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BY

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PART II.

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Position of the Skeleton.

In Fig. 1 is shown a reconstruction of the position of the parts of the skeleton, the diagram being founded on the observations of Dr. Spencer-Edwards, who saw certain parts *in situ*, and gathered evidence regarding the position of the other parts. The skeleton lay on its back with the head directed towards the north-east, and the pelvic part towards the south-west. It was also slightly turned on the left side with the right arm bent over the region of the breast and the left extended

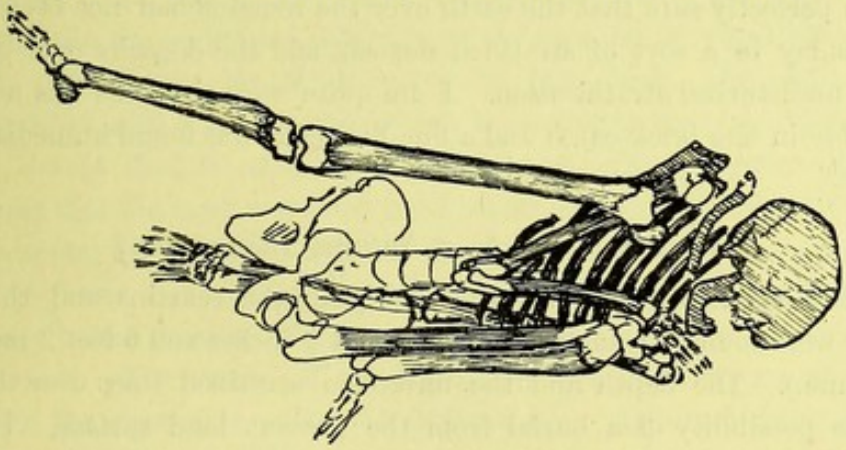

FIG. 1.—SKETCH OF POSITION OF PARTS FROM OBSERVATIONS MADE BY DR. SPENCER-EDWARDS.

underneath. The thighs, one infers from the position of the tibia and scapula, must have been flexed on the trunk. The right tibia and right scapula, which Dr. Edwards saw *in situ*, were relatively so close together that their approximation can only be explained by supposing the body to have been in a contracted position at the time of death. Dr. Edwards gives the following account of the discovery of the skeleton:—

"I saw a part of the skeleton (the right tibia, right scapula, and fragments of ribs) *in situ*, undisturbed, in the bank after a fall of earth had first exposed and loosened and caused to fall the greater part of the skeleton. The lower end of the

tibia pointed to the south-west; the upper to the north-east; the right scapula, the inner surface of which was exposed on the bank, was to north-east of the upper end of the tibia and about a foot and a half (45 cm.) away from it. The upper end of the tibia lay at a slightly higher level than the lower. I questioned the foreman who was present during the fall of earth, and he told me that the head showed first and that he caught it in his hands as it loosened and fell. Then the mass of earth containing ribs and arm bones fell. My enquiries show that all the bones lay within a space of 3 feet (90 cm.) and that the skeleton lay on its back with the right side a little higher than the left. The femur seems to have been pushed up beside the trunk. One arm, the left, lay behind the back or rather below the other bones, and one, the right, was across the chest and flexed at the elbow. The skull was bent over the chest, the lower jaw being pushed amongst the upper ribs. I saw the skull and cranial cast removed from the mass of earth in which they lay. The skull was compressed laterally, the frontal and parietal bones being much cracked and peeling off the cranial cast. The left side of the forehead was pushed back; the upper jaw and nasal bones were not in position. The bones were soft and friable, but became much harder as they dried. There was a curious hollow in the cranial cast over the outer side of the right orbit and under the frontal bone, which looked to me as if caused by an air space, the space being bridged over by the broken frontal bone. The surface of the cranial cast showed traces of root penetration.

"I am perfectly sure that the earth over the remains had not been disturbed. The remains lay in a sort of stratified deposit, and the deposits over the remains showed an undisturbed stratification. I am quite sure that this was not a burial. The bones lay in fine brick-earth and a fine flint flake was found immediately above the remains."

Is it a Burial or a Natural Inhumation?

Mr. Cook has described the strata overlying the remains and the depth at which they were found—namely, between 5 feet 9 inches and 6 feet 2 inches (1,730 and 1,920 mm.). The depth and the unbroken stratified lines over the remains exclude the possibility of a burial from the present land surface. It is reasonable to presume that when a complete skeleton—and in this case there were fragmentary representatives of all parts of the skeleton—is found, especially in the contracted posture, that the body has been deliberately buried. From a medico-legal point of view, as I pointed out when dealing with the Ipswich skeleton, it is possible for a person to die in and retain the contracted posture and to be overwhelmed or submerged in that posture, but the conditions under which such a natural inhumation could occur are so uncommon that they need only be considered in cases where one may presume such favourable conditions were present. A contracted posture and the presence of a complete skeleton—except in estuarine, deep river or bog deposits—usually signify a burial. In the present case remains of hearths and of human occupation were found at the upper level of the stratum

in which the remains were embedded. The hearths indicate an old land surface—now covered by three or four more recent strata, amounting to about 5 feet in depth. We may infer in the present case that the Halling remains are those of a man buried when the level of the hearths was a land surface. How long ago that is must be determined by geologists and by those who have studied the formation of the deposits.

