DESCRIPTION OF PLATE XXII.

Rhinoceros Etruscus.

Figs. 1 and 2. Represent in profile and plan the greater part of the horizontal ramus of the left side of the lower jaw, with the three true molars *in situ*, and the empty alveoli of the three last premolars. The specimen is in the collection of the Rev. John Gunn, of Irstead, and was found in the Forest-bed of the Norfolk Coast. The drawings are about two-fifths ($\frac{2}{2\cdot3}$) of the natural size (the length of crowns of three teeth at inner edges being 5·1 inches), and have been executed by Mr. Dinkel from the original specimen which was forwarded to London for the purpose by Mr. Gunn. (See page 345.)

Fig. 3. Represents a specimen also from the Forest-bed of the Norfolk Coast, formerly in the collection of the Rev. James Layton, and now in the British Museum (Cat. No. 33,326). It is a fragment of the left ramus of the lower jaw, containing the last premolar, the first two true molars, and the anterior fang of the last molar. The drawing is about two-fifths of the natural size, and has been executed by Mr. Dinkel from the original specimen. (See page 345.)

Fig. 4. Is a fragment in the British Museum (Cat. No. 28,802), from the Val d'Arno; showing the alveolar portion of the left ramus of the lower jaw, containing the last premolar and the three true molars *in situ*. The drawing is about one-third of the natural size, and has been executed by Mr. Dinkel from the original specimen.

Fig. 5. Represents the first true molar, upper jaw, left side. The figure is three-fourths of the natural size, and has been copied from a drawing made for Dr. Falconer, and on which he had written: '*Rhinoceros Etruscus*—t. m. 1. l. Happisburgh. The Rev. J. Gunn. Coll. Yarmouth Museum.'

Fig. 1.

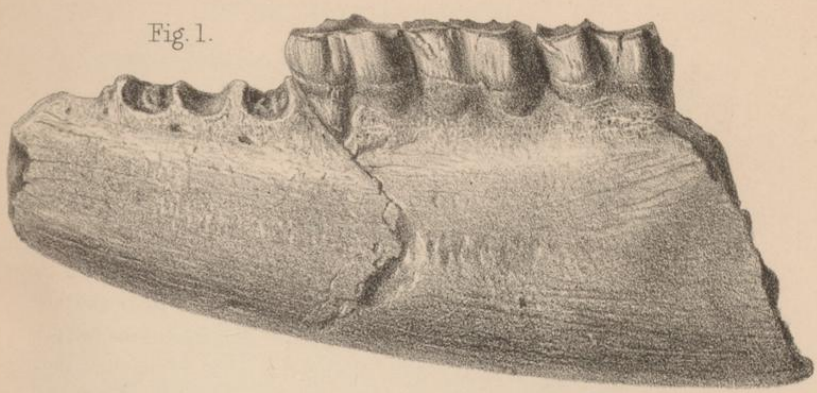


Fig. 2.

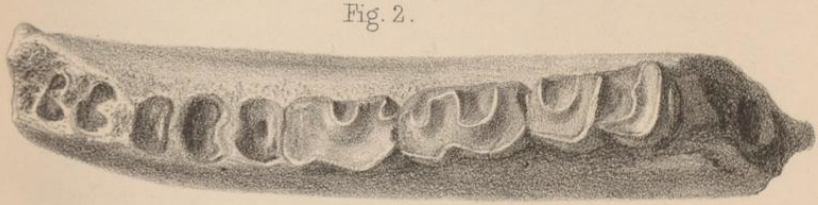


Fig. 3.

Fig. 4.

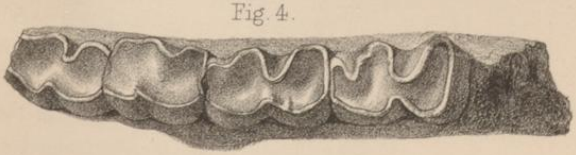


Fig. 5.

J. Dinkel del. et lith.

Rhinoceros Etruscus.
(1, 2, 3, 5, Norfolk. 4. Val d'Arno)

W. West imp.

APPENDIX TO MEMOIR ON RHINOCEROS HEMITŒCHUS.

Extracts from Dr. Falconer's Note-books.

I.—Note on Lower Jaw, Right Side, of Rhinoceros Hemitœchus, from Bacon's Hole, in Swansea Museum. (See p. 340.)

27th April, 1858.

Compared the original of Spence Bate's drawing (Plate XXI. fig. 1) with Mr. Gunn's specimen from the Norfolk coast. They are very different. Spence Bate's drawing is not in exact profile. In the original, the collateral last premolars attain nearly the same height, and are worn exactly as a single tooth, the outer one a little lower. They are not *milk* and true premolars, but *double* premolars of the second set. The contour is not well shown in the drawing, particularly of the anterior end, the jaw not having been placed vertically, but sloped outwards, to show the crowns. The enamel of the teeth is smooth. There are two very large mentary foramina, the one under the front of antepenultimate premolar, the other under the back of penultimate. The front one round and very large.

The most remarkable difference is in the contour line of the lower jaw, which is curved in the arc of a circle very much as in the African two-horned rhinoceros; whereas, Gunn's specimen (Pl. XXII. fig. 1) is nearly wedge-shaped, without any considerable curvature. It is certainly not *R. leptorhinus*. Gunn's specimen is also thicker; the inner longitudinal channel more marked, and the posterior one also; the teeth are shorter and thicker in Gunn's (relatively). The antepenultimate true molar in Mr. Gunn's specimen is also very much thicker in proportion to the length.

	Gunn's	Swansea
Extreme length of fragment at base	11·4	12·5
Length of three last teeth	5·3	6·0
Length of last worn crown	1·75	1·8
Ditto near base	1·8	2·18
Width of ditto behind	1·13	1·3
Length of penultimate	1·8	1·95
Width of ditto, behind	1·15	1·25
Ditto, front, base of crown	1·2	1·
Length of antepenultimate	1·55	1·7
Width of ditto behind	1·15	1·2
Width of ditto in front	1·1	1·08
Height of jaw behind last tooth, inside	3·9	4·
Ditto in front of antepenultimate	3·35	3·5
Extreme thickness under last tooth	2·3	2·25
Length of space occupied by five last teeth	8·15	8·8

II.—Note on Molars of Rhinoceros Hemitœchus, from Durdham Down, in Bristol Museum.

4th May, 1858.

But the most interesting of all are a set of upper molar teeth of Rhinoceros, identical with the Rhinoceros of Bacon Hole! Of these, four belong to the left side and fit in pairs, of which two are worn

premolars, and the two others the antepenultimate and penultimate true molars.

The antepenultimate true molar is worn very low down, and the anterior barrel is broken across diagonally from the outer anterior angle inwards, so that it cannot be fitted to the premolar preceding it. The posterior notched valley is ground down into an isolated pit, with a shelving inner wall (not vertical, as in *Rhin. tichorhinus*). The transverse valley terminates in a very round sweep, without any combing processes thrown into it. The enamel edge is thin, and the surface of enamel very smooth, with an enormous coat of cement.

The penultimate agrees exactly in measurement with the Swansea tooth, but it is more worn. The posterior valley is spacious and angular, and not yet isolated; the transverse valley is divided into two divisions by a bold projecting curved crochet, given off from the posterior barrel; the posterior division of the valley is roundish lengthwise, but no combing processes; has a distinct basal tubercle.

The coat of cement is enormous, and very much like that of the Swansea specimen.

