

A RHINOCEROS IN FLEET STREET.

[By F. E. BEDDARD, F.R.S.]



The three annexed illustrations show three different views of the skull of a great rhinoceros which, together with a few other bones, was found during recent excavations at the basement of "The Daily Chronicle" offices. To find the remains of a rhinoceros in the heart of London is, to put it moderately, by no means an every-day occurrence, and to the uninitiated may be even a strain upon credulity. When attention was first called in a definite way to the vestiges of fossil elephants in this country, occurrences which are now the commonplaces of geological exploration in river gravels and limestone caverns, it was sought to harmonise this apparently strange fact with presumed probabilities by asserting that the Romans fought with the invaded British from the backs of elephants, as the Indians did with Alexander the Great. We may therefore first of all ask whether this skull and bones are not perhaps those of a dead specimen, once exhibited in the Tower Menagerie, and after its death thrown into the river, washed ashore, and imbedded in the clayey mud of the strand. This matter can be settled quite easily, and the question answered in the negative.

In the drawing which shows the profile of the skull it will be noted that between the huge nasal openings there is a stout bony partition which completely divides the right from the left nostril, and forms a strong and solid wall for the support of the massive anterior horn. Not one of the five living species of rhinoceros, African or Asiatic, shows any such bony partition wall, in all of them the two nostrils are separated during life by stiff car-

find was in doubt whether to look upon it as "some sea-bred creature" or as an inhabitant of the land. "No man," he then proceeds to observe, "we conceive, not willing to be censured of rashness, will be very forward to divine, much less to define or determine, what the creature was; and doubtless, dubious enough it is, whether of the twain, the sea or the land, may more rightly lay claim unto it."

To-day we may assert, "without much laudable ingenuity or blameable rashness," as the late Sir Richard Owen wrote in comment in the year 1846, that the bones from Chartham, in Kent, were those of a rhinoceros, and could not have belonged to the river horse or hippopotamus. Apart from general contour and multitudinous details, the skulls of the recent find and of that of the year 1688 exhibit their nature by the form of the folds of enamel upon the teeth (shown in Figure 2), and by the corrugated bosses upon which were once implanted horns. This last remark may seem to be gratuitous or at best a loose statement. It is true that protuberances of the skull are not always capped by horns in animals, and that a corrugated surface may imply no more than a rather callous pad of skin covering it. Hoofs certainly, but not horns, are necessary to a beast which can be termed a rhinoceros. There is even a living form, the comparatively little known rhinoceros of the Sunderbunds, in which the female is at least often, and possibly always, without a horn; while several extinct species are also unarmed. Fortunately this matter can

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find was in doubt whether to look upon it as "some sea-bred creature" or as an inhabitant of the land. "No man," he then proceeds to observe, "we conceive, not willing to be censured for rashness, will be very forward to divine, much less to define or determine, what the creature was; and doubtless, dubious enough it is, whether of the twain, the sea or the land, may more rightly lay claim unto it."

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finally the horn was found. There is no doubt after a careful comparison of the skulls that the Siberian rhinoceros was specifically identical with that whose remains have just been unearthed from the soil below. "The Daily Chronicle" office. There now remains the question, as with the apple in the dumpling and the fly in amber—how did it get there? What was a Siberian and Continental rhinoceros doing in this island? Geology removes for us this difficulty. During the period of the earth's history which saw these great beasts grazing on the plains of northern Europe and Asia, this island was not yet divorced from the Continent; the Thames flowed over what is now the Dogger Bank, to join the Rhine, of which it was probably an affluent—or, to put it more patriotically, the Rhine was in those days a tributary of the Thames. The Siberian rhinoceros had therefore no difficulty in extending its range to Britain, and there is abundant evidence of its occurrence in various parts of this island. It has been found near Oxford, in caves in Yorkshire and at Torquay, and at a variety of other spots, but we do not know that a specimen has ever been found imbedded in the mud of the ancient Thames

in London itself. Indeed this rhinoceros seems to have had a penchant for caves, into which it is supposed that they stumbled from above, and then, when wounded and unable to move, became victims of the fell cave hyana, who not only ate them up, assisted no doubt by the bear and lion, but is responsible for the scattered and imperfect condition of their skeletons.

A different fate befell our specimen. The perfect condition of the skull and the imbedded teeth shows that it was not rolled about for long at the mercy of the gravelly bottom of the river, which, when the great pachyderm was alive, filled a more copious area than at present. It is indeed quite probable that it strayed down to the bank to drink, and that, bogged in a patch of mud, it was stifled, and only after a lapse of time got slowly broken up and scattered by the movements of the water above. The bones found with the skull, and placed in the hands of the present writer, consist not only of the complete cranium, but of one half of the lower jaw, a broken thigh bone, and a rib or two, all of which were found at some distance from each other and cannot therefore be certainly regarded as belonging to the same individual. Indeed the characters of the lower jaw, which requires a more minute examination, rather suggests that it was not the property of the