The condition of the bones does not help us greatly in determining the age. The tibia of a rhinoceros from a brick-earth deposit regarded as of the same age as the formation at Halling, shows a state of preservation similar to that of the human skeleton. They are not mineralized to the extent seen in early Pleistocene bones. They are brittle, brown in colour on the surface, but when broken across the interior is grey and chalky in appearance and texture. When one applies the tongue to the broken surface, it adheres. The bone contains so little animal matter that when placed in a weak solution of HCl it crumbles away, leaving no gelatinous outline of the fragment behind. The fragments of the skeleton give a metallic resonance when struck. The animal bones from the strata at Halling are in three conditions: (1) some are brown in colour and very slightly mineralized; (2) others are grey, hard and mineralized to the same extent as the skeleton; (3) one—the radius of a rhinoceros—is deeply mineralized and is presumably a re-deposit from an older stratum. No grave furniture of any kind was found. A fine flint flake was found with the skeleton.

One other point may prove of some assistance in fixing the age. The material in which the ribs are embedded is typical of the stratum in which the skeleton was embedded—the stratum No. 5, described by Mr. Cook. The skull was almost completely filled with a brick-earth, which is similar to that in which the ribs are embedded, except that it contains very little and only fine grains of chalk. We may presume that the skull was filled from the stratum in which the body was buried, by two agencies: (1) the percolation of rain and water which carried in the finer surrounding grains from the brick-earth as the brain decayed, and before the skull walls yielded to the pressure of the overlying layer, and (2) by the agency of worms and worm casts. The matrix of the brain cast is such as we might expect to be formed from the stratum in which the skeleton lay. Apparently the cranial cavity was not quite filled. Dr. Edwards observed a space under the right frontal region, which was evidently the highest or most superficial part of the skull. There was no mark of cutting or of injury on the bones.

Sex, Age, Stature.

There is no doubt as to sex; the massive size of the head of the thigh-bone (diameter 50 by 49 mm.), the strongly developed limb-bones, the fragments of the pelvis and the characters of the skull leave us in no doubt that it is the skeleton of an adult man. The teeth are so worn that the dentine is widely exposed on the grinding surfaces, and many are lost by disease. From the wear of the teeth we

infer that he must be at least thirty years of age or more. The sutures of the skull are unclosed; we may infer from their open condition and the thinness of the cranial bones that he was under forty years of age. He was probably between thirty and forty. None of the limb-bones are complete, but there is sufficient of both thigh bones to estimate that their original length was approximately 435 mm. That measurement, by Professor Pearson's formula, yields a stature of 1,630 mm. or 5 feet 4 inches. The femur of Jonathan Wilde—a notorious English criminal hanged in 1725—has a length of 447 mm.; the stature of the skeleton is 1,632 mm. (5 feet 4·2 inches). The Halling man was thus slightly shorter than Jonathan Wilde and had stronger bones and a more muscular development.

Cranial Characters.

Even after all the fragments had been fitted into their appropriate places, it was found that not one single bone was absolutely complete. The cancellous bone had crumbled away, only the denser parts being preserved. At first it seemed unlikely that any definite information could be obtained from the cranial fragments. The cranial cast was flattened from side to side, but when the fragments of the skull were fitted together it was seen that they had not undergone any deformation with the compression of the cranial cast. It was impossible—

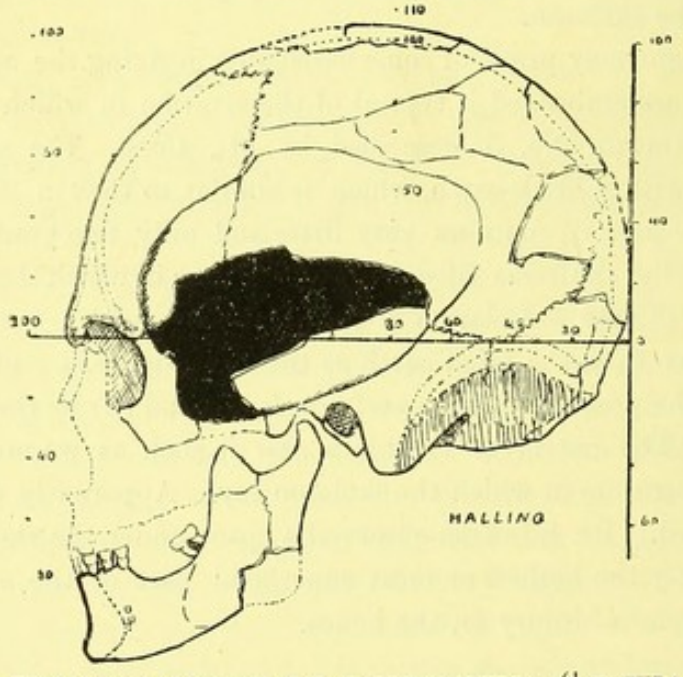

FIG. 2.—PROFILE DRAWING OF THE HALLING SKULL. (⅓ NATURAL SIZE.)
The attachment to the neck is shaded; the position of the lateral sinus is indicated. The frontal sinus is shown by stippling.