The two other teeth which fit are also of the left side; and probably the penultimate premolar and antepenultimate, both well worn. The posterior tooth has the posterior valley reduced to an oval fossette, isolated. The transverse valley is also isolated, with three comb-shaped processes from the posterior barrel, but *none* from the outer wall.

Dimensions.—Length, along outer edge, 1·7 in. Length of inner ditto, 1·5 in. Width in front, 2·05 in.; width behind, 1·65 in., approximative.

These agree very closely with the Swansea measurements.

The antepenultimate premolar is still more worn; the posterior fossette smaller, less oblong (rounder), and more isolated; the transverse valley has three processes thrown into it from the posterior barrel, but none on the outer side. The tooth has distinctly two barrels, and is too large for the antepenultimate.

Dimensions.—Length, outer side, 1·5 in. Length, inner side, 1·35 in. Width of crown in front, 1·9 in. Width of crown behind, 1·6 in.

III.—Memorandum of Skull of Rhinoceros Hemitœchus, in the Collection of Major Wood; from Minchin Hole. (See p. 323.)

The specimen is a superb fragment, comprising the whole of the cerebral part of the skull, but vertically broken through about two inches in front of the posterior termination of the temporal fossa. It is clear from the recent condition of the fracture that the facial part of the skull was broken and destroyed during extrication. The following parts are present. The sphenoidal region quite entire, also the two condyles with the foramen, and nearly the whole of the occiput up to the niche of the occipital crest; the lateral margins quite entire. The two auditory foramina quite entire, also the left mastoid, but the styloidal process on both sides broken off. The zygomatic arches both broken, but the base present on the left side; and on both sides, but more especially on the right, the greater part of the articulating surface for the lower jaw is present, broad, and somewhat of a cordate pattern, with the sinus directed backwards. (See Plates XXIII. and XXIV.)

IV.—Comparison of the Gower Cave Rhinoceros, with Specimens in British Museum.

30th September, 1858.

Spent a long day with Mr. Waterhouse upon the Fossil Rhinoceros. Took with me all Major Wood's specimens from Minchin Hole and the Swansea Museum—specimens of upper and lower jaw, and the Minchin skull. Compared the Minchin skull with the two crania, the Clacton one figured by Owen and the other from Northampton, and found them to agree exactly in the form of the occiput, little amount of backward extension and vaulting of occipital crest, and in the form of the occipital plane, *i.e.* contracting upwards, and not a parallelogram, as in *Rh. tichorhinus*. Thus inferred that the *Rh. leptorhinus* of Owen's cranial figures is the same as our *Rh. priscus*[1] (*R. hemitœchus*) of the Gower Caves. (See Plates XXIII. and XXIV.)

V.—Note on the Northampton and Clacton Skulls of Rhinoceros Hemitœchus.

1*st October*, 1858.

The Northampton Rhinoceros skull in the British Museum, No. 2, *R. leptorhinus*, Owen, and labelled 20,013, is entered in the book as having been purchased in 1846 from Miss Baker of Northampton, sister of Baker the historian. The exact locality is not mentioned, but other specimens of the same lot are referred to Blisworth, Kilsby Tunnel, Bugbrook, Northampton, &c., all in Northamptonshire. This specimen comprises the occiput and condyles, quite entire, and the whole of the frontal on to the naso-frontal suture, which is also quite entire, as are also the base of the right zygoma, the right articulating surface, and the right styliform process; the left zygoma is less perfect. The animal was very young, although large as compared with that from Minchin. There is no evidence as to the age of Brown's Clacton skull (B. M. 132, 133); there is no sign of any of the sutures being open; but the upper part of the occiput is not broader than in the young Northampton specimen. Of the three molars which Brown gave with the skull, the last molar is implanted in the maxillary, with part of the palatine bone present. The tooth is of the left side, and is in the middle stage of wear, and is precisely like the pair of Minchin molars. If this fragment belongs to the skull it would prove the animal to have been adult. The antero-post. length inside of the tooth is 2·15 in. in Clacton, and 2·1 in. in Minchin. Like the Minchin specimen, the Clacton last molar has a basal lobe behind and an intercolumnar tubercle, but both are wrapt up in an enormous mass of cement. The complexity of pattern is equally great in both. In the Clacton skull there is no distinct mark of a frontal horn. The base is not quite smooth, but it is not rugous enough. The frontal of the Northampton skull is absolutely smooth, but the animal was young. (See Plates XV., XXIII., and XXIV.)

Dimensions of Clacton Skull.—Length from tip of nasals to summit of occipital crest, measured along the curve, about 29· in. Length from tip of nasals to summit of occipital crest, stretched, 28·5 in. Width of inter-temporal plateau of sinciput where narrow, 1·4 in. Length of nasal sinus (septum), 9·5 in. Length of nasal sinus (septum) in skull of *R. tichorhinus*, 7· in. Length of base of partial septum, about 5·0 in. Length of unossified part, about 4·in. Width of nasals in a line across with base of sinus, 5·8 in. Width of nasals at commencement of septum (posterior end), 4·7 in. Length from anterior side of styliform to nasal sinus, 13·0 in.

[1] *Rh. priscus* was the name first given by Dr. Falconer to *R. hemitœchus*.—[Ed.]

Comparison of Minchin Skull with young Northampton Skull.

	Minchin Skull	Young Northampton
Across the condyles, outer angles . . .	6·	5·3
Length, lower surface, left condyle . . .	2·65	
Depth from lower edge, right condyle, to occipital crest, right side	8·5	7·8
Width of occipital plane near apex . . .	6·	
Width behind orbitary (auditory ?) foramen, and a little above	9·3	8·4

VI.—Note on Young Lower Jaws of Rhinoceros Hemitœchus.

College of Surgeons, 15th October, 1858.

Examined a very beautiful young lower jaw, left ramus; the greater part of symphysis present with whole of horizontal ramus; the posterior angle wanting, but a part of the ascending ramus present; what there is of it reclines, but of the posterior lower part the whole is restored in plaster. What remains of the ramus agrees with the next specimen. It is from Minchin Hole, and has two foramina near symphysis, like the other specimens. It contains the deciduous dentition quite perfect, and all emerged, namely, 1st, 2nd, 3rd, and 4th milk molars; all more or less worn, except the first, which is perfectly entire. In form it resembles exceedingly the figure in Owen's 'British Fossil Mammalia,' Cuts 128 and 137 of the young jaw, from Lawford, confirming the impression that the latter is also a milk specimen. Strange to say, the first tooth is unworn. (See Pl. XXV. fig. 1.)

Dimensions.—Length of the four m.m. 5·2 in.; of 1 m.m., 0·8 in.; of 2 m.m., 1·1 in.; of 3 m.m., 1·6 in.; of 4 m.m., 1·7 in.

Another specimen, also from Minchin Hole, is the right ramus of the same animal. It is less perfect, and contains the 2nd, 3rd, and 4th milk molars, and the alveolus of a 1st,—a single pit of perhaps two confluent fangs. The symphysis has been partly restored, and does not fit to the left ramus.

Further, compared the first milk molar of the left jaw with Owen's figure (Cut 137, p. 363); the latter is of the inside apparently; they agree to the minutest particulars. Can the real Rugby specimen really be of *Rhin. priscus*? (*R. hemitœchus*. See *antea*, p. 348.)

Compared the third specimen of lower jaw from Minchin; a little older. It is superb; comprising the whole of the horizontal ramus and symphysis, with the ascending ramus and the greater part of the condyle; surface eroded, and the coronoid broken off obliquely down in a line with sigmoid notch; the ascending ramus reclines exactly as in *R. tichorhinus*, but the contour of the lower jaw is decidedly different. There is no abrupt step of ascent, as *R. tichorhinus*. There is more convexity below, but the curve is gradual in front, as in *R. bicornis*, the ramus of which also reclines much.