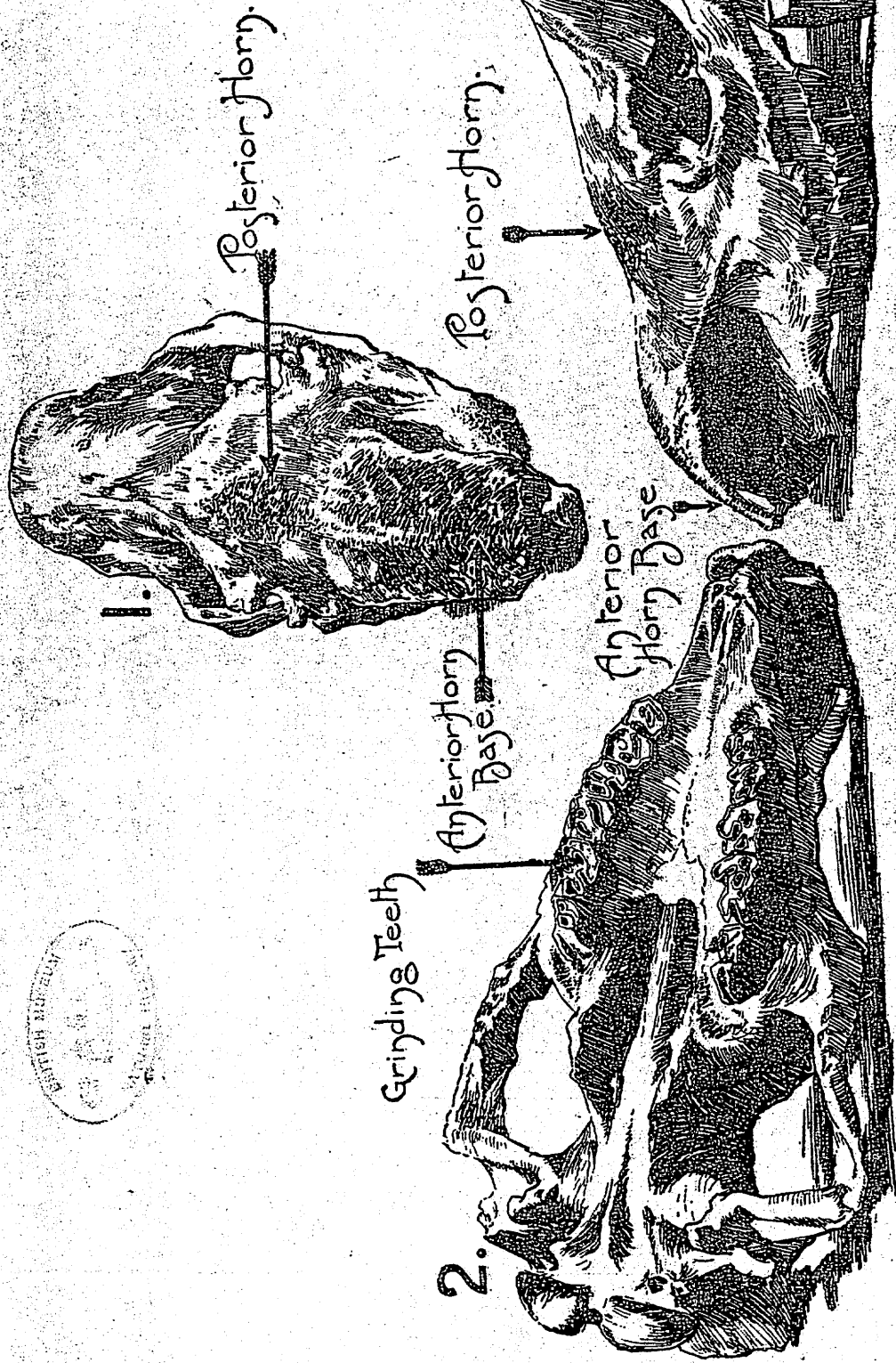
individual represented by the skull. It looks rather more like an allied kind of rhinoceros, which inhabited Britain at the same time, and which is known to zoologists as *Rhinoceros leptorhinus*, the Siberian rhinoceros being called *Rh. tichorhinus*.

Since our rhinoceros was entombed in the mud a good deal of water has flowed through the Thames valley. We must probably insist upon a great many thousands of years to carry us back to the Pleistocene period, in which it lived; but we need not perhaps ask for millions. At this time England was populated by herds of great wild beasts, and must have been as dangerous to our unclothed forefathers armed with their feeble stone axe heads and javelins, as a jungle in Africa at the present day to its black and naked woodsmen. There were not only several kinds of rhinoceroses, but the mammoth and the hippopotamus; the carnivora were represented by bears, hyenas, and lions, besides smaller kinds. Fierce wild bulls roamed about in the forests; and, if there was danger, there was at least no lack of game. It has been often pointed out that the characters of the animals of England at that time were much like those

of tropical Africa at the present day. We must not, however, jump to the conclusion that our climate was equally torrid. We know that the mammoth and the tichorhine rhinoceros were covered with long and shaggy hair, an obvious defence against cold; and we do not know that the leptorhine rhinoceros was not similarly protected; neither can we assert that the lions and hyenas had not, as have the more northern examples of tigers and leopards at the present day, a fuller coat of fur. It is also clear that these animals which suggest tropics lived with truly arctic creatures, such as the lemming and the arctic fox, the reindeer and the glutton.

This is a strange mixture of types, and it is really hard to believe that the hippopotamus and the reindeer were actually contemporaneous in the same country. The difficulty has been negotiated by the suggestion that on the arrival of colder weather the hippopotamus and other creatures migrated to the south, the remains being those of individuals who stayed too long behind. Another suggestion is that the cold periods alternated with warmer periods during which the hippopotamus returned further north. The hippopotamus is truly the crux of the whole difficulty. The rhinoceroses and the other forms we do not mind so much.

[We hope to give our readers the opportunity in the course of a few days of inspecting this interesting find by exhibiting it in our Fleet-street office.]



BRITISH MUSEUM
 NATURAL HISTORY

SKULL OF SIBERIAN RHINOCEROS (*Rhinoceros tichorhinus*).

Fig. 1.—Seen from in front and above. Fig. 2.—Seen from below. Fig. 3.—Profile view. (The massive septum between the nostrils is to be seen below the anterior horn base.)
 (All the drawings are one-seventh of the size of the actual skull.)