owing to the fragmentary nature of the skull—to measure the capacity of the cranial cavity by direct means, but by employing the formula given by Professor Pearson the brain capacity was estimated to be 1,510 c.c.—20 or 30 c.c. above the mean of modern Englishmen, and especially high when one remembers

the small stature of the individual. The capacity of the Tilbury man was about 60 c.c. less—1,450 c.c. The walls of the cranial cavity were of rather less than mean thickness—varying in the frontal and parietal bones from 4 to 5 mm., while in the Tilbury skull the corresponding parts of the skull measure from 7 to 8 mm.

The general shape of the skull is seen from the three drawings—profile, full face and vertex (Figs. 2, 3, 4). The maximum length is approximately 187 mm.—the fractured state of the skull makes quite exact measurements impossible—its greatest width 142 mm.; the supra-auricular height 124 mm. The corresponding measurements of the Tilbury skull are: 188 mm., 142 mm., 118 mm.—the last being the only measurement showing a marked difference. In both skulls the length-breadth proportion or index is 75 (Halling), 75·5 (Tilbury). The length-

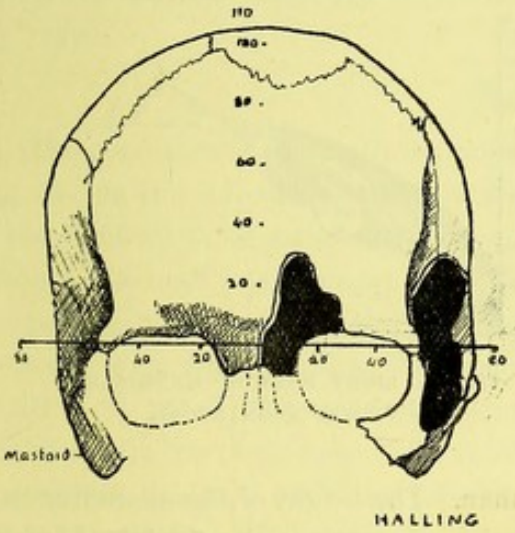

FIG. 3.—FRONTAL VIEW OF THE SKULL ORIENTATED ON THE PLANE SHOWN IN FIG. 2. (⅓ NATURAL SIZE.)

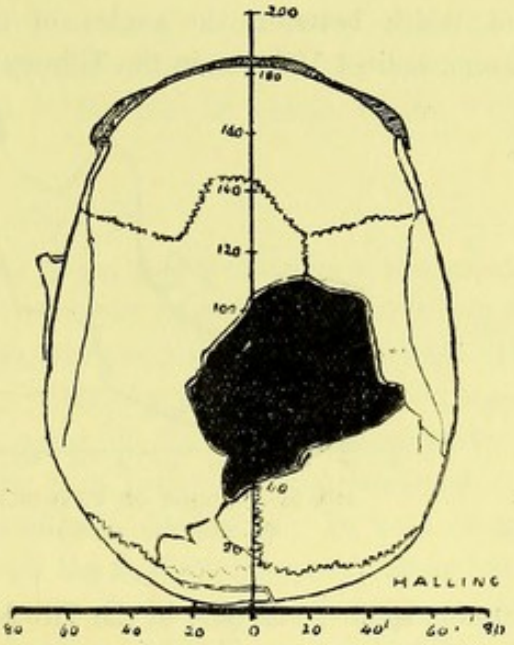

FIG. 4.—VERTEX VIEW OF THE SKULL. (⅓ NATURAL SIZE.)

height index in the Halling specimen is 66·3 per cent., in the Tilbury specimen 62·7 per cent. The capacity, the width and the height are greater than is usual in the "river-bed" type of skull, and yet in its general form there can be no hesitation in assigning the Halling skull to that type.

From Figs. 2, 3 and 4, it will be seen that there is an irregular formation of bones at the region of the bregma. The coronal suture makes a bend towards the forehead in this region, as if an os bregmaticum had been present, but it will be observed that the sagittal suture is apparent only at the right side of the position of such a Wormian bone. The irregularity is new to me. It is a remarkable fact that the crania from the megalithic monument at Coldrum, described in the last number of this Journal, also showed many irregular Wormian bones. Coldrum is only 5 miles distant from Halling.

Face and Mandible.