VII.—Notes on Milk Dentition of R. Hemitœchus.

College of Surgeons, August 6, 1859.

Examined two milk molars (second and third), fitting together, of *R. hemitœchus*, from Colonel Wood (Minchin Hole). They are very fine, though well worn. There is also a detached shell in germ of the second milk molar, right side, quite intact, and with the enamel only

DESCRIPTION OF PLATE XXIII.

Rhinoceros hemitœchus.

Figs. 1 and 2. Represent the basal view of two crania, the one found in 'Minchin Hole,' the other from Northampton, showing their similarity. The figures are one-fourth of the natural size. (See pages 351 & 509.)

Fig. 1. Represents the basal view of a portion of cranium found in 'Minchin Hole,' taken from a drawing executed for Dr. Falconer by Mr. Dinkel.

Fig. 2. Represents the basal view of the 'Northampton Skull' in the British Museum (Cat. No. 20,013), also taken from a drawing executed for Dr. Falconer by Mr. Dinkel.

Fig. 1.

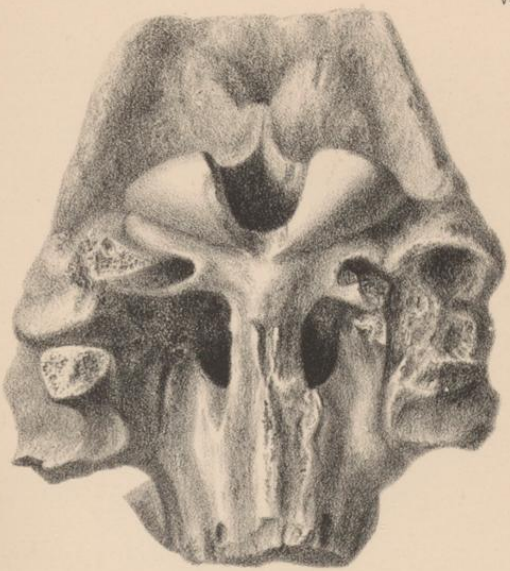
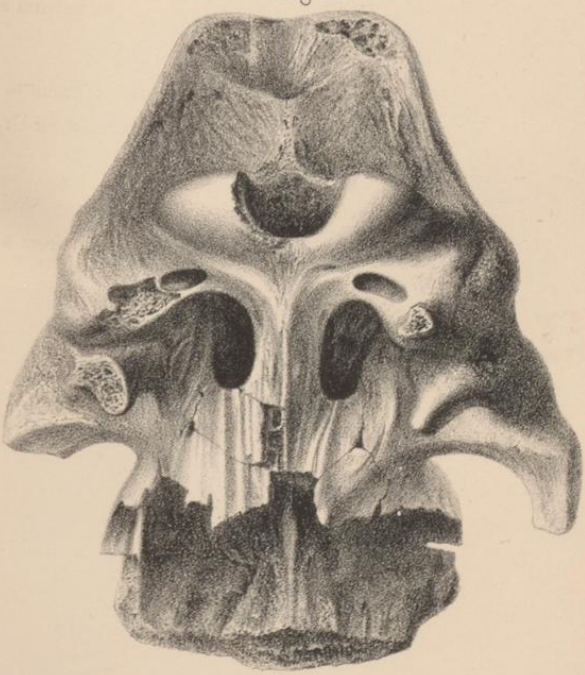


Fig. 2.



J. Dinkel del. et lith.

Rhinoceros hemitœchus.
1. Minchin Hole. 2. Northampton.

W. West imp.

DESCRIPTION OF PLATE XXIV.

Rhinoceros hemitœchus.

The figures in this Plate have been reproduced from drawings by Mr. Dinkel of the original specimens. (See pages 351 & 509.)

Fig. 1. Is a lateral view of the 'Northampton Skull' in the British Museum (Cat. No. 20,013), right side.

Fig. 2. Is a lateral view of skull found in 'Minchin Hole,' left side.

Fig. 3. Is a view of upper surface of skull found in 'Minchin Hole.'

Fig. 1.

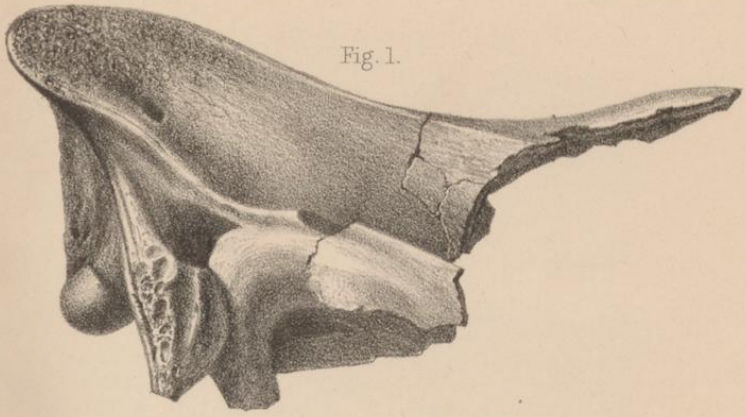


Fig. 2.

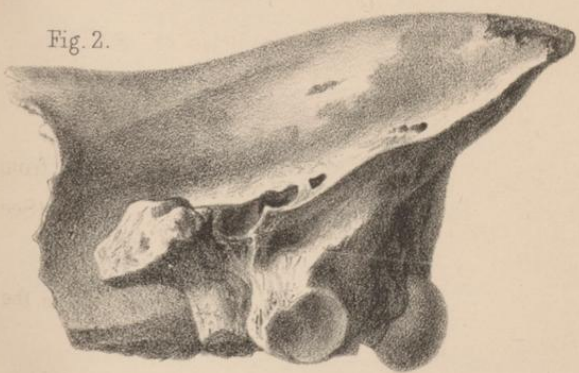
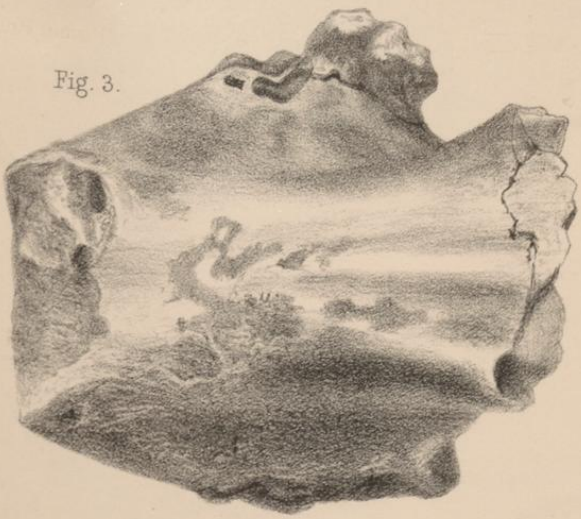


Fig. 3.



J. Dinkel del. et lith.

Rhinoceros hemitoechus.
1. Northampton. 2, 3. Minchin Hole.

W. West. imp.

ossified. A third milk molar in wear is very like Cesell's tooth from Rome. (See Pl. XXV. figs. 2, 3, and 4.)

Examined also a right maxillary with milk dentition. (See Pl. XXI. figs. 2 and 3.) The first, second, and third deciduous teeth are beautifully seen in place. The teeth are worn, and part of the alveolus of the fourth milk tooth is also seen. The second tooth has three fossettes besides the entrance of the valley. The specimen is exquisitely fine. There is no matrix on it, but it is probably from Minchin Hole.

