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sexual characters it agrees with *Hyla cærulea*, but differs in the small tympanum, a character which it shares with *H. humeralis*.

EXPLANATION OF PLATE XVIII.

Hyla angiana, ♀, natural size, with lateral view of head and anterior part of body, and open mouth.

XLIX.—*New Genera and Species of Mammals from the Miocene Deposits of Baluchistan.—Preliminary Notice.*

By C. Forster-Cooper, M.A., Superintendent, University Museum of Zoology, Cambridge.

The following specimens were obtained from the Dera Bugti province of Baluchistan; the types and other specimens will be placed, together with the rest of the collection, in the British Museum of Natural History, as soon as the whole collection is catalogued.

Parabrachyodus obtusus, gen. nov.

In a previous issue of this Journal (vol. xii., December 1913, p. 520) I described a third lower molar as that of a new species doubtfully referred to the genus *Brachyodus*. Some fragments of maxillæ seem to agree with this particular tooth as regards size and general characteristics, and, as they show a peculiarity which distinguishes them from the genus *Brachyodus*, a new genus is here created for them.

The type-specimen of the genus is a left maxilla showing the fourth premolar and the full series of three molars (fig. 1). Like the lower molar (fig. 2) already described (*loc. cit.*), the teeth are brachyodont and bunodont, with a moderately well-marked cingulum, and are not easily to be distinguished from those of *B. giganteus*, the third upper molar being extremely like the cast of the type third molar of the latter species. The fourth premolar, however, shows a distinct difference, in that the upper cusp is practically aborted and shows as a very thin ridge lying just inside the well-developed inner cingulum. A side-view (fig. 1 A) is here given, showing the difference between the outer cusp, which is normal in size and somewhat worn, and the inner cusp, which, though quite untouched by wear, is very small.

That the condition is not an individual variation is shown

by its occurrence in more than one specimen. It is possible that Lydekker's *B. giganteus* belonged to a similar form, in

Fig. 1 A.

