v 59.9.73

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# HAND-LIST

OF THE

# EDENTATE, THICK-SKINNED

AND

# RUMINANT MAMMALS

IN THE

# BRITISH MUSEUM.

BY

DR. J. E. GRAY, F.R.S., F.L.S., &c.,

Keeper of the Zoological Department.

Forty-two Plates of Skulls, &c.

#### LONDON:

PRINTED BY ORDER OF THE TRUSTEES OF THE BRITISH MUSEUM.

1873.

2. Dendrohyrax arboreus, Gray, Cat. Carniv. &c. p. 292.

1586 d. Animal, unstuffed; young.

S.E. Africa. 59, 5, 7, 20.

Presented by Sir A. Smith.

1586 b. Animal, stuffed.

1586 b. Skull of above.

D. arboreus, Gray, Ann. & Mag. Nat. Hist. 1873, xi. p. 154. S.E. Africa. 72, 10, 21, 2.

1586 a. Animal, stuffed. 1586 a. Skull of above.

D. arboreus, Gray, Ann. & Mag. Nat. Hist. 1873, xi. p. 154. S.E. Africa. 72, 10, 21, 3.

1586 c. Skin, unstuffed. 1586 c. Skull of above.

S.E. Africa. 72, 10, 21, 1.

1586 f. Skin, not stuffed; young. No white spot on back. Hyrax capensis, Verreaux. Cape of Good Hope. Verreaux. 43, 12, 7, 9.

\*\* Orbits slightly incomplete behind.

3. Dendrohyrax Blainvillei, Gray, Cat. Carniv. &c. p. 293.

724 e. Skull, adult.

H. capensis, "724 e," Gerrard, Cat. Bones, p. 283.

Heterohyrax Blainvillei, Gray, l. c. p. 293.

S. Africa. Zool. Soc. 58, 5.

4. Dendrohyrax semicircularis, Gray, Cat. p. 284.

724 h. Skeleton, young.

Hyrax semicircularis, Gray, l. c.

S. Africa? Zool. Gardens.

Blade-bone not quite so broad (3—4) as long, with a well-developed separate coracoid process. Orbit nearly united behind.

Sub-Order 4. NASICORNIA, Gray, Cat. Carniv. &c. p. 295.

Family 1. RHINOCEROTIDÆ, Gray, Cat. Carniv. &c. p. 300.

It is very difficult to determine to which species of *Rhinoceros* the horns in the Museum Collection belong, for two reasons. If purchased from dealers or from old collections no reliance can be placed upon the habitat assigned to them. Secondly, the horns of the same species seem to vary greatly in shape, and those from animals in confinement, and probably, therefore, also those that are wild, are considerably modified by external circumstances in shape and direction. For example, see account of animal with monstrous horn (*Sclater*, *P.Z. S.*); and therefore the separate horns in the collection are referred to the species with great doubt, unless they have been received from travellers who have obtained them themselves, and vouch for the accuracy of the habitat.

The Asiatic Rhinocerotes have the front of the nasal bone convex, produced, and more or less acute in front. The intermaxillaries in the skull of the very young animal are spongy and united together in front, with two rudimentary teeth on the hinder part of each side. In the older animals these teeth are more elongate, produced, and separate from each other in front, and supported by a more or less long process of the intermaxillary bone, which encases the upper and outer side of their hinder part. They have two teeth on each side, the hinder being the smallest; but in the older animals both these teeth drop out, and the front one is replaced by a large tooth, which eventually has a large flattened crown.

#### \* One-horned Rhinocerotes.

Nose with one horn. Lower jaw with a pair of small cylindrical central cutting-teeth between the large lateral ones. The central cutting-teeth rarely absent in the adult skulls.

### 1. RHINOCEROS, Gray, Cat. Carniv. &c. p. 300.

In the Asiatic one-horned Rhinocerotes (Rhinoceros) there is a small cylindrical cutting-tooth on the inner side of the two lateral ones. These teeth are close to the inner side of the lateral ones in the skull of the fætal animal; but they become separated from them as the front of the jaw dilates for the secretion of the permanent cutting-teeth, and when the larger lateral cutting-teeth are developed they are more compressed together. They are generally present; but there is a skull of Rhinoceros javanicus in the Museum (723 a) in which they are deficient, the inner sides of the large lateral cutting-teeth being very close together.

In the lower jaw of the skulls of very young animals there is a large conical cutting-tooth on each side in front. This tooth is very depressed, and has sharp edges on the side, and a half-ovate end. It becomes worn down and is replaced by a larger tooth, which becomes worn down on the upper surface so as to produce an elongated flat disk with an acute front. In the skulls of adult two-horned Asiatic Rhinocerotes (Ceratorhinus) these two middle cutting-teeth are wanting. I have never seen a very young skull of these animals.

1. Rhinoceros javanicus, Gray, Cat. Carniv. &c. p. 300.

R. sondaicus, Horsfield, Java, t. (animal).

S. Müller, Verhandl. t. xxxiii. (animal, male and female).

F. javanus, Blainv. Ost. t. i. ii. & vii.

R. sondaicus, Cuv. Oss. Foss. t. xvii. xviii (skeleton). Blyth, Journ. Asiatic Soc. Bengal, xxxi. t. 1 & 2 (skull).

723 d. Skeleton with skull; adult.

Java. Mus. Leyden.

723 e. Skeleton with skull; half-grown. "R. sumatranus," Mus. Leyden.

Sumatra. Mus. Leyden. Franks.

723 f. Skeleton, imperfect. R. javanicus, 3, Gray, l. c. p. 301. Sumatra. Janson.

723 a. Skull, adult, without any lower central cutting-teeth.

Java?? Zool. Soc.

722 h. Skull, adult, with nasal bones cut off. R. javanus, Gray, Mus. Cat. p. 301. "R. unicornis," Zool. Soc. Java? Zool. Soc.

2. Rhinoceros unicornis, Gray, Cat. Carniv. &c. p. 302; Cuvier, Oss. Foss. ii. f. i.—iv.; Blainv. Ost. t. ii.
Indian rhinoceros, Parsons, Phil. Trans. 1742, t. 1 & 2.

88 a. Animal, stuffed. India. Atkins' Menagerie.

722 f. Skeleton, adult. India. Zool. Soc.

722 g. Skull, adult. India. Zool. Soc.

722 a. Skull. India.

Presented by C. Gascoin, Esq.

722 b. Skull, very young; perhaps just born.

R. unicornis, Gray, Cat. p. 303.

Nepal. Presented by B. H. Hodgson, Esq.

722 c. Lower jaw, left side. Nepal.

Presented by B. H. Hodgson, Esq.

722 k. Skull. Horn, 15 in.