Length of three teeth, 3·8 in. Length of 3rd milk molar, outer side, 1·7 in. Greatest width of ditto in front, at base, 1·6 in. Length of 2nd milk molar, 1·4 in. Length of 1st milk molar, 0·9 in.

[References to other bones of the skeleton of the *Rhinoceros hemitœchus* from the Gower Caves are to be found in Dr. Falconer's Note-books. The femur was compared with the femur of *Rhinoceros tichorhinus* of Mr. Lucas from Port Inon, referred to by Dr. Buckland. It was found to differ remarkably ' in its much shorter proportions, and in the very bold curve intercepted between the third trochanter and the outer condyle. The bone itself is absolutely much shorter and smaller, and the species must have stood on proportionally shorter legs.' The following reference to a tibia is also important:—' The bone is short and squat, as compared with the corresponding bone of *Rhinoceros tichorhinus*, and the fibula is ossified with the tibia along a much greater extent of surface. This specimen is of great importance in giving the characters of the species.' The bones of the cranium are also referred to in the author's essay on ' the Ossiferous Caves of Gower.' In a list of Rhinoceros remains from Bacon Hole, in the Swansea Museum, mention is made of the lower half of right humerus, upper half of radius with articulating surface of ulna, pelvis, cervical and dorsal vertebræ, a thick and short metatarsal bone, &c.—Ed.]

VIII.—Note on Rhinoceros Hemitœchus from Folkestone.

27th September, 1858.

In Mr. Mackie's collection of fossils from excavations made at Folkestone there is a specimen (labelled ' Battery ') of the last upper molar, left side, of *R. hemitœchus*. The shell is nearly entire, but the fangs are wanting. The grinding surface is a little damaged by minute chips, but there is no sign of wear. The crown, however, is very perfect, and presents the characters of the species well marked—namely, the last barrel compressed, and emitting from the middle forwards a large crochet plate. The valleys have a thick coat of cement, but the outside is denuded. This is an important specimen, and ought to be figured. It entirely agrees with Colonel Wood's specimens from Bacon Hole Cave.

IX.—Note on Rhinoceros Hemitœchus from Oreston.

College of Surgeons, 10*th August*, 1859.

To-day compared the Rhinoceros teeth from Oreston, described by Whidbey in the ' Phil. Trans.' for 1817, -21, and -23, and referred to by Owen in Brit. Fos. Mam. as belonging to *R. tichorhinus*. There are only three upper molars, Nos. 877, 878, and 879. The first is the right upper antepenultimate, and the second the left do. of probably the

same individual. Both are broken, but conversely, *i.e.* the anterior end of 877 and the posterior of 878, so that jointly they give the complete form of one tooth. They agree in both showing the crochet of the posterior barrel stretching across to join the anterior barrel, as in Cuvier's drawing.[1] They are quite unlike *R. tichorhinus*, and I believe that they agree with *R. hemitœchus*.

X.—Note on Rhinoceros Hemitœchus from Crawley Rocks.

Oxford, 11th August, 1863.

The Crawley Rocks Rhinoceros tooth in the Oxford Museum is a very fine penultimate or last premolar of *R. hemitœchus*, upper jaw, right side, with crochet in two combing plates. Length of crown outside, 1·74 in.; do., inner side, 1·25 in. The tooth is beautifully marked, and ought to be figured. The valley is very deep. In the Kirkdale series, besides the large worn molar there are two premolars, both germs, the one exactly corresponding in size and form with the Crawley Rock premolar, but intact, and has only one developed combing plate; the second is also an intact germ of the antepenultimate premolar, left side, of the same species; the entrance of the valley here also being vertical. Both these specimens profess to be from Kirkdale, but they differ in mineral appearance from the other. They bear no label, and they agree in condition exactly with the Crawley Rocks specimen. Can there be a mistake? Are they from Gower?

Oxford Museum, 5th July, 1860.

Saw one premolar of *Rhinoceros hemitœchus*, well marked, in a drawer, and labelled 'Crawley Rocks.'

II. NOTES ON RHINOCEROS ETRUSCUS. (Falc.)

(*Extracted from Dr. Falconer's Note-books.*)

I.—Note on Rhinoceros Etruscus in Oxford Museum.[2]

6th May, 1858.

In Buckland's collection there is a left upper maxillary and half palate of a Rhinoceros labelled '*Rhinoceros leptorhinus* from Venice,' in a hard ferruginous matrix of gritty sandstone. It contains four molars *in situ*, namely, p.m. 3 and 4, and t.m. 1 and 2, and also the broken-off discs of p.m. 2 and t.m. 3. The two premolars are of the second set and half worn. The first true molar is much worn; the penultimate is half worn. The enamel is very smooth, and the teeth are smaller than in the Kirkdale specimen. There is a considerable basal bourrelet at the anterior end of the last premolar and of the penultimate true molar. There are no combing processes whatever projecting into the transverse valley, and no appearance of cement. It reminds me of Ansted's specimens from Malaga. (See p. 360.) The outer surface of the two true molars from the termination of the valley is gone, but it shows the transverse valley well. The first true molar has its anterior outer corner broken, and the third and fourth p.m. have their

[1] See *antea*, p. 337.—[Ed.]

[2] See p. 348, *note*.—[Ed.]

DESCRIPTION OF PLATE XXV.

Rhinoceros hemitœchus and Rhinoceros Etruscus.

Fig. 1. Outer surface of left ramus of young lower jaw of *R. hemitœchus*, with greater part of symphysis and whole of horizontal ramus, and containing the first four milk molars. The figure is one-half of the natural size, and has been copied from a drawing of the original specimen executed for Dr. Falconer by Mr. Dinkel. The specimen is from 'Minchin Hole,' and is described at page 352.

Figs. 2, 3, and 4. Represent upper milk molars of *R. hemitœchus*, from 'Minchin Hole,' of the natural size, copied from drawings of the original specimens executed for Dr. Falconer by Mr. Dinkel. (See page 352.) Fig. 2 shows the second and third milk molars. Fig. 3 is a germ of the second milk molar. Fig. 4 is a detached third milk molar.

Figs. 5, 6, and 7. Represent three upper molars of *R. Etruscus*. The drawings have been made by Mr. Dinkel from three casts presented to Dr. Falconer by Professor Meneghini, of Pisa, and now in the British Museum. They are of the natural size. Fig. 5 shows the crown of the last (t. m. 3) upper molar of the left side. Fig. 6 is the last upper premolar (p. m. 4), right side. Fig. 7 is the penultimate upper molar (t. m. 2), right side, mutilated at posterior outer angle.

Fig. 1.

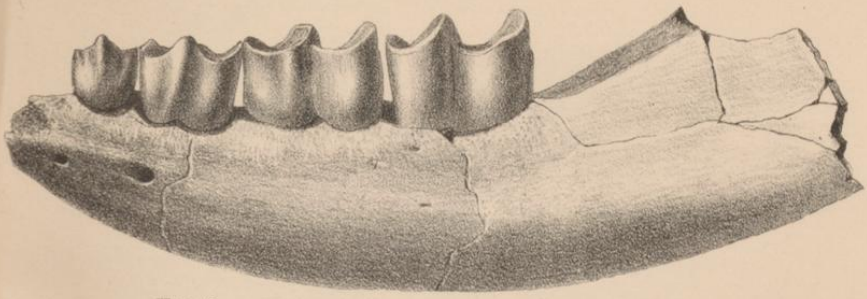


Fig. 2.

