

ties (definite in magnitude and direction), and it does not appear to me that the suggested system provides for this. In fact, it is difficult to see how gravitation towards the centre of the universe could separate the motions of the stars into two systems, if they originally formed one system.

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Royal Observatory, Greenwich, July 18.

### The Dental Formula of *Orycteropus*.

NORMALLY the adult *Orycteropus* has in each jaw but five teeth, though frequently, especially in young animals, a number of smaller teeth are found further forward. In 1890, Mr. Thomas discovered in both the upper and lower jaws of fairly large foetal specimens a number of milk-teeth, seven in the upper and four in the lower jaw. So far as I am aware, nothing further has been discovered regarding the dental succession.

In the skull of a newly-born specimen which I have been enabled to study through the kindness of Dr. Perinquey, of the S. African Museum, I have been fortunate in finding a full set of milk-teeth in both upper and lower jaws. In the upper are three minute but calcified incisors, one canine and six premolars. Of these only the last five premolars probably cut the gum, and only the fourth and sixth are large enough to be functional to a slight extent. Succeeding teeth are found under the third, fourth, fifth and sixth premolars, and possibly under the second. Beyond the sixth premolar there is evidence of at least four true molars. In the lower jaw there are also three minute calcified incisors, one minute canine, and six milk-premolars. Of these the second, third, fourth, fifth, and sixth premolars probably cut the gum, and are slightly functional. The germs of replacing teeth are found in connection with all the premolars except the first. Behind the last premolar are evidences of five true molars. The dental formula of *Orycteropus* may thus be taken to be:—

Incisors	Canine	Premolars	Molars
$\frac{1}{1} \ 2 \ 3$	$\frac{1}{1}$	$\frac{2}{2} \ 3 \ 4 \ 5 \ 6$	$\frac{1}{1} \ 2 \ 3 \ 4 \ 5$
$\frac{1}{1} \ 2 \ 3$	$\frac{1}{1}$	$\frac{1}{2} \ 2 \ 3 \ 4 \ 5 \ 6$	$\frac{1}{2} \ 3 \ 4 \ 5 \ 6$

This dental formula is quite unlike that in any living mammal, but if we assume that the ancestor of *Orycteropus* had functional succeeding incisors, and canines, it would have had a formula not at all unlike that found in many of the Mesozoic mammals. Elliot Smith suggests that it may have branched off very early from the subungulate stem. Kitchen Parker was more impressed with the resemblances of the skull to that of the marsupials and lower insectivores.

Some further light may be obtained by a careful microscopic examination of the developing teeth, which I hope to undertake immediately.

R. BROOM.

Victoria College, Stellenbosch, June 25.

### THE RADIO-TELEGRAPHIC CONVENTION.

THE report of the select committee appointed to consider the radio-telegraphic convention drawn up by the Powers in November last has just been published as a parliamentary paper. The committee recommends, by a majority of five to four, the ratification of the convention, a result which will hardly surprise those who have followed the evidence given before the committee, though the narrowness of the majority may be difficult to understand.

The provisions of the convention have already been summarised in NATURE (vol. lxxv., p. 59, November 15, 1906), so that it will not be necessary to repeat them here. It will be recollected that it was then pointed out that the provision of prime importance, and the only one likely to lead to opposition to the ratification of the convention, was the one requiring that 'coast stations and ship stations are bound to exchange radio-telegrams reciprocally without regard to the particular system of radio-telegraphy adopted

by these stations." The necessity for this provision and the highly beneficial results likely to accrue from its enforcement to civilisation and maritime interests were described, and the hope was expressed that the private interests of the Marconi Company would not stand in the way of its adoption.

A study of the evidence presented to the committee and clearly summarised in its report shows that the only opposition to ratification came from those representing the interests of the Marconi Company. They, having already secured what amounts to a practical monopoly so far as Great Britain, Italy, and Canada are concerned, are not unnaturally desirous of maintaining and increasing that monopoly. Whether the policy of not ratifying the convention which they support is likely to lead to such a result seems more than doubtful. The evidence shows that, so far as the world as a whole is concerned, the Marconi Company do not possess even a majority of existing stations, but only about one-third of the total number.

The ratification of the convention by all the signatory Powers except Great Britain would inevitably lead to a growth of other systems at the expense of Marconi stations: existing Marconi stations under their control would necessarily be discontinued unless they consented to acquiesce in the provision for intercommunication. The numerous stations existing along the south coast of England, if they refused to intercommunicate, would be useless for the shipping of foreign nations using other systems, and the necessity for the erection of other stations in their place on the north coast of the Continent would arise. If these, as is probable, interfered with the working of the English stations, protest would be useless from a country outside the convention. From almost all points of view it seems, as a matter of fact, that the Marconi Company stands to gain rather than to lose by the adoption of the convention by Great Britain.

Of the technical objections raised by the Marconi Company little need be said. Since the representatives of all the other systems were agreed that there exist no real difficulties in intercommunication from the technical standpoint, one is compelled to the conclusion that these objections are biased by other considerations, unless, indeed, the Marconi system is so inferior to all others that it alone possesses this great disadvantage.

It will be recollected, probably, that great stress was laid by many writers in the daily Press at the time of the international Conference on the naval and military aspects of the convention, and Great Britain was represented by some as handing herself over bound to the Powers. That these contentions were entirely without foundation was pointed out in NATURE (*loc. cit.*), and would have been clear to anyone who took the pains to study the actual provisions of the convention. The section of the report of the select committee dealing with this aspect of the question should be sufficient to dispel any lingering doubts which may still remain.

Wireless telegraphy has been very much before the public for the past ten years. In sensational achievement much has been accomplished, and of recent years it has figured somewhat largely as an international bone of contention. But the practical commercial development has been disappointingly slow. It is to be hoped that with the ratification of the convention a period of peaceful progress may ensue, and that some of the well-deserved fruits of many years of patient experimenting may be gathered by the numerous inventors who have been working in this field.

MAURICE SOLOMON.