker (*Picus gaudryi*), of a Pheasant, identified with a species (*Phasianus altus*) described by M. A. Milne-Edwards from the Sansan deposits; of a smaller representative of the same genus; of a Gallinaceous bird referred to the Lower Miocene genus *Palæortyx*, under the name of *P. edwardsi*; of a Crane, provisionally identified with *Grus pentelici* of the Pikermi beds; and of an undetermined Anserine. The collection of specimens obtained by Dr. Forsyth Major is far more numerous, and contains several bones in a perfect state. Others, however, are very fragmentary and difficult of identification; and I have accordingly thought it well to refer in most cases only to such specimens as I have been able to identify with a fair amount of certainty. As I have had occasion to mention previously, our collections of Avian osteology are at present in such an unsatisfactory condition that the determination of complete (not to say

[1] See Baker, 'Nile-Tributaries,' p. 246 (1872).

[2] Arch. Mus. Lyon, vol. iv. pp. 282–288 (1887).