Fig. 3.

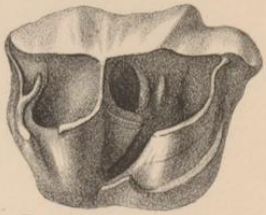


Fig. 4.

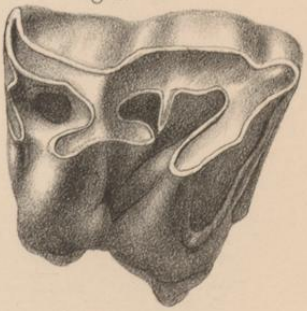


Fig. 5.

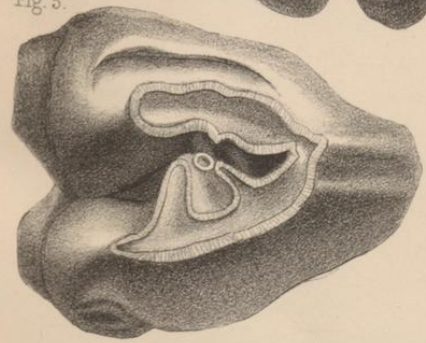


Fig. 6.

Fig. 7.

J. Dinkel. del. et lith.

1,2,3,4 Rhinoceros hemitoechus, Gower Caves.
5,6,7. Rhinoceros Etruscus from Pisa.

W. West. imp.

outer surface as to the valley broken off. There is a little mammilla between the barrels of the first and second true molars. In the third and fourth p.m. the end of the valley is only a very slight cleft; in the true molars it is an open flexuous fissure.

Dimensions.—Length of 5 teeth (2nd p.m. to end of 2nd t.m.), 7·5 in. Length of 2nd t.m. at middle, 1·85 in. Width in front, 2·2 in.

Can this really be from the Sub-Apennines?

II.—Comparison of Rhinoceros of Norwich Lacustrines with 'Venice' Upper Jaw in Oxford Museum.

7th May, 1858.

Compared the Rev. Mr. Gunn's detached upper molar (Pl. XXII. fig. 5) from the Norwich lacustrines with the upper jaw labelled '*Rh. leptorhinus* from Venice' in Buckland's collection, and found the most important agreement. Gunn's also belongs to the left side. In form Gunn's would agree best with the last premolar from the smaller size of the posterior barrel, but unluckily the fracture of the outer surface of the Venice fossil prevents a rigid comparison. They agree in the following important points:—1. Exact similarity of smooth enamel surface. 2. Decided anterior basal bourrelet, worn down in Gunn's. 3. Like thinness of enamel. 4. Sweep antero-posteriorly of termination of large valley, and its nearly isolated form. 5. Openness of gorge of transverse valley.

Dimensions.

	Gunn's specimen	Venice second true molar
Length of outer side at constriction		1·8
Length of inner side		1·6
Breadth near middle, anterior barrel		about 2·2
Breadth behind, at base of crown		2·2
		First true molar
Length of outer side (greatest)	2·0	1·75
Length at constriction	1·75	1·6
Length of inner side	1·85	1·7
Breadth of middle, anterior barrel	2·2	2·2 nearly
Breadth behind at base	1·9	2·15
Height of enamel crown, posteriorly	1·2	1·

Norwich, July, 1863.

Examined the Rhinoceros jaw in Fitch's collection. It belongs to *R. Etruscus*. M. Lartet detected in it the remains of the large mentary foramina. 'Got at Anderson's the fisherman's a portion without ends of a femur of an old *R. Etruscus*, very characteristic.'

III.—Description of Crania of R. Etruscus in the Grand Ducal Museum at Florence (Plates XXVI. and XXVII.).

18th May, 1859.

In the Museum at Florence is preserved a superb skull of *Rhinoceros Etruscus* from the Val d'Arno, nearly entire; two-horned, and very old. There are six molars on either side, of which even the last is worn to the base. The skull is very little crushed, and there are very few restorations. The nasals are perfect to their very tips on one side,

DESCRIPTION OF PLATE XXVI.

Rhinoceros Etruscus.

Three different views of cranium in the Florence Museum, one-fifth of the natural size. Fig. 1. Upper surface. Fig 2. Profile view, showing well the incomplete nasal septum. Fig. 3. Lower surface, showing palate and series of six molars on either side well worn. These figures have been copied by Mr. Dinkel from drawings executed for Dr. Falconer by Vincenzo Stanghi, artist at Florence. (See page 356.)

Fig. 1.

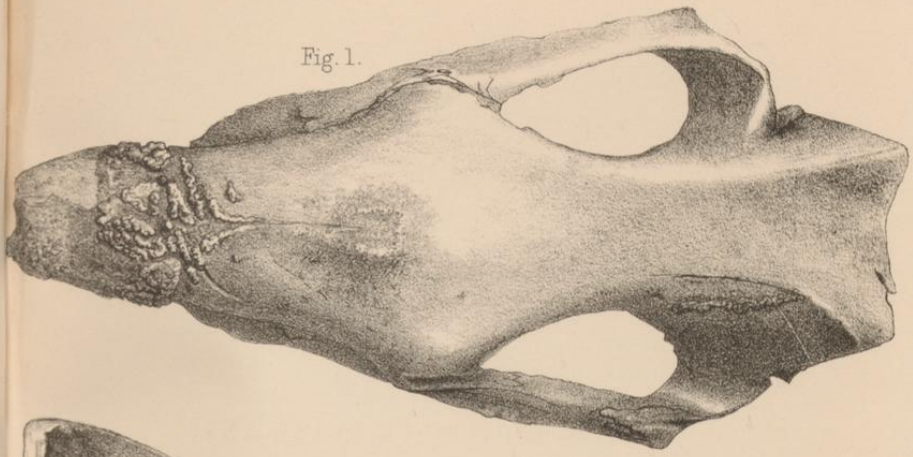
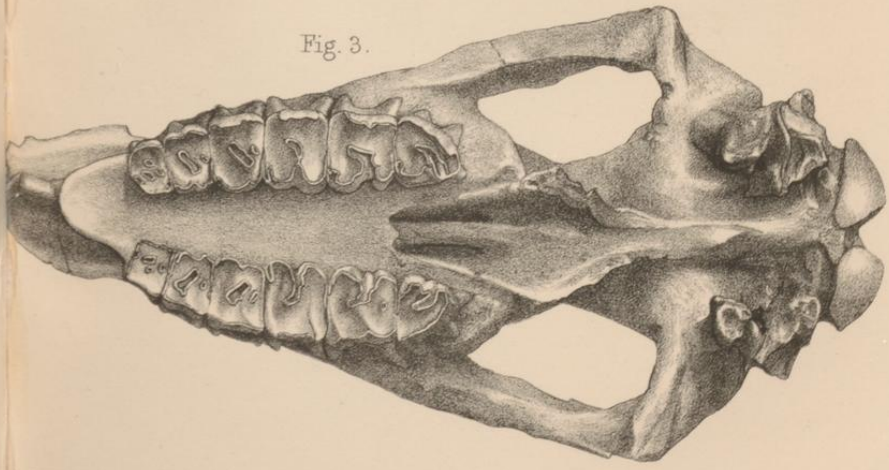


Fig. 2.

4
10

Fig. 3.



Stanghi del. J.Dinkel lith.

Rhinoceros Etruscus.

W.West imp.

DESCRIPTION OF PLATE XXVII.

Rhinoceros Etruscus.

