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(Ethnographic Survey of India)

CRANIOLOGICAL DATA

FROM THE

INDIAN MUSEUM, CALCUTTA



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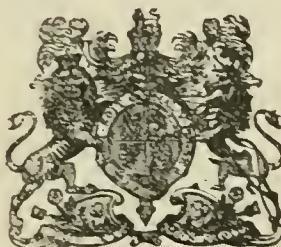
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Ethnographic Survey of India

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PREFACE.

THERE is no want felt more by students of physical Anthropology than the lack of accurate data regarding the skulls of the different races of mankind. Measurements taken on the dead skull are necessarily more accurate than those taken on the living head, both because it is easier to arrange the position of the skull and because the soft tissues of the head (especially of the face) exhibit great individual variation and capacity for contraction and expansion. The data here published form in fact a catalogue of the human crania in the collection of the Indian Museum. It is perhaps unfortunate that there has never been any official connection between the Indian Museum and the Ethnographical Survey, but the Trustees have been glad to avail themselves of Mr. Gupte's services in preparing this catalogue of skulls. Stress of other duties has prevented me from taking the active share in its preparation that I would have liked to take, but I have checked Mr. Gupte's measurements from time to time and can vouch for their accuracy. By my advice he has omitted comment of a theoretical nature.

The greater part of the collection of human skulls now in the Museum seems to have been got together by the late Dr. J. Anderson, the first Superintendent, but accurate records as regards the subsequent history of the specimens are unfortunately wanting. There seems to be no doubt however as to the alleged *provénance* of any one skull. A selection of the crania was sent to Sir William Turner some years ago and described in his *craniology of the Indian Empire* (*Trans. Roy. S. Edinburgh XXXIX, XL, XLV*), but the greater part of the collection has not hitherto been described in print. I hope that Mr. Gupte's work will be of use to craniologists in India and abroad.

N. ANNANDALE,

*Secretary to the Trustees,
Indian Museum.*

CALCUTTA :

May 6th 1909.



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INTRODUCTION.

IN collecting data or materials for the craniology of the people of the Indian Empire recorded in this place, I have closely followed Sir William Turner. The Indian Museum contains 614 skulls, but many of them are broken and many others do not show in the register the caste or tribe of the subject. A strictly territorial arrangement of these measurements would not be as accurate as that registering the racial peculiarities as well, because, in India, the endogamous system of marriage between the members of a caste has typified certain traits, which it is the object of ethnology to describe. Specimens marked merely "Medical College—Calcutta," "Campbell-Hospital", "Hindu", "Musalman", "Bengali," etc., could not be grouped or sorted according to their castes or tribes. Most of the specimens available in Calcutta belong naturally to Bengal, Assam, Chutia Nagpur, Orissa and its neighbourhood, collected in hospitals or jails; they belong to people of the poorest and lowest social stratum. Middle and high class people do not generally send their relations to the hospital, nor are the bodies of the members of respectable families allowed to be dissected even if they happen to die in jails. A poor relation, a poor casteman, or even a poor countryman, in the restricted sense in which it means a native of the same village, is cremated or buried by his own people and it is only in isolated cases of the cremating twice-borns that one can get a cranium. A man may have been born in Calcutta and yet his parents may have come down from Kashmir. In such a case the birth-place or caste alone would be misleading. I may quote an example of the type. Once I saw a young man about 22 years of age at the Victoria Memorial Exhibition in the Indian Museum and asked him if he was a Kashmiri Pandit. On his replying in the affirmative I asked him if he was related to the late Justice Sambhunāth. He nodded assent, but looked surprised. I further asked him, if he was the son of Pandit Prānnāth Saraswati. "Yes, Sir," said the young man, and gently added, "But how do you know all this?" I replied, "Your features tell me that!" Pandit Sambhunāth's family has been living in Calcutta for four generations and those features peculiar to the Brahmans of Kashmir have been maintained. If the skull of any such individual were labelled merely Brahman—birth-place—Calcutta—it would be mistaken for that of a Bengali—even of the Mongolo-Dravidian type. There are

Brahmans and Brahmanas. One has therefore to be very careful in sorting his collection of the skulls to be measured. I have tried to do so, but with what result I am unable to say at present. Territorial influence or rather the influence of environments has also to be counted. In this connection I have grouped all the Burmese, Bengalis and *Oriyas* together in spite of the fact that there are numerous castes or tribes or endogamous groups in each of these tracts. In order to show the directions in which investigation in craniology may proceed in India, I have sorted those that I have measured into several groups: territorial, tribal, professional, intellectual, etc. In order to supplement the contributions to the craniology of the Indian races edited by Sir William Turner, I have adopted Sir Herbert Risley's system of showing by diagrams what mere figures fail to show at a glance. It is therefore hoped that this nucleus of the craniology of the people of the Indian Empire, compiled in conformity with Sir William Turner's methods as adopted by Dr. Annandale and as classified and illustrated by Sir Herbert Risley will prove useful in collecting a large number of skulls for further investigation, which is sure to prove a valuable acquisition to the science of Ethnology. It is not possible to draw any definite conclusions from the small collection of skulls thus available and therefore no attempt is made to generalize. The results of the measurements have been grouped in accordance with the accepted classifications as modified by territorial and caste environment. This is thus only an attempt to illustrate and popularise the science of craniometry and to encourage the collection of skulls for future investigation, accurately labelled for the purpose. I appeal to the medical graduates of India to exert themselves and to get as many crania as possible for being forwarded to the Indian Museum, Calcutta, where I shall be glad to take all the necessary anthropometrical notes and to publish them from time to time.

General Remarks; Cubic Capacity—Our collection shows that out of the 78 skulls in which the cranial capacity could be recorded by caste, 49 are microcephalic or below 1350 m. m., 16 are mesocephalic or from 1350 to 1450, and 13 macrocephalic or above 1450. The largest or the most capacious head in the collection comes from Prome in Burma [No. 409, 1620 m.m.] and the smallest belongs to a Kol, viz. 1070. Territorially, the largest heads come from Darjeeling, Cachar, Assam, and Burma, the middle-sized crania hail from Darjeeling, the Malay region, Burma, Assam, Ranchi, Manbhum, and Orissa Hills, and the smallest size comes from the Nicobars, Cachar, Calcutta, Ceylon, Upper Godavari, Malda, Nadia, and Australia. The collection under examination comes mostly from the eastern part of the Indian Empire and shows 62·8 per cent of small heads, 20·5 middle-sized heads, and 16·8 of the large heads. The eastern part of India proper, therefore, shows a large proportion of small heads, Burma, Assam, and Darjeeling or the Mongoloid tract shows a larger head than the Mongolo-Dravidian

tract of Bengal and the Ultra Dravidian portion of Madras and Ceylon. This is but natural when it is understood that the Aborigines of India were small-headed people, and that the larger proportion of the larger head indicates a strain of the Mongoloid race corroborated by the almond-shaped eyes, broad faces, and flat noses.

The following gradation represents the highest capacity of the cranial cavity attained in each caste, as far as the present limited investigation shows :—

Lepeha of Darjeeling	1690
Chinese domiciled in Calcutta	1570
Bhotia—Darjeeling	1525
Kuki—Kachar	1520
Gurung—Darjeeling	1515
Murmi—Darjeeling	1510
Ladakhí of Darjeeling	1490
Kol of Singbhum	1470
Muchi of Calcutta	1460
Khambu of Darjeeling	1450
Bhuiya or Bhumia of Orissa	1438
Orāon of Ranchi	1430
Juāng of Orissa Hills	1420
Santál of Maubhum	1414
Limbu of Darjeeling	1410
Khāmti of Assam-Burma frontier Hills	1390
Mnunda of Ranchi	1380
Shān of Burma	1380
Sherpa Bhotia of Darjeeling	1380
Teli of Ranchi	1370
Malay	1360
Nicobarian	1345
Papuan of New Guinea	1340
Sunnwár of Darjeeling	1330
Singhalese	1320
Teli of Malda	1310
Kalu (Oil man) in Calcutta	1300
Kaibarttā of Midnapur	1300
Muchi of Calcutta	1300
Gāro of the Gāro Hills	1280
Eurasian of Calcutta	1280
Bhuiya of Ranchi	1270
Koya or Koyadore of the Upper Godavari District	1270
Banjāra of the Upper Godavari District	1260
Dhobi of Calcutta	1260
Musalmān of Nadia	1260
Australian	1260
Kisān of Chutia-Nagpur	1250
Lohār of Ranchi	1240
Dhobi of Birbhum	1200
Kandh from Kandhamal	1070

* Topinard tells us at page 229, Chapter II, of his Anthropology, that the inferior races have a less capacity than the superior. Here, Kols are the lowest in the scale, having 1070 as the lowest capacity recorded in cubic centimetres. The Dhobi of Birbhum, Lohār of Ranchi, the Kisān of Chutia-Nagpur, a Musalman of Nadia, a Dhobi of Calcutta, a Banjāra of the Upper Godavari District, a Koya of the same tract, a Bhuiya of Ranchi, a Eurasian of Calcutta, and the Gāro of the Gāro Hills are all examples of the low type. The smallest cranial capacity recorded by Topinard was 1093 in a native of the Andaman Islands (p. 299, Chapter II) while the one recorded here is 1070 in a Kandh. The cranial capacity seems to vary to some extent according to intellectual endowment.

THE VERTICAL INDEX.

The vertical index or index of the height gives the form of the skull according to an antero-posterior section, which divides the cranial orbit into two lateral halves, in the same way as the cephalic index gives the form of the skull as is shown by the *norma verticalis* of Blumenbach. It is the relation of the vertical diameter to the maximum antero-posterior diameter. Its formula is $\frac{\text{Vertical Diameter} \times 100}{\text{Antero posterior Dia.}}$. † It is also called altitudinal index and has been calculated from the relations between the basi-bregmatic height and the glabella-occipital length. It is therefore an expression of the relation of length to height. ‡

Skulls with a low vertical index are called platy-cephalic or tapecio-cephalic and those with high index acrocephalic or hypsicephalic. Those of moderate altitude are called metrio-cephalic. Tapeinocephalic below 72; Metriocephalic between 72 and 77. Acrocephalic above 77. But there is another classification suggested :—

- (1) Chamoecephalic (flat skulls) up to 70,
- (2) Orthocephalic from 70·1 to 75.

(3) Hypsicephalic (high skulls) 75—1 and upwards; but the term metriocephalic is considered preferable. § English authors prefer the former order and classification, and the same plan is followed here.

Thus, out of the specimens measured under this heading, 60 are Acrocephalic; of these, again, 20 are above 80. The highest index comes naturally from Burma (No. 38) and stands at 87—88 and 87·10 (No. 426). The Burma No. 453 is 85—90. The Khamti of the Assam Hill (No. 388) reaches 84·24, while the Nicobarian No. 2 attains 84·15. Then there is a Burmese again (No. 463) at 83·33, a Khambu No. 70 of Assam 82·61, a Burmese (No. 39) 82·35 and Oriya undefined (No. 417) 82·9. Three Oriya (Nos. 412, 149, and 130) get 81, 11, and 81·08 respectively. A Bhumia of Orissa (No. 439, has 81·1 as his vertical index

* Topinard, Chapter II, page 229.

† Topinard's Anthropology, p. 242.

‡ Report on the Scientific Results of the Exploring Voyage of H. M. S. Challenger, Vol. X, p. 5.

§ "Challenger" Report, Vol. X, p. 5.

and another Burman (No. 437), 81·25. Those with 80 to 81 as their vertical index are six, four Burmans (464, 465, 429, and 455) and one Oriya (No. 4) and another No. 410.

There are a dozen skulls with 79 to 80 as the index. Five are Burmese, 1 (No. 34) Andamanese, one, (No. 433) a Juāng, two Oriyas and one undefined Bengali; at 77—78 there are 5 Burmans, 6 Oriyas, 4 Andamanese, 2 Kukis, and 1 each of Kandh, Kol, Muchi, Munda, Sherpa Bhotia, Singhalese, Kaibartta, Banjāra, Gurung, Gāro, and Lepcha. 77·35 is the Chinese skull.

There are 80 Metriocephalic skulls in the Indian Museum; of these, 19 are Burmese, 12 Oriyas, 8 Bengalis, 5 Bhotias, 4 Kols, 2 Lepehas, 2 Mundas, 2 Ladākhi 2 Muchi, and Teli, and one each of Murmi, Australian, Eurasian, Limbu, Malay, Bhumia, Musalman, Andamanese, Gurung, Korwa, Juāng, Dhobi, Gāro Orāon, Bhuiya, Chinese, Australian, Papuan, and Sherpa Bhotia.

Of the Tapeinocephalic there are 29 in all, consisting of 3 Bengalis, 3 Oriyas, 3 Oraons, 2 Mundas, 2 Burmese, 2 Liubu, and one each of Lepeha, Kalu, Sunnwar, Khambu, Bhuiya, Papuan, Dhobi, Bhumia, Santāl, Shau, Bhotia, Koya, Murmi, and Kuki.

CEPHALIC INDEX.

The length-breadth or cephalic index has been calculated from the relations between the greatest breadth and the glabello-occipital length, in conformity with the method adopted by Dr. Barnard Davis, Professors Rolleston and Flower, and Sir Herbert Risley. There are three classes of crania :—

- (1) Long heads 70 to 75 called Dolicho-cephalic,
- (2) Medium heads 75 to 80 called Meso-cephalic,
and
- (3) Broad heads over 80 called Brachy-cephalic.

Of the 168 heads measured under this head 51 are Brachy-cephalic with an index above 80. Of these 51, that numbered 70, which belongs to a Khambu from Darjeeling, is extraordinarily flat behind and possibly indicates the artificial method of shaping skulls practised by some primitive folk producing a cephalic index 98·55. There are two skulls above 90 as index and they are naturally all Burmese (No. 453, 93·59, and No. 38, 92·12). They prominently display the broad-headed characteristic of the Mongoloid races. Between 85 and 90 as cephalic index is also a prominent feature of the Eastern races. Of these, there are 17 in this collection with the Sherpa Bhotia No. 74 of Darjeeling at 89·74, the Burmese No. 461, at 89·71, the Andamanese No. 36 at 89·24. There are, besides, three Burmese with 88 to 89 and above and two with 87 to 88. A single unidentified Oriya No. 417 shows a cephalic index too high for his race and is possibly not an Oriya (C. I. 88·2). No. 388 the Khampti of Assam and No. 78 the Mech of Darjeeling are above 88, while an Andamanese (No. 35) is 87·10. The Kuki No. 522 of Kachar shows 85·96, another Andamanese No. 33, 85·63, the nomad

Banjāra of the Upper Godavari District No. 285, 85·54, Burmese No. 464, 85·29, the Ladākhi of Darjeeling No. 75, 85·06, and the Oriya No. 129, 85·7. The Burmese No. 465, stands with 85·0 as his cephalic index. From 84-85 we have two Burmese skulls (No. 455 and 467) 84·85 and 84·76 respectively; one Malay (No. 6) 84·12, and one Limbu (No. 64) from Darjeeling 84·21. Five Burmese are in evidence with 83 to 84 as their cephalic index. (No. 425, 463, 83·33, No. 456, 83·58, No. 436, 83·33, and No. 432, 83·24), one Limbu of Darjeeling (No. 65) 83·64, one Kandh No. 556, 83·54; one Bhotia of Darjeeling No. 58, 83·04, and one Andamanese No. 32, 83·73, represent the next gradation. Among those 82 to 83 as cephalic index, the Mech of Darjeeling No. 77, 82·86, Sherpa Bhotia of the same tract No. 73, 82·76, the Burmese No. 451, 82·35, the Oriya No. 411, 82·8, and the Murmi of Darjeeling 82·02 (No. 60) are also in evidence. The Burmese, again, represent very largely the group of 81 to 82. They are three (Nos. 430, 456, 466). The Nicobarian No. 2, has 81·71 as his cephalic index. In 80-81 group there are two Burmese (No. 6 and 424) and one Oriya No. 38 index 80·84.

There are 50 mesocephalic skulls in this group. From 79 to 80 we have—

From 78 to 79 we have—

Between 77 and 78 we have—

Between 76 and 77 we have—

Between 75 and 76 there are—

In the third or Dolicho-cephalic class, there are 67 skulls.

There is only one No. 419 Oriya, which is above 74. Its index is 74.3.

Between 73 and 74 there are—

Between 72 and 73 there are—

No. 602 Bhuiya from Ranchi	72.22
„ 304 Bengali	72.22
„ 536 Anstralian	72.19
„ 460 Burmese	72.18
„ 23 Oriya	72.9
„ 18 Santal	72.7
„ 538 Limbu from Assam	72.7
„ 611 Munda from Ranchi	72.6
„ 232 Oriya	72.3
„ 442 Kol from the Orissa Hills	72.2
„ 33 Oriya	72.2
„ 17 Gāro	72.04

From 71 to 72 there are—

No. 296 Bengali	71.98
„ 55 Bhoṭia from Darjeeling	71.20
„ 444 Kol from the Orissa Hills	71.35
„ 558 Dhobi from Birbhum	71.9
„ 612 Munda from Ranchi	71.7
„ 20 Oriya	71.7
„ 409 „	71.6
„ 666 Munda from Ranchi	71.6
„ 254 Koya or Koyadore from Upper Godavari District	71.3

From 70 to 71 there are—

No. 608 Orāon	70.97
„ 360 Gāro from the Garo Hills	70.29
„ 45 Dhobi from Calcutta	70.17
„ 26 Munda	70.9
„ 24 Oriya	70.3
„ 2 „	70.2

From 69 to 70 there are—

No. 14 Teli from Malda	69.19
„ 301 Bengali	69.11
„ 599 Bhuiya from Ranchi	69.10
„ 28 Munda	69.9
„ 411 Bhumia from the Orissa Hills	69.8

From 68 to 69 there are—

No. 295 Bengali	68.95
„ 44 Kalu from Calcutta	68.85
„ 404 Korwa from Sirjuga	68.82
„ 68 Lepcha from Darjeeling	68.62
„ 303 Bengali	68.31
„ 610 Orāon from Ranchi	68.31

From 67 to 68 we have —

No. 607 Munda Ranchi	67·88
„ 405 Kisān from Chota Nagpur	67·78
„ 305 Bengali	67·57
„ 585 Papuan from New Guinea	67·37

THE GNATHIC INDEX.

This index is the comparison of the basi-alveolar diameter with the basi-nasal length. It ranks high as a racial feature. In the skeleton of the face the most striking differences are met with in the size of the jaws and the extent to which they project forwards. The human skull, in comparison with that of the lower animals, is especially distinguished by the great expansion of its cranial portion and the relative small development of the face, the latter is extended vertically instead of horizontally and thus brought down under the fore part of the cranium. A marked prominence of the jaws constitutes, therefore, an approach to the animal type of skull, and is to be regarded as a character of inferiority particularly when it is accompanied, as is often the case, by a low and receding forehead.* *The degree of projection of the jaws beyond the cranium is most conveniently expressed by the gnathic or alveolar index of Flower, which is obtained by comparison of the basi-alveolar length, with the basi-nasal length (Quain's Anatomy page 85, edition 1899).*

Skulls with gnathic index below 98 are *orthognathous*. 98 to 103 *Mesognathous* and above 103 *Prognathous*.

Among the 160 skulls in which the gnathic index has been ascertained 106 are Orthognathous, 39 Mesognathous, and only 15 Prognathous. Of the 106 Orthognathous skulls 13 reach 97 to 98. Of these, three are Oriyas, 2 Burmese, and one of Bengali, Bhuiya, Bhotia, Gāro, Kol, Khambu, Kuki, and Muchi. Between 96 and 97 come 4 Oriyas, 3 Burmese, 2 Andamanese, 2 Mundas, 2 Murmis, and one each of Kisān, Bengali, Juāng, Australian, Koya, Mech, Santāl, and Sherpa Bhotia. From 95 to 96 there are 6 Burmese, 4 Oriyas, 2 each of Lepchas, and Orāons, and one each of Bengali, Bhotia, Bhumia, Kalu, and Teli. From 94 to 95 there are 4 Burmese, 2 Oriyas, and one each of Banjāra, Bengali, Dhobi, Gurung, Korwā, Munda, Sherpa Bhotia and Shān. From 93 to 94 there are 3 Burmese, 2 Bengalis, one Oriya, one Musalman, and one Limbu. From 92 to 93 there are 2 Burmese, and one each of Juāng, Kaibartta, Lohār, Munda, and Oriya. From 91 to 92 there are 2 Bengalis, one Khamti, one Kuki, and one Oriya. From 90 to 91 there are two Burmese, one Bengali, one Chinese, one Dhobi, one Gurung, one Ladākhi, one Kol, and one Kuki. From 89 to 90 there were two Oriyas, and one Khamba. From

* Sir William Turner in "Report of the Scientific Results of the voyage of H. M. S. Challenger," Vol. X, p. 128.