Assam, Gompore. Presented by Lieut-Col. Russell, Bart.

722 o. Skull, young. Front end of lower jaw broad, dilated. Front cutting-teeth subcylindrical, far apart, showing permanent cutting-teeth at base.

India.

722 h. Nose horn, 20 in. India? (90 b).

722 i. Nose horn, 29 in.

722 p. Nose horn. India? (125 g).

722 j. Nose horn, 10 in. From animal in confinement. India? (89 b).

722 b. Nose horn, 8 in. India. (87 c).

722 m. Nose horn, 6 in. Animal in confinement. India. Cobbe. 37, 6, 10, 260.

722 n. Nose horn, 6 in. Animal in confinement. India.

- 3. Rhinoceros nasalis, Gray, Cat. Carniv. &c. p. 305, f. 34, 35 (skull); P. Z. S. 1867, p. 1012, figs. 1 & 2. (skull).
- 723 b. Skull; nearly adult; wanting the intermaxillaries and the inner cutting-teeth, with very large lateral cutting-teeth. "R. sondaicus, Cuv. Java," dealer.

Borneo?

723 c. Skull; nearly adult.

R. nasalis, Gray, l. c. p. 305, f. 34-35 (skull). Borneo. Wright. 59, 8, 16, 1.

4. RHINOCEROS STENOCEPHALUS, Gray, Cat. Carniv. &c. p. 310, fig. 38—39 (skull); P. Z. S. 1867, p. 1018, f. 5, 6 (skull).

722 e. Skull; half-grown.

Rhinoceros stenocephalus, Gray, Cat. Carniv. &c. f. 38, 39.

Asia. Zool. Soc.

#### \*\* Two-horned Asiatic Rhinocerotes.

Nose horns two, one behind the other. The lower cutting-teeth two, lateral. No intermediate ones in adult. Skin smooth.

- 2. CERATORHINUS, Gray, Cat. Carniv. &c. p. 313.
  - 1. CERATORHINUS SUMATRANUS, Gray, Cat. Carniv. &c. p. 313.

R. lasiotes, Sclater, P. Z. S. 1872, p. 494, pl. xxiii. Rhinoceros de Sumatra, Cuv. Oss. Foss. ii. 27, t. iv.

R. sumatrensis, Blain. Ostéog.

Sumatran rhinoceros, Bell, Phil. Trans. 1793, p. 3, t. ii., iii., iv.

(copied Cuv. Oss. Foss. iii. p. 42, t. 78, f. 8).

R. sumatranus, Blainv. Ostéog. t. (skull). Blyth, Journ. Asiatic Soc. of Bengal, xxxi. 1862, p. 151, t. 3 (skull). Müller, Verhand. t. xxxv. (animal).

1461 a. Skull; adult. Pegu. Theobald.

1461 b. Skull; nearly adult. Sumatra. Raffles. Zool. Soc.

1461 c. "Hinder horn 13 in." Blyth. Sumatra? (89 f.)

The figure of the skull, like the figure of the animal, attached to Mr. Bell's paper in the 'Philosophical Transactions' (vol. lxxviii. 1793, p. 3, t. ii.—iv.) well represents this species, and has well-developed cuttingteeth in the lower jaw, and the space between the condyles of the skull narrow, which is the character of this species.

Home's figure of the skeleton of the Sumatran rhinoceros (Phil. Trans. 1821, t. xxii.), from the skeleton now in the Royal College of Surgeons, better represents the height of the skull, but scarcely suffi-

ciently shows the distinction between the two species.

The figure of R. sumatrensis, Q, Blainv. Ostéog. t. ii., is not so high behind as the skulls of either of the species, and in other respects is not characteristic.

2. CERATORHINUS NIGER.

C. Sumatranus (part), Gray, Cat. Carniv. &c. p. 313.

R. Crossii, Gray, Ann. and Mag. Nat. Hist. 1872, x. p. 209 (not horn).

1588 d. Animal, stuffed.

C. niger, Gray, Ann. and Mag. Nat. Hist. 1873, xi. p. 357.

"Sumatra?" Franks.

1588 e. Animal, stuffed.

R. Crossii, Gray, Ann. and Mag. Nat. Hist. 1872, x. p. 209.

b. Skeleton of "e"; mounted. C. niger, Gray, Ann. 1873.

R. sumatranus, Sclater, Zool. Soc. Guide.

Malacca. Zool. Soc. 72, 12, 31, 1.

1076 a. Front horn; adult. 32 in. Very slender. R. Crossii, Gray, P. Z. S. 1854, p. 270, f. (horn). Sumatra?

1076 b (9 e). Two horns on skin of head; young. Front horn 9 in. Sumatra?

1076 c. Horn. Slender and much curved, but not so slender or curved as 1076 a.

Hab. unknown. 72, 6, 12, 1.

The British Museum purchased from the Zoological Society the body of "1588 e," which was obtained by Mr. William Jamrach at Singapore, and which was captured at Malacca in 1871. It is peculiar for having a very rough skin, the body being covered with thick black hair; the tail is comparatively long and thin.

Mr. Edward Gerrard, jun., has preserved and stuffed the skin, and

prepared a very complete skeleton of the animal.

The skull is very different from those of the Sumatran rhinoceros (R. sumatranus, Raffles), collected by Sir Stamford Raffles and now in the British Museum and in that of the Royal College of Surgeons, and from the skull which was purchased of Mr. Theobald, and proves most distinctly that I was right in stating the animal, when alive, to be very distinct from the Sumatran rhinoceros described and figured by Bell in the 'Philosophical Transactions' for 1793, to which Sir Stamford Raffles gave the name of R. sumatranus, under which name the Malaccan rhinoceros was exhibited at the Zoological Gardens and mentioned in the list of accessions in the 'Proceedings of the Zoological Society;' and I see by the report that a paper on the details of its visceral anatomy has been read to the Society by Mr. Garrod.

There has for many years existed in the British Museum a stuffed skin of a young specimen, " $1588 \ d$ ," which was purchased of Mr. Franks, of Amsterdam, as the young Sumatran rhinoceros; but there is reason to believe that this specimen was from Singapore, the port of

Malacca.

The skull of the Malaccan rhinoceros is very like that of the Sumatran one; but it is shorter and broader than that of R. sumatranus. The hole in the cheek for the passage of the large vessels is oblong, much larger, and nearer the margin of the nasal aperture;

while in the two skulls of *R. sumatranus* it is smaller, circular, and some distance from the margin of the aperture. The front edge of the intermaxillary bones is broader, rounded, and not compressed nor nearly so much produced as the front edge of the intermaxillary bone of the adult skull of *R. sumatranus*, nor so much as in the skull of the young animal of the same species, which is shorter and broader than in the adult. The grinders of the upper jaw are six in number, and appear broader than those of the adult *R. sumatranus*, but they occupy the same length.