Views of cranium, lower jaw, and teeth in the Florence Museum. The figures have been copied by Mr. Dinkel from drawings executed for Dr. Falconer by Vincenzo Stanghi, artist at Florence. (See page 356.)

Fig. 1. Posterior view of cranium represented in Plate XXVI., showing occiput, zygomatic arches, occipital condyles, and foramen magnum, one-fourth of the natural size.

Fig. 2. Profile view of lower jaw, outer surface, one-fourth of the natural size.

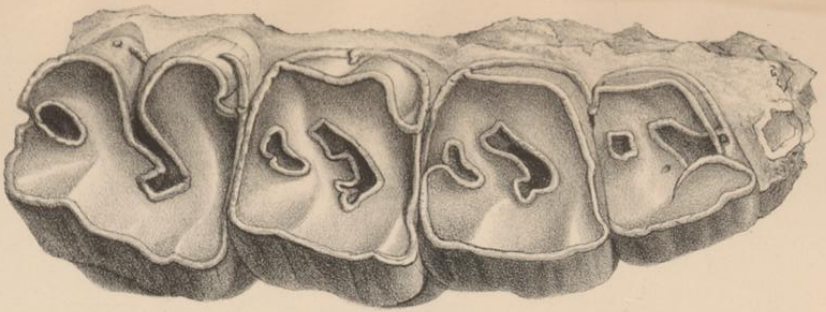
Fig. 3. Same lower jaw, viewed from above, showing crowns of molars far advanced in wear, one-fourth of the natural size.

Fig. 4. Symphysial portion of same lower jaw, viewed from below, one-fourth of the natural size.

Fig. 5. Four molars of upper jaw, left side, smaller and less advanced in wear than those in skull represented in Plate XXVI., fig. 3. Three-fourths of the natural size. (The dimensions almost correspond to those given in page 359.)

Fig. 1.

Fig. 5.



Vol. II. Plate

Fig. 2.

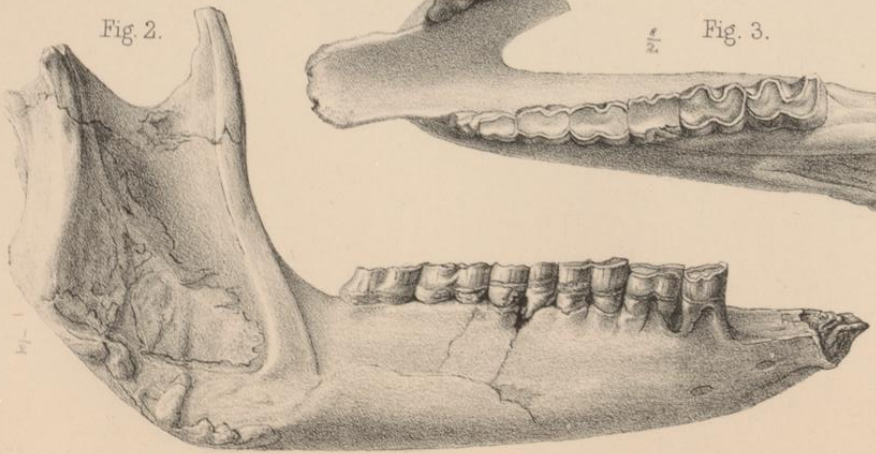


Fig. 3.

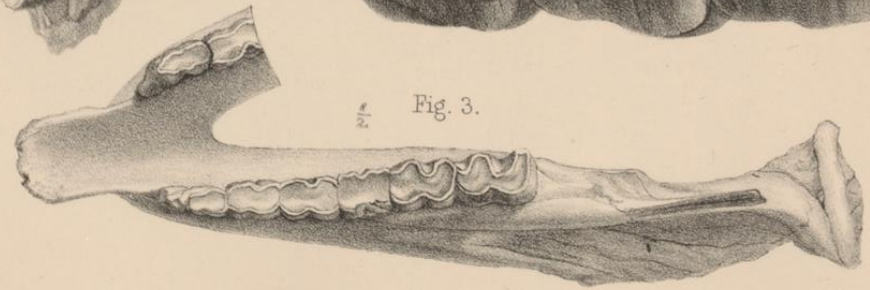


Fig. 4.

Stanghi del. J.Dinkel lith.

Rhinoceros Etruscus.

W.West imp.

DESCRIPTION OF PLATE XXVIII.

Rhinoceros Etruscus.

Fig. 1. Is a profile view of a cast of a skull of the Val d'Arno Rhinoceros in the Museum at Pisa, showing the septum distinctly limited to the anterior half of the nasal bones and terminating in a thickened portion united to the incisive bone. The figure is one-fourth of the natural size, and has been copied from a drawing executed for Dr. Falconer by Pierucci, artist at Pisa. (See page 359.)

Figs. 3, 4, and 5. Symphysial portion of the lower jaw, with part of the two rami belonging to the Marchese Carlo Strozzi, and described at page 360. The figures are one-half of the natural size, and have been reproduced from drawings by Mr. Dinkel. Fig. 2. Upper surface. Fig. 3. Under surface. Fig. 4. Lateral view.

Fig. 1.

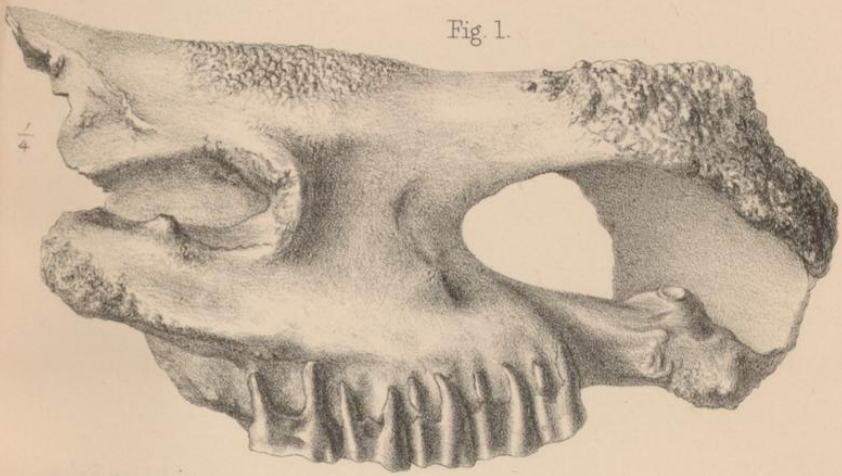


Fig. 2.

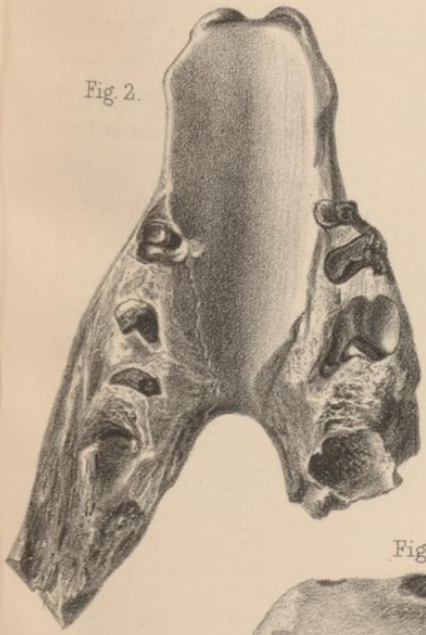


Fig. 3.