89 to 90 there are two Oriyas. From 87 to 88 there is one man from Burma and one Bhotia from Darjeeling and the Sunnwār of Darjeeling stands at 86·32, the lowest gnathic index recorded. Of the 39 mesognathous jaws there are only four between 102 and 103. They belong to a Bengali, a Burmese, a Nicobarian, and an Oriya. From 101 to 102 there are four, a Burmese, a Kol, a Malay, and an Oriya. Of those between 100 and 101 there are four Burmese, four Oriyas, three Andamanese, and one each of a Bengali, a Bhumiā, a Lepcha, a Munda, an Australian, a Papuan of New Guinea. Of the three 99 to 100, grade, one is a Burmese, one a Kol, and one an Oriya. Of the 98-99 class four are Burmese, two Bhotias, and one each of the Andaman, Bengali, Bhuiya, Munda, and Oriya. Of the the 15 prognathous skulls the Limbu has been omitted as an extraordinary type. It is curious that of the pure races the Gāro yields 107·14 as his gnathic index along with the Eurasian. Two Burmese stand between 105 and 106, a Burmese, a Chinese, a Ladākhi of Darjeeling, and the Papuan of New Guinea recorded 104 to 105 and to 103 104 are three Burmese, one Oriya, and one Singhalese. The highest gnathic index therefore is claimed by the Gāro of Darjeeling.

FACIAL INDEX.

It is the relation of the naso-mental length to the bizygomatic diameter. The former is the distance between the root of the nose and the lower end of the chin and the latter is the distance between the highest points of the zygomatic arch on either side. No special classification of this index has yet been attempted and no generalization drawn. No. 409 an Oriya seems to have the longest face as his index the highest recorded in this group, *viz.* 113·27. Next to him stands a Bengali No. 302, with 100·86 as facial index.

Between 91 and 100 as facial index there are 12 Oriyas, 8 Bengalis undefined, 4 Burmese, and one each of Bhuiya, Eurasian, Kaibartta, Lepcha, Musalman, Maori, Orāon, Teli, and Santāl. These may be said to have oval faces. Between 81 and 90 there are 9 Oriyas, 9 Burmese, 5 Bhotias, 5 Mundas, 3 Bengalis, 3 Limbus, 2 Orāons, Gurungs, 2 Lepchas, and one each of the Andamanese, Chinese, Dhobi, Gāro, Khamti, Kisān, Koya, Korwa, Khambu, Kalu, Ladākhi, Lohār, Mech, Muchi, Murmi, Sherpa Bhotia, Shān, Singalese, and Sunnwār. These may be taken to possess broad faces. The presence of the Chinaman, and the large proportion Oriyas and Burmese, Bhotias and Mundas, all Mongoloids, give an idea of the shape of the face. Omitting the old toothless Oriyas from the next group of 80 and less than 80 as their facial index and the Teli of Ranchi also very old, we find that the Gāro No. 360 heads the list of the broadest face with 75·76 as his index. This is right enough. The Mech (No. 78) of Darjeeling is next with 78·95 as his index. The Sherpa Bhotia (No. 74) of the same tract comes third with 78·13

then the Bhuiya, the Murmi, and the Ladakhî. The Mongolian flat face nearly approaching in height from the root of the nose to the chin, its own breadth between the zygomatic arches is thus evident in the traits known by that name (**Mongoloid**) in Sir Herbert Risley's Ethnographic map of India.

NASAL INDEX.

It is the relation of the maximum breadth of the anterior orifice of the nose to its maximum length, taken from the nasal spine to the Naso-frontal suture. This character in a certain point of view, is included in the category of those establishing a transition from man to ape, but more still among those the relation of which has not as yet been explained. M. Broca has discovered that the nasal index is one of the best for the purpose of distinguishing the various races of mankind. He does not arrange them in a regular scale conformably to the exalted idea that we ourselves belong to those races.

The three divisions of the nasal index are—

That a Kaibartta of Midnapur should top the list of the Leptorhines or finest noses may be a freak of nature, but we have to give the result as it stands:—

We have thus 27 Leptorhine noses among 164 measured. Of the Mesorhines here are 67.

No. 10 Bhotia	48·
„ 72 Sunnwar	48·
„ 76 Oriya	48·
„ 528 Eurasian	48·08
„ 58 Bhotia	48·15
„ 130 Oriya	48·2
„ 388 Khamti	48·24
„ 44 Kalu	48·89
„ 603 Lohār	48·9
„ 232 Oriya	48·9
„ 28 Andamanese	48·94
„ 23 Oriya	48·94
„ 32 „	49·
„ 63 Gurung	49·02
„ 460 Burmese	49·06

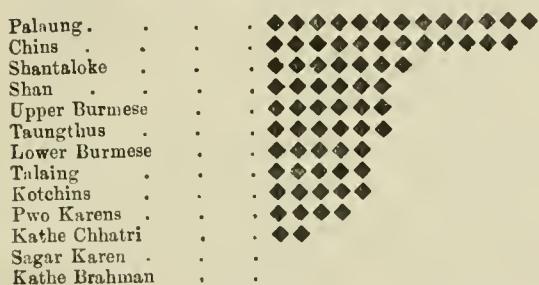
There are 31 skulls with 50 as their nasal index; 3 of them are Andamanese, 6 Bengalis, 1 Bhniya, 2 Bhotias, 4 Burmese, 1 Dhobi, 2 Kukis, 1 Ladākhi, 1 Lepcha, 1 Murmi, 7 Oriyas, 1 Shan, and one Teli of Malda. The large number of Bengalis and Oriyas may be noted. Between 50 and 51 there is one Oriya, 1 Bhotia, and 2 Burmese. Between 51 and 52 there is one Andamanese, one Burmese, two Oriyas, one Munda, and one member of Malay tribe. Among those with 52 to 53 as their nasal index there are 5 Burmese, 1 Bengali, 1 Bhumia, 1 Murmi, 1 Kol, and 1 Santāl. Those between 52 and 53 are presumably Mesorhines. Among them there are 2 Bengalis, 2 Oriyas, and one each of Ladākhi, Muchi, Munda, Nicobarian, Orāon, and Singhalese. Among the Platyrhine or flat-nosed people ranging from 53 to 58 we have 14 Burmese, 8 Oriyas, 3 Bengalis, 3 Mundas, 2 each of Gāro, Juāng, Lepcha, and Orāon, and one each of Andamanese, Banjāra, Bhotia, Papuan, Dhobi, Limbu, Kisān, Khāmba, Korwa, Koya, Maori, Mech, Muchi, Australian, Sherpa Bhotia, and Teli.

Considering the fact that many of these castes are Bengalis, the large number of the Burmese, Bengalis, and Oriyas may be noted among flat-nosed people. The high caste element of Bengal has of course to be omitted, as they are not represented in the Museum collection of skulls. Finally it may be mentioned that the Indian Museum collection of skulls contains specimens exceeding the extreme flatness of nose anticipated by Topinard in his Anthropology (p. 257, Chapter II). 53 to 58 is the limit he puts down for the Platyrhines, while the following our specimens in collection are flatter still in their noses:—

No. 467 Burmese	59·18
„ 456 „	59·18
„ 586 Papuan	60·87
„ 252 Australian	60·98

No. 468 Burmese	60·
„ 462	„	60·
„ 435	„	61·70
„ 521 Kuki of Cachar	63·64
„ 556 Kol	67·57
„ 461 Burmese again	70·73

The Burman therefore has the flattest nose; and the Kol is equally low! In the living face, the outer fleshy appendages of the nose (nostrils) get habitually inflated in these people and they present an exaggerated aspect of the broad or flat nose, so much so, that the *breadth* actually exceeds the height. The following diagram is prepared from the Ethnographic Survey report on the Anthropometric Data in Burma showing the percentage of people in whom the breadth of the nose exceeds its own height. This peculiarity diminishes near the coast-line, where free intercourse with foreigners exists.



The Kathe Brahmans have no one with his nose broader than its own height, because they are foreign Hindus and follow endogamous marriage laws, while in Kathe Chhatis though originally outsiders, are allowed to take local wives and the result is a proportionate loss of the height of the nose. The Karen have also migrated from Thibet through a great sandy desert between China and that country described by Fa Hian. Mr. D. M. Smeaton, M.A., I.C.S. in his book "The Loyal Karen of Burma" says (p. 66). "It appears certain that they are not the aboriginal inhabitants of Burma"; he further adds (p. 76) that "the features of those of pure blood are Caucasian in type."

Recently much stress has been laid on the nasal index as the indicator of higher evolution of man, and in many cases the arrangement of castes according to this index corresponds with its social position. An investigation of the nasal indices carefully classified and scheduled will perhaps lead to some interesting conclusions when compared with Social Statistics, an appendix of the Imperial Census Report for 1901.

THE ORBITAL INDEX.

THE ORBITAL INDEX is the relation of the vertical diameter of the base of the orbit to its horizontal diameter; the latter going from the dactyon to the opposite point of the great axis of this base, the former starting from the spot where the malo-maxillary suture meets the inferior orbital edge, and cutting perpendicularly the horizontal diameter. The two diameters are perfectly equal at birth, the vertical then becomes gradually shorter; but the true relation is

not established until after puberty, the woman always retaining, however, a less short vertical diameter, and in this, as in many other particulars, resembling the infant.

M. Broca classified the orbital index into three groups :

- (I) Megasemes from 89 and above.
- (II) Mesosomes from 83 to 88.
- (III) Microsemes 83 and under.

The Megasemes connects all the yellow races, or those derived from the yellow races, except the Esquimaux, who by this as well as by the nasal index, and by so many other points, are separated from them completely in spite of certain evident features of resemblance.

Of the sockets measured 57 are megasemes. Those exceeding 100 in the orbital index are 12, but of these ultra-monogloid eyes 4 are Burmese, with 105. 71 index recorded ; 2 are Khambus, and one each of Shān, Lepcha, Bhotia, Ladākhi, Malay, and Sherpa Bhotia—all Mongoloids in Sir Herbert Risley's map.

Among the rest, the largest number is taken up by the Burmese, fifteen in number ; there are three Bengalis, ten Oriyas, two Bhotias, two Kukis, and one each of Banjāra, Bhumia, Gurung, Juāng, Ladākhi, Lepcha, Limbu, Mech, Munda, and Murmi. There are 57 Mesosomes ranging from 89 to 83, consisting of—

17 Burmese	3 Bhotias
11 Oriya	2 Oriyas
5 Bengalis	2 Chinese

one each of Dhobi, Gāro, Kol, Kalu, Kisān, Khampti, Lohār, Limbu, Munda, Murmi, Maori, Oriya, Santāl, Singhalese, Sunnwār, and Sherpa Bhotia. There are 52 Microsemes with an index below 83. Of these there are

12 Oriyas	2 Kols
5 Bengalis	2 Papuans
5 Burmese	2 Bhumias
4 Mundas	2 Australians

one each of Dliobia, Eurasian, Gāro, Gurung, Juāng, Kuki, Kandh, Kol, Korwā, Koya, Kaibartta, Lepcha, Mech, Muchi, Musalman, Nicobarian, and Teli. The lowest orbital index before 75 showing high development, is recorded in the case of the Korwā 71·8, and Munda 74·4.

PALATO-MAXILLARY INDEX.

As considerable difference exists in the relative length and breadth of the palato-maxillaries in different individuals, it is thought advisable to have descriptive

terms to express the different value of the palato-maxillary index. It is the proportion of the breadth of the palate to its length. There are three degrees :

Dolichuranic or Longi-palatal index below 110.

Mesuranic or Mediopalatal index between 110 and 115.

Brachy-uranic or Brenipalatal index above 115.

Out of the 149 skulls in which this index could be recorded, 16 are dolichuranic or longi-palated. The Burmese No. 435 comes up to 100 showing that the breadth and length of his palate are equal. The longest palate is, however, possessed by the Australian, No. 252, and stands at 75.61. The Andamanese No. 36 comes next at 77.50, and, rightly enough, this tribe is considered very primitive still. There are 7 Oriyas in this group, 2 Burmese, and one each of a Limbu, an Andamanese, a Malay, and a Singhalese, all lower types. The presence of the Oriyas, most of whom are possibly low class coolies in Calcutta, may be specially noted in this long-palated group. There are 22 medio-palatal skulls, ranging from 110 to 115 in palato-maxillary index. Of these, two are Papuans, 9 Oriyas, 2 Bhumias, and one each of the following : Bengali, Bhumia, Gāro, Kisān, Koya, Orāon, Santāl, and Teli.

Majority of the skulls in the Indian Museum are brevi-palatal or Brachy-uranic, being 11 out 149. Out of these, 27 are Burmese, 14 Oriyas, 11 Bengalis, 6 Bhotias, 5 Andamanese, 4 Mundas, 3 Lepchas, 3 Kols, 3 Kukis, 2 each of Murmi, Limbu, Ladākhi, Gurung, Chinese, Mech, Juāng, and Sherpa Bhotia and one each, of Banjāra, Bhumia, Dhobi, Eurasian, Gāro, Kaibartta, Khamti, Khandh, Kol, Khambu, Korwa, Kalu, Lohār, Muchi, Australian, Nicobarian, Orāon, Shān, Sunnwār, and Teli. The Australian, No. 7, claims the broadest jaw with 161.90 as the index. The Bhotia, No. 58, reaches 156.09 with two others at 147.72 and 145.65. The Burmese, No. 425, stands at 154.34 and the Khambu numbered 70 at 150. There are 3 Burmese at 141 to 142. All these are Mongoloid races with broad, flat faces.

B. A. GUPTE,

Assistant Director of Ethnography, for India.

CALCUTTA :

1st May 1908.

Statement showing highest territorial record of broad heads.

	Locality.	Caste or Tribe.	Cephalic Index.	
Darjeeling	Khambu		87.95	
Darjeeling	Sherpa Bhotia		86.25	
Darjeeling	Mech		85.66	
Assam	Khāmti		84.85	
Malay	Malay		82.12	
Nicobar Islands	Nicobarian		81.11	
Bengal	Kaibartta		80.47	
Calcutta	Muchi		79.41	
Cachar	Kuki		78.69	
Orissa	Kol		78.61	
Ranchi	Lohār		76.47	
Ceylon	Singhalese		75.43	
Burma	Shān		72.83	
Mymensingh	Gāro		71.74	
Manbhum	Santāl		71.54	
Upper Godavari	Koya or Koyaadore		70.90	
Malda, Bengal	Teli		68.85	
Sirjuga	Korwa		68.18	
Birbhum	Dhobi		67.42	
Chutia Nagpur	Kisān (Khāria)	

Measurements of Crania of Khambus of Assam (A fighting tribe tolerating sexual license before marriage.)

Province or State and District.	Darjeeling.	Darjeeling.
Collection mark	4.9 1.5	7.0 1.6
Age
Sex	♂	...
Cubic capacity	1450	1050
Glabello-occipital length	18.1	13.8
Basi-bregmatic height	12.5	11.4
<i>Vertical Index</i>	69.06	82.61
Minimum frontal diameter	8.9	8.0
Stephanic diameter	8.4	9.6
Asterionic diameter	10.0	9.6
Greatest parieto-squamous breadth.	14.0	13.6
<i>Cephalic Index</i>	77.35	98.55
Horizontal circumference	51.5	44.5
Frontal longitudinal arc	2.0	10.8
Parietal longitudinal arc	12.8	10.3
Occipital longitudinal arc	11.8	10.4
Total longitudinal arc	30.6	32.5
Vertical transverse arc	30.6	3.00
Length of foramen magnum	3.8	3.0
Basi-nasal length	9.3	7.3
Basi-alveolar length	9.1	6.5
<i>Gnathic Index</i>	97.85	89.04
Interzygomatic breadth	13.7	10.0
Intermalar breadth	11.5	8.4
Nasio-mental length	×	8.7
Nasio-alveolar length	6.6	5.5
<i>Complete Facial Index</i>	×	87.0
Nasal height	5.5	3.7
Nasal width	2.5	2.0
<i>Nasal Index</i>	45.45	54.05
Orbital width	3.6	3.1
Orbital height	3.8	3.2
<i>Orbital Index</i>	105.56	103.23
Palato-maxillary length	4.8	3.
Palato-maxillary breadth	×	4.8
<i>Palato-maxillary Index</i>	×	×
Sympphysial height of the lower jaw.	3.4	2.4
Coronoid height of the lower jaw	5.8	4.2
Condylid height of the lower jaw.	5.8	4.2
Gonio-sympphysial length	8.6	6.5
Inter-gonial width, outside	10.2	7.6
Breadth of ascending rams	3.1	2.6
Special features	child

Measurements of Crania of Sherpa Bhotia [yakherds.]

Province or State and District.	Darjeeling.	Darjeeling.
Collection mark . . .	73 side 19 frontal	74 side 20 frontal
Age
Sex	♂	♀
Cubic capacity . . .	1380	1180
Glabello-occipital length . .	17.4	15.6
Basi-bregmatic height . .	13.0	12.1
<i>Vertical Index</i> . . .	74.71	77.56
Minimum frontal diameter . .	9.4	8.4
Stephanic diameter . . .	10.6	10.4
Asterionic diameter . . .	11.2	10.8
Greatest parieto-squamous breadth.	14.4	14.0
<i>Cephalic Index</i> . . .	82.76	89.74
Horizontal circumference . .	51.5	48.4
Frontal longitudinal arc . .	12.0	11.0
Parietal longitudinal arc . .	12.0	12.2
Occipital longitudinal arc . .	11.5	10.1
Total longitudinal arc . .	35.5	33.3
Vertical transverse arc . .	31.8	29.8
Length of foramen magnum . .	3.6	4.0
Basi-nasal length . .	10.0	9.5
Basi-alveolar length . .	9.4	9.2
<i>Gnathic Index</i> . . .	94.0	96.84
Interzygomatic breadth . .	13.9	12.8
Intermalar breadth . .	11.6	11.0
Nasio-mental length . .	12.1	10.0
Nasio-alveolar length . .	7.5	6.0
<i>Complete Facial Index</i> . . .	37.5	78.13
Nasal height . . .	5.7	4.7
Nasal width . . .	2.7	2.5
<i>Nasal Index</i> . . .	47.37	53.19
Orbital width . . .	4.0	4.0
Orbital height . . .	4.1	3.5
<i>Orbital Index</i> . . .	102.5	87.50
Palato-maxillary length . .	5.0	4.7
Palato-maxillary breadth . .	6.6	6.1
<i>Palato-maxillary Index</i> . . .	132	129.79
Symphysial height of the lower jaw.	3.1	2.4
Coronoid height of the lower jaw	6.0	4.5
Condylloid height of the lower jaw.	6.0	5.7
Gonio-symphysial length . .	9.8	9.0
Inter-gonial width, outside . .	1.0	0.2
Breadth of ascending ramus . .	3.5	2.7
Special features

Measurements of Crania of Meches [Nomads, now settled as cultivators.]