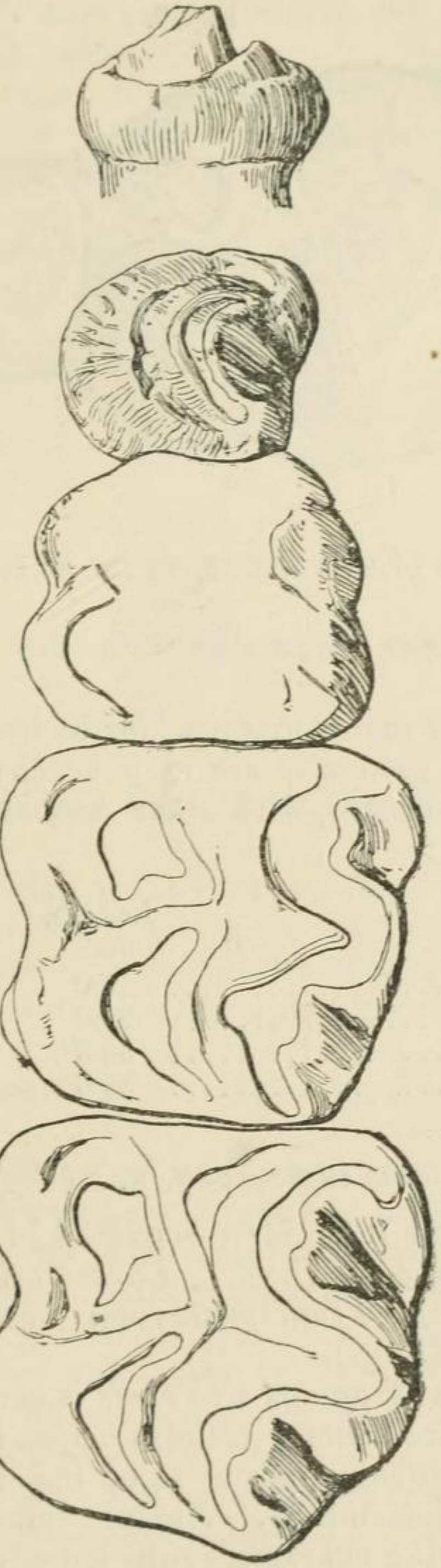
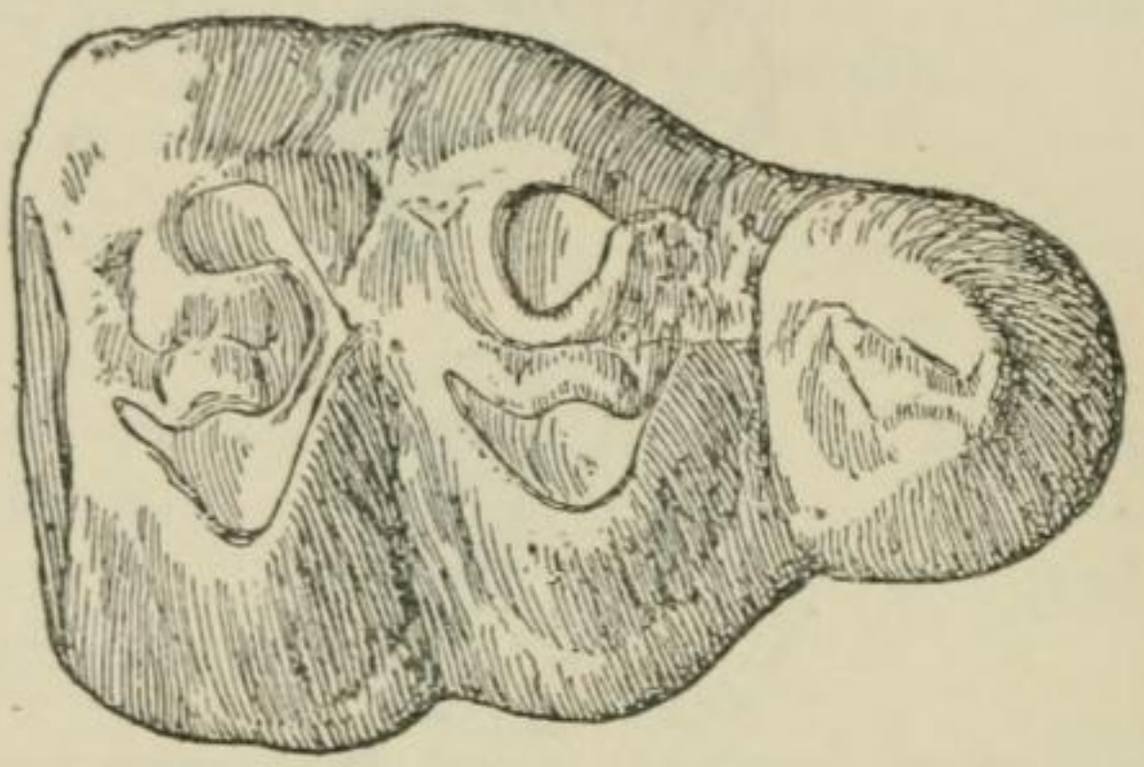


Fig. 1.

which case some help would be given in elucidating the very complex *giganteus-hyopotamoides* series found in this locality.

For the present, however, the question must remain in abeyance, since the type-specimen of *B. giganteus* is a single molar.

Fig. 2.



The characters of this genus, so far as can be ascertained at present, are :—

1. Fourth upper premolar with the inner cusp much reduced.
2. Third lower molar much wider in front than behind.
3. The teeth generally are very brachybunodont (a character shared, of course, with other Anthracotheroid genera).

Measurements :—

	Length. mm.	Breadth. mm.
PM^4	15·0	21·8
M^1	28·0	31·0
M^2	35·3	39·0
M^3	39·0	43·8

Gelocus indicus, sp. n. (Fig. 3.)

The Traguloids thus far discovered in the Indian region are *Tragulus sivalensis* (Lyd.), *Dorcatherium minus* (Lyd.), *D. majus* (Lyd.), *Prodremotherium beatrix* (Pilg.), and *Gelocus gajensis* (Pilg.).

Of these forms *Tragulus sivalensis* is certainly represented in the present collection; *Gelocus gajensis* and *Prodremotherium beatrix* probably occur also, but the specimens are not as yet fully determined. Among them, however, is an upper molar showing characters sufficiently distinct to warrant its description as a new species.

The genus *Gelocus* has never properly been described; it was founded by Aymard on the species *Amphitragulus com-*

munis (Cong. Sci. Franç. 1885), the generic name *Amphitragulus* being changed to *Gelocus* without comment or diagnosis.

The present specimen, a third upper molar, therefore is placed provisionally in this genus, relying on the characters given by Lydekker as follows:—

"The upper molars of this genus have extremely low columns with wide open valleys; the external surface of the hinder lobe of each of the outer columns is markedly concave," &c. (Cat. Foss. Mamm.).