All that can be known of the face must be inferred from the conformation of the mandible, and from what remains of the supra-orbital parts of the frontal bone. The mandible suggests a face of less than moderate length, contracted in its lower part especially at the jowls or angular parts of the jaw. The chin is moderately developed, being narrow and peaked in shape; the height of the mandible at the symphysis is 30 mm.; its thickness 14 mm. The digastric impressions are ovate in shape, and with the other muscular markings of that region, show no departure from the corresponding parts of modern mandibles. The dimensions of the body of the jaw at the position of the 2nd molar were:—height, 23 mm.; thickness 14 mm.—slightly thicker than is common in the mandibles of Englishmen of to-day. The width between the angles of the lower jaw is estimated to have been 96 mm. against 102 mm. in the Tilbury man; the width between the condyles about

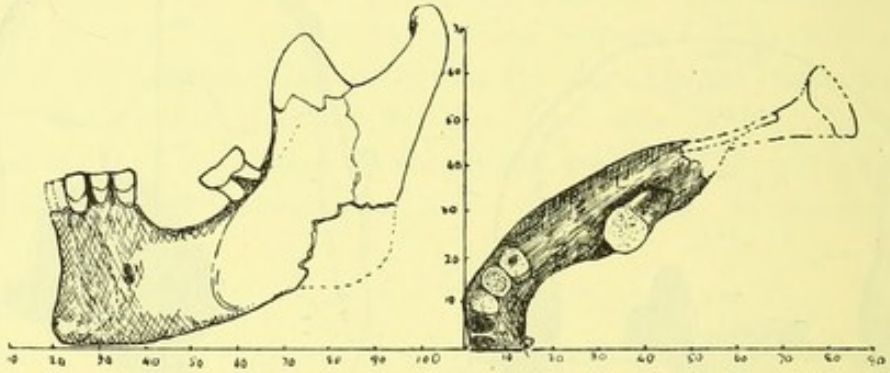

FIG. 5.—PROFILE OF MANDIBLE. ($\frac{1}{2}$ NATURAL SIZE.)

FIG. 6.—RIGHT HALF OF MANDIBLE AS VIEWED FROM ABOVE.

120 mm. against 122 mm. in the Tilbury man. The height of the ascending ramus from the lower border of the insertion of the masseter, to the condyle, is 65 mm., the width of the ramus 30 mm.; both being very moderate dimensions.

It was not possible to make any accurate measurement of the extreme width of the face at the zygomatic arches; it probably did not exceed 140 mm.—about the same amount as in the Tilbury skull. The cheek bones were thus rather prominent.

The characters of the forehead are such as are often seen in modern men. As will be noted from the drawings of the three aspects of the skull, the supraciliary and supra-orbital ridges are but moderately developed—distinctly less pronounced than in the Tilbury man. The glabella is not prominent, nor was the root of the nose depressed; there was no distinct or well-marked notch at the nasion. The frontal sinuses ascended 50 mm. above the nasion, and measured about 14 mm. in their antero-posterior diameter. The thickness of the frontal bone from glabella to the anterior end of the olfactory plate was 20 mm. The minimum width of the frontal measures 100 mm.—the same as the Tilbury cranium; the width at the upper margin of the orbits—108 mm.—also the same as in the Tilbury skull-

The external angular processes of the frontal and the zygomatic arches were thus well-marked muscular processes. There is no evidence in mandible or teeth of any degree of prognathism.

Formation of the Skull.

The manner in which the skull was set on the neck is in complete agreement with what is seen in men of to-day. The mastoid processes show a moderate development (see Figs. 2 and 3) the bimastoid diameter of the skull, which may be regarded as an index of the width of the neck, is estimated to have been 120 mm.—a moderate amount. The muscular impressions of the occipital bone are marked much less strongly than in the Tilbury skull. This region of the skull is somewhat damaged, but it is certain that the inion was not produced into a strong or prominent process, and it was situated below the position of the internal inion. The neck was thus relatively slender and the head had a moderately marked backward projection, as is the case in crania of the "river-bed" type.

The Teeth.

The condition of the teeth is illustrated in the profile drawing of the mandible (Fig. 5); on the left side the first and second lower molars have been lost in life; on the right all three molars have been lost, and also the second premolar. Thus, although the man was probably under forty years of age, only the incisors, canines, first premolars, second premolar and third molar of the left side remained *in situ*. The teeth were worn down so that not more than half the crown remained. The dentition of the Tilbury man was equally affected by disease. In both of these ancient skulls the teeth were not lost through the modern disease of caries, but by exposure of the pulp cavities with the consequent formation of abscesses at the roots of the teeth. The condition of the upper jaw is unknown; only a fragment of the palate was recovered with three incisors and one molar. We may be certain that the upper teeth suffered from disease more than the lower. Thus, from the few examples known, we may infer that in late Paleolithic and early Neolithic times abscesses of the teeth were not uncommon.