Province or State and District.	Darjeeling, Terai.	Darjeeling, Terai.
Collection mark . . .	77 side 24 front	78 side 23 front
Age
Sex . . .	♂	♀
Cubic capacity . . .	1460	1190
Glabello-occipital length . . .	17.5	15.6
Basi-bregmatic height . . .	13.3	11.5
<i>Vertical Index</i> . . .	76	73.72
Minimum frontal diameter . . .	8.5	9.2
Stephanic diameter . . .	11.0	11.2
Asterionic diameter . . .	11.0	10.0
Greatest parieto-squamous breadth. . .	14.5	13.8
<i>Cephalic Index</i> . . .	82.86	88.46
Horizontal circumference . . .	51.0	49.0
Frontal longitudinal arc . . .	12.0	11.2
Parietal longitudinal arc . . .	13.0	12.0
Occipital longitudinal arc . . .	12.0	9.5
Total longitudinal arc . . .	37.0	30.7
Vertical transverse arc . . .	80.5	30.0
Length of foramen magnum . . .	3.5	x
Basi-nasal length . . .	9.3	x
Basi-alveolar length . . .	9.0	x
<i>Gnathic Index</i> . . .	96.77	x
Interzygomatic breadth . . .	13.4	11.4
Intermalar breadth . . .	11.4	9.8
Nasio-mental length . . .	11.5	9.0
Nasio-alveolar length . . .	6.6	5.7
<i>Complete Facial Index</i> . . .	85.82	78.95
Nasal height . . .	5.1	4.1
Nasal width . . .	2.7	2.4
<i>Nasal Index</i> . . .	52.94	58.54
Orbital width . . .	4.0	3.3
Orbital height . . .	3.1	3.1
<i>Orbital Index</i> . . .	77.50	93.94
Palato-maxillary length . . .	4.7	4.0
Palato-maxillary breadth . . .	6.6	5.4
<i>Palato-maxillary Index</i> . . .	140.43	135.0
Symphysial height of the lower jaw. . .	3.5	2.4
Coronoid height of the lower jaw . . .	6.2	4.6
Condylloid height of the lower jaw . . .	6.8	4.6
Gonio-symphysial length . . .	8.8	7.1
Inter-gonial width, outside . . .	10.6	8.2
Breadth of ascending ramus . . .	3.1	3.2
Special features	young.

Measurements of Crania of Banjārās [Caravan carriers, now settled as cultivators.]

Province or State and District.	Upper Godavari District.
Collection mark	285
Age	40
Sex	Male
Cubic capacity	1290
Glabello-occipital length	16·6
Basi-bregmatic height	13·1
<i>Vertical Index</i>	78·92
Minimum frontal diameter	9·3
Stephanic diameter	11·2
Asterionic diameter	10·6
Greatest parieto-squamous breadth.	14·2
<i>Cephalic Index</i>	85·54
Horizontal circumference	49·5
Frontal longitudinal arc	12·1
Parietal longitudinal arc	12·0
Occipital longitudinal arc	10·3
Total longitudinal arc	34·4
Vertical transverse arc	20·5
Length of foramen magnum	3·7
Basi-nasal length	9·8
Basi-alveolar length	9·3
<i>Gnathic Index</i>	94·90
Interzygomatic breadth	13·1
Intermalar breadth	12·0
Nasio-mental length	×
Nasio-alveolar length	6·3
<i>Complete Facial Index</i>	×
Nasal height	4·9
Nasal width	2·6
<i>Nasal Index</i>	53·6
Orbital width	3·8
Orbital height	3·5
<i>Orbital Index</i>	92·11
Palato-maxillary length	5·0
Palato-maxillary breadth	6·1
<i>Palato-maxillary Index</i>	122
Sympysial height of the lower jaw.	2·7
Coronoid height of the lower jaw	6·0
Condylloid height of the lower jaw.	6·3
Gonio-sympysial length	8·2
Inter-gonial width, outside	8·8
Breadth of ascending ramus	2·8
Special features

Measurements of Cranium of a Khāmti [A tribe of Shans mixed with the Assamese.]

Province or State and District.	Hills between Assam and Burma.
Collection mark	388
Age	49
Sex	Male
Cubic capacity	1310
Glabello-occipital length	16·5
Basi-bregmatic height	13·9
<i>Vertical Index</i>	84·24
Minimum frontal diameter	9·0
Stephanic diameter	10·5
Asterionic diameter	10·1
Greater parieto-squamous breadth.	14·6
<i>Cephalic Index</i>	88·48
Horizontal circumference	50·7
Frontal longitudinal arc	12·0
Parietal longitudinal arc	13·0
Occipital longitudinal arc	10·0
Total longitudinal arc	35·0
Vertical transverse arc	32·0
Length of foramen magnum	3·0
Basi-nasal length	9·5
Basi-alveolar length	8·7
<i>Gnathic Index</i>	91·58
Interzygomatic breadth	14·0
Intermalar breadth	12·0
Nasio-mental length	12·0
Nasio-alveolar length	7·0
<i>Complete Facial Index</i>	85·71
Nasal height	5·6
Nasal width	2·7
<i>Nasal Index</i>	48·21
Orbital width	4·0
Orbital height	3·5
<i>Orbital Index</i>	87·50
Palato-maxillary length	4·7
Palato-maxillary breadth	6·4
<i>Palato-maxillary Index</i>	136·17
Sympysial height of the lower jaw.	3·4
Coronoid height of the lower jaw.	6·2
Condylloid height of the lower jaw.	6·3
Gonio-sympysial length	8·5
Inter-gonial width, outside	10·0
Breadth of ascending ramus	3·6
Special features

Measurements of Cranium of a Malay.

Province or State and District.	Malay.
Collection mark	6 side
Age	—
Sex	—
Cubic capacity	1360
Glabello-occipital length	17·0
Basi-bregmatic height	13·0
<i>Vertical Index</i>	76·47
Minimum frontal diameter	9·4
Stephanic diameter	10·3
Asterionic diameter	10·7
Greatest parieto-squamous breadth.	14·3
<i>Cephalic Index</i>	84·12
Horizontal circumference	49·8
Frontal longitudinal arc	12·5
Parietal longitudinal arc	11·0
Occipital longitudinal arc	12·2
Total longitudinal arc	35·7
Vertical transverse arc	31·5
Length of foramen magnum	3·4
Basi-nasal length	9·7
Basi-alveolar length	9·8
<i>Gnathic Index</i>	101·03
Interzygomatic breadth	13·5
Intermalar breadth	12·0
Nasio-mental length	+
Nasio-alveolar length	7·1
<i>Complete Facial Index</i>	+
Nasal height	5·8
Nasal width	3·0
<i>Nasal Index</i>	51·72
Orbital width	4·0
Orbital height	4·0
<i>Orbital Index</i>	100·0
Palato-maxillary length	6·1
Palato-maxillary breadth	6·94
<i>Palato-maxillary Index</i>	104·2
Sympysial height of the lower jaw.	—
Coronoid height of the lower jaw.	—
Candyloid height of the lower jaw.	—
Gonio-sympysial length	—
Inter-gouial width, outside	—
Breadth of ascending ramus	—
Special features

Measurements of Cranium of a Nicobarese.

Province or State and District.	Nicobar Island.
Collection mark	2 side 17 frontal
Age
Sex	Female
Cubic capacity	1345
Glabello-occipital length	16.4
Basi-bregmatic height	13.8
<i>Vertical Index</i>	84.5
Minimum frontal diameter	9.5
Stephanic diameter	11.2
Asterionic diameter	10.0
Greatest parieto-squamos breadth.	13.4
<i>Cephalic Index</i>	81.71
Horizontal circumference	49.4
Frontal longitudinal arc	13.0
Parietal longitudinal arc	12.0
Occipital longitudinal arc	11.0
Total longitudinal arc	36.0
Vertical transverse arc	31.1
Length of foramen magnum	3.2
Basi-nasal length	9.6
Basi-alveolar length	9.8
<i>Gnathic Index</i>	102.08
Interzygomatic breadth	13.0
Intermalar breadth	11.1
Nasio-mental length
Nasio-alveolar length	5.8
<i>Complete Facial Index</i>
Nasal height	4.6
Nasal width	2.4
<i>Nasal Index</i>	52.17
Orbital width	4.0
Orbital height	3.0
<i>Orbital Index</i>	75.9
Palato-maxillary length	51.0
Palato-maxillary breadth	62.0
<i>Palato-maxillary Index</i>	116.98
Sympysial height of the lower jaw.	2.2
Coronoid height of the lower jaw	5.6
Condylloid height of the lower jaw.	5.7
Gonio-sympysial length	8.7
Inter-gonial width, outside
Breadth of ascending ramus	33.0
Special features

Measurements of Crania of Ladakhis [Polyandrous Kashmiris.]

Province or State and District.	Darjeeling.	Darjee Ling
Collection mark	$\frac{7}{2} \cdot 5$	$\frac{7}{2} \cdot 6$
Age
Sex	Male	Female
Cubic capacity	1490	1360
Glabello-occipital length	17·4	17·6
Basi-bregmatic height	12·8	12·8
<i>Vertical Index</i>	73·56	72·73
Minimum frontal diameter	9·0	8·8
Stephanic diameter	11·0	9·6
Asterionic diameter	10·8	10·5
Greatest parieto-squamous breadth.	14·8	13·8
<i>Cephalic Index</i>	85·06	78·41
Horizontal circumference	52·0	51·0
Frontal longitudinal arc	13·3	13·2
Parietal longitudinal arc	12·8	11·5
Occipital longitudinal arc	10·6	12·3
Total longitudinal arc	36·7	37·0
Vertical transverse arc	32·0	30·2
Length of foramen magnum	3·5	3·5
Basi-nasal length	9·2	9·3
Basi-alveolar length	9·5	8·4
<i>Gnathic Index</i>	103·26	90·32
Interzygomatic breadth	13·5	12·6
Intermalar breadth	11·4	11·0
Nasio-mental length	11·7	10·1
Nasio-alveolar length	7·0	6·5
<i>Complete Facial Index</i>	86·67	79·37
Nasal height	5·1	5·0
Nasal width	2·7	2·5
<i>Nasal Index</i>	52·94	50·0
Orbital width	3·8	3·5
Orbital height	3·6	3·5
<i>Orbital Index</i>	94·74	100·0
Palato-maxillary length	5·0	4·1
Palato-maxillary breadth	6·3	6·0
<i>Palato-maxillary Index</i>	136·0	146·36
Sympophysial height of the lower jaw.	2·9	2·6
Coronoid height of the lower jaw	6·0	5·8
Condylloid height of the lower jaw.	6·0	5·9
Gonio-sympophysial length	9·1	8·3
Inter gomial width, outside	10·1	9·6
Breadth of ascending ramus	3·2	3·1
Special features

Measurements of Cranium of a Kaibarita (A large fishing and cultivating caste of Bengal.)

	Province or State and District	Midnapur, Bengal.
Collection mark	2 front	
Age	45	
Sex	Male	
Cubic capacity	13.00	
Glabello-occipital length	16.9	
Basi-bregmatic height	13.3	
<i>Vertical Index</i>	78.70	
Minimum frontal diameter	9.7	
Stephanic diameter	11.5	
Asterionic diameter	10.0	
Greatest parieto-squamous breadth.	13.6	
<i>Cephalic Index</i>	80.47	
Horizontal circumference	48.8	
Frontal longitudinal arc	12.5	
Parietal longitudinal arc	12.5	
Occipital longitudinal arc	10.2	
Total longitudinal arc	35.2	
Vertical transverse arc	3.1	
Length of foramen magnum	3.7	
Basi-nasal length	9.9	
Basi-alveolar length	9.2	
<i>Gnathic Index</i>	92.93	
Interzygomatic breadth	12.5	
Intermalar breadth	11.3	
Nasio-mental length	11.4	
Nasio-alveolar length	6.1	
<i>Complete Facial Index</i>	92.2	
Nasal height	4.8	
Nasal width	2.0	
<i>Nasal Index</i>	41.67	
Orbital width	4.3	
Orbital height	3.3	
<i>Orbital Index</i>	76.74	
Palato-maxillary length	4.5	
Palato-maxillary breadth	5.9	
<i>Palato-maxillary Index</i>	131.11	
Sympysial height of the lower jaw.	3.0	
Coronoid height of the lower jaw.	5.5	
Condylloid height of the lower jaw.	6.0	
Gonio-sympysial length	9.0	
Inter-gonial width, outside	9.5	
Breadth of ascending ramus	3.0	
Special features	

Measurements of Crania of Limbus [A hill tribe found between Nepal and Sikkim.]

Province or State and District.	Darjeeling	Darjeeling	Assam.	
			64 side 10 front	65 side 11 front
Collection mark . . .				538 frontal
Age	—	—	—	—
Sex	Male	Female	Male	
Cubic capacity . . .	1300	1200	1410	
Glabello-occipital length . .	17·1	16·5	18·8	
Basi-bregmatic height . .	12·0	12·0	13·0	
<i>Vertical Index</i> . . .	70·18	72·73	69·15	
Minimum frontal diameter . .	9·8	8·8	9·5	
Stephanic diameter . . .	10·8	10·8	8·2	
Asterionic diameter . . .	10·9	10·4	11·0	
Greatest parieto-squamous breadth.	14·4	13·8	13·7	
<i>Cephalic Index</i> . . .	84·21	83·64	72·7	
Horizontal circumference . .	51·0	49·0	52·7	
Frontal longitudinal arc . .	12·5	11·5	12·0	
Parietal longitudinal arc . .	11·4	12·2	13·5	
Occipital longitudinal arc . .	11·5	10·5	11·5	
Total longitudinal arc . .	34·9	34·2	37·0	
Vertical transverse arc . .	31·6	30·4	32·0	
Length of foramen magnum . .	3·7	3·6	3·8	
Basi-nasal length . . .	9·1	8·8	10·5	
Basi-alveolar length . . .	9·1	8·2	10·0	
<i>Gnathic Index</i> . . .	10·0	93·18	95·4	
Interzygomatic breadth . .	14·0	12·5	14·2	
Intermalar breadth . . .	12·3	11·1	12·0	
Nasio-mental length . . .	11·8	11·2	12·3	
Nasio-alveolar length . . .	6·6	6·8	7·7	
<i>Complete Facial Index</i> . . .	84·29	89·6	86·62	
Nasal height	5·0	5·2	6·0	
Nasal width	2·7	2·4	2·6	
<i>Nasal Index</i>	54·80	46·15	43·33	
Orbital width	4·0	4·0	4·0	
Orbital height	3·5	3·8	3·5	
<i>Orbital Index</i>	87·5	95·0	87·5	
Palato-maxillary length . .	5·0	4·2	6·0	
Palato-maxillary breadth . .	6·4	6·0	6·2	
<i>Palato-maxillary Index</i> . .	128·0	142·85	103·33	
Sympphysial height of the lower jaw.	3·5	2·8	3·2	
Coronoid height of the lower jaw.	6·3	5·4	6·9	
Condylloid height of the lower jaw	6·2	5·4	6·5	
Gonio-sympphysial length . .	9·2	8·7	10·2	
Inter-gonial width, outside . .	9·5	9·3	10·8	
Breadth of ascending ramus . .	3·5	3·4	4·2	
Special features	<i>See A</i>	<i>See B</i> <i>in fra</i>		

A. There is a frontal sinus along the entire length of the bones, and there are wormian bones in the occipito-parietal sinus. An extraordinarily broad inter-orbital space 3·4.

B. There is a trace of the frontal suture and a wormian bone at the right occipito-mastoidal joint.

Measurements of Crania of Murmis (Nepalese cultivators.)

Province or State and District	Darjeeling.	Darjeeling.
Collection mark . . .	Side 60	61 side
Age	
Sex	Male	Male
Cubic capacity . . .	1440	1510
Glabello-occipital length . .	17.8	18.0
Basi-bregmatic height . .	13.5	12.4
<i>Vertical Index</i> . . .	75.84	68.89
Minimum frontal diameter . .	9.5	9.0
Stephanic diameter . . .	10.7	11.2
Asterionic diameter . . .	10.8	10.5
Greatest parieto-squamous breadth.	14.6	14.1
<i>Oeophalic Index</i> . . .	82.02	78.33
Horizontal circumference . .	51.5	51.6
Frontal longitudinal arc . .	12.3	12.7
Parietal longitudinal arc . .	12.5	13.0
Occipital longitudinal arc . .	11.3	11.5
Total longitudinal arc . .	36.1	37.1
Vertical transverse arc . .	31.1	31.0
Length of foramen magnum . .	4.0	3.8
Basi-nasal length . . .	10.0	9.5
Basi-alveolar length . . .	9.6	9.2
<i>Gnathic Index</i> . . .	96.0	96.84
Interzygomatic breadth . .	14.1	13.1
Intermalar breadth . . .	12.5	11.8
Nasio-mental length . . .	12.0	10.4
Nasio-alveolar length . . .	7.5	6.4
<i>Complete Facial Index</i> . . .	85.11	79.39
Nasal height	5.4	5.0
Nasal width	2.7	2.6
<i>Nasal Index</i>	50.0	52.0
Orbital width	3.7	4.0
Orbital height	3.4	3.5
<i>Orbital Index</i>	94.32	87.5
Palato-maxillary length . .	5.0	4.5
Palato-maxillary breadth . .	6.2	6.0
<i>Palato-maxillary Index</i> . . .	124.0	133.33
Sympysial height of the lower jaw.	3.0	3.6
Coronoid height of the lower jaw	6.1	5.5
Condylloid height of the lower jaw.	7.0	5.5
Gonio-sympysial length . . .	9.5	8.6
Inter-gonial width, outside . .	10.4	10.0
Breadth of ascending rams . .	3.6	3.1
Special features

Measurements of Cranium of a Muchi (Cobblers.)

Province or State and District.		Calcutta.
Collection mark	.	46 Side 36 Front
Age
Sex
Cubic capacity	.	1300
Glabello-occipital length	.	17·0
Basi-bregmatic height	.	13·2
<i>Vertical Index</i>	.	77·65
Minimum frontal diameter	.	9·5
Stephanic diameter	.	11·6
Asterionic diameter	.	11·0
Greatest parieto-squamous breadth	.	13·5
<i>Cephalic Index</i>	.	79·41
Horizontal circumference	.	50·0
Frontal longitudinal arc	.	12·0
Parietal longitudinal arc	.	13·5
Occipital longitudinal arc	.	10·5
Total longitudinal arc	.	35·0
Vertical transverse arc	.	31·0
Length of foramen magnum	.	3·5
Basi-nasal length	.	9·8
Basi-alveolar length	.	9·6
<i>Gnathic Index</i>	.	97·96
Interzygomatic breadth	.	12·6
Intermalar breadth	.	11·0
Nasio-mental length	.	11·2
Nasio-alveolar length	.	6·9
<i>Complete Facial Index</i>	.	88·89
Nasal height	.	5·0
Nasal width	.	2·7
<i>Nasal Index</i>	.	54·0
Orbital width	.	3·6
Orbital height	.	3·0
<i>Orbital Index</i>	.	83·3
Palato-maxillary length	.	5·0
Palaato-maxillary breadth	.	6·0
<i>Palato-maxillary Index</i>	.	120·0
Sympysial height of the lower jaw.	.	3·0
Coronoid height of the lower jaw	.	6·0
Condyloid height of the lower jaw	.	6·1
Gonio-sympysial length	.	8·5
Inter-gonial width, outside	.	9·0
Breadth of ascending ramus	.	3·1
Special features	.	A

A. There are many wormian bones the parieto-occipital suture.

Measurements of Crania of Kukis (A hill tribe.)

Province or State and District.		Cachar.	Cachar.
Collection mark	30 side 18 front	521	522
Age	30	...
Sex	Male	...
Cubic capacity	1100	1520	1300
Glabello-occipital length	16.4	18.6	17.1
Basi-bregmatic height	12.7	13.2	13.2
<i>Vertical Index</i>	77.44	70.97	77.19
Minimum frontal diameter	9.0	9.3	9.6
Stephanic diameter	11.1	10.4	9.3
Asterionic diameter	9.2	10.0	11.1
Greatest parieto-squamous breadth. . . .	12.6	13.6	14.7
<i>Cephalic Index</i>	76.83	73.12	85.96
Horizontal circumference	47.5	52.5	51.0
Frontal longitudinal arc	12.8	13.7	12.2
Parietal longitudinal arc	12.5	14.5	12.1
Occipital longitudinal arc	9.5	11.0	10.8
Total longitudinal arc	34.8	39.2	35.1
Vertical transverse arc	30.0	32.0	32.5
Length of foramen magnum	3.5	3.5	3.7
Basi-nasal length	9.0	9.7	10.3
Basi-alveolar length	8.2	9.5	9.3
<i>Gnathic Index</i>	91.11	97.94	90.29
Interzygomatic breadth	13.3	...
Intermalar breadth	9.7	11.5	11.8
Nasio-mental length
Nasio-alveolar length	6.4	6.1	7.3
<i>Complete Facial Index</i>
Nasal length	4.6	4.4	5.5
Nasal width	2.3	2.8	2.8
<i>Nasal Index</i>	50.0	63.64	50.91
Orbital width	3.6	4.0	4.0
Orbital height	3.3	3.3	3.7
<i>Orbital Index</i>	91.67	82.50	92.50
Palato-maxillary length	4.0	4.7	5.2
Palato-maxillary breadth	5.5	6.0	6.1
<i>Palato-maxillary Index</i>	137.5	...	117.31
Sympophysial height of the lower jaw.
Coronoid height of the lower jaw
Condylloid height of the lower jaw
Gonio-sympophysial length
Inter-gonial width, outside
Breadth of ascending ramus
Special features	A

A. There is a wormian bone present.

Measurements of Cranium of a Kandh [A tribe found in Ganjam and Vizagapattam.]