The skull of the Malaccan rhinoceros is not so high behind as that of the adult Sumatran rhinoceros; and the space in the crown between the temporal muscles is flat, and much wider than that of the adult but not so aged Sumatran rhinoceros in the British Museum. The back end of the upper part of the occiput is not nearly so broad as that

of the Sumatran rhinoceros.

The most striking difference is in the lower jaw. The condyles are further apart; indeed the whole jaw is wider; but the outer edge of the hinder angle is much more expanded. This latter peculiarity, as well as the form of the crown of the grinders in the upper jaw, may arise from the greater age of the specimen. The greatest peculiarity is that the front of the lower jaw is comparatively thin, expanded, and having neither teeth nor alveoli, nor, indeed, one may say, sufficient thickness to hold the large cutting-teeth usually found in the front of the lower jaw of this genus. The grinders are six on each side; that is to say, the front tooth on each side is retained, whereas it is shed from the skull of the adult but much less aged animal of R. sumatranus in the British Museum; and the grinders appear to differ in the form of their folds from those of the Sumatran species.

	niger.	sumatranus.
AND MINE OF AN ADDRESS OF THE PROPERTY OF THE PARTY OF TH	in.	in.
Length from tip of nose to occipital condyle of adult	$21\frac{1}{2}$	22
From front of intermaxillary to occipital condyle	201	21
From front edge to back edge of lower jaw	161	17
Width at zygomatic arch	12	11
Width of hinder end of lower jaw		91
Width of upper part of lower jaw at end of tooth-line	71	63
Height of back of skull	13	131

It is very probable that the want of front teeth in the lower jaw may be an individual peculiarity produced by the age of the specimen; at least I do not think it safe to regard that peculiarity as specific without an examination of more specimens. The toothless front of the lower jaw is like that of the adult *Ceratotherium simus*, from S. Africa.

In the 'Annals and Magazine of Natural History,' 1872, x. p. 209, I referred to R. Crossii and thought it might be the same as R. sumatranus from Tavoy and Tenasserim, mentioned by Blyth, Journ. Asiat. Soc. Bengal, 1862, p. 156, who figures the skull and horns, and who identifies his animal with my R. Crossii (which was described from a pair of horns, P. Z. S. 1854), and has just informed me that it is the head of the small black rhinoceros with two horns.

Probably he is correct in thinking that the horn I figured as R. Crossii belongs to the same species as the skulls which he received from Tenasserim; but it is to be observed that I have never seen a skull of

the Tenasserim rhinoceros, and do not know whether it is the same as C. sumatranus from Sumatra or C. niger from Malacca, or whether it may be a distinct species. Therefore I think it best, until we receive skulls of the Tenasserim species, to give the Malaccan one a distinct name and call it C. niger (as the black colour at once distinguishes it from the greyish Sumatran species), more especially as some zoologists who admit the difference of the two species refer R. Crossii, of which we know nothing but the horn, to each of the species.

Mr. Blyth, in the 'Journal of the Asiatic Society of Bengal,' vol. xxxi. t. iii. f. 1, 2, 3, lithographs from photographs (which he has since given to me) three skulls of what he calls R. sumatranus from

Tenasserim.

These skulls, according to the photographs, differ so much from each other that they do not afford materials for the determination of the question of the species to which the Tenasserim rhinoceros should be referred.

The photographs represent the skulls of animals of very different ages; but I cannot believe the difference between them depends solely on age, as the skull of the oldest (fig. 1) and of the youngest (fig. 3) agree in the shape of the occiput and in the upper surface not being produced behind, while the skull of the half-grown one (fig. 2) has the upper surface of the occiput very much produced backwards, and the

occipital condyles not so prominent.

Mr. Blyth informs me that he believes the adult skull (t. iii. f. 1) is the skull of R. Crossii, which he thinks is R. lasiotis, and he believes that the two younger skulls (t. iii. f. 2 & 3) belong to the black rhinoceros. The youngest skull (t. iii. f. 3) has the skin of the head and horns attached to it in the Museum at Calcutta. But the form of the lower jaw in the two younger specimens do not agree with the lower jaw of C. niger, and therefore I should provisionally name them C. Blythii.

## \*\*\* African Rhinocerotes.

The African Rhinocerotes have the intermaxillary bones small, laminar, situated on the front end of a bony plate, separated by a suture (which becomes obliterated in the older specimens), in the inner side of the front part of the maxillæ, and have a tooth on its edge, which generally falls out in the adult animal; hence usually described as having no intermaxillary cutting-teeth. The lower jaw of the young  $R.\ bicornis\ (1365\ b)$  has a small cylindrical cutting-tooth on each side of the broad end of the jaw, which disappears in the older animals; and the breadth of the front of the jaw does not increase, and therefore becomes smaller compared with the size of the skull. In the skull of the fætal specimen of  $R.\ bicornis\ 8\frac{1}{4}$  in. long  $(1365\ h)$ , with the three grinders but partially developed, the intermaxillaries are cartilaginous, and show rudiments, or rather nuclei, of two teeth.

The lamina on the inside of the maxillæ of these African Rhinocerotes, bearing the intermaxillaries, is represented in the Asiatic Rhinocerotes by a broad portion of the inside of the maxillæ, which is marked by an external groove; but in these animals the broad intermaxilla is attached to the end of the maxillæ, as well as to the end of this defined

part.

3. RHINASTER, Gray, Cat. Carniv. &c. p. 316.

\* Rhinaster, Gray, Cat. Carniv. &c. p. 316.

1. RHINASTER BICORNIS, Gray, Cat. Carniv. &c. p. 316.

R. bicornis, Smith, Ill. Zool. S. A. t. ii. (animal).

R. bicorne, Cuv. Oss. Foss. ii. p. 29, t. iv. & xvi. Blainv. Ost. t. iii. & iv.

R. africanus, Harris, Wild Animals S. Africa, t. xi.

1365 c. Animal, stuffed; adult.

S. Africa. Presented by the Earl of Derby.

1365 b. Animal, stuffed; half-grown.

S. Africa. Verreaux. Collected by Sir A. Smith.

1365 a. Animal, stuffed; very young. S. Africa. Collected by Sir A. Smith.

1365 l. Animal, stuffed.

1365 l. Skull.

Abyssinia, Bogos.

1365 h. Skin, unstuffed; very young animal.

1365 h. Skull.

Abyssinia. 71, 11, 29, 5.

1365 k. Skin of head, stuffed, with rather slender conical elongate horns; female.

Skull of "k."

Abyssinia, Anseba Valley. Pres. by the Bombay Government.