This tooth shows all these characters and in general plan is similar to a corresponding tooth of *Gelocus communis* in the British Museum collection (m. 27596) *.

Fig. 3.

The specific differences from it of the present specimen are:—

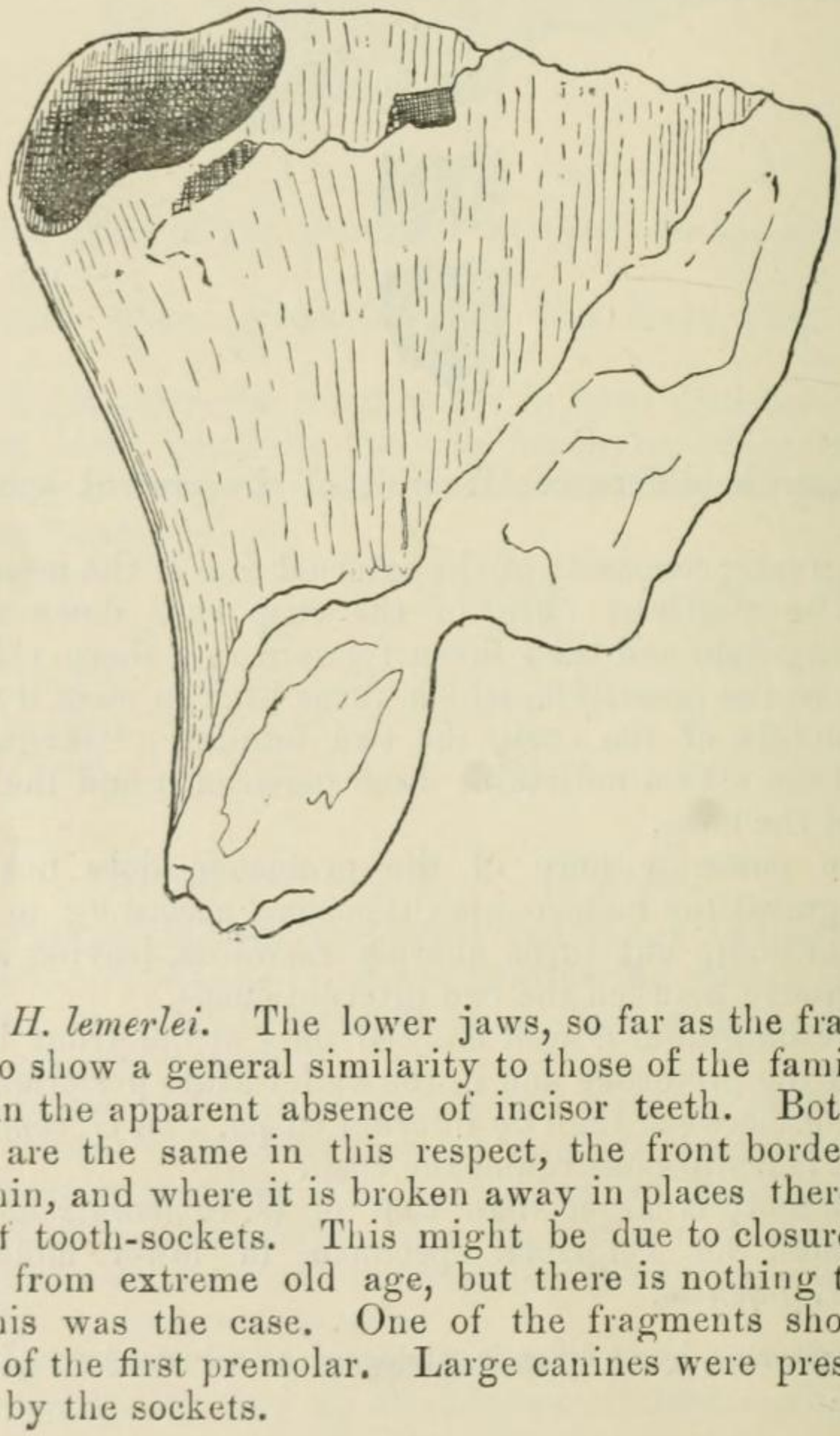
1. A greater concavity of the external face of the metacone. The posterior horn of the cusp runs down to the cingulum and then turns forward as a sharp ridge to join the mesostyle, which turns back to meet it at the middle of the cusp, the two forming a "cingulum" ridge with a noticeable ditch between it and the body of the cusp.
2. The posterior horn of the protocone does not abut against the metaconule (hypocone, according to some authors), but turns sharply forwards, leaving a deep groove between the two internal cusps.
3. The cingulum is well marked only at the front border of the protocone and in the valley at its posterior edge, *i. e.* between the two internal cusps. In *G. communis* it is continuous round the cusp.
4. The tooth is larger than that of *G. communis* and too small for Pilgrim's specimen (a lower molar) of *G. gajensis*.