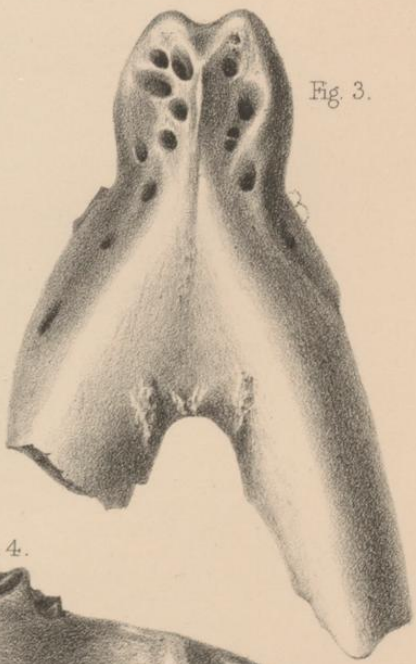
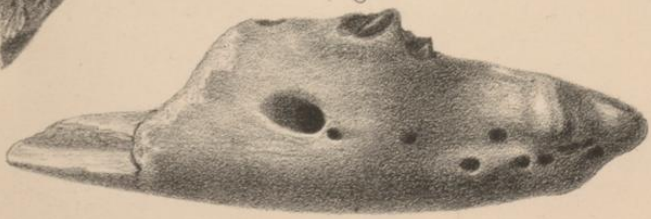


Fig. 4.



J. Dinkel & Pierucci del.

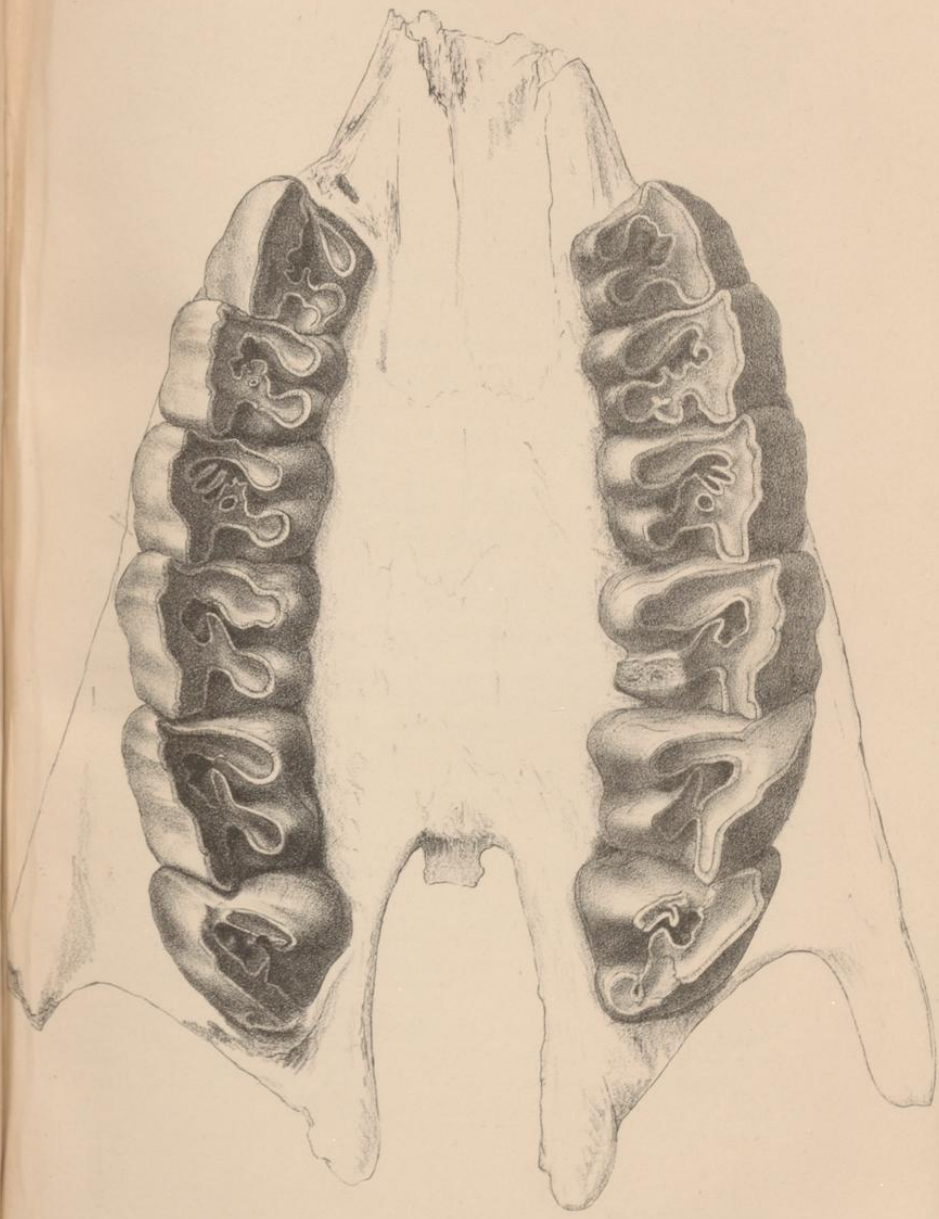
Rhinoceros Etruscus.

W. West imp.

DESCRIPTION OF PLATE XXIX.

Rhinoceros Etruscus.

This Plate represents the palate view of the cranium in the University Museum of Natural History at Bologna, described at page 363. The drawing is one-half of the natural size, and has been copied from one which Dr. Falconer had executed at Bologna, and on which he had inscribed '*Rhinoceros Etruscus*, Museum, Bologna.' A cast of the specimen which Dr. Falconer also brought from Bologna has been deposited in the British Museum.



J. Dinkel lith.

Rhinoceros Etruscus.
(Bologna)

W. West imp.

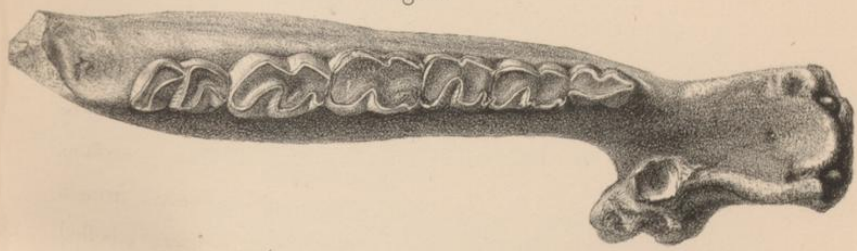
DESCRIPTION OF PLATE XXX.

RHINOCEROS LEPTORHINUS (R. MEGARHINUS).

Three different views of lower jaw, one-fourth of the natural size. Fig. 1. Inner surface. Fig. 2. Shows crowns of molars and symphysial spout. Fig. 3. Outer surface. These drawings have been executed by Mr. Dinkel from a cast brought by Dr. Falconer from Montpellier, labelled 'Rhinoceros des Sables de Montpellier,' and now deposited in the British Museum. (See page 368.)

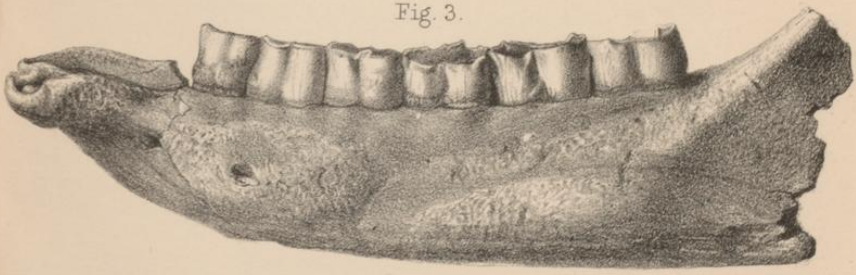
Fig. 1.