As regards the size of the palate we must draw what inference is possible from the mandible. The dental arc was relatively small; from the outer or lingual border of the second molar of one side to the same border of the other there was a distance of about 64 mm. The front to back diameter of the lower dental arc, measured from a point between the position of the crowns of the mesial incisors to a point midway between the position of the posterior borders of the last molars, was 46 mm. These measurements differ very little from what is found in modern English mandibles; the width is rather greater, the antero-posterior diameter less. It will be noticed, too, that the third molar is set obliquely at the junction of the ramus and body of the jaw, showing that there was not sufficient room for the third molars.

As regards the size of the teeth, there is no point which calls for special remark. The lower incisors were not recovered. The crown of the lower canine measured 6 mm. (medio-distal) by 8·2 mm. (labiolingual). The first premolar 7·2 × 8 mm.; the second 6·8 × 8 mm. The crown of the third lower molar measured 10·6 × 10 mm. Only three upper teeth were recovered, two incisors and a second molar. The crown of the second molar measured 10 × 12 mm. All four cusps had evidently been present, but it is difficult to be certain of this because the dentine was exposed on the whole width of the crown. The roots of the molar were widely separated; they were short (15 mm.), and the height of the crown was 5·5 mm.—the total height of the tooth being 20·5 mm. The total height of the lower canine was 22 mm., on the anterior aspect of the root as a shallow longitudinal groove. Thus the outstanding feature of the teeth is the degree to which they had been worn, and the extent to which they had been lost by abscesses of the roots. As regards dimensions they were only of moderate size.

Bones of the Extremities and Trunk.

The various bones were compared with those of Jonathan Wilde (died 1725), who was of a similar stature—5 feet 4 inches. The clavicles were incomplete, but sufficient was found (see Fig. 7) to show that the total length was about 130 mm.—17 mm. shorter than in Wilde's skeleton. The inner or sternal part was flattened from

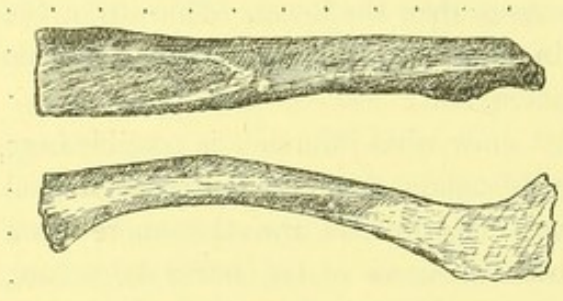

FIG. 7.—THE ANTERIOR AND LOWER ASPECTS OF THE LEFT CLAVICLE. (½ NATURAL SIZE.)

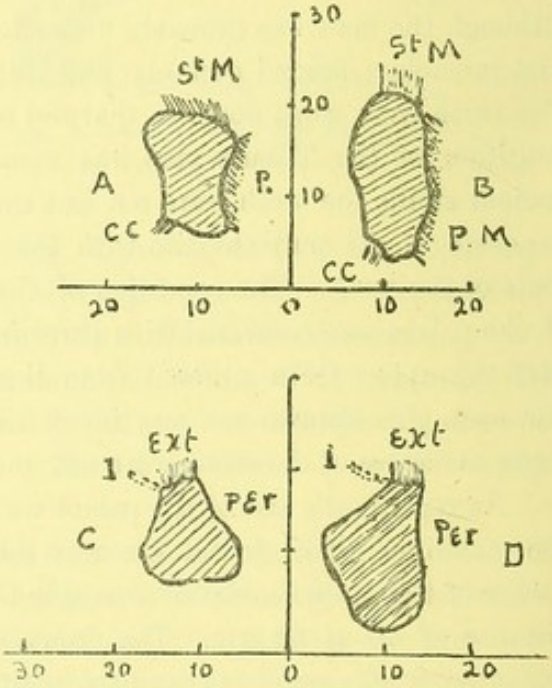

FIG. 8.—SECTION OF CLAVICLE NEAR ITS STERNAL END (B). THE CORRESPONDING SECTION OF JONATHAN WILDE'S CLAVICLE (A). ST. M = STERNO-MASTOID MUSCLE. SECTION OF THE RIGHT FIBULA NEAR ITS MIDDLE (D) COMPARED WITH SIMILAR SECTION OF FIBULA OF JONATHAN WILDE (C). EXT = EXTENSOR MUSCLE OF THE TOES. PER = PERONEAL MUSCLES. (NATURAL SIZE.)

before backwards, more so than is usual in modern men. Transverse sections of the sternal part of the Halling and Wilde clavicles are shown in Fig. 8. In Wilde the vertical diameter was 13 mm., in the Halling skeleton 20 mm.; the front to back diameter was 11·5 mm. in the former, and 10 mm. in the latter. So short and strong a clavicle indicates a rounded strong chest. The right and left clavicles were of equal development. The scapula was too fragmentary to yield accurate measurement. Parts of both humeri were found; their length is estimated to have been about 310 mm., as against 328 mm. in J. Wilde, and 323 mm. in the Tilbury skeleton. The muscular development of the bone is very similar to that of the Tilbury specimen. At the deltoid impression the medio-lateral diameter is 20 mm. (20 mm. Tilbury, 21 mm. J. Wilde), and the dorso-ventral diameter 24 mm. (25·5 mm. Tilbury, 22 mm. J. Wilde). At the middle of the shaft the medio-lateral diameter was 20 mm., and the dorso-ventral 22 mm.—nearly the same as in the Tilbury. The Tilbury right humerus is distinctly better developed than the left, indicating specialization of the right arm, but in the Halling humerus the right is only slightly stouter than the left.