Province or State and District.	Kandh-mal.
Collection mark	556 frontal.
Ago	18
Sex	Female
Cubic capacity	1070
Glabello-occipital length	15.8
Basi-biengmatic height	12.3
<i>Vertical Index</i>	77.85
Minimum frontal diameter	9.2
Stephanic diameter	11.5
Asterionic diameter	9.0
Greatest parieto-squamous breadth.	13.2
<i>Cephalic Index</i>	83.54
Horizontal circumference	46.3
Frontal longitudinal arc	11.0
Parietal longitudinal arc	12.7
Occipital longitudinal arc	10.5
Total longitudinal arc	34.2
Vertical transverse arc	28.7
Length of foramen magnum	2.8
Basi-nasal length	8.8
Basi-alveolar length	8.9
<i>Gnathic Index</i>	101.14
Interzygomatic breadth
Intermalar breadth	10.6
Nasio-mental length
Nasio-alveolar length
<i>Complete Facial Index</i>
Nasal height	3.7
Nasal width	2.5
<i>Nasal Index</i>	67.57
Orbital width	3.5
Orbital height	2.7
<i>Orbital Index</i>	77.14
Palato-maxillary length	5.0
Palato-maxillary breadth	6.0
<i>Palato-maxillary Index</i>	120
Symphysial height of the lower jaw.
Coronoid height of the lower jaw.
Condyloid height of the lower jaw.
Gonio-symphysial length
Inter-gonial width, outside
Breadth of ascending ramus
Special features

Measurements of Cranium of a Eurasian.

Province or State and District	Calcutta.
Collection mark	528
Age	28
Sex	Male
Cubic capacity	1280
Glabello-occipital length	17·1
Basi-bregmatic height	12·8
<i>Vertical Index</i>	74·85
Minimum frontal diameter	8·6
Stephanic diameter	9·5
Asterionic diameter	10·5
Greatest parieto-squamous breadth.	13·2
<i>Cephalic Index</i>	77·19
Horizontal circumference	48·2
Frontal longitudinal arc	12·0
Parietal longitudinal arc	12·4
Occipital longitudinal arc	11·4
Total longitudinal arc	35·8
Vertical transverse arc	30·0
Length of foramen magnum	3·5
Basi-nasal length	9·8
Basi-alveolar length	10·5
<i>Gnathic Index</i>	107·14
Interzygomatic breadth	12·2
Intermalar breadth	11·0
Nasio-mental length	12·1
Nasio-alveolar length	7·6
<i>Complete Facial Index</i>	99·18
Nasal height	5·2
Nasal width	2·5
<i>Nasal Index</i>	48·08
Orbital width	4·0
Orbital height	3·2
<i>Orbital Index</i>	80·0
Palato-maxillary length	5·1
Palato-maxillary breadth	6·3
<i>Palato-maxillary Index</i>	123·53
Sympysial height of the lower jaw.	3·5
Coronoid height of the lower jaw.	6·0
Condylloid height of the lower jaw.	6·2
Gonic-sympysial length	9·2
Inter-gonial width, outside	10·2
Breadth of ascending ramus	3·4
Special features	A

A. Receding forehead, and marked prognathism.

Measurements of Crania of Bhotias of Duars.

Province or State and District.	Darjeeling.	Darjeeling.	Darjeeling.	Darjeeling.	Darjeeling.	Darjeeling.	Side No. 10
Collection mark	55 side	56 side	57 side	58 side	59 side		
Age	
Sex	Male	Female	Male	Female	Female	Male	
Cubic capacity	1460	1390	1420	1520	1525	1330	
Glabello-occipital length	19.1	18.0	18.2	17.1	18.0	17.5	
Basi-bregmatic height	13.5	13.0	13.5	13.0	13.2	12.7	
<i>Vertical Index</i>	70.6	77.22	74.18	76.02	73.33	72.57	
Minimum frontal diameter	9.2	9.2	8.9	9.0	9.3	9.0	
Stephanic diameter	10.7	10.3	10.3	11.2	9.6	10.9	
Asterionic diameter	11.0	10.6	10.2	10.8	10.9	10.5	
reatest parieto-squamous breadth	13.6	13.8	13.5	14.2	14.4	13.3	
<i>Cephalic Index</i>	71.20	76.6	74.1	83.04	80.0	76.0	
Horizontal circumference	53.0	52.7	52.4	50.9	52.1	49.7	
Frontal longitudinal arc	15.0	12.5	13.3	13.0	13.2	12.7	
Parietal longitudinal arc	14.0	13.0	13.5	12.4	13.8	13.7	
Occipital longitudinal arc	12.5	11.7	11.0	11.8	11.0	10.5	
Total longitudinal arc	41.5	37.2	37.5	37.2	38.0	36.9	
Vertical transverse arc	33.0	32.5	31.0	31.0	32.0	29.5	
Length of foramen magnum	3.6	3.5	3.6	3.7	3.8	3.7	
Basi-nasal length	9.5	10.3	10.2	9.1	9.7	9.1	
Basi-alveolar length	9.0	10.0	10.0	8.0	9.3	9.0	
<i>Gnathic Index</i>	94.74	97.09	98.04	87.91	95.88	98.6	
Interzygomatic breadth	13.3	13.2	13.8	13.3	13.8	12.5	
Intermalar breadth	11.4	12.2	12.6	11.5	11.8	11.0	
Nasio-mental length	11.0	11.4	11.8	11.7	12.4	10.2	
Nasio-alveolar length	6.6	7.0	7.2	7.0	7.5	6.1	
<i>Complete Facial Index</i>	82.71	86.36	85.51	87.97	82.4	81.60	
Nasal height	4.7	5.3	5.4	5.4	5.4	5.0	
Nasal width	2.7	2.7	2.7	2.6	2.7	2.4	
<i>Nasal Index</i>	57.45	50.94	50.0	48.15	50.0	48.0	
Orbital width	3.8	4.0	3.7	4.3	4.0	3.5	
Orbital height	3.2	3.5	3.8	3.8	3.6	3.2	
<i>Orbital Index</i>	84.2	87.50	102.70	88.37	90.0	91.43	
Palato-maxillary length	4.8	5.0	4.6	4.1	4.7	4.4	
Palato-maxillary breadth	6.0	6.1	6.7	6.4	6.2	6.5	
<i>Palato-maxillary Index</i>	127.08	122.0	145.65	156.09	131.91	147.72	
Symphysial height of the lower jaw	2.8	3.0	3.2	3.0	3.2	2.7	
Coronoid height of the lower jaw	6.6	6.1	7.3	6.5	5.5	6.2	
Condylloid height of the lower jaw	6.5	6.2	7.2	6.3	5.7	6.2	
Gonio-symphysial length	8.8	9.4	10.0	8.5	9.3	8.7	
Inter-gonial width, outside	9.6	10	10.7	10.0	10.7	9.3	
Breadth of ascending ramus	3.4	3.5	4.0	3.0	3.3	3.5	
Special features	A			B		C	

REMARKS—A Prominent prognatism.

B There are wormian bones present.

C Ditto ditto.

Measurements of Crania of Juāngs (a leaf-clad forest tribe of Orissa).

Province or State and District	Orissa Hills, Frontal No. 443	Orissa Hills Frontal No. 445.
Collection mark
Age
Sex
Cubic capacity	1420	1030
Glabello-occipital length	17·9	16·4
Basi-bregmatic height	14·2	12·5
<i>Vertical Index</i>	73·33	76·22
Minimum frontal diameter	9·5	8·7
Stephanic diameter	10·9	11·0
Asterionic diameter	10·3	9·4
Greatest parieto-squamous breadth	13·1	12·7
<i>Cephalic Index</i>	73·18	77·44
Horizontal circumference	50·0	46·5
Frontal longitudinal arc	12·0	12·0
Parietal longitudinal arc	13·5	12·5
Occipital longitudinal arc	11·5	9·6
Total longitudinal arc	37·0	34·1
Vertebral transverse arc	31·0	28·2
Length of foramen magnum	3·3	3·0
Basi-nasal length	10·6	9·3
Basi-alveolar length	10·0	8·6
<i>Gnathic Index</i>	96·15	92·47
Interzygomatic breadth	12·6	12·1
Intermalar breadth	11·6	10·7
Nasio-mental length
Nasio-alveolar length	6·0
<i>Complete facial index</i>
Nasal height	4·7	4·4
Nasal width	2·5	2·4
<i>Nasal index</i>	53·19	54·55
Orbital width	3·9	3·8
Orbital height	3·5	3·1
<i>Orbital index</i>	89·74	80·6
Palato-maxillary length	5·2	4·7
Palato-maxillary breadth	6·1	5·5
<i>Palato-maxillary index</i>	117·31	117·52
Symphysial height of the lower jaw
Coronoid height of the lower jaw
Condyloid height of the lower jaw
Gonio-symphysial length
Inter-gonial width, outside
Breadth of ascending ramus
Special features

Measurements of Cranium of a Singhalese.

Province or State and District	Ceylon.
Collection mark	Frontal No. 554.
Age	35
Sex	Male.
Cubic capacity	1320
Glabello-occipital length	17.5
Basi-bregmatic height	13.8
<i>Vertical Index</i>	78.86
Minimum frontal diameter	9.1
Stephanic diameter	10.4
Asterionic diameter	10.4
Greatest parieto-squamous breadth	13.2
<i>Cephalic Index</i>	75.43
Horizontal circumference	49.0
Frontal longitudinal arc	12.3
Parietal longitudinal arc	13.3
Occipital longitudinal arc	11.0
Total longitudinal arc	36.6
Vertical transverse arc	31.0
Length of foramen magnum	3.5
Basi-nasal length	9.7
Basi-alveolar length	10.0
<i>Gnathic Index</i>	103.09
Interzygomatic breadth	12.5
Intermalar breadth	11.0
Nasio-mental length	11.2
Nasio-alveolar length	6.5
<i>Complete facial Index</i>	89.6
Nasal height	4.6
Nasal width	2.4
<i>Nasal Index</i>	52.17
Orbital width	4.0
Orbital height	3.4
<i>Orbital index</i>	85.0
Palato maxillary length	5.6
Palato-maxillary breadth	6.1
<i>Palato maxillary index</i>	108.93
Sympysial height of the lower jaw	3.0
Coronoid height of the lower jaw	6.0
Condyloid height of the lower jaw	6.8
Gonio-sympysial length	8.5
Inter-gonial width, outside	8.1
Breadth of ascending ramus	3.4
Special features

Measurements of Cranium of a Lohār (Ironsmith).

Province or State and District	Ranchi.
Collection mark . . .	600
Age
Sex
Cubic capacity . . .	12·40
Glabello-occipital length . . .	17·0
Basi-bregmatic height . . .	13·1
<i>Vertical Index</i> . . .	77·06
Minimum frontal diameter . . .	9·0
Stephonic diameter . . .	10·7
Asterionic diameter . . .	10·3
Greatest parieto-squamosus breadth . . .	13·0
<i>Cephalic Index</i> . . .	76·5
Horizontal circumference . . .	47·3
Frontal longitudinal arc . . .	12·6
Parietal longitudinal arc . . .	12·0
Occipital longitudinal arc . . .	10·6
Total longitudinal arc . . .	35·2
Vertical transverse arc . . .	28·8
Length of foramen magnum . . .	3·4
Basi-nasal length . . .	9·6
Basi-alveolar length . . .	8·9
<i>Gnathic Index</i> . . .	92·71
Interzygomatic breadth . . .	12·3
Intermalar breadth . . .	11·2
Nasio-mental length . . .	10·6
Nasio-alveolar length . . .	6·0
<i>Complete facial Index</i> . . .	86·07
Nasal height . . .	4·6
Nasal width . . .	2·2
<i>Nasal Index</i> . . .	7·08
Orbital width . . .	3·7
Orbital height . . .	3·2
<i>Orbital Index</i> . . .	86·49
Palato-maxillary length . . .	4·9
Palato-maxillary breadth . . .	5·8
<i>Palato-maxillary Index</i> . . .	11·83
Symphysial height of the lower jaw . . .	2·8
Coronoid height of the lower jaw . . .	5·1
Condylloid height of the lower jaw . . .	4·8
Gonio-symphysial length . . .	8·1
Inter-gonial width, outside . . .	9·2
Breadth of ascending ramus . . .	3·4
Special features

Measurements of Crania of members of Gurungs (a fighting tribe of Nepal).

Province or State and District	Darjeeling.	Darjeeling.
Collection mark . . .	Side No. $\frac{a}{2}$ frontal $\frac{b}{3}$	Side No. $\frac{a}{3}$ frontal $\frac{b}{9}$
Age
Sex	Male.	Female.
Cubic capacity	1515	1160
Glabello-occipital length	18·0	16·8
Basi-bregmatic height	13·6	13·4
<i>Vertical Index</i>	75·56	79·76
Minimum frontal diameter	9·6	8·6
Stephanic diameter	9·8	8·3
Asterionic diameter	10·5	9·7
Greatest parieto-squamous breadth	13·8	12·4
<i>Cephalic Index</i>	76·67	73·81
Horizontal circumference	52·0	47·5
Frontal longitudinal arc	13·0	12·0
Parietal longitudinal arc	13·0	11·5
Occipital longitudinal arc	11·5	10·9
Total longitudinal arc	37·5	34·4
Vertical transverse arc	31·5	28·7
Length of foramen magnum	4·0	4·0
Basi-nasal length	10·0	10·0
Basi-alveolar length	9·4	9·0
<i>Gnathic Index</i>	94	90
Interzygomatic breadth	13·1	12·0
Intermalar breadth	11·4	10·8
Nasio-mental length	11·6	10·3
Nasio-alveolar length	7·4	6·2
<i>Complete facial Index</i>	88·55	85·83
Nasal height	5·2	5·1
Nasal width	2·4	2·5
<i>Nasal Index</i>	46·5	49·02
Orbital width	4·0	3·6
Orbital height	3·1	3·5
<i>Orbital Index</i>	77·50	97·2
Palato-maxillary length	4·5	4·5
Palato-maxillary breadth	6·2	6·2
<i>Palato-maxillary Index</i>	137·77	137·77
Symphysial height of the lower jaw	3·4	2·6
Coronoid height of the lower jaw	6·0	5·3
Condyloid height of the lower jaw	5·8	6·2
Gonio-symphysial length	3·6	6·2
Inter-gonial width, outside	9·5	9·8
Breadth of ascending ramus	3·4	2·7
Special features

Measurements of Cranium of a Soniwar, a sub tribe of Bhuinhars (land owners and farmers).

Province or State and District	Darjeeling.
Collection mark	Side No. $\frac{7}{8}$ front.
Age
Sex	Male.
Cubic capacity	1330
Glabello-occipital length	18·1
Basi-bregmatic height	12·5
<i>Vertical Index</i>	69·06
Minimum frontal diameter	9·8
Stephanic diameter	11·6
Asterionic diameter	9·3
Greatest parieto-squamous breadth	13·4
<i>Cephalic Index</i>	74·03
Horizontal circumference	50·0
Frontal longitudinal arc	13·2
Parietal longitudinal arc	13·0
Occipital longitudinal arc	11·0
Total longitudinal arc	37·2
Vertical transverse arc	30·2
Length of foramen magnum	3·6
Basi-nasal length	9·5
Basi-alveolar length	8·2
<i>Gnathic Index</i>	86·32
Interzygomatic breadth	12·5
Intermalar breadth	11·1
Nasio-mental length	11·6
Nasio-alveolar length	7·0
<i>Complete facial Index</i>	92·80
Nasal height	5·0
Nasal width	2·4
<i>Nasal Index</i>	48·0
Orbital width	4·0
Orbital height	3·5
<i>Orbital Index</i>	87·50
Palato-maxillary length	4·4
Palato-maxillary breadth	3·3
<i>Palato-maxillary Index</i>	143·18
Sympphysial height of the lower jaw	3·1
Coronoid height of the lower jaw	5·8
Condylloid height of the lower jaw	6·0
Gonio-sympphysial length	8·6
Inter-gonial width, outside	9·4
Breadth of ascending ramus	3·2
Special features

Measurements of Crania of Lepchas (a hill tribe).

Province or State and District		Darjeeling.	Darjeeling.	Darjeeling.
		Side No. 66	Side No. 67	Side No. 68
Collection mark
Age
Sex	.	Male.	Male.	Female.
A	Cubic capacity	1690	1330	1260
	Glabello-occipital length	18.7	17.4	18.8
	Basi-bregmatic height	13.4	13.4	13.8
	<i>Vertical Index</i>	71.66	77.01	73.4
	Minimum frontal diameter	9.0	9.3	9.5
	Stephanic diameter	11.2	9.9	10.4
	Asterionic diameter	10.9	10.9	10.4
	Greatest parieto-squamous breadth	13.8	13.5	12.9
	<i>Cephalic Index</i>	73.80	77.59	68.62
	Horizontal circumference	52.8	50.0	50.9
	Frontal longitudinal arc	13.8	12.0	13.2
	Parietal longitudinal arc	15.3	13.3	12.8
	Occipital longitudinal arc	11.4	10.5	11.0
	Total longitudinal arc	40.5	35.8	37.0
	Vertical transverse arc	32.0	3.0	30.2
	Length of foramen magnum	3.6	3.5	3.5
	Basi-nasal length	9.2	10.0	10.5
	Basi-alveolar length	9.2	9.5	10.0
	<i>Gnathic Index</i>	100.0	95.0	95.24
	Interzygomatic breadth	13.0	13.0	13.2
	Intermalar breadth	11.4	12.0	12.0
	Nasio-mental length	10.5	12.6	11.4
	Nasio-alveolar length	6.2	7.6	6.8
	<i>Complete facial Index</i>	80.77	96.92	86.36
	Nasal height	4.6	5.6	5.0
	Nasal width	2.5	3.0	2.5
	<i>Nasal Index</i>	54.35	53.57	50.0
	Orbital width	3.6	3.7	4.2
	Orbital height	3.3	3.7	3.2
	<i>Orbital index</i>	91.67	1	76.19
	Palato-maxillary length	4.8	5.0	5.3
	Palato-maxillary breadth	6.5	7.0	26.7
	<i>Palato-maxillary index</i>	135.42	140.0	126.42
	Sympphysial height of the lower jaw.	2.7	3.0	3.7
	Cornoid height of the lower jaw	5.2	6.0	6.5
	Condylloid height of the lower jaw	5.5	6.1	6.5
	Gonio-sympphysial length	8.8	8.5	9.2
	Inter-gonial width, outside	10.0	10.4	10.5
	Breadth of ascending ramus	3.0	3.5	3.6
	Special features	A

A. Extraordinary cubic capacity of the cranium and presence of worm in bones

Measurements of Crania of Kols (ploughmen and field labourers).