1365 g. Skeleton.

Abyssinia.

1365 m. Skull. Front horn thick, conical. Back horn thick, short. Sennaar. Petherick.

1365 e. Horns, front 27 in. and back 8 in., conical, thick, with a circular outline.

S. Africa. 60, 9, 29, 3.

1365 i. Front horn, 25 in. Very thick.

S. Africa? (90 a.)

1365 j. Front horn. Very thick, cracked. Abyssinia. 73, 2, 6, 1.

\*\* Keitloa, Gray, Cat. Carniv. &c. p. 317.

2. RHINASTER KEITLOA, Gray, Cat. Carniv. &c. p. 317.

R. Keitloa, Smith, Ill. Zool. S. Africa, t. 1.

R. bicornis, Camper, Act. Petrop. 1777, ii. p. 193, t. iii., iv., v. (copied Cuv. Oss. Foss. ii. t. iv. f. 5).

a. Animal, stuffed; adult.

Rhinoceros Keitloa, A. Smith, Ill. Zool. S. Africa, t.

S. Africa. Verreaux.

1520 a. Skeleton; female.

Abyssinia. Jesse.

1520 d. Front 17 in., and back horn 11 in.; half-grown. S. Africa. 52, 12, 15, 12.

1520 b. Front horn,  $23\frac{1}{2}$  in.; adult. S. Africa.

1520 e. Back horn, 23 in. Perhaps belonging to "b." S. Africa.

1520 f. Back horn, 12 in. S. Africa.

1520 h. Front horn very slender, compressed at the tip, 42 in. S. Africa.

1520 i. Front horn rather slender, very compressed at the end, 40 in. S. Africa. (125 a.)

1365 b. Front horn, 17 in.; back, 5 in. Front horn conical, attenuated, with a circular outline. Hinder horn short, compressed, flattened on the sides.

R. bicornis, b. Gerrard, Cat. of Bones, p. 282.

S. Africa.

90 b. Hinder horn,  $7\frac{3}{4}$  in.

4. CERATOTHERIUM, Gray, Cat. Carniv. &c. p. 319.

1. CERATOTHERIUM SIMUM, Gray, Cat. Carniv. &c. p. 319.

1003 a. Animal, stuffed; half-grown.
Rhinoceros simus, A. Smith, Ill. Zool. S. Africa.
S. Africa. Verreaux.

1003 a. Skull; adult.

1003 b. Skull; adult.

1003 c. Skull; young.

S. Africa.

1003 d. Skull; young. S. Africa.

1167 b. Front horn, 57 in., very slender and nearly straight. Rhinaster Oswellii, b, Gerrard, Cat. of Bones, p. 283. S. Africa.

1003 e. Front horn elongate, 43 in. S. Africa?

1003 f. Front horn, 36 in.; slender and circular at base. S. Africa? (125 b).

1003 g. Front horn, 32 in.; rather compressed, thick. S. Africa? (125 f).

1003 h. Front horn; thick. S. Africa? (125 d).

2. CERATOTHERIUM OSWELLII, Gray, Cat. Carniv. &c. p. 322.

1167 a. Front and back horns. Front horn, 29 in., nearly straight; back horn compressed.

Rhinoceros Oswellii, Gray, P. Z. S. 1854, p. 46, fig. (horns). Andersson, Lake N'Gami, p. 388, fig.

S. Africa, Lake N'Gami. Presented by Col. Thomas Steele.

1167 c. Front horn, 37 in.; nearly straight. S. Africa.

1167 d. Front horn, 32 in.; curved back below and forwards at the tip. Parsons, Phil. Trans. 1742—43, tab. 3, fig. 6 (horn).
S. Africa.
Sir Hans Sloane's collection.

# Sub-Order 5. SETIFERA, Gray, Cat. Carniv. &c. p. 325. Section 1. HOMODONTINA.

Premolars permanent, forming with the molars a continuous series.

Molars solid, tubercular.

### Division 1. PSEUDOPERISSODACTYLA.

Hinder feet with three toes. The short external lateral toes of the hind feet wanting. America or Western Hemisphere. Gray, Ann. & Mag. Nat. Hist. 1873.

Family 1. DICOTYLIDÆ, Gray, Cat. Carniv. &c. p. 350. Ann. & Mag. Nat. Hist. 1873.

Cutting-teeth  $\frac{2-2}{3-3}$  Premolars  $\frac{3-3}{3-3}$  Upper canines bent down; front upper margin of the sheath of the upper teeth more or less thickened in the margin.

### 1. NOTOPHORUS, Gray, Cat. Carniv. &c. p. 350.

Groove of vessel over eye curved to the margin, and then bent back over the canines and continued to the end of the nose. The very young animal pale brown, with a paler collar.

- 1. Notophorus torquatus, Gray, Cat. Carniv. &c. p. 351. Sus torquatus, Blainv. Ost. t. iii. (skeleton).
- 55 a. Animal, stuffed; adult; bad condition. Brazils.
- 55 b. Animal, stuffed. Brazils. 41, 12, 20, 1.

Presented by A. Cross, Esq.

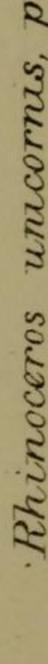
55 e. Animal, stuffed; half-grown; blackish. Brazils. 53, 8, 29, 23.