Only the carpal extremity was missing from the Halling radius of the right side; its total length was probably 235 mm.; 236 mm. in J. Wilde ; 228 mm. in the Tilbury specimen. The radius of the Halling skeleton appears to have been relatively long. Its axis and curvature need no minute description. At the mid point the shaft of the Halling radius measured 16·2 mm. in its transverse diameter by 13·5 mm. in the dorso-ventral direction. The corresponding measurements in the Tilbury radius were 19 by 13·5 mm.; in J. Wilde's 13 by 11·5 mm. The carpal and metacarpal bones were short and stout. For instance, the width (medio-lateral diameter) of the articular surface of the proximal row of the wrist bones was 26·5 mm. in the Halling skeleton, by 12 mm. in the dorso-ventral diameter. The corresponding measurements in J. Wilde were 26 by 9·5 mm. The metacarpal of the thumb was 47 mm. long in the Halling specimen, 45 mm. in J. Wilde, but whereas in the former the diameters at the middle of the shaft were 14 by 9·5 mm., in the latter they were 11 by 9 mm. In all the bones of the hand the Halling man was of a clumsier and heavier make than the notorious thief-catcher J. Wilde.

As regards the bones of the lower extremity none were complete, yet sufficient was present in all to indicate the original measurements and characters. The bones appear stoutly built; the heads of the thigh bones are of more than moderate dimensions, being 51 by 49 mm., 3 or 4 mm. more than in the Tilbury specimen, or in J. Wilde. The oblique length was approximately 435 mm.; in J. Wilde 447 mm.; in Tilbury 446 mm. The upper third of the Halling femur is not flattened, in which it differs from the Tilbury femur, which is nearly as flat as is usually the case in Neolithic femora. Sections of the femur are shown in Fig. 9. The medio-lateral diameter in the Halling specimen is 32 by 28 mm. in its dorso-ventral diameter. The corresponding measurements in the Tilbury femur are 32 by 25·5 mm. the degree of flattening being more marked than in the Halling specimen. In the thigh bones of both skeletons the insertion of the gluteus maximus is indicated by a

long rough and irregular depression, with a gluteal tuberosity at its upper or proximal end. The middle of the shaft of the femur measures, in the Halling specimen, 26 mm. (medio-lateral) by 32 mm. (dorso-ventral). The corresponding measurements of the shaft of the Tilbury specimen are 28 by 33 mm. (right), 27·5 by 32 mm. (left); in J. Wilde, 27 by 28 mm. In prehistoric skeletons the middle part of the shaft of the femur appears as if it were compressed from side to side.

The extremities of both tibiæ were missing. Their length is estimated to have been 345 mm., in Tilbury 345 mm., in J. Wilde 345 mm. Sections of the shaft of the tibia are shown in Fig. 9. There is no marked degree of side to side flattening. At the level of the nutrient foramen the diameters are 34 by 26·5 mm., at the middle of the shaft 28 by 24 mm. The right bone is slightly thicker and

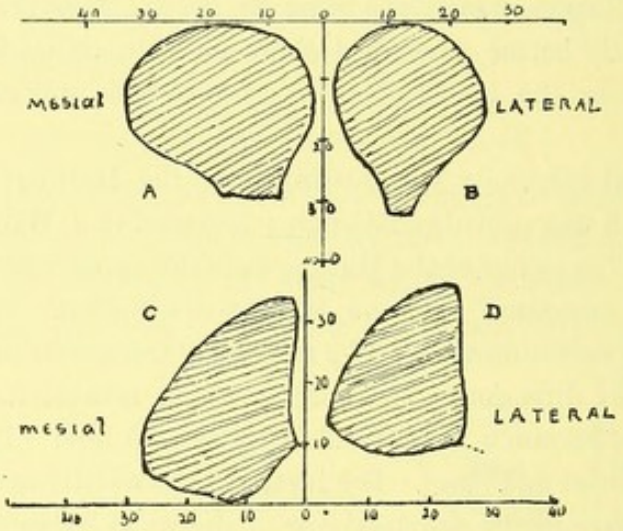

FIG. 9.—A. SECTION ACROSS UPPER THIRD OF HALLING FEMUR ($\frac{2}{3}$ NATURAL SIZE). B. SECTION ACROSS MIDDLE OF SHAFT. C. SECTION OF TIBIA AT LEVEL OF NUTRIENT FORAMEN. D. SECTION AT MIDDLE POINT OF SHAFT. ($\frac{2}{3}$ NATURAL SIZE.)