Province or State and District	Singh-bhum.	Orissa Hills.	Orissa Hills.	Orissa Hills.
Collection mark . . .	Side No. 31 Frontal No. 19.	Frontal No. 410	442	444
Age	20
Sex	Male
Cubic capacity . . .	1200	1470	1180	1220
Glabello-occipital length . . .	17.5	18.2	17.6	17.8
Basi-bregmatic height . . .	13.0	13.8	13.0	13
<i>Vertical index</i> . . .	74.3	75.82	73.9	73.03
Minimum frontal diameter . . .	8.0	10.1	9.4	5
Stephanic diameter . . .	11.0	12.1	10.7	11.0
Asterionic diameter . . .	10.6	10.6	10.1	10.4
Greatest parieto-squamous breadth . . .	13.2	13.7	12.7	12.7
<i>Cephalic Index</i> . . .	75.4	75.3	72.2	71.3
Horizontal circumference . . .	49.2	51.5	49.5	49.7
Frontal longitudinal arc . . .	12.2	13.0	12.2	12.4
Parietal longitudinal arc . . .	12.1	13.2	13.0	13.6
Occipital longitudinal arc . . .	11.6	12.0	10.8	10.4
Total longitudinal arc . . .	35.9	38.2	36.0	36.4
Vertical transverse arc . . .	29.0	31.2	28.7	29.5
Length of foramen magnum . . .	3.1	3.4	3.1	3.3
Basi-nasal length . . .	9.5	10.1	10.1	10.1
Basi-alveolar length . . .	8.6	10.0	8.9	...
<i>Gnathic Index</i> . . .	90.5	99.1	98.0	...
Interzygomatic breadth . . .	13.1	13.3
Intermalar breadth . . .	11.9	12.0
Nasio-mental length
Nasio-alveolar length . . .	6.3	6.8	6.5	...
<i>Complete facial Index</i>
Nasal height	5.0	5.4	4.8	...
Nasal width	2.6	2.5	2.2	...
<i>Nasal index</i>	52.0	46.31	45.8	...
Orbital width	4.0	4.0	3.9	...
Orbital height	3.2	3.3	3.4	...
<i>Orbital Index</i>	80.0	82.5	87.2	...
Palato-maxillary length . . .	4.7	6.0	5.5	...
Palato-maxillary breadth . . .	6.6	6.9	6.5	...
<i>Palato-maxillary Index</i> . . .	140.0	115.3	118	...
Symphysial height of the lower jaw.	3.0
Coronoid height of the lower jaw.	6.6
Condylloid height of the lower jaw.	6.1
Gonio-symphysial length . . .	8.5
Inter-gonial width, outside . . .	9.1
Breadth of ascending ramus . . .	3.2
Special features	B

B. Has murderer's bumps (phrenological) and was convicted of murder.

Measurements of Crania of Bhuiyas (Serf Ploughmen).

Province or State and District .	Orissa Hills.	Orissa Hills.	Orissa Hills.	Ranchi.	Ranchi.
Collection mark . . .	438	439	441	599	602
Age	—	—
Sex	—	—
Cubic capacity . . .	1260	1330	1438	1170	1270
Glabello-occipital length . . .	17.7	17.5	19.0	18.8	18.0
Basi-bregmatic height . . .	13.1	14.2	13.6	12.5	13.2
<i>Vertical Index</i> . . .	74.0	81.1	71.58	70.22	73.33
Minimum frontal diameter . . .	8.9	9.4	9.5	9.2	8.9
Stephanic diameter . . .	11.0	11.2	11.6	10.3	10.2
Asterionic diameter . . .	9.6	10.9	10.6	9.8	10.0
Greatest parieto-squamous breadth.	13.3	12.0	13.2	12.3	13.0
<i>Cephalic Index</i> . . .	73.1	74.3	69.8	69.10	72.22
Horizontal circumference . . .	49.0	49.2	52.0	49.1	49.4
Frontal longitudinal arc . . .	13.0	12.8	13.0	13.0	12.2
Parietal longitudinal arc . . .	12.5	12.0	12.0	13.0	12.6
Occipital longitudinal arc . . .	10.9	11.4	13.3	9.6	11.3
Total longitudinal arc . . .	36.4	36.2	38.3	35.6	36.1
Vertical transverse arc . . .	30.5	31.3	30.2	28.5	29.6
Length of foramen magnum . . .	3.1	3.4	3.6	3.6	3.5
Basi-nasal length . . .	9.5	10.3	10.5	9.1	10.2
Basi-alveolar length	10.3	10.0	9.0	9.9
<i>Gnathic Index</i>	100.0	95.2	98.9	97.0
Interzygomatic breadth . . .	11.5	13.3	13.1	12.2	13.1
Intermalar breadth . . .	10.3	12.2	11.7	1.2	11.8
Nasio-mental length	11.2	10.4
Nasio-alveolar length	6.5	6.7	6.5	6.4
<i>Complete facial Index</i>	91.80	79.39
Nasal height	5.0	5.0	4.6	5.0
Nasal width	2.5	2.6	2.3	2.1
<i>Nasal Index</i>	5.0	52.0	50.0	42.0
Orbital width . . .	4.0	3.8	3.8	3.9	6
Orbital height . . .	3.8	3.1	2.9	—	2
<i>Orbital Index</i> . . .	95.0	81.6	76.3	—	88.9
Palato-maxillary length	5.4	5.6	5.4	5.3
Palato-maxillary breadth	6.6	6.5	6.1	6.0
<i>Palato-maxillary Index</i>	122.2	110.0	112.96	113.21
Symphysial height of the lower jaw.	3.0	2.2
Coronoid height of the lower jaw.	5.0	6.5
Condylloid height of the lower jaw.	5.2	6.0
Gonio-symphysial length	8.3	8.0
Inter-gonial width, outside	9.8	9.4
Breadth of ascending ramus	3.0	3.3
Special features	A	—	—

A. There are three large wormian bones in this skull.

Measurements of Cranium of a Shan.

Province or State and District	Burma. Side 40
Collection mark	Frontal 29
Age	♂
Sex	Male
Cubic capacity	1380
Glabello-occipital length	18·5
Basi-bregmatic height	13·0
<i>Vertical Index</i>	70·27
Minimum frontal diameter	10·0
Stephanic diameter	10·4
Asterionic diameter	10·7
Greatest parieto-squamous breadth.	13·5
<i>Cephalic Index</i>	72·97
Horizontal circumference	52·5
Frontal longitudinal arc	13·3
Parietal longitudinal arc	14·0
Occipital longitudinal arc	10·4
Total longitudinal arc	10·5
Vertical transverse arc	31·8
Length of foramen magnum	4·0
Basi-nasal length	9·6
Basi-alveolar length	9·1
<i>Gnathic Index</i>	93·79
Interzygomatic breadth	11·5
Intermalar breadth	11·4
Nasio-mental length	16·1
Nasio-alveolar length	2·7
<i>Complete facial Index</i>	85·22
Nasal height	5·2
Nasal width	2·6
<i>Nasal Index</i>	50·0
Orbital width	3·6
Orbital height	3·6
<i>Orbital Index</i>	100·0
Palato-maxillary length	4·8
Palato-maxillary breadth	6·4
<i>Palato maxillary Index</i>	133·33
Sympophysial height of the lower jaw	2·8
Coronoid height of the lower jaw	6·0
Condylloid height of the lower jaw	6·0
Gonio-sympophysial length	8·1
Inter-gonial width, outside	8·6
Breadth of ascending ramus	2·8
Special feature	A

A. The inter-orbital space measures 3 m. m.

Measurements of Crania of Telis (oil pressers).

Province or State and District	Pittoria in Ranchi	Maldia Bengal S. 14 F. 1
Collection mark . . .	598	
Age	—	28
Sex	—	Mae.
Cubic capacity . . .	1370	1310
Glabello-occipital length . . .	18·4	18·5
Basi-bregmatic height . . .	13·8	13·8
<i>Vertical Index</i> . . .	75·0	74·59
Minimum frontal diameter . . .	9·5	9·5
Stephanic diameter . . .	10·9	10·7
Asterionic diameter . . .	10·8	10·5
Greatest parieto-sq n a m o n s breadth.	13·4	12·8
<i>Cephalic Index</i> . . .	72·83	69·19
Horizontal circumference . . .	50·8	50·5
Frontal longitudinal arc . . .	12·5	13·4
Parietal longitudinal arc . . .	14·0	11·5
Occipital longitudinal arc . . .	11·3	12·5
Total longitudinal arc . . .	37·8	37·4
Vertical transverse arc . . .	29·2	31·0
Length of foramen magnum . . .	3·6	3·7
Basi-nasal length . . .	10·2	10·5
Basi-alveolar length . . .	9·7	10·0
<i>Gnathic Index</i> . . .	95·10	95·24
Interzygomatic breadth . . .	13·4	12·2
Intermalar breadth . . .	12·0	11·0
Nasio-mental length . . .	11·0	11·2
Nasio-alveolar length . . .	6·7	7·0
<i>Complete facial Index</i> . . .	64·55	91·8
Nasal height	4·7	5·4
Nasal width	2·5	2·7
<i>Nasal Index</i>	53·2	50·0
Orbital width	3·9	4·0
Orbital height	3·1	3·3
<i>Orbital Index</i>	79·5	82·50
Palato-maxillary length . . .	5·3	5·4
Palato-maxillary breadth . . .	6·5	6·2
<i>Palato-maxillary Index</i> . . .	122·6	114·81
Sympphysial height of the lower jaw.	2·8	3·0
Coronoid height of the lower jaw.	6·4	6·0
Condylloid height of the lower jaw.	—	6·1
Gonio-sympphysial length . . .	8·2	9·4
Inter-gonial width, outside . . .	9·5	9·5
Breadth of ascending ramus . . .	2·8	3·4
Special features	A	A.

A. There are wormian bones in these skulls.

Measurements of Crânia of Gâros (a hill tribe of cultivators).

Province or State and District	Garo Hills.	Navalpara, Garo Hills.
Collection mark	S. No. 17 F. No. 4	360
Age	35
Sex	♂	♂
Cubic capacity	1280	1160
Glabello-occipital length	18.6	17.5
Basi-bregmatic height	14.5	12.8
<i>Vertical Index</i>	77.96	73.14
Minimum frontal diameter	9.4	9.2
Stephanic diameter	9.9	10.5
Asterionic diameter	11.3	10.4
Greatest parieto-squamous breadth	13.4	12.3
<i>Gnathic Index</i>	72.04	70.29
Horizontal circumference	51.8	48.7
Frontal longitudinal arc	13.2	12.0
Parietal longitudinal arc	13.5	12.5
Occipital longitudinal arc	10.8	11.0
Total longitudinal arc	37.5	35.5
Vertical transverse arc	31.0	29.0
Length of foramen magnum	3.5	3.5
Basi-nasal length	10.9	9.8
Basi-alveolar length	10.6	10.5
<i>Gnathic Index</i>	97.24	107.14
Interzygomatic breadth	13.3	13.2
Intermalar breadth	11.5	11.3
Nasio-mental length	11.5	10.0
Nasio-alveolar length	7.0	6.0
<i>Complete facial Index</i>	86.47	75.76
Nasal height	5.0	4.9
Nasal width	2.7	2.6
<i>Nasal Index</i>	54.0	53.06
Orbital width	4.0	4.0
Orbital height	3.4	3.1
<i>Orbital Index</i>	85.0	77.50
Palato-maxillary length	5.3	5.4
Palato-maxillary breadth	7.0	6.2
<i>Palato-maxillary Index</i>	132.08	114.81
Sympysial height of the lower jaw	3.5	2.5
Coronoid height of the lower jaw	5.7	6.3
Condylloid height of the lower jaw	5.6	6.4
Gonio-sympysial length	8.7	8.5
Inter-gonial width, outside	10.3	10.3
Breadth of ascending ramus	3.3	
Special features	A.	

A. There are wormian bones in this skull

Measurements of the Cranium of a Santal (a forest tribe).

Province or State and District	Manbhum
Collection mark	18 5
Age	45
Sex	♂
Cubic capacity	1414
Glabello-occipital length	18·3
Basi-bregmatic height	13·1
<i>Vertical Index</i>	71·6
Minimum frontal diameter	9·4
Stephanic diameter	11·5
Asterionic diameter	10·5
Greatest parieto-squamous breadth.	13·3
<i>Cephalic Index</i>	72·7
Horizontal circumference	51·7
Frontal longitudinal arc	13·5
Parietal longitudinal arc	13·5
Occipital longitudinal arc	11·4
Total longitudinal arc	38·4
Vertical transverse arc	30·2
Length of foramen magnum	3·6
Basi-nasal length	9·5
Basi-alveolar length	9·2
<i>Gnathic Index</i>	96·84
Interzygomatic breadth	12·9
Intermalar breadth	11·0
Nasio-mental length	12·0
Nasio-alveolar length	6·6
<i>Complete facial Index</i>	93·02
Nasal height	5·0
Nasal width	2·6
<i>Nasal Index</i>	52·0
Orbital width	3·8
Orbital height	3·3
<i>Orbital Index</i>	86·8
Palato-maxillary length	5·3
Palato-maxillary breadth	6·1
<i>Palato-maxillary Index</i>	115·5
Sympysial height of the lower jaw.	3·5
Coronoid height of the lower jaw.	6·5
Condylloid height of the lower jaw.	5·8
Gonio-sympysial length	9·1
Inter-gonial width, outside	9·6
Breadth of ascending ramus	3·0
Special features	—

Measurements of the Cranium of a Koya or Kayadore (a forest tribe).

Province or State and District	Upper Godavari District.
Collection mark	284
Age	50
Sex	♂
Cubic capacity	1270
Glabello-occipital length	18·1
Basi-bregmatic height	12·6
<i>Vertical Index</i>	69·61
Minimum frontal diameter	8·7
Stephanic diameter	11·2
Asterionic diameter	10·4
Greatest parieto-squamous breadth	12·9
<i>Cephalic Index</i>	71·3
Horizontal circumference	49·8
Frontal longitudinal arc	12·8
Parietal longitudinal arc	12·0
Occipital longitudinal arc	11·0
Total longitudinal arc	35·8
Vertical transverse arc	29·0
Length of foramen magnum	3·5
Basi-nasal length	10·0
Basi-alveolar length	9·6
<i>Gnathic Index</i>	96·0
Interzygomatic breadth	11·9
Intermalar breadth	10·9
Nasio-mental length	10·0
Nasio-alveolar length	6·0
<i>Complete facial Index</i>	84·0
Nasal height	4·8
Nasal width	2·7
<i>Nasal Index</i>	56·25
Orbital width	3·8
Orbital height	2·9
<i>Orbital Index</i>	76·32
Palato-maxillary length	5·2
Palato-maxillary breadth	5·9
<i>Palato-maxillary Index</i>	113·46
Symphysial height of the lower jaw.	2·8
Coronoid height of the lower jaw.	5·7
Cendyloid height of the lower jaw.	5·3
Genio-symphysial length	8·3
Inter-gonial width, outside	9·5
Breadth of ascending ramus	2·7
Special features

Measurements of Crania of Orāons (a cultivating tribe of Assam).

Province or State and District	Ranchi.	Kanka village Ranchi.	Lālpur village Ranchi.
Collection mark . . .	601	608	610
Age
Sex
Cubic capacity . . .	1250	1420	430
Glabello-occipital length . .	17·4	18·6	19·0
Basi-bregmatic height . .	12·5	13·0	13·6
<i>Vertical Index</i>	7·84	69·89	71·05
Minimum frontal diameter . .	9·2	9·1	9·0
Stephanic diameter . . .	10·5	10·4	10·4
Asterionic diameter . . .	10·4	10·3	10·6
Greater parieto-squamous breadth . . .	13·1	13·2	12·9
<i>Cephalic Index</i>	75·29	70·97	68·3
Horizontal circumference . .	48·0	50·3	51·8
Frontal longitudinal arc . .	11·8	13·0	12·8
Parietal longitudinal arc . .	14·0	12·6	14·7
Occipital longitudinal arc . .	9·5	12·1	11·0
Total longitudinal arc . .	35·2	37·7	38·5
Vertical transverse arc . .	29·0	30·5	30·4
Length of foramen magnum . .	3·3	3·0	3·5
Basi-nasal length . . .	9·5	10·3	10·1
Basi-alveolar length . . .	9·1	9·8	...
<i>Gnathic Index</i>	95·8	95·1	...
Interzygomatic breadth . .	12·3	12·7	13·0
Intermalar breadth . . .	10·8	11·5	12·4
Nasio-mental length	10·8	10·6
Nasio-alveolar length . . .	6·1	6·4	...
<i>Complete facial Index</i>	8·5	...
Nasal height	4·6	4·8	5·0
Nasal width	2·2	2·6	2·7
<i>Nasal Index</i>	47·8	54·2	54·0
Orbital width	3·6	3·1	3·7
Orbital height	3·0	3·3	3·3
<i>Orbital Index</i>	83·3	83·8	89·2
Palato-maxillary length . .	4·8	5·2	...
Palato-maxillary breadth . .	5·5	6·7	7·2
<i>Palato-maxillary Index</i> . . .	114·5	128·8	...
Symphysial height of the lower jaw	2·7	...
Coronoid height of the lower jaw	5·7	7·2
Condylloid height of the lower jaw	6·0	6·7
Gonio-symphysial length	8·0	9·0
Inter-gonial width, outside	8·9	10·6
Breadth of ascending rami	3·3	3·4
Special features	△

△ Wormian bones are present in this skull.

Measurements of Crania of Mundas (a large Dravidian tribe of Chutia Nagpur).

Province or State and District	Lodhar, Ranchi.	Lodhar, Ranchi.	Lodhar, Ranchi.	Lodhar, Ranchi.	Jardaru.	Kakadeh.	Lâlpur, Ranchi.
Collection mark . . .	603	606	607	612	S. 25 F. 12	26 13	611
Age
Sex	Male	Male	Female	Male	Male	Male	...
Cubic capacity . . .	1380	1329	1000	1310	1250	1200	1170
Glabello-occipital length . .	18·0	18·3	16·5	18·6	17·6	17·9	16·8
Basi-bregmatic height . .	13·1	13·3	13·0	12·9	13·2	12·8	1·6
<i>Vertical Index</i> . . .	72·78	72·68	87·9	71·67	75·0	71·5	75·0
Minimum frontal diameter . .	9·6	8·9	8·8	9·0	8·9	8·9	9·2
Stephanie diameter . . .	10·2	9·9	8·9	10·0	10·2	10·5	9·7
Asterionic diameter . .	10·4	9·9	8·9	10·5	10·5	10·0	9·3
Greatest parieto-squamous breadth . .	13·4	13·1	11·2	12·9	12·3	12·7	12·2
<i>Cephalic Index</i> . . .	74·4	71·6	67·88	71·7	69·9	70·9	72·6
Horizontal circumference . .	49·3	49·8	44·8	49·1	48·8	49·1	46·0
Frontal longitudinal arc . .	12·4	12·4	11·2	12·0	12·5	11·2	11·6
Parietal longitudinal arc . .	12·4	15·5	12·0	13·6	13·1	12·5	13·0
Occipital longitudinal arc . .	11·2	10·2	10·3	11·0	11·1	11·8	9·9
Total longitudinal arc . .	36·0	38·1	33·5	33·6	36·7	35·5	34·5
Vertical transverse arc . .	30·1	28·7	27·7	29·1	27·8	28·5	28·0
Length of foramen magnum . .	3·3	3·6	3·1	3·2	3·5	3·5	3·2
Basi-nasal length . . .	10·1	9·4	9·8	9·6	9·1	10·1	9·3
Basi-alveolar length . .	9·3	9·3	9·5	9·6	8·8	9·5	...
<i>Gnathic Index</i> . . .	92·08	98·94	96·94	100·0	96·7	94·1	...
Interzygomatic breadth . .	12·8	13·1	11·5	12·8	12·3	12·2	12·0
Intermalar breadth . . .	11·8	12·0	10·9	11·8	11·2	10·9	11·0
Nasio-mental length . . .	11·5	10·6	9·8	10·3	...	10·7	...
Nasio-alveolar length . .	6·2	6·6	5·4	...	5·9	6·2	...
<i>Complete facial Index</i> . . .	89·84	80·92	85·22	80·4	...	87·7	8·3
Nasal height . . .	4·7	4·8	4·1	4·5	4·5	4·7	4·2
Nasal width . . .	2·3	2·5	2·4	5·5	2·3	2·6	2·2
<i>Nasal Index</i> . . .	48·9	52·1	58·5	55·5	51·1	53·3	52·4
Orbital width . . .	3·3	3·7	3·7	3·6	3·5	3·9	3·7
Orbital height . . .	3·3	2·9	3·0	3·1	3·4	3·1	3·4
<i>Orbital Index</i> . . .	76·	78·4	81·1	86·1	97·14	79·5	9·9
Palato-maxillary length . .	4·	5·6	5·1	...	4·9	5·3	...
Palato-maxillary breadth . .	6·	...	6·2	...	6·2	6·6	...
<i>Palato-maxillary Index</i> . .	128·5	...	121·5	...	126·0	124·0	...
Symphysial height of the lower jaw.	3·1	3·1	2·7	2·9	2·2
Coronoid height of the lower jaw	6·5	...	5	6·3	...	6·2	6·2
Condylloid height of the lower jaw	6·3	...	5	5·9	...	6·0	6·4
Gonio-symphysial length . .	8·6	8·6	8·0	8·8	...	8·6	8·5
Inter-gonial width, outside . .	9·5	9·2	9·3	9·3	...	9·9	10·0
Breadth of ascending ramus . .	3·7	3·5	3·3	3·1	...	3·0	3·5
Special features	A	...