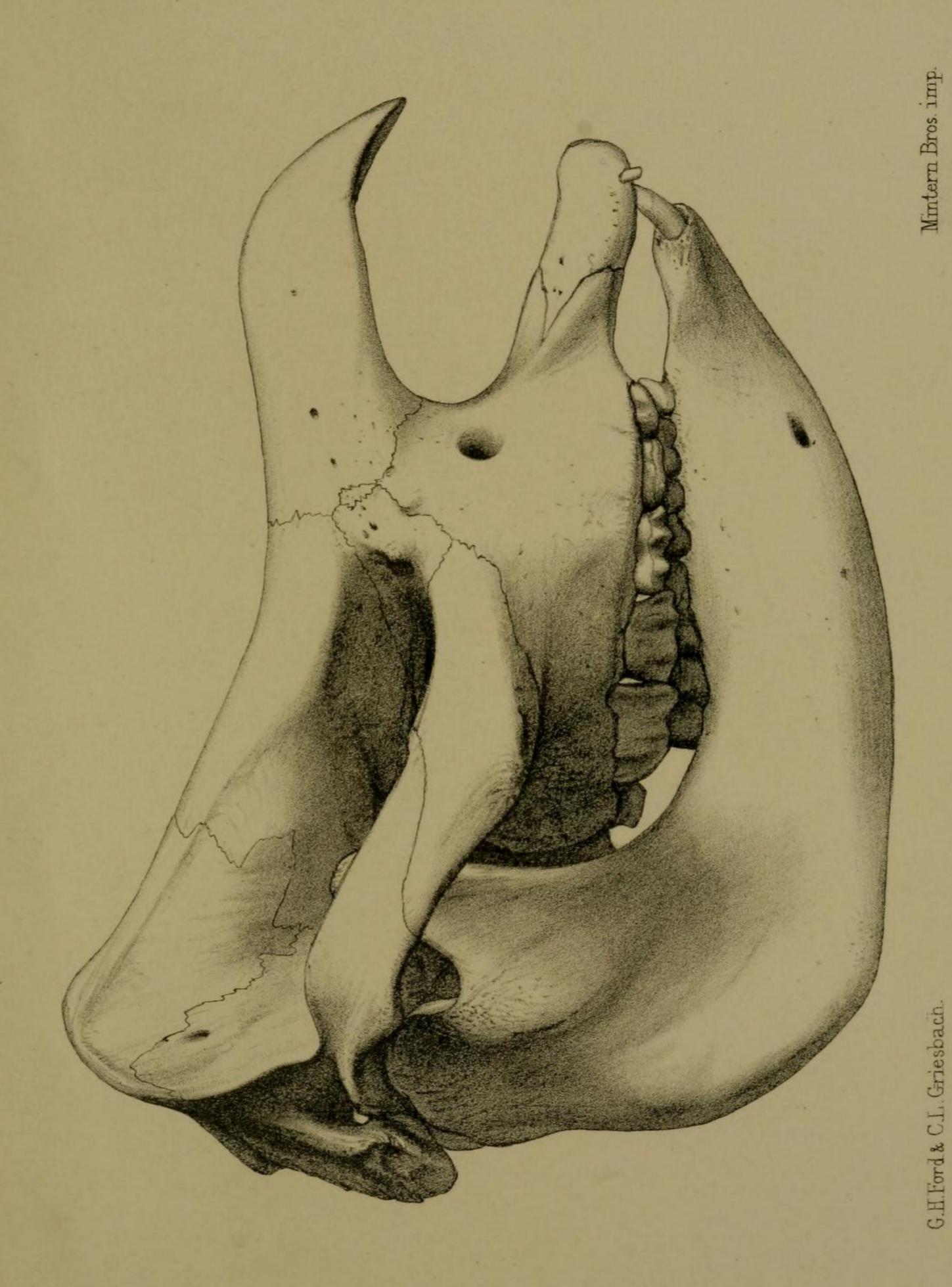
55 f. Animal, stuffed; half-grown; blackish. Brazils. 44, 7, 4, 6.

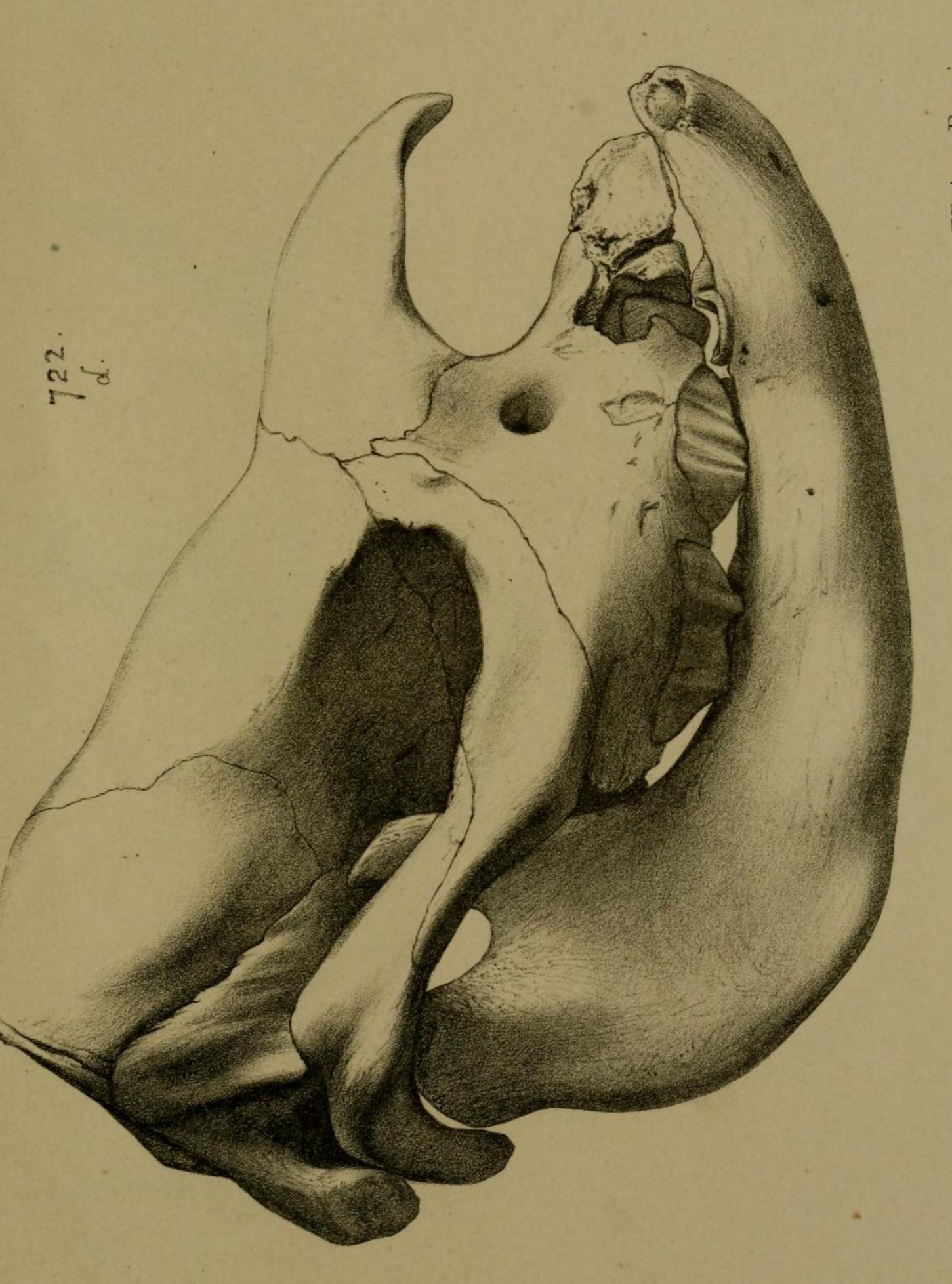
55 d. Animal, stuffed; very young; pale brown, with interspersed black hairs, more abundant on the middle of the back. Collar and under side of neck and body pale.