rather less flattened than the left. At the level of the nutrient foramen the diameters of the Tilbury tibia are: 40 (dorso-ventral) by 22 mm. (medio-lateral); in J. Wilde 39 by 24 mm. The Tilbury specimen shows a high degree of side to side flattening. Of the bones of the foot only the *os calcis* is sufficiently preserved for measurement. Its outstanding feature is the strength, breadth and prominence of the sustentaculum tale—for the support of the head of the astragalus. The extreme length of the *os calcis* is 80 mm. (73 mm. in J. Wilde); its width, from lateral border to inner margin of the sustentaculum is 47 mm. (38 mm. in J. Wilde); the vertical height of the heel 40 mm. Like the hand bones, those of the feet were massive and strong.

Fragments of the atlas and axis are preserved. They are of the same size and shape as the corresponding parts in J. Wilde, but more massive and strong.

Animal remains.

As already explained the animal remains showed three conditions of mineralization; the only ones which interest us here are those which were in a condition

corresponding to those of the human remains. One of these was the humerus of a small horse—probably of the size of an Exmoor pony—which was found in the stratum overlying that in which the human remains occurred (No. 3). It was submitted to Dr. A. Irving, who gave it as his opinion that without confirmatory evidence from the teeth and other bones of the skeleton, no definite statement could be made, but that it might be of Pleistocene age. "It seems to belong to a smaller type of horse altogether than the Remagen and other diluvial (Pleistocene) types whose remains have been described by Nehring. It was a more slender-limbed type than even the Stortford horse, with perhaps more of the Steppe race and less of the Plateau race of Professor Cossar Ewart" (*Quart. Rev.*, April, 1907). Dr. Irving has kindly given us the following comparative measurements of the humerus :—

Comparative Measurements of a Humerus of Horse from the Medway.

Received from Dr. Arthur Keith (Royal College of Surgeons), October 10th, 1912.

From the proportionate length (= that of a mare from Turkestan given by Nehring) it would appear to be a pretty full-grown foal with the skeleton imperfectly developed in *quantity* of bone.

Mare from *Turkestan.* Nehring.	"Stortford-Grimaldi" Horse.	Medway "Find."	——
mm.	mm.	mm.	
284	331	(broken)	Greatest length.
260	318	260	Length.
88	101	75	Greatest breadth } upper.
65	85	64	Breadth of "head" } upper.
76	86	72	Greatest breadth } lower.
70	82	(broken)	Breadth of "pulley" } lower.
33	42	31	Smallest diameter.
94	110	87	Thickness of upper knuckle portion.

A. Irving.

Bishops Stortford,
October 10th, 1912.

The other remains were submitted to Mr. Charles Andrews, F.R.S., of the British Museum, who informed us that a species of Bos (*longifrons ?*) sheep or goat, Irish elk (*Cervus megaceros*) were represented, but that there was not a single representative of any animal which was certainly of Pleistocene date. The fauna found with the remains thus points to a late Paleolithic or Neolithic date.

Racial Characters.

Taking all the evidence into consideration we may presume that the Halling man represents a native of England towards the close of the Pleistocene period. It will be noted that neither the tibia nor the upper part of the femur show the marked flattening which so often characterises the bones of the lower limbs in Neolithic races. In this respect they resemble the limb-bones of modern men, but it has to be noted that flattening is absent in some continental skeletons of the latter part of the Pleistocene period. On the other hand the tibia and femur in the Tilbury man are distinctly of the Neolithic type. Indeed it may be said that the evidence of the skeleton—so far as its characters can be employed as evidence—is equivocal. There is no feature, either in limb-bones or in skull, which marks off the Halling individual from modern man. He is in every respect of the modern type.

There can be no doubt that in shape of head the Halling man belongs to that kind of man distinguished by Huxley as the "river-bed" type ; Huxley's type specimen (the Trent skull, from an alluvial deposit in the valley of the Trent) is in the museum of the Royal College of Surgeons, and I take this opportunity of publishing three draw-