There is a large wormian bone measuring 4·2 x 4·2 M. M.

*Measurements of Crania of *Dhobis* (washermen).*

Province or State and District	Calcutta	Birbhum
	S. No. 45	558
	F. No. 35	80
Collection mark
Age
Sex
Cubic capacity	1260	1200
Glabello-occipital length	18·1	17·8
Basi-bregmatic height	13·3	12·8
<i>Vertical Index</i>	73·48	71·91
Minimum frontal diameter	9·5	9·1
Stephanic diameter	11·0	10·2
Asterionic diameter	10·0	10·8
Greatest parieto-squamous breadth	12·7	12·8
<i>Cephalic Index</i>	70·17	71·91
Horizontal circumference	30·2	49·3
Frontal longitudinal arc	12·6	11·8
Parietal longitudinal arc	13·0	13·0
Occipital longitudinal arc	11·4	11·2
Total longitudinal arc	37·0	36·6
Vertical transverse arc	30·6	28·0
Length of foramen magnum	3·3	3·3
Basi-nasal length	9·7	9·8
Basi-alveolar length	9·2	...
<i>Gnathic Index</i>	94·85	...
Interzygomatic breadth	12·5	13·4
Intermalar breadth	10·8	12·4
Nasio-mental length	11·2	...
Nasio-alveolar length	6·8	...
<i>Complete facial Index</i>	89·60	...
Nasal height	5·0	4·5
Nasal width	2·5	2·6
<i>Nasal Index</i>	50·0	57·8
Orbital width	4·0	4·1
Orbital height	3·4	3·1
<i>Orbital Index</i>	85·0	75·61
Palato-maxillary length	4·8	...
Palato-maxillary breadth	6·5	...
<i>Palato-maxillary Index</i>	135·42	...
Sympysial height of the lower jaw	3·1	...
Coronoid height of the lower jaw	5·8	...
Condylloid height of the lower jaw	5·8	...
Gonio-sympysial length	9·0	...
Inter-gonial width, outside	10·1	...
Breadth of ascending ramus	3·5	...
Special features	A

A. There are wormian bones in this skull.

Measurements of the Cranium of a Kalu (oilman).

Province or State and District	Bhukailas. Calcutta.
Collection mark	Side No. 44. Front No. 24.
Age
Sex
Cubic capacity	1300
Glabello-occipital length	18.3
Basi-bregmatic height	13.8
<i>Vertical Index</i>	75.41
Minimum frontal diameter	10.0
Stephanic diameter	10.7
Asterionic diameter	10.5
Greatest parieto-squamous breadth	12.6
<i>Cephalic Index</i>	68.85
Horizontal circumference	51.2
Frontal longitudinal arc	12.3
Parietal longitudinal arc	13.5
Occipital longitudinal arc	12.4
Total longitudinal arc	38.2
Vertical transverse arc	30.5
Length of foramen magnum	3.8
Basi-nasal length	10.0
Basi-alveolar length	9.5
<i>Gnathic Index</i>	95.0
Interzygomatic breadth	12.5
Intermalar breadth	11.4
Nasio-mental length	11.2
Nasio-alveolar length	6.7
<i>Complete facial Index</i>	89.60
Nasal height	4.5
Nasal width	2.2
<i>Nasal Index</i>	48.89
Orbital width	3.7
Orbital height	3.2
<i>Orbital Index</i>	86.49
Palato-maxillary length	4.8
Palato-maxillary breadth	6.3
<i>Palato-maxillary Index</i>	131.25
Symphysial height of the lower jaw	3.2
Coronoid height of the lower jaw	5.8
Condylloid height of the lower jaw	6.1
Gonio-symphysial length	9.2
Inter-gonial width, outside	9.8
Breadth of ascending ramus	3.1
Special features

Measurements of the Cranium of a Korwa (a forest tribe of basket makers).

Province or State and District	Sirjuga.
Collection mark	Frontal No. 404
Age	28
Sex	Male.
Cubic capacity	—
Glabello-occipital length	18·6
Basi-bregmatic height	13·7
<i>Vertical Index</i>	73·7
Minimum frontal diameter	9·1
Stephanic diameter	10·5
Asterionic diameter	10·7
G r e a t e s t parieto-squamous breadth	12·8
<i>Cephalic Index</i>	68·82
Horizontal circumference	51·1
Frontal longitudinal arc	13·0
Parietal longitudinal arc	13·8
Occipital longitudinal arc	10·4
Total longitudinal arc	37·2
Vertical transverse arc	30·0
Length of foramen magnum	3·6
Basi-nasal length	10·5
Basi-alveolar length	9·9
<i>Gnathic Index</i>	94·3
Interzygomatic breadth	12·6
Intermalar breadth	11·7
Nasio-mental length	10·6
Nasio-alveolar length	6·2
<i>Complete facial Index</i>	84·13
Nasal height	4·6
Nasal width	2·7
<i>Nasal Index</i>	58·7
Orbital width	3·9
Orbital height	2·8
<i>Orbital Index</i>	71·8
Palato-maxillary length	5·4
Palato-maxillary breadth	6·5
<i>Palato-maxillary Index</i>	120·37
Sympysial height of the lower jaw	2·9
Coronoid height of the lower jaw	5·7
Condylloid height of the lower jaw	5·4
Gonio-sympysial length	9·0
Inter-gonial width, outside	9·6
Breadth of ascending ramus	2·9
Special features	—

Measurements of the Cranium of a Kisān (cultivators).

Province or State and District	Chutia-Nagpur.
Collection mark	405
Age	0
Sex	Male
Cubic capacity	1250
Glabello-occipital length	18·0
Basi-bregmatic height	13·2
<i>Vertical Index</i>	73·33
Minimum frontal diameter	8·9
Stephanic diameter	10·8
Asterionic diameter	10·2
Greatest parieto-squamos breadth	12·2
<i>Oeophalic Index</i>	67·78
Horizontal circumference	49·5
Frontal longitudinal arc	12·0
Parietal longitudinal arc	14·0
Occipital longitudinal arc	10·3
Total longitudinal arc	36·3
Vertical transverse arc	28·8
Length of foramen magnum	3·3
Basi-nasal length	9·8
Basi-alveolar length	9·5
<i>Gnathic Index</i>	96·94
Interzygomatic breadth	12·4
Intermalar breadth	11·3
Nasio-mental length	10·0
Nasio-alveolar length	6·2
<i>Complete facial Index</i>	80·65
Nasal height	4·7
Nasal width	2·5
<i>Nasal Index</i>	53·19
Orbital width	3·8
Orbital height	3·2
<i>Orbital Index</i>	84·21
Palato-maxillary length	5·4
Palato-maxillary breadth	6·0
<i>Palato-maxillary Index</i>	111·11
Sympphysial height of the lower jaw	3·0
Coronoid height of the lower jaw	6·0
Condylloid height of the lower jaw	5·9
Gonio-sympphysial length	8·0
Inter-gonial width, outside	9·3
Breadth of ascending ramus	2·9
Special features

Measurements of Crania of Australians.

Province or State and District	Australia	Australia
Collection mark . . .	552	536
Age
Sex . . .	Female	Male
Cnubic capacity . . .	10·80	12·60
Glabello-occipital length . . .	16·3	18·7
Basi-bregmatic height . . .	12·3	13·6
<i>Vertical Index</i> . . .	75·46	72·73
Minimum frontal diameter . . .	9·1	9·7
Stephanic diameter . . .	10·6	10·1
Asterionic diameter . . .	10·1	10·7
Greatest parieto-squamous breadth . . .	12·5	13·5
<i>Cephalic Index</i> . . .	76·69	72·19
Horizontal circumference . . .	47·6	51·3
Frontal longitudinal arc . . .	12·7	13·8
Parietal longitudinal arc . . .	11·7	13·3
Occipital longitudinal arc . . .	10·3	11·0
Total longitudinal arc . . .	34·7	38·1
Vertical transverse arc . . .	29·0	31·6
Length of foramen magnum . . .	3·0	3·1
Basi-nasal length . . .	9·0	10·4
Basi-alveolar length . . .	9·0	10·0
<i>Gnathic Index</i> . . .	100·0	96·15
Interzygomatic breadth . . .	11·8	13·8
Intermalar breadth . . .	10·0	12·5
Nasio-mental length
Nasio-alveolar length . . .	5·5	7·0
<i>Complete facial Index</i>
Nasal height . . .	4·1	5·2
Nasal width . . .	2·5	3·0
<i>Nasal Index</i> . . .	60·98	57·69
Orbital width . . .	4·1	4·7
Orbital height . . .	3·1	3·2
<i>Orbital Index</i> . . .	75·61	68·09
Palato-maxillary length	5·6
Palato-maxillary breadth	6·3
<i>Palato-maxillary Index</i>	112·5
Sympysial height of the lower jaw
Coronoid height of the lower jaw
Condyloid height of the lower jaw
Gonio-sympysial length
Inter-gonial width, outside
Breadth of ascending ramus
Special features

Measurements of the Cranium of a Musalman.

	Province or State and District	Nudia
Collection mark	S. No. 16	
Collection mark	F. No. 3	
Age	30	
Sex	Male	
Cubic capacity . . .	1260	
Glabello-occipital length . .	17·5	
Basi-bregmatic height . .	13·2	
<i>Vertical Index</i> . . .	75·43	
Minimum frontal diameter . .	9·0	
Stephanic diameter . . .	10·5	
Asterionic diameter . . .	10·3	
Greatest parieto-squamous breadth.	13·4	
<i>Cephalic Index</i> . . .	76·57	
Horizontal circumference . .	49·5	
Frontal longitudinal arc . .	12·2	
Parietal longitudinal arc . .	12·1	
Occipital longitudinal arc . .	11·4	
Total longitudinal arc . .	35·7	
Vertical transverse arc . .	31·0	
Length of foramen magnum . .	3·8	
Basi-nasal length . .	9·8	
Basi-alveolar length . .	9·2	
<i>Gnathic Index</i> . . .	93·88	
Interzygomatic breadth . .	11·8	
Intermalar breadth . .	10·6	
Nasio-mental length . .	11·7	
Nasio-alveolar length . .	6·8	
<i>Complete facial Index</i> . . .	99·15	
Nasal height . . .	5·1	
Nasal width . . .	2·4	
<i>Nasal Index</i> . . .	47·06	
Orbital width . . .	4·0	
Orbital height . . .	3·4	
<i>Orbital Index</i> . . .	85·0	
Palato-maxillary length . .	4·6	
Palato-maxillary breadth . .	6·0	
<i>Palato-maxillary Index</i> . . .	130·43	
Symphysial height of the lower jaw.	3·5	
Coronoid height of the lower jaw.	6·3	
Condyloid height of the lower jaw.	6·3	
Gonio-symphysial length . .	8·8	
Inter-gonial width, outside . .	9·3	
Breadth of ascending ramus . .	3·0	
Special features	

Measurement of Crania of Papuans of New Guinea.

Province or State and District	New Guinea	New Guinea
Collection mark . . .	585	586
Age
Sex . . .	Male	Female
Cubic capacity . . .	1340	1050
Glabello-occipital length . . .	19·0	17·0
Basi-bregmatic height . . .	13·1	13·0
<i>Vertical Index</i> . . .	68·95	76·47
Minimum frontal diameter . . .	9·0	8·4
Stephanic diameter . . .	9·9	9·6
Asterionic diameter . . .	11·3	10·0
Greatest parieto-squamous breadth.	12·8	12·4
<i>Cephalic Index</i> . . .	67·37	72·94
Horizontal circumference . . .	51·7	47·2
Frontal longitudinal arc . . .	12·3	12·0
Parietal longitudinal arc . . .	13·2	12·8
Occipital longitudinal arc . . .	12·5	11·0
Total longitudinal arc . . .	38·0	35·8
Vertical transverse arc . . .	29·0	28·5
Length of foramen magnum . . .	3·5	3·4
Basi-nasal length . . .	10·4	9·3
Basi-alveolar length . . .	10·4	9·7
<i>Gnathic Index</i> . . .	100·0	104·30
Interzygomatic breadth . . .	13·4	11·7
Intermalear breadth . . .	11·3	10·2
Nasio-mental length
Nasio-alveolar length . . .	7·3	6·4
<i>Complete facial Index</i>
Nasal height . . .	5·1	4·6
Nasal width . . .	3·0	2·8
<i>Nasal Index</i> . . .	58·82	60·87
Orbital width . . .	4·1	3·7
Orbital height . . .	3·5	3·0
<i>Orbital Index</i> . . .	85·37	81·08
Palato-maxillary length . . .	5·8	5·5
Palato-maxillary breadth . . .	6·6	6·2
<i>Palato-maxillary Index</i> . . .	113·79	122·73
Sympphysial height of the lower jaw.
Coronoid height of the lower jaw.
Condyloid height of the lower jaw
Gonio-sympphysial length
Inter-gonial width, outside
Breadth of ascending ramus
Special features

Measurements of Cranium of a Maori.

Province or State and District Collection mark	Side No. 7 Frontal G
Age
Sex
Cubic capacity
Glabello-occipital length	19·2
Basi-bregmatic height
<i>Vertical Index</i>
Minimum frontal diameter	10·4
Stephanic diameter	11·0
Asterionic diameter	11·5
Greatest parieto-squamous breadth	14·2
<i>Cephalic Index</i>	73·96
Horizontal circumference	54·0
Frontal longitudinal arc
Parietal longitudinal arc
Occipital longitudinal arc
Total longitudinal arc	33·8
Vertical transverse arc
Length of foramen magnum
Basi-nasal length
Basi-alveolar length
<i>Gnathic Index</i>
Interzygomatic breadth	14·0
Intermalar breadth	12·0
Nasio-mental length	13·5
Nasio-alveolar length	8·1
<i>Complete facial Index</i>	96·43
Nasal height	5·6
Nasal width	3·0
<i>Nasal Index</i>	53·57
Orbital width	4·0
Orbital height	3·5
<i>Orbital Index</i>	87·50
Palato-maxillary length	4·2
Palato-maxillary breadth	6·8
<i>Palato-maxillary index</i>	161·90
Symphysial height of the lower jaw	3·7
Coronoid height of the lower jaw	6·8
Condyloid height of the lower jaw	7·1
Gonio-symphysial length	9·5
Inter-gonial width, outside	10·2
Breadth of ascending ramus	3·5
Special features	*

* The skin is preserved with tattoo marks in zigzag lines in red and black.

Measurements of Crania of Chinamen.

Province or State and District	
	Side No. 3 Frontal No. $\frac{1}{C}$	Side No. 4 Frontal No. $\frac{1}{D}$	Side No. 3 Frontal No. $\frac{1}{C}$	Side No. 4 Frontal No. $\frac{1}{D}$
Collection mark . . .				
Age
Sex
Cubic capacity . . .	1550	1570		
Glabello-occipital length . .	18·1	18·2		
Basi-bregmatic height . .	14·0	13·6		
<i>Vertical Index</i> . . .	77·35	74·73		
Minimum frontal diameter . .	8·5	10·1		
Stephanic diameter . . .	10·7	12·6		
Asterionic diameter . . .	10·9	11·9		
Greatest parieto-squamous breadth . . .	14·0	14·5		
<i>Cephalic Index</i> . . .	77·35	79·67		
Horizontal circumference . .	50·8	52·0		
Frontal longitudinal arc . .	12·8	15·4		
Parietal longitudinal arc . .	13·5	12·3		
Occipital longitudinal arc . .	12·5	11·2		
Total longitudinal arc . .	38·8	38·9		
Vertical transverse arc . .	32·0	34·0		
Length of foramen magnum . .	3·7	3·5		
Basi-nasal length . . .	9·5	9·6		
Basi-alveolar length . . .	8·6	10·0		
<i>Gnathic Index</i> . . .	90·53	104·17		
Interzygomatic breadth	14·0		
Intermalar breadth . . .	11·5	12·6		
Nasio-mental length . . .	12·5	11·8		
Nasio-alveolar length . . .	7·0	7·5		
<i>Complete facial Index</i> . . .		84·29		
Nasal height	5·3	5·4		
Nasal width	2·5	2·8		
<i>Nasal Index</i>	47·17	51·85		
Orbital width	4·0	4·0		
Orbital height	3·5	3·4		
<i>Orbital Index</i>	87·50	85·0		
Palato-maxillary length . .	4·4	5·5		
Palato-maxillary breadth . .	5·8	6·8		
<i>Palato-maxillary Index</i> . . .	131·81	123·64		
Sympphysial height of the lower jaw . . .	3·3	3·0		
Coronoid height of the lower jaw . . .	6·6	6·5		
Condylloid height of the lower jaw . . .	6·5	6·5		
Gonio-sympphysial length . . .	9·1	9·5		
Inter-gonial width, outside . . .	9·2	10·0		
Breadth of ascending ramus . . .	3·1	3·6		
Special features		

Measurements of Crania of Andamanese.