"Sus de Mozambique." Verreaux.

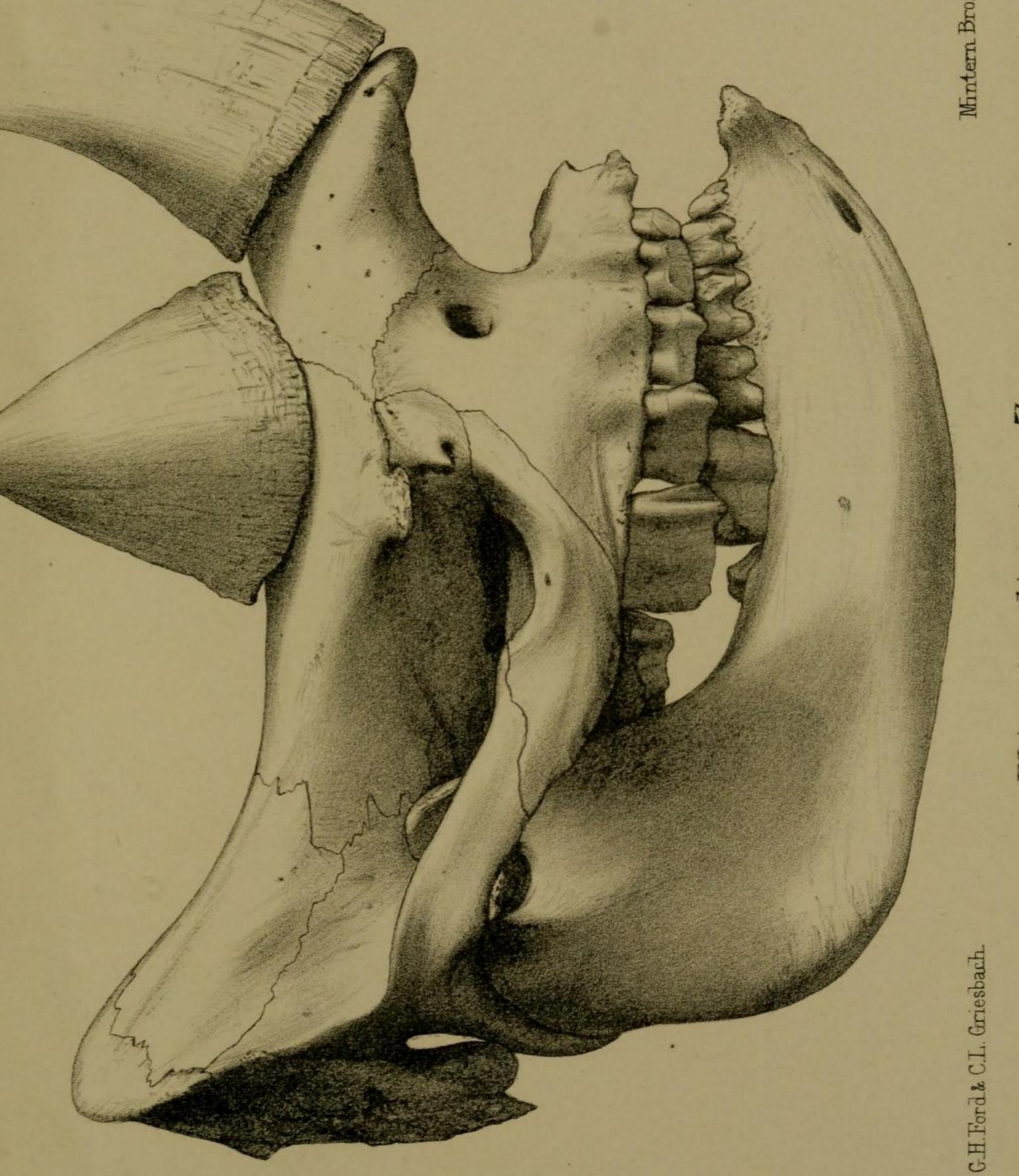
Brazils. 60, 2, 11, 15.