* This specimen, by an error, is catalogued as a lower jaw. It is an upper jaw.

Aprotodon smith-woodwardi, gen. et sp. n.

Two fragments of mandibular symphysis, of one of which the upper and lower sides are figured (figs. 4 & 5), and a portion of the orbital region of a skull are undoubtedly parts of a small hippopotamus. These are interesting as the earliest-known occurrence of the hippopotamus (considerably before the genus *Merycopotamus*, which has been suggested as close to the ancestral line). The skull portion is indistinguishable from that of the Hippopotamidæ in general, and is about the

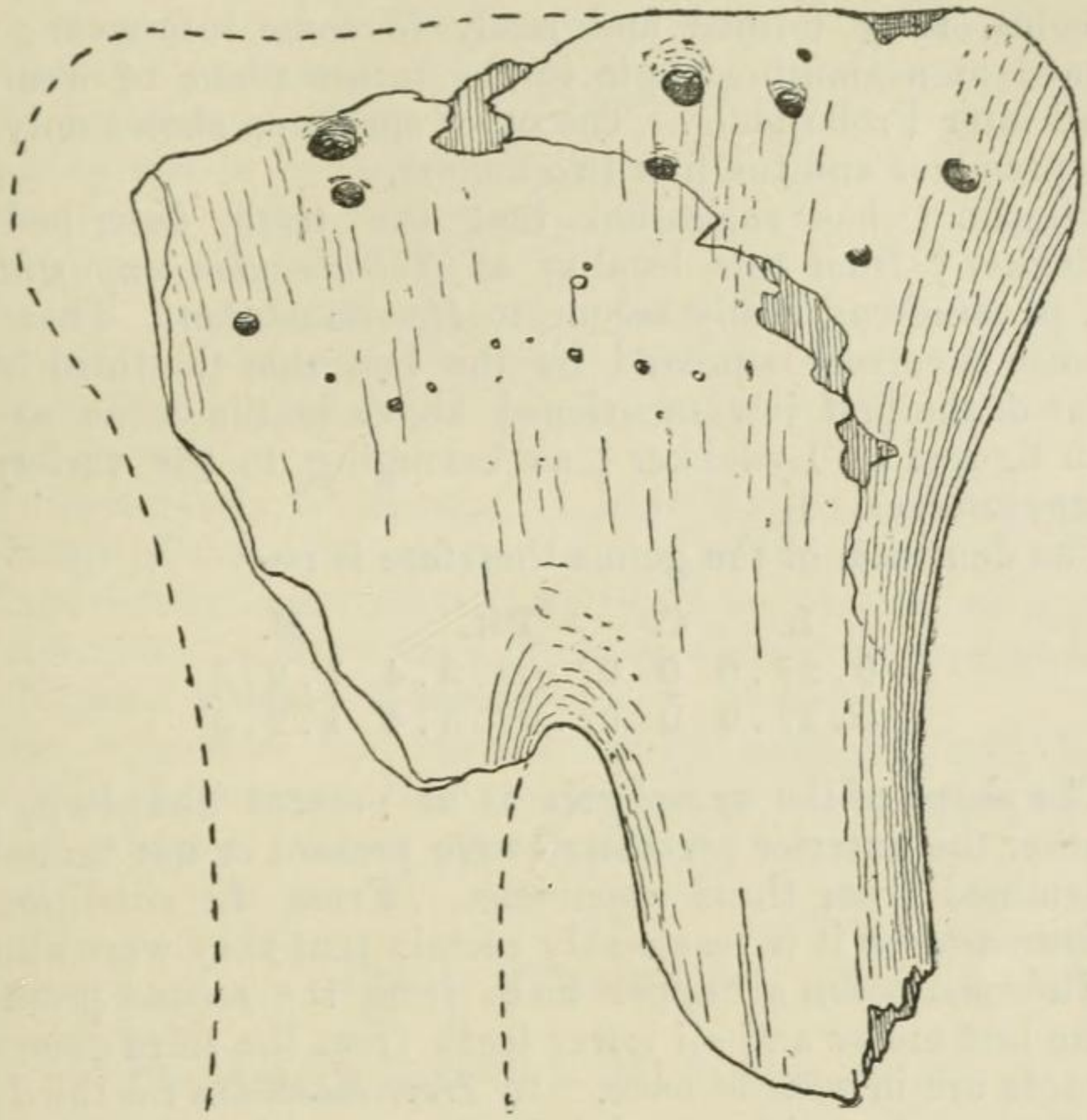
Fig. 4.