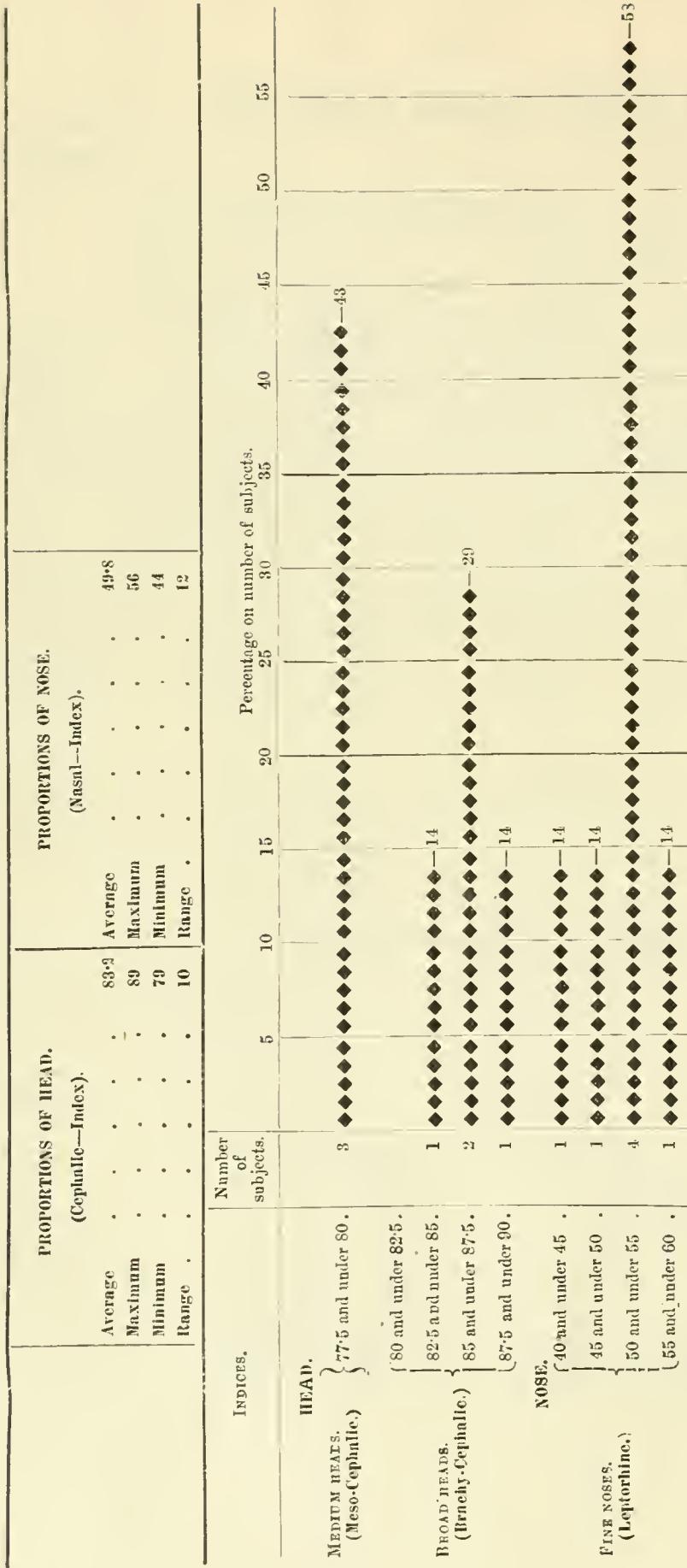
								Total	Average
Province or State and District	Port Blair	Port Blair	Port Blair	Port Blair	Port Blair	Port Blair	Port Blair		
Collection mark	S. 28	S. 29	S. 32	S. 33	S. 34	S. 35	S. 36		
Age		
Sex	Male	Male	Male	Male	...		
Cubic capacity	1,170	...	1,270	1,280	1,280	1,070	...		
Glabello-occipital length	17·0	16·5	16·6	16·7	16·7	15·5	15·8	1,148	16·40
Basi-bregmatic height	12·6	13·0	13·0	13·1	13·3	12·0	...	770	12·83
<i>Vertical Index</i>	74·12	78·79	78·31	78·44	79·64	77·42	...		78·2
Minimum frontal diameter	9·6	8·5	10·0	9·0	9·0	9·0	8·7	638	9·11
Stephanic diameter	10·0	8·0	11·1	10·2	10·3	9·7	10·0	693	9·90
Asterionic diameter	10·0	9·9	10·0	9·4	9·5	9·4	9·7	679	9·70
Greatest parieto-squamous breadth	13·5	13·0	13·9	14·3	11·3	13·5	14·1	956	13·65
<i>Cephalic Index</i>	79·41	78·79	83·73	85·63	79·64	87·10	89·24		83·2
Horizontal circumference	49·5	47·5	49·0	48·0	48·0	45·6	46·5	3,341	47·73
Frontal longitudinal arc	11·8	12·8	12·0	12·0	12·3	11·5	11·5	839	11·98
Parietal longitudinal arc	12·0	11·8	12·5	13·0	12·2	11·8	11·7	850	12·14
Occipital longitudinal arc	11·1	10·5	10·5	11·0	10·8	9·5	11·0	744	10·63
Total longitudinal arc	34·9	35·1	35·0	36·0	35·3	32·8	34·2	2,433	34·75
Vertical transverse arc	30·0	29·5	30·0	31·6	31·5	30·0	30·4	2,130	30·43
Length of foramen magnum	3·4	3·0	3·5	3·4	3·3	3·1	...	197	3·28
Basi-nasal length	9·6	9·6	9·1	9·0	8·8	9·0	...	551	9·18
Basi-alveolar length	9·3	9·6	9·0	9·0	8·5	9·0	...	544	9·06
<i>Gnathic Index</i>	96·88	100·0	98·90	100·0	96·59	100·0	...		98·6
Interzygomatic breadth	13·1	...	12·5	12·5	12·0	12·1	10·3	725	12·08
Intermalai breadth	11·1	11·0	10·8	11·0	10·7	11·0	8·7	743	10·61
Nasio-mental length	10·3	8·4	187	9·35
Nasio-alveolar length	6·1	6·4	6·2	6·4	5·7	6·4	4·5	417	5·96
<i>Complete facial Index</i>	82·40	81·55		...
Nasal height	4·7	5·4	4·8	5·0	4·5	4·3	4·0	327	4·67
Nasal width	2·3	2·4	2·4	2·5	2·5	2·2	2·0	163	2·33
<i>Nasal Index</i>	48·94	44·44	50·0	50·0	55·56	51·16	50·0		49·8
Orbital width	4·0	3·9	3·7	3·5	4·0	3·7	3·3	261	3·73
Orbital height	3·3	3·5	3·0	3·3	3·3	3·3	3·1	228	3·25
<i>Orbital Index</i>	82·50	89·74	81·08	94·29	82·50	89·19	93·94		87·1
Palato-maxillary length	4·6	5·0	4·5	5·3	4·5	4·5	4·0	324	4·63
Palato-maxillary breadth	6·1	6·1	5·4	5·5	6·0	5·7	3·1	379	5·41
<i>Palato-maxillary Index</i>	132·61	122·0	120·0	103·77	133·33	126·66	77·50		116·8
Sympysial height of the lower jaw	2·8	2·1	49	2·45
Coronoid height of the lower jaw	5·2	4·2	94	4·7
Condylloid height of the lower jaw	5·2	4·2	94	4·7
Gonio-sympysial length	8·5	7·2	157	7·85
Inter-gonial width, outside	9·8	7·5	173	8·65
Breadth of ascending ramus	3·6	2·8	64	3·20
Special features	...	No. 10	No. $\frac{32}{20}$	No. $\frac{33}{22}$	Underage

No. 10 There are traces of the frontal suture in these skulls.

No. 32 See Asiatic Society's Journal, Vol. XXX, p. 263, also Vol. XXXI, p. 345, XXXIII, etc.

No. 33 N. B.—Greatest parietal breadth 14·3 M. M.

ANDAMANESE.



Measurements of Crania of Oriyas (Territorial).

Province or State and District	Cuttack.	Cuttack.	Cuttack.
Collection mark . . .	2	4	20	23	24	32	33	38	54	65
Age	28	20	27	23	65	38	24	40	45	20
Sex	Male.	Male.	Male.	Male.	Male.	Male.	Male.	Female	Male.	Male.
Cubic capacity . . .	1,345	...	1,448	1,350	1,330	1,305	1,230	1,240	1,310	1,260
Glabello-occipital length . . .	18·1	17·3	18·7	17·7	18·2	18·0	17·6	16·7	17·4	17·4
Basi-bregmatic height . . .	14·3	13·9	14·0	13·0	13·5	12·6	13·7	12·7	13·0	13·2
<i>Vertical Index</i> . . .	79·01	80·35	74·9	73·45	74·18	70·0	77·84	76·05	74·71	75·86
Minimum frontal diameter . . .	9·2	8·2	9·5	9·1	10·1	8·9	9·9	8·3	9·0	9·4
Stephanic diameter . . .	10·6	11·6	10·9	10·9	11·3	11·3	11·4	10·4	11·2	11·4
Asterionic diameter . . .	0·0	10·6	10·9	10·9	10·0	9·9	9·7	9·7	10·0	10·3
Greatest parieto-squamous breadth	10·7	14·0	13·4	12·9	12·9	13·3	12·7	13·5	12·7	13·7
<i>Cephalic Index</i> . . .	70·17	80·92	71·7	72·9	70·88	73·9	72·16	80·84	73·0	78·74
Horizontal circumference . . .	49·5	48·8	51·6	48·0	50·5	49·9	49·1	46·6	48·6	49·4
Frontal longitudinal arc . . .	13·0	13·0	13·7	12·9	12·8	13·4	13·7	18·8	13·0	12·0
Parietal longitudinal arc . . .	1·30	12·8	13·9	12·8	13·1	12·5	12·4	12·5	13·0	14·3
Occipital longitudinal arc . . .	11·0	10·5	11·6	11·3	10·9	11·4	10·7	11·2	9·9	11·0
Total longitudinal arc . . .	37·0	36·3	39·2	37·0	36·8	37·3	36·8	35·5	35·9	36·3
Vertical transverse arc . . .	31·0	31·4	30·9	30·2	30·2	30·3	30·8	29·0	29·8	31·2
Length of foramen magnum . . .	3·5	3·7	3·3	3·4	3·3	3·2	3·3	3·3	3·2	2·9
Basi-nasal length . . .	10·6	10·1	10·1	9·4	10·0	9·5	10·2	8·7	10·2	9·7
Basi-alveolar length . . .	9·5	9·5	9·8	9·4	8·8	9·4	9·8	8·7	10·0	10·0
<i>Gnathic Index</i> . . .	89·62	94·1	97·03	100·0	88·0	98·9	96·08	100·0	98·0	103·1
Interzygomatic breadth . . .	12·6	12·3	12·7	11·4	12·5	12·3	12·6	4·5	24·0	12·4
Intermalar breadth . . .	11·4	10·9	11·6	10·3	11·5	11·1	11·6	10·2	11·2	11·6
Nasio-mental length . . .	12·4	10·9	11·8	6·2	12·0	11·1	11·0	9·6	10·0	10·9
Nasio-alveolar length . . .	7·3	6·2	6·6	6·5	7·1	6·4	6·5	5·8	6·2	6·1
<i>Complete facial Index</i> . . .	98·48	88·62	92·91	97·07	96·0	90·24	88·0	83·48	80·65	87·90
Nasal height	5·1	4·8	4·6	4·7	5·3	4·9	4·8	4·3	4·6	4·6
Nasal width	2·4	2·4	2·5	2·3	2·7	2·4	2·5	2·2	2·6	2·3
<i>Nasal Index</i>	47·8	50·0	54·35	48·94	50·94	40·9	52·08	51·16	56·52	50·0
Orbital width	3·7	3·6	3·8	3·8	3·9	3·8	3·8	3·6	3·5	3·8
Orbital height	3·6	3·1	3·2	3·2	3·5	3·1	2·9	3·0	2·9	3·1
<i>Orbital Index</i>	97·03	86·11	84·21	84·21	89·74	81·6	76·32	83·33	82·86	81·6
Palato-maxillary length . . .	5·3	5·0	5·7	5·7	5·1	5·3	5·5	4·8	5·5	5·9
Palato-maxillary breadth . . .	6·5	6·1	5·9	5·9	6·0	5·7	6·3	5·8	6·2	6·3
<i>Palato-maxillary Index</i> . . .	122·64	122·0	103·51	103·51	117·65	107·55	114·55	120·83	112·73	106·78
Sympophysial height of the lower jaw . . .	3·3	2·8	3·3	2·8	2·7	2·8	2·7	2·4	3·1	2·8
Coronoid height of the lower jaw . . .	6·9	5·3	7·0	5·6	6·6	6·7	5·4	6·0	5·3	5·6
Condylloid height of the lower jaw . . .	6·3	5·1	6·7	5·7	5·9	6·0	5·4	5·3	5·0	5·8
Gonio-sympophysial length . . .	9·2	4·6	8·9	7·9	8·2	9·0	8·7	7·8	9·0	9·0
Inter-gonial width, outside . . .	10·5	9·5	9·8	9·2	10·3	9·9	10·0	7·9	9·1	9·2
Breadth of ascending rams . . .	3·3	3·1	3·8	3·8	2·9	4·0	3·3	2·8	3·0	4·2
Special features	A	A	A	...	A	

(A) Wormian bones.

Measurements of Crania of Oriyas (Territorial).

Province or State and District	Orissa									
Collection mark	76	98	129	130	149	179	232	199	409	410
Age	30	70	32	50	23	30	18	35
Sex	Male.	Male.	?	Male.	Male.	Male.	Male.	Male.	...C	...
Cubic capacity	1,210	1,200	1,150	1,530	1,450	1,270	1,350	1,410	1,660	1,270
Glabello-occipital length	16·9	16·7	16·1	18·5	18·0	17·5	17·7	17·5	19·4	17·0
Basi-bregmatic height	12·8	13·0	12·8	15·0	14·6	13·8	13·4	13·2	13·8	13·6
<i>Vertical Index</i>	75·74	77·8	79·50	81·08	81·11	78·86	51·71	75·43	71·13	80·0
Minimum frontal diameter	9·5	8·8	9·0	10·0	9·5	9·6	9·2	9·8	9·7	9·1
Stephanic diameter	11·5	10·4	11·2	12·0	11·4	10·9	10·8	11·5	11·3	10·9
Asterionic diameter	9·5	10·2	9·7	11·5	10·0	10·3	10·4	9·8	10·8	10·1
reatest parieto-squamous breadth.	. . .	12·8	13·3	13·8	14·1	13·3	13·0	12·8	13·5	13·9	13·2
<i>Cephalic Index</i>	75·74	79·64	85·7	76·2	73·9	74·3	72·5	77·1	71·6	77·06
Horizontal circumference	48·0	47·5	47·8	51·8	50·1	48·8	48·8	49·3	53·5	48·0
Frontal longitudinal arc	12·2	13·0	12·4	13·8	13·0	12·4	13·0	13·1	13·0	12·4
Parietal longitudinal arc	13·6	11·5	11·7	12·5	15·4	13·0	13·8	13·4	13·0	13·1
Occipital longitudinal arc	11·0	11·1	10·0	11·4	11·0	10·5	9·9	10·0	12·7	10·7
Total longitudinal arc	35·8	35·6	34·1	37·7	39·4	35·9	36·7	36·5	38·7	36·2
Vertical transverse arc	28·5	31·9	30·2	31·9	35·0	30·0	30·2	31·5	32·0	30·3
Length of foramen magnum	3·1	3·1	2·9	3·3	3·6	3·4	3·1	3·7	3·6	3·5
Basi-nasal length	9·6	9·3	9·6	10·6	10·4	10·2	10·1	9·7	11·1	9·8
Basi-alveolar length	9·7	8·2	9·6	9·5	9·6	9·7	9·6	9·6	11·1	9·4
<i>Gnathic Index</i>	101·04	88·17	100·0	89·6	92·3	95·1	95·0	99·0	100·0	95·9
Interzygomatic breadth	11·7	11·8	12·2	13·3	13·3	12·8	13·0	12·6	11·3	...
Intermalar breadth	11·0	10·6	11·2	12·0	11·6	12·0	11·8	11·7	12·1	10·7
Nasio-mental length	11·6	...	9·6	12·0	11·9	11·4	10·5	12·0	12·8	11·1
Nasio-alveolar length	6·8	5·1	6·0	6·9	6·6	6·6	6·0	6·6	7·2	6·3
<i>Complete facial Index</i>	99·15	...	78·6	90·0	89·4	89·0	80·0	95·0	113·27	..
Nasal height	5·0	4·3	4·8	5·2	4·6	4·8	4·7	5·0	5·1	4·6
Nasal width	2·4	2·0	2·4	2·5	2·5	2·2	2·3	2·5	2·8	2·3
<i>Nasal Index</i>	48·0	46·51	50·0	48·2	54·3	45·8	48·9	50·0	54·8	50·0
Orbital width	3·7	3·6	3·7	3·9	3·6	3·7	3·7	3·9	4·0	3·6
Orbital height	3·0	3·2	3·0	3·5	3·3	3·2	3·2	3·5	3·3	3·0
<i>Orbital Index</i>	81·1	88·89	81·1	89·7	91·7	86·5	86·5	89·7	82·5	83·3
Palato-maxillary length	5·3	4·0	5·6	5·2	5·4	5·6	5·2	5·6	6·3	5·3
Palato-maxillary breadth	6·1	4·5	6·1	6·4	6·5	6·3	5·8	6·4	7·1	5·9
<i>Palato-maxillary Index</i>	115·09	112·50	109·0	123·0	120·3	112·5	111·5	114·3	112·7	111·3
Sympysial height of the lower jaw.	. . .	3·1	1·7	2·5	2·8	3·5	3·0	2·9	3·6	3·6	2·8
Coronoid height of the lower jaw	. . .	6·3	5·7	6·0	6·1	6·0	5·9	5·7	6·3	6·2	5·9
Condyloid height of the lower jaw	. . .	6·6	5·8	5·9	6·1	6·0	6·3	5·2	6·3	6·5	4·8
Gonio-sympysial length	8·3	8·0	9·0	9·7	8·5	9·2	8·4	8·7	8·7	8·5
Inter-gonial width, outside	9·1	8·4	9·0	10·5	10·0	9·3	9·2	9·0	9·0	8·8
Breadth of ascending ramus	3·3	2·7	3·5	3·5	3·2	3·5	2·9	3·0	3·4	3·0
Special features	A	...	A	A	B	...	A	...	C	...

A. Wormian bones are present in these skulls.

B. A regular row of wormian bones in the skull.

C. Largest capacity No. 409.

Measurements of Crania of Oriyas.

ORIYA (Territorial).

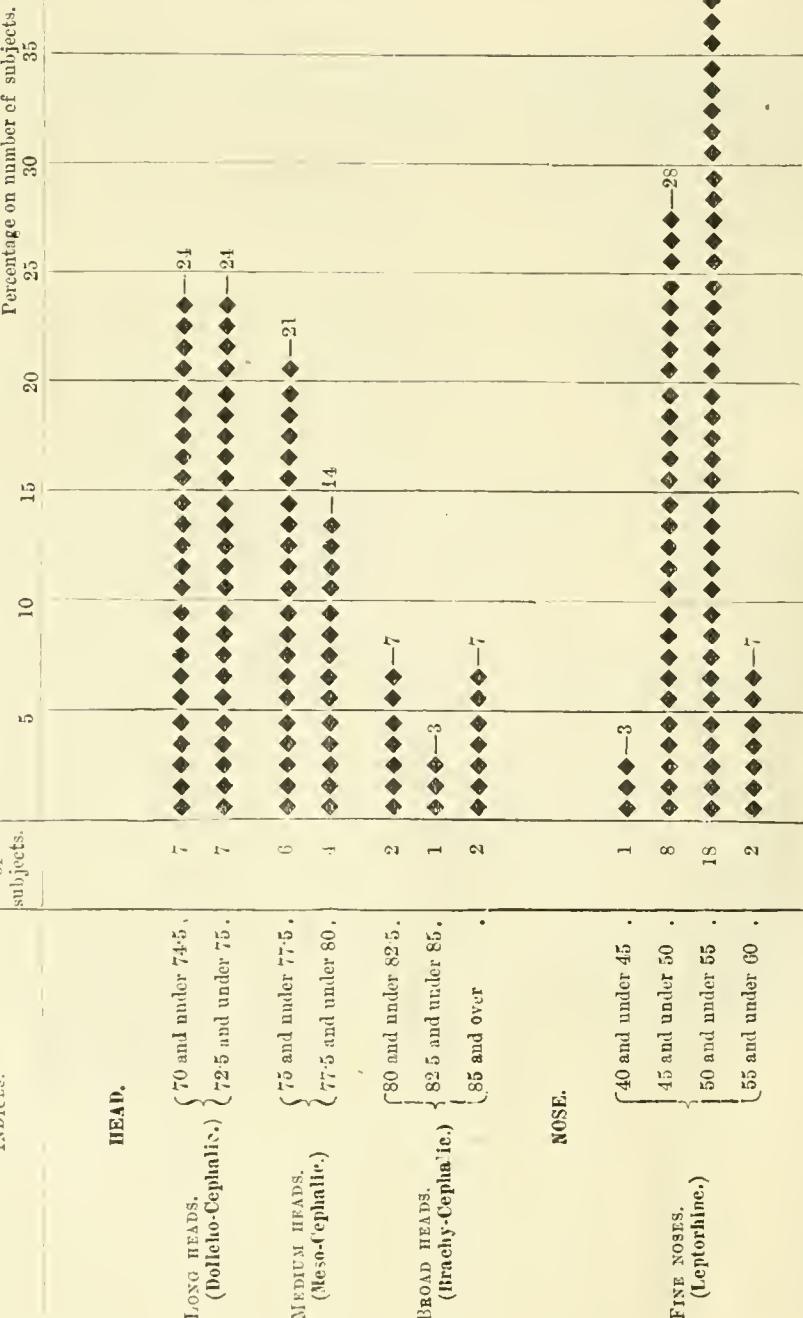
PROPORTIONS OF HEAD.

(Cephalic—Index.)

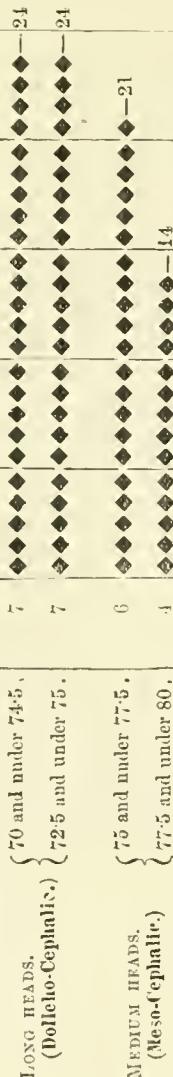
Average	75.8	Average	50.8
Maximum	88	Maximum	57
Minimum	70	Minimum	44
Range	18	Range	13

INDICES.