Fig. 2.



1/4

Fig. 3.



J. Dinkel del. et lith. Rhinoceros leptorhinus (R. megarhinus) W. West, imp.

DESCRIPTION OF PLATE XXXI.

RHINOCEROS LEPTORHINUS (R. MEGARHINUS).

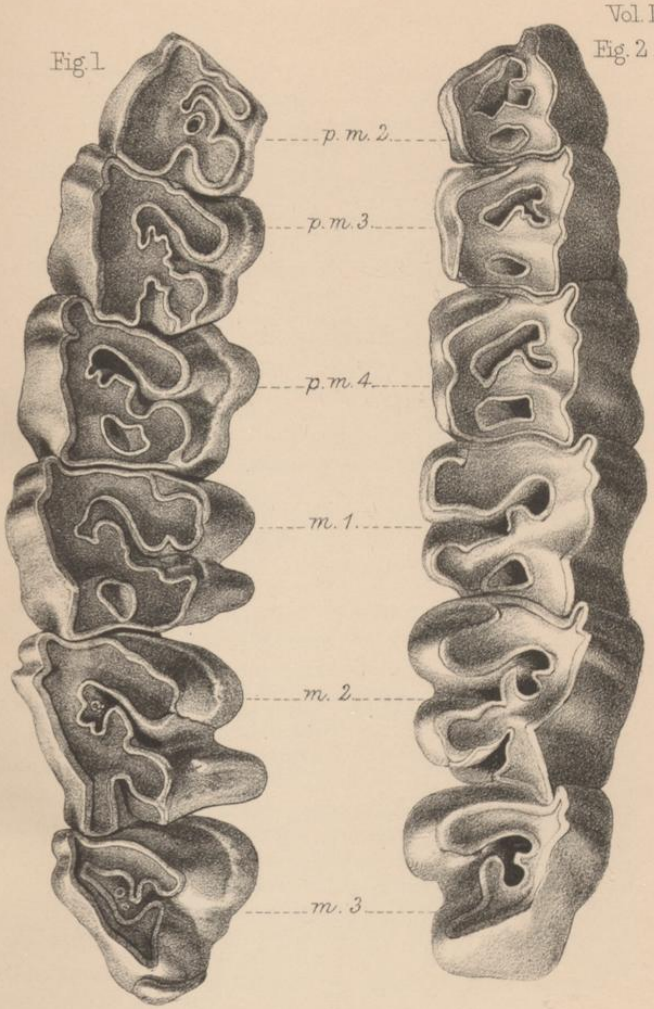
Fig. 1. Series of six molars of upper jaw, right side, described at page 395. The figure is one-half of the natural size, and has been reproduced from a drawing found in Dr. Falconer's collection, and on which he had inscribed, '*Rhinoceros leptorhinus*, *R. megarhinus*, Christol, from specimen in Municipal Museum of Imola. Scarabelli.'

Fig. 2. Series of six molars of upper jaw, left side, one-half of the natural size, copied from a lithograph found in Dr. Falconer's collection, and on which he had written: 'Unpublished lithograph of skull of fossil Rhinoceros belonging to the Lyons Museum, for a work by Professor Jourdan of Lyons. *Rhinoceros leptorhinus*, Cuv., *pro parte*, *R. megarhinus*, Christol.' The artist has improved on the original drawing by the assistance of a cast of the same skull presented to Dr. Falconer by Professor Jourdan, and which is now deposited in the British Museum. (See page 369.)

Fig. 3. Represents the cranium of *R. leptorhinus*, referred to under fig. 2, one-seventh of the natural size. The drawing has been executed from the same materials as fig. 2. As in the case of the Cortesi cranium, the specimen is somewhat distorted from crushing. (See pages 369 & 381.)

Fig. 1.

Fig. 2.



½

Fig. 3.

J. Dinkel del. et lith.

W. West imp.

Rhinoceros leptorhinus (Cuv.) R. megarhinus (Christol)
(1, Imola.; 2, 3. Lyons.)

DESCRIPTION OF PLATE XXXII.

RHINOCEROS LEPTORHINUS (R. MEGARHINUS).

Figs. 1 and 2. Represent the penultimate and last upper molars of *R. leptorhinus*, about three-fourths of the natural size, and are taken from two of the casts mentioned at page 398, as having been obtained by Dr. Falconer at Stuttgart. The original teeth are those upon which Jäger founded his *Rhinoceros Merckii*. The casts are now in the British Museum.

Fig. 3. Represents a sixth or penultimate upper molar, left side, in the Nice Museum, about three-fourths of the natural size. The drawing is copied from one brought by Dr. Falconer from Nice. (See page 370.)

Figs. 4 to 9. Represent six molars in the collections at Rome. The figures have been copied by Mr. Dinkel from drawings brought by Dr. Falconer from Rome.

Fig. 4. Is a penultimate upper molar (t. m. 2), left side, from Monte Sacro, in the Sapienza Museum, three-fourths of the natural size. (See page 374.)

Fig. 5. Represents the last upper premolar (p. m. 4), left side, three-fourths of the natural size, also from Monte Sacro in the Sapienza Museum. (See page 375.)

Fig. 6. Is a last true molar, upper jaw, left side, three-fourths of the natural size. The specimen is in Professor Ponzi's collection, and is from the Gravel-beds of Ponte Molle. (See page 372.)

Fig. 7. Is an upper milk molar, left side, three-fourths of the natural size, also in Professor Ponzi's collection, from the Gravel-beds of Ponte Molle. (See page 373.)

Fig. 8. Is a penultimate or antepenultimate true molar, upper jaw, left side, three-fourths of the natural size, in Signor Ceselli's collection, from Torre di Quinto. (See page 377.)

Fig. 9. Is an antepenultimate true molar, upper jaw, right side, very far advanced in wear, about three-fourths of the natural size, also in Signor Ceselli's collection. (See page 377.)

Fig. 1.

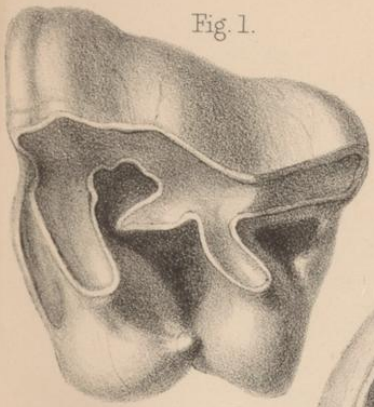


Fig. 3.

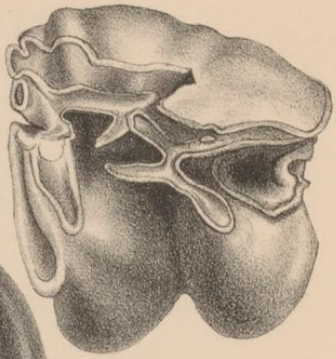


Fig. 2.

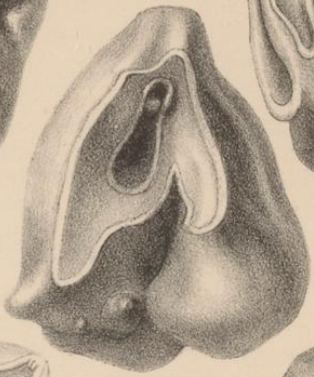


Fig. 4.

Fig. 5.

Fig. 6.

Fig. 9.

Fig. 8.

Fig. 7.

J. Dinkel lith.

W. West imp.

Rhinoceros leptorhinus (R. megarhinus)