size of *H. lemerlei*. The lower jaws, so far as the fragments go, also show a general similarity to those of the family, but differ in the apparent absence of incisor teeth. Both fragments are the same in this respect, the front border being very thin, and where it is broken away in places there is no sign of tooth-sockets. This might be due to closure of the socket from extreme old age, but there is nothing to show that this was the case. One of the fragments shows the stump of the first premolar. Large canines were present, as shown by the sockets.

Width across the jaw from the outside of the canines (estimate, the measurement taken to the middle line and doubled) 20 cm.; depth of symphysis 11 cm.; width of ramus behind symphysis 5·5 cm.

Fig. 5.



Note on the Dentition of Hemimastodon crepusculi (*Pilg.*).

Pilgrim * has described some Proboscidian teeth from this locality as belonging to *Hemimastodon*, a new genus intermediate between the genera *Palæomastodon* and *Tetrabelodon*.

In the present collection are two palates and corresponding portions of lower jaws of young adult individuals, which, being fairly complete except for the symphysial region, throw some additional light on the dentition of this genus. The palates show two three-ridged teeth—the first and second molars—with remains of two smaller two-ridged teeth in front, which apparently represent the third and fourth premolars.

Pilgrim figures † the last two milk-teeth of this species,

* Pilgrim, 'Palæontologia Indica,' n. s., vol. iv. memoir 2.

† Pilgrim, *loc. cit.* pl. iv. fig. 9.

and the last milk-tooth in his specimen being much smaller and otherwise different from the first three-ridged tooth in mine shows that the latter is a true molar, and the teeth in front of it are true premolars and not milk-teeth.

The lower-jaw fragments show in one specimen the last premolar and the three molars, the last molar being in the alveolus, fully formed and ready to come into wear; it is formed at a slanting angle to the future plane of wear, as in all later Proboscidia. The other specimen shows only the last premolar and the first two molars.

Pilgrim* has suggested that the teeth described by Lydekker† from this locality as *Tetrabelodon angustidens*, var. *palæindicus*, really belong to *Hemimastodon*. That this surmise is correct is proved by the fact that the third lower molar of the first jaw mentioned above is the same as the tooth figured by Lydekker‡ as belonging to the variety of *T. angustidens*.

The dentition of the genus therefore is :—

I.	C.	PM.	M.
$\frac{0.2?.0}{0.2?.0}$	$\frac{0}{0}$	$\frac{0?.0?.3.4}{0?.0?.3.4}$	$\frac{1.2.3}{1.2.3}$.

The shape of the symphysis is at present unknown, and whether the anterior premolars were present or not cannot be determined from these specimens. From the condition in *Palæomastodon* it is reasonably certain that they were absent. In *Palæomastodon* all upper teeth from the second premolar to the last molar and all lower teeth from the third premolar onwards are in wear at once. In *Hemimastodon* the third and fourth premolars above and below are much worn, and are probably pushed out before the third molar is erupted, leaving the three molars in wear. In *Tetrabelodon*§ the second and third premolars are cut in both jaws, but are entirely lost before the second molar comes into wear. In all later forms the premolar series is entirely suppressed. *Hemimastodon*, therefore, is shown to occupy a place halfway between the genera *Palæomastodon* and *Tetrabelodon*, and, considering its probable horizon, this is what we should expect.

A further description and figures of these interesting fragments will be published in a forthcoming catalogue of the whole collection from the Bugti region.

* Pal. Ind. n. s. vol. iv. memoir 2.
† Pal. Ind. (10) vol. iii. pl. iv. fig. 3.
‡ Trans. Roy. Soc. B. vol. 199, pp. 393–407.
§ Trans. Roy. Soc. B. vol. 196, pp. 99–118.