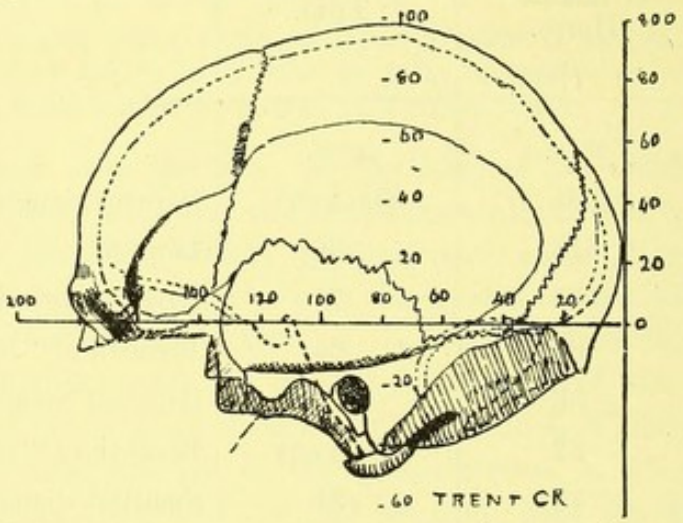

FIG. 10—PROFILE DRAWING OF THE TRENT (MUSKHAM) CRANIUM.
($\frac{1}{3}$ NATURAL SIZE.)

ings of the specimen in order that they may be compared with the corresponding drawings of the Halling man (Figs. 10, 11 and 12). Huxley supposed that the inhabitants of England at the earlier part of the Neolithic period were of this type, and the evidence accumulated in recent years points to his supposition as being

right. I had lately an opportunity of examining what is known as the "Wenden" skull, found at a depth of 22 feet in an old buried channel of the Cam. It is Neolithic in date, very probably early Neolithic. It is a woman's skull and representative of the river-bed type. Another skull in the museum of the Royal College of Surgeons was found during the excavation of the Manchester ship canal, at a depth of 27 feet. The age of the stratum from which it was recovered is unknown. It may be Neolithic in date, but of this there is no certainty. It also is of the "river-bed" type. Another example in the museum of the Royal College of Surgeons was discovered at Mickleton, Gloucestershire, in 1864, when a railway was being cut. It lay under a layer of peat and a stratum of clay 12 feet in depth. The skull found in the Gough Cave at Cheddar—late Paleolithic date—is also of this type. The Tilbury skull, also either late Paleolithic or

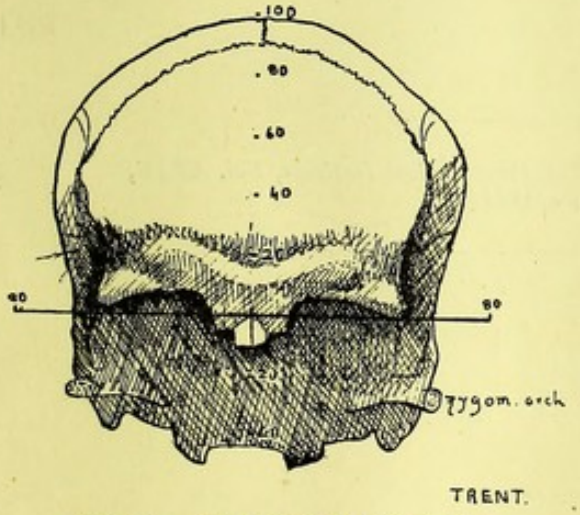

FIG. 11.—FULL-FACE VIEW OF THE TRENT CRANIUM.

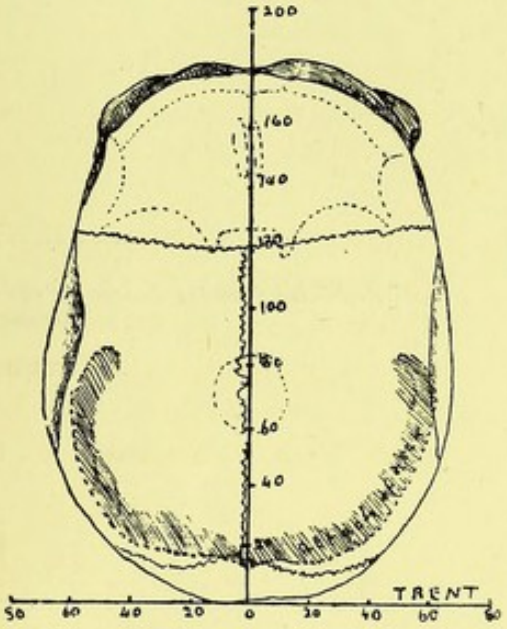

FIG. 12.—VERTEX VIEW OF THE TRENT CRANIUM.

early Neolithic, is of the same type. All are rather small skulls, with the width about 75 per cent. of the length, eyebrow ridges moderately marked, occiput rather projecting. The Halling skull is also of the "river-bed" type. The evidence seems fairly conclusive that the river-bed type was in England before the close of the Pleistocene period. If we look abroad we find traces of the same type on the Continent from the later phases of the Paleolithic period onwards. The famous Engis skull, described by Schmerling in 1833, found in a cave stratum with remains of Pleistocene animals, shows us that long before the close of the Pleistocene period the river-bed type was in Belgium. They have been found in the early Neolithic graves of Switzerland. The early Neolithic peoples on the shores of the Mediterranean appear also to have belonged to this type. The type still persists in England; it is still a predominating type amongst the working population of England.

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