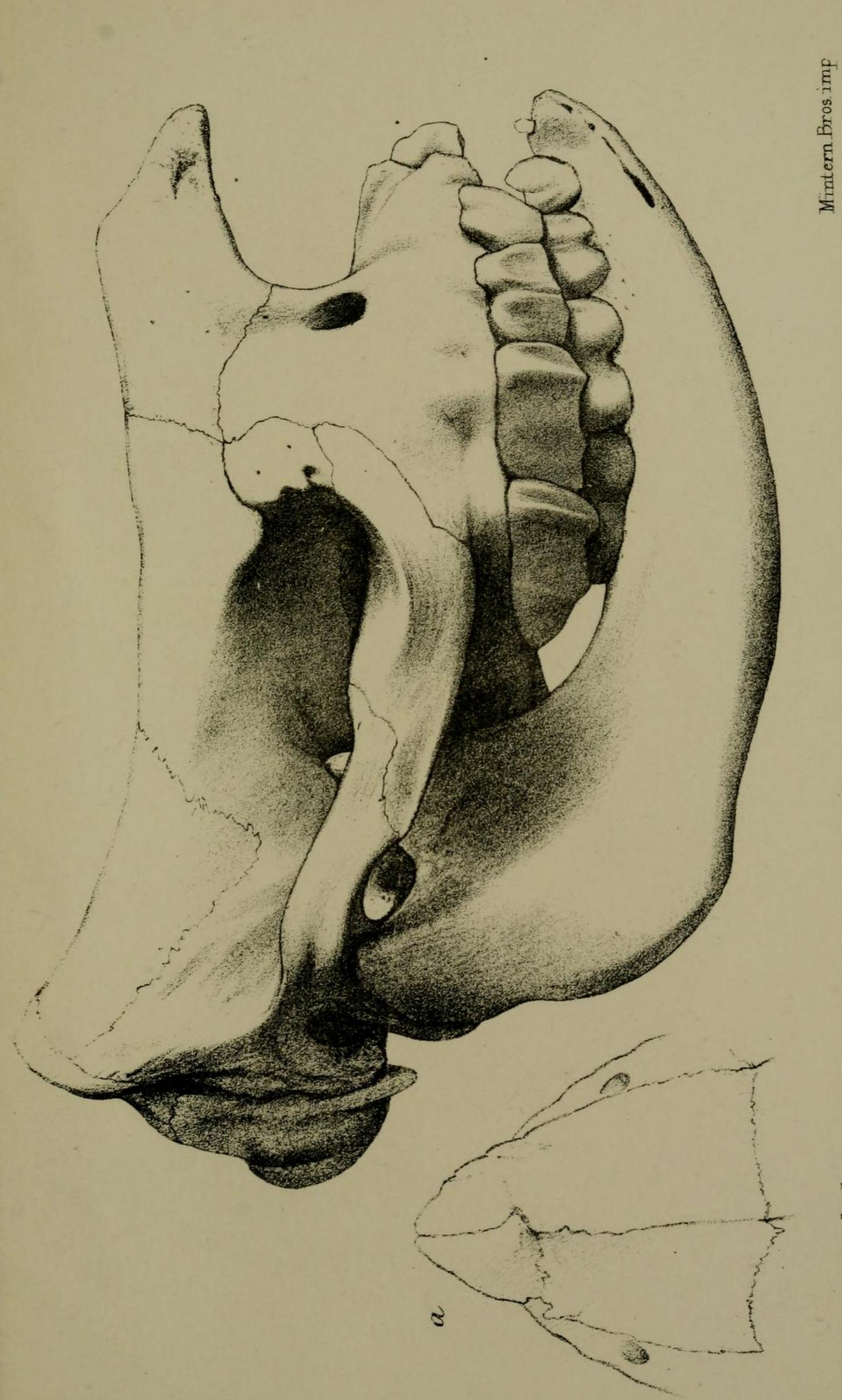




Mintern Bros.imp

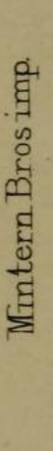


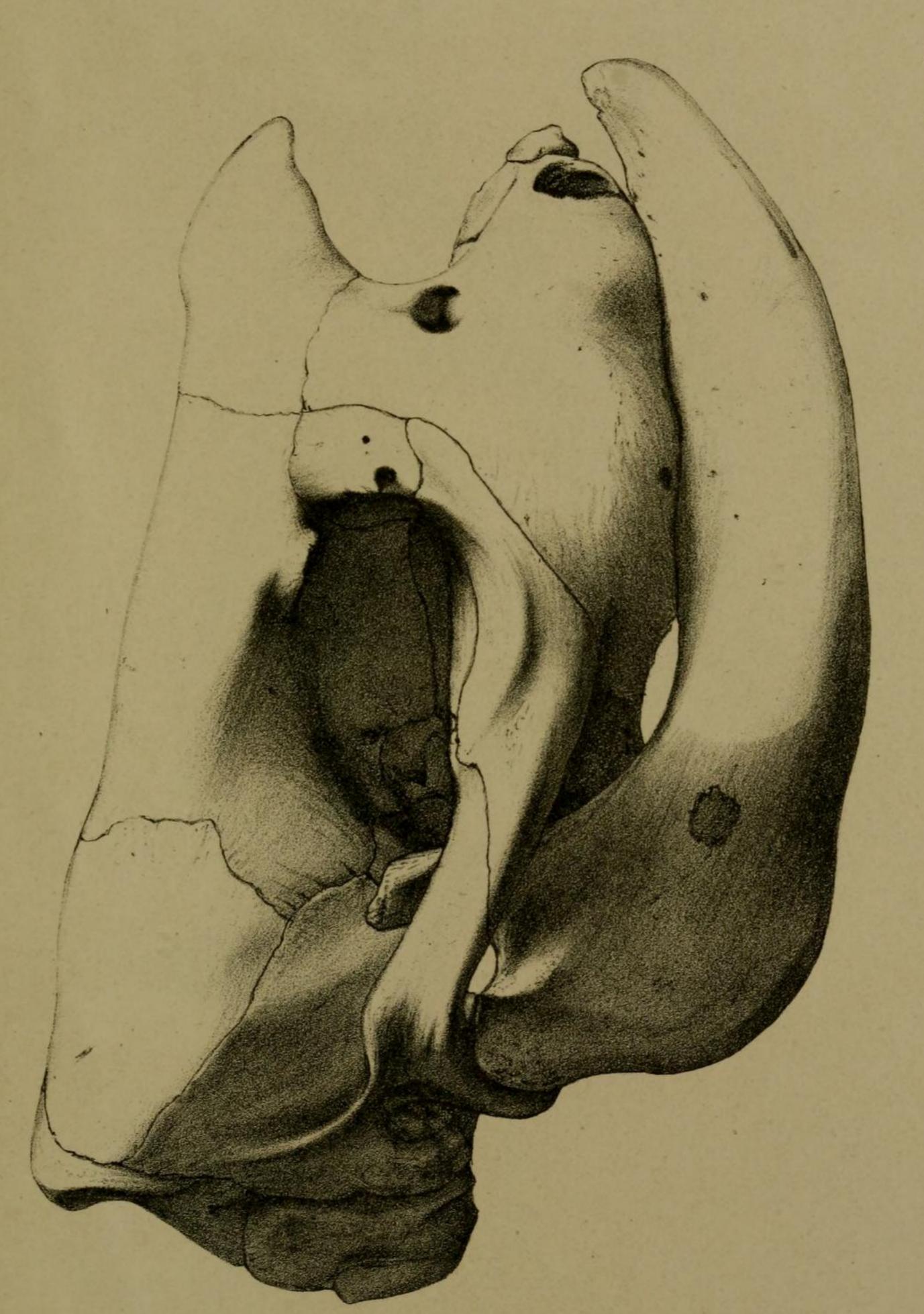
Rhinaster bicornis, p. 51.



Phinaster bicornis, p. 5!. Abyssinia.

G.H. Ford. & C.L. Griesbach.

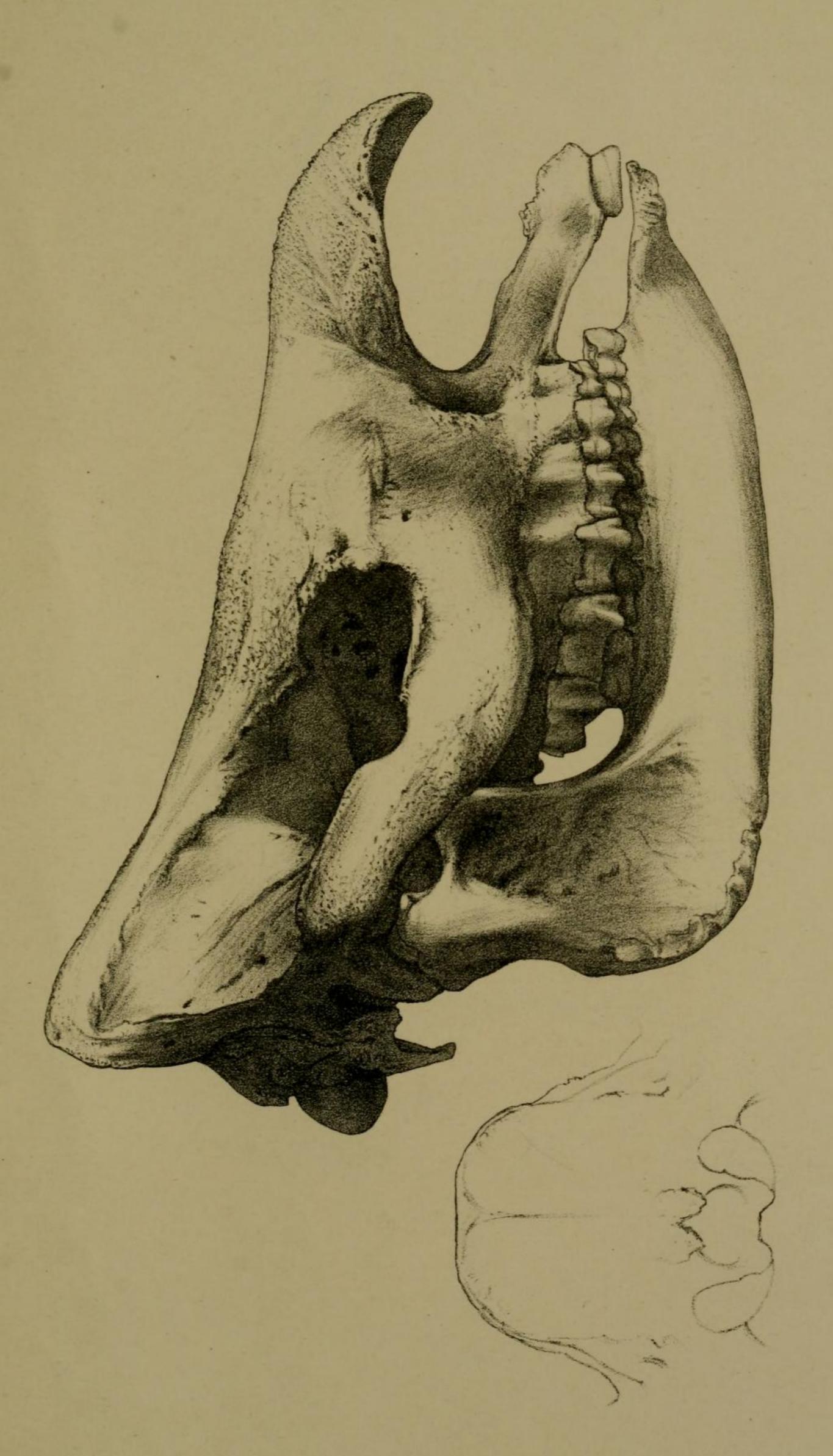




G.H. Ford & C.L. Griesbach.

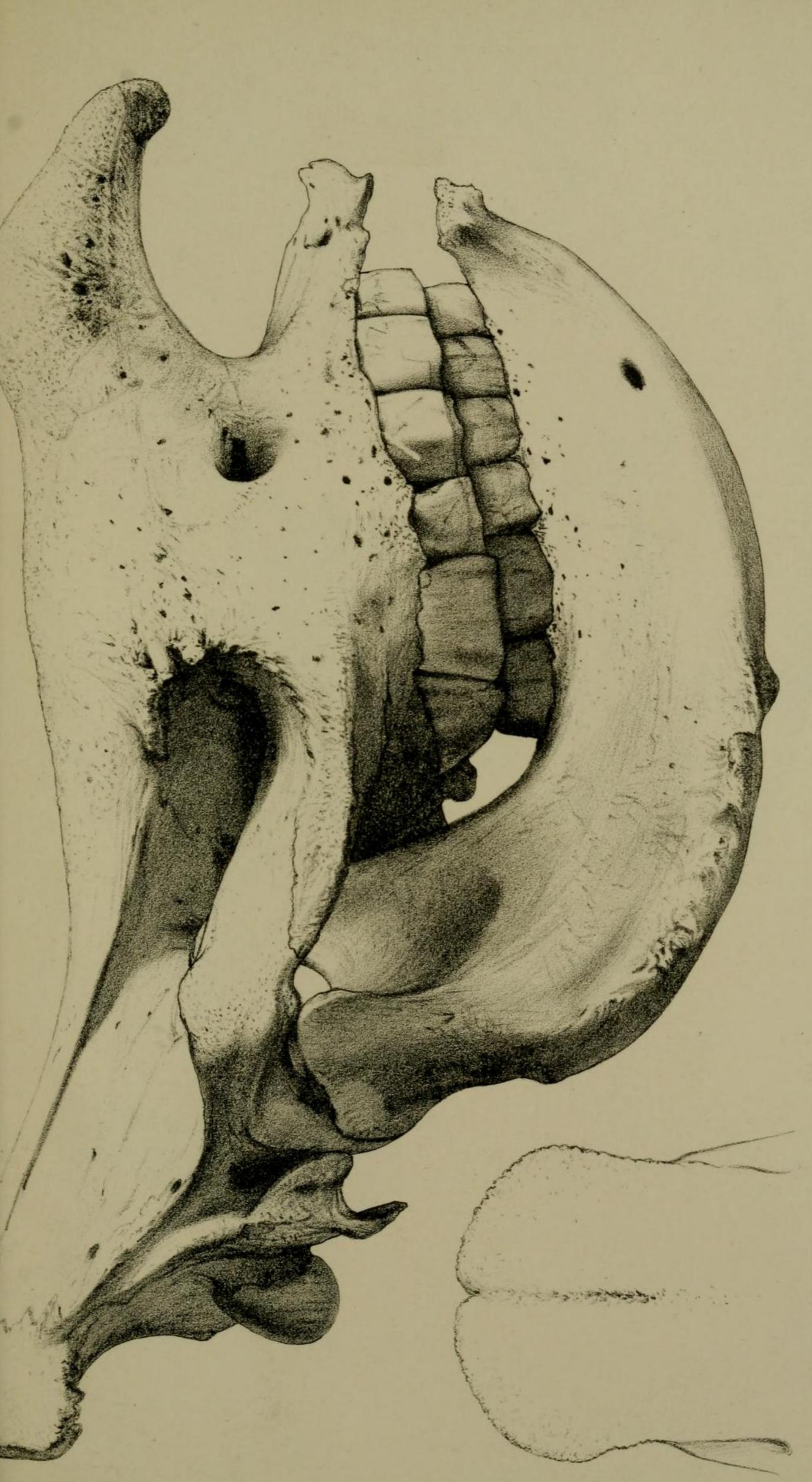
bicornis, p. 51

Mintern Bros. mp



GH. Ford & C.L. Griesbach.

Mintern Bros. imp



Ceratotherium simum, p. 52.

G.H. Forde C.E. Grie sbach.

ratotherium simum, p. 52, young.