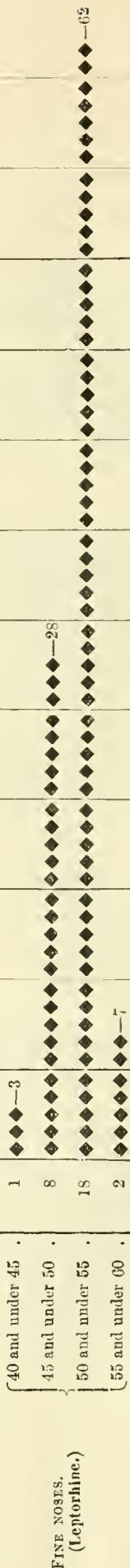
Number of subjects.



HEAD.



NOSE.



Measurements of Crania of Bengalis (territorial).

Province or State and District	Bengal.										
Collection mark . . .	295	296	297	298	299	300	301	302	303	304	
Age	
Sex	
Cubic capacity . . .	1300	1350	1470	1460	1370	1340	1410	1420	1350	1330	
Glabello occipital length . .	19.0	18.2	18.4	18.0	18.0	18.0	19.1	17.5	18.3	18.0	
Basi-bregmatic height . .	13.3	13.5	13.0	13.5	13.1	13.0	13.3	13.0	14.5*	13.3	
<i>Vertical Index</i> . . .	70.0	74.18	70.65	75.0	72.78	72.22	69.63	74.29	79.23	73.89	
Minimum frontal diameter . .	8.7	10.0	9.0	10.0	9.5	9.4	9.0	8.5	9.2	8.8	
Stephanic diameter . . .	9.9	10.3	10.3	12.0	11.0	11.0	9.8	11.9	10.3	10.0	
Asterionic diameter . . .	10.2	10.4	10.7	9.8	10.5	10.5	10.2	10.0	10.3	10.0	
Greatest parieto-squamous breadth	13.1	13.1	13.3	13.5	13.6	13.8	13.2	14.0	12.5	13.0	
<i>Cephalic Index</i> . . .	68.95	71.98	72.28	75.0	75.56	76.67	69.11	80.0	68.31	72.22	
Horizontal circumference . .	51.8	51.0	50.0	51.5	51.0	50.2	52.4	49.0	50.5	49.5	
Frontal longitudinal arc . .	14.0	13.3	12.3	13.0	13.0	13.0	12.2	14.0	13.0	13.3	
Parietal longitudinal arc . .	14.0	13.3	14.5	14.8	13.0	12.5	16.2	12.5	13.5	12.5	
Occipital longitudinal arc . .	11.4	10.8	11.3	10.5	11.3	12.5	10.0	11.0	11.5	11.3	
Total longitudinal arc . .	39.4	37.4	38.1	38.3	37.3	38.0	38.4	37.5	38.0	38.1	
Vertical transverse arc . .	31.0	30.0	30.4	32.0	31.0	31.5	30.6	32.5	31.0	31.0	
Length of foramen magnum . .	3.7	3.6	4.0	3.5	3.1	3.2	4.0	3.6	3.6	3.5	
Basi-nasal length . . .	9.3	10.4	9.8	9.8	9.7	9.7	10.0	9.0	10.5	10.0	
Basi-alveolar length . . .	8.5	9.8	9.6	10.0†	8.8	9.1	9.5	8.7	9.6	9.3	
<i>Gnathic Index</i> . . .	91.40	94.23	97.96	102.04	90.72	93.88	95.0	96.67	91.43	93.0	
Interzygomatic breadth . .	12.5	12.8	12.8	12.5	12.3	12.5	12.5	11.6	12.5	12.4	
Intermalar breadth . . .	11.2	11.3	10.5	10.5	10.5	11.0	11.2	10.0	11.1	10.5	
Nasio-mental length . . .	12.3	11.7	11.7	11.8	10.7	11.2	12.4	11.7	11.0	11.2	
Nasio-alveolar length . . .	7.0	7.0	6.8	6.5	6.2	6.3	6.5	6.1	6.1	6.2	
<i>Complete facial Index</i> . . .	94.40	91.41	91.41	94.40	86.99	89.60	99.20	100.86	88.0	90.32	
Nasal height	5.0	5.0	5.0	4.8	5.0	5.0	5.0	4.5	4.5	5.0	
Nasal width	2.5	2.7	2.5	2.5	2.5	2.5	2.6	2.5	2.5	2.5	
<i>Nasal Index</i>	50.0	54.0	50.0	52.08	50.0	50.0	52.0	55.56	55.56	50.0	
Orbital width	4.1	4.5	4.0	4.0	4.0	4.0	3.7	3.7	4.0	3.7	
Orbital height	3.5	3.5	3.3	3.5	3.3	3.0	3.3	3.3	3.3	3.3	
<i>Orbital Index</i>	85.37	77.78	82.50	87.50	82.50	75.0	89.19	89.19	82.50	89.19	
Palato-maxillary length . .	4.7	5.2	5.0	5.1	4.5	4.8	4.1	4.8	5.1	5.0	
Palato-maxillary breadth . .	6.4	6.7	6.7	6.0	5.8	6.0	6.2	5.6	6.3	6.4	
<i>Palato-maxillary Index</i> . . .	136.17	128.85	134.0	117.65	128.88	125.0	129.17	136.58	123.53	128.0	
Sympysial height of the lower jaw.	3.0	3.2	3.3	3.1	2.5	2.6	3	2.8	3.1	3.0	
Coronoid height of the lower jaw	6.0	5.7	6.3	4.7	5.6	6.5	6.0	5.5	6.0	6.3	
Condylloid height of the lower jaw	6.8	6.6	6.4	5.2	5.5	5.8	6.5	6.2	6.8	6.3	
Gonio-sympysial length . .	9.0	8.7	8.5	8.3	8.9	8.5	8.8	8.2	9.3	8.6	
Inter-gonial width, outside . .	9.4	9.4	9.1	9.2	10.0	9.2	10.0	9.4	9.2	10.3	
Breadth of ascending ramus . .	3.2	3.5	3.2	3.2	3.0	3.2	3.5	3.0	3.4	7	
Special features	(a)	+	

* Extraordinary basi-bregmatic height.
(a) Receding forehead.

† 298 has exceptionally protruding teeth.

Measurements of Crania of Bengalis (territorial).

Province or State and District	Bengal.	Bengal.
Collection mark . . .	305	306
Age
Sex
Cubic capacity . . .	1340	1390
Glabello-occipital length . . .	18·5	17·9
Basi-bregmatic height . . .	13·5	13·3
<i>Vertical Index</i> . . .	72·97	74·30
Minimum frontal diameter . . .	9·0	9·5
Stephanic diameter . . .	10·0	11·2
Asterionic diameter . . .	10·0	9·5
Greatest parieto-squamous breadth.	12·5	13·4
<i>Cephalic Index</i> . . .	67·57	74·86
Horizontal circumference . . .	50·2	50·0
Frontal longitudinal arc . . .	13·5	13·0
Parietal longitudinal arc . . .	13·1	13·0
Occipital longitudinal arc . . .	11·5	10·1
Total longitudinal arc . . .	38·1	36·4
Vertical transverse arc . . .	30·4	31·0
Length of foramen magnum . . .	3·5	3·5
Basi-nasal length . . .	10·2	10·5
Basi-alveolar length . . .	10·2	10·3
<i>Gnathic Index</i> . . .	100·0	98·10
Interzygomatic breadth . . .	12·5	12·3
Intermalar breadth . . .	11·1	10·8
Nasio-mental length . . .	12·4	12·0
Nasio-alveolar length . . .	7·0	6·7
<i>Complete facial Index</i> . . .	99·20	97·56
Nasal height . . .	4·8	5·0
Nasal width . . .	2·5	2·5
<i>Nasal Index</i> . . .	52·08	50·0
Orbital width . . .	4·0	3·8
Orbital height . . .	3·5	3·0
<i>Orbital Index</i> . . .	87·50	78·95
Palato-maxillary length . . .	5·5	5·4
Palato-maxillary breadth . . .	6·8	6·0
<i>Palato maxillary Index</i> . . .	123·64	111·11
Symphysial height of the lower jaw.	3·3	3·0
Coronoid height of the lower jaw	6·5	6·1
Condylloid height of the lower jaw.	7·0	6·0
Gonio-symphysial length . . .	8·7	8·4
Inter-gonial width, outside . . .	9·2	9·3
Breadth of ascending ramus . . .	3·5	3·0
Special features

BENGALI (Territorial).

Measurements of Crania of the Burmese (territorial).

Province or State and District	Burma.	Bassein, Burma.	Port Blair, Andaman.	Port Blair, Andaman.	Port Blair, Andaman.	P	P	P	P	P	P
Collection mark	Side No. 5.	Side No. 19.	Side No. 37.	Side No. 38.	Side No. 39.	Prome.	Prome.	Prome.	Prome.	Prome.	Prome.
Age
Sex	Male.	Male.	Male.	Male.
Cubic capacity	1250	1600	1340	1570	...	1400	1160	1320	1100	1440	...
Glabello-occipital length	16·6	18·0	17·4	16·5	17·0	16·8	17·1	17·5	16·1	17·4	...
Basi-bregmatic height	12·7	13·5	13·2	14·5	14·0	13·1	13·0	13·6	12·2	13·5	...
<i>Vertical Index</i>	76·51	75·0	75·86	87·88	82·35	77·98	76·02	77·71	75·78	77·59	...
Minimum frontal diameter	8·2	9·7	9·0	9·4	9·0	9·3	9·3	9·6	8·8	9·3	...
Stephanic diameter	9·8	11·5	10·5	11·4	9·7	10·7	9·0	11·6	9·0	11·0	...
Asterionic diameter	10·2	10·9	10·7	11·0	9·7	10·7	9·8	11·3	9·5	10·7	...
Greatest parieto-squamous breadth.	13·4	14·4	13·7	15·2	14·2	14·8	13·0	13·8	12·9	14·6	...
<i>Oephalic Index</i>	80·72	80·0	78·74	92·12	83·53	88·10	76·02	78·86	80·12	83·91	...
Horizontal circumference	48·8	53·0	49·8	50·5	50·5	50·5	48·3	51·0	47·6	51·3	...
Frontal longitudinal arc	12·8	13·0	12·8	12·3	13·0	13·0	12·6	13·0	12·0	12·5	...
Parietal longitudinal arc	12·2	13·0	12·5	16·5	12·0	12·6	12·6	12·6	12·0	13·0	...
Occipital longitudinal arc	10·0	11·6	10·8	7·2†	11·0	10·5	10·5	10·5	9·6	11·6	...
Total longitudinal arc	35·0	37·6	36·1	36·0	37·0	36·1	35·7	36·1	33·6	37·1	...
Vertical transverse arc	31·0	32·2	32·0	31·0	33·0	32·2	29·0	32·7	29·0	32·0	...
Length of foramen magnum	3·6	3·6	3·8	3·6	4·0	3·4	3·6	4·0	3·3	3·5	...
Basi-nasal length	9·5	10·1	10·0	10·2	9·7	9·3	9·0	10·4	9·4	10·0	...
Basi-alveolar length	10·0	9·5	10·1	10·0	9·7	8·9	8·5	9·6	8·9	9·0	...
<i>Gnathic Index</i>	105·26	94·06	101·0	98·4	100·0	95·70	94·44	92·31	94·68	90·0	...
Interzygomatic breadth	12·3	13·7	13·5	13·5	12·5	...	12·0	14·3
Intermalar breadth	11·0	11·5	11·6	12·0	11·0	11·4	10·0	12·0	10·5	12·0	...
Nasio-mental length	11·0	11·6	11·6	12·0	12·5	...
Nasio-alveolar length	7·0	6·9	7·3	7·0	6·5	6·8	6·5	7·0	6·8	7·5	...
<i>Complete facial Index</i>	89·43	84·67	85·93	88·89
Nasal height	5·0	5·1	5·5	5·1	4·7	4·8	4·7	5·6	5·0	5·4	...
Nasal width	2·5	2·6	2·5	2·4	2·7	2·5	2·5	3·0	2·8	2·5	...
<i>Nasal Index</i>	50·0	50·98	45·45	47·06	57·45	52·08	53·19	53·57	56·0	46·30	...
Orbital width	3·5	4·0	4·0	3·6	3·7	4·0	3·5	4·0	3·7	3·8	...
Orbital height	3·5	3·5	3·3	3·3	3·2	3·5	3·2	3·7	3·6	3·0	...
<i>Orbital Index</i>	100·0	87·50	82·50	91·67	86·49	87·50	91·43	92·50	97·30	78·95	...
Palato-maxillary length	5·6	5·1	5·5	5·0	5·1	4·8	4·8	...	5·1	4·6	...
Palato-maxillary breadth	7·0	6·2	6·5	7·1	6·2	6·4	6·0	...	6·5	7·1	...
<i>Palato-maxillary Index</i>	125·0	121·57	118·8	142·0	121·57	133·33	125·0	...	127·45	154·24	...
Symphysial height of the lower jaw	3·0	3·0	3·2	3·5	3·0	...	3·0	...
Coronoid height of the lower jaw	6·8	6·1	6·5	6·0	6·0	...	6·3	...
Condylloid height of the lower jaw	6·5	6·2	6·8	6·5	6·0	...	6·2	...
Gonio-symphysial length	8·3	9·0	9·6	8·6	9·3	...	9·0	...
Inter-gonial width, outside	9·7	10·1	10·4	10·2	10·5	...	10·2	...
Breadth of ascending ramus	2·8	4·0	3·6	3·5	3·5	...	4·0	...
Special features	No. 38.

† A large wormian bone so large as to divide the parietal bone into two parts at the asterionic diameter.
No. 28 was a noted *dakai*.

P. The collection from Prome was obtained from a burial ground in 1368 A.D. How old it is not known.

Measurements of Crania of the Burmese (territorial).

Province or State and District .	Prome No.										
Collection mark . . .	426	427	428	429	430	431	432	433	434	435	
Age	
Sex	
Cubic capacity . . .	1200	1140	1450	...	1360	...	1320	1390	1450	1200	
Glabello-occipital length . . .	15.5	17.2	18.0	17.0	16.7	17.9	17.3	18.5	18.0	17.0	
Basi-bregmatic height . . .	13.5	12.8	13.7	13.6	13.2	13.5	13.2	13.5	14.1	1.0	
<i>Vertical Index</i> . . .	87.10	74.42	76.11	80.0	79.04	75.42	76.30	72.97	78.33	76.47	
Minimum frontal diameter . . .	9.0	8.8	9.0	9.5	9.1	8.0	9.0	9.7	9.5	9.3	
Stephanic diameter . . .	10.1	9.0	10.4	13.4	10.4	10.2	10.6	11.3	11.3	9.7	
Asterionic diameter . . .	10.5	10.4	11.2	11.0	10.5	10.2	11.2	10.5	10.5	10.3	
Greater parieto-squamous breadth.	13.5	12.8	14.6	15.0	13.6	14.0	14.4	14.2	14.3	13.6	
<i>Cephalic Index</i> . . .	87.10	74.42	81.11	88.24	81.44	78.21	83.24	76.76	79.44	80.0	
Horizontal circumference . . .	41.4	48.0	52.0	52.0	48.8	50.8	50.8	52.0	52.2	49.0	
Frontal longitudinal arc . . .	12.0	11.5	13.0	13.5	13.0	13.0	11.4	14.0	13.5	12.5	
Parietal longitudinal arc . . .	12.0	12.0	15.0	12.5	12.5	13.5	13.0	13.2	13.8	12.0	
Occipital longitudinal arc . . .	10.0	11.4	9.0	10.6	10.4	...	11.5	11.3	12.0	10.8	
Total longitudinal arc . . .	34.0	34.9	37.0	36.6	35.9	...	35.9	38.5	39.3	35.3	
Vertical transverse arc . . .	32.0	29.8	32.2	32.4	31.0	30.8	31.3	32.0	32.0	31.0	
Length of foramen magnum . . .	3.3	3.6	3.8	3.6	4.0	...	3.6	3.6	3.3	3.3	
Basi-nasal length . . .	9.7	9.4	10.0	10.0	9.2	9.8	10.0	10.0	10.2	9.6	
Basi-alveolar length . . .	9.1	9.7	9.4	9.8	9.5	9.7	10.5	9.0	10.0	9.3	
<i>Gnathic Index</i> . . .	93.81	103.19	94.0	98.0	103.26	98.98	105.0	90.0	98.04	96.88	
Interzygomatic breadth . . .	12.7	12.2	...	14.0	12.8	13.3	13.1	12.6	13.4	12.4	
Internalar breadth . . .	11.5	10.5	12.5	12.0	12.0	11.8	12.0	11.4	12.0	11.0	
Nasio-mental length . . .	10.8	11.2	12.3	...	
Nasio-alveolar length . . .	7.1	6.3	7.2	7.7	7.5	7.2	8.0	...	7.2	6.8	
<i>Complete facial Index</i> . . .	85.04	91.80	91.79	...	
Nasal height	5.0	4.7	5.0	5.1	5.0	5.0	5.2	...	5.2	4.7	
Nasal width	2.7	2.5	2.5	2.7	2.6	2.5	2.5	...	2.7	2.9	
<i>Nasal Index</i>	54.0	53.19	50.0	52.94	52.0	50.0	53.85	...	51.92	61.70	
Orbital width	4.0	3.5	3.8	4.1	3.8	3.5	4.0	3.8	3.8	3.6	
Orbital height	3.5	3.0	3.3	3.8	3.5	3.7	3.4	3.6	3.3	3.0	
<i>Orbital Index</i>	87.50	85.71	86.84	92.68	92.11	105.71	85.0	94.74	86.84	83.33	
Palato-maxillary length . . .	4.6	5.3	5.8	5.2	5.7	...	5.5	5.0	
Palato-maxillary breadth	6.5	6.5	6.8	7.0	6.7	5.7	...	6.5	6.5	
<i>Palato-maxillary index</i>	128.30	120.69	128.83	100.0	...	118.18	130.0	
Sympysial height of the lower jaw.	3.2	3.0	3.2	...	
Coronoid height of the lower jaw	5.3	5.7	5.2	...	
Condylloid height of the lower jaw	5.5	6.5	6.2	...	
Gonio-sympysial length . . .	9.0	8.6	9.1	...	
Inter-gonial width, outside . . .	10.5	8.6	9.7	...	
Breadth of ascending ramus . . .	3.2	3.2	3.6	...	
Speciai features	No.430	No.435	

30. There are wormian bones in this skull. No. 435. Wormian bone in this cranium.

Measurements of Crania of the Burmese (territorial).

	Prome No.	Prome No.	Promo No.	Prome No.	Promo No.	Promo No.	Prome No.	Prome No.	Prome No.	Prome No.	Prome No.
Province or State and District .	436	437	450	451	452	453	454	455	456	457	
Collection mark	
Age	
Sex	
Cubic capacity	1230	1290	1600	1370	1320	1250	...	1290	...	1300	
Glabello-occipital length	16·8	16·0	18·5	17·0	17·5	15·6	17·0	16·5	16·6	17·8	
Basi-bregmatic height	12·8	13·0	13·9	13·5	12·6	13·4	13·0	13·3	13·0	13·0	
<i>Vertical Index</i>	76·19	81·25	75·14	79·41	72·0	85·90	76·47	80·61	78·31	73·03	
Minimum frontal diameter	9·0	9·0	9·1	8·0	9·0	8·6	9·8	8·7	9·3	9·6	
Stephanic diameter	10·0	11·0	10·3	10·7	11·2	11·6	10·3	10·4	11·0	10·4	
Asterionic diameter	10·6	11·0	9·6	10·9	10·7	9·9	10·9	10·6	10·3	10·4	
Greatest parieto-squamous breadth	14·0	14·1	13·8	14·0	13·7	14·6	14·2	14·0	13·5	14·1	
<i>Cephalic Index</i>	83·33	88·13	74·59	82·35	78·29	93·59	83·53	84·85	81·33	79·21	
Horizontal circumference	49·5	49·0	51·8	51·2	50·1	47·8	50·7	49·0	45·5	50·9	
Frontal longitudinal arc	11·5	13·0	13·5	12·6	13·3	12·0	12·3	12·6	13·0	13·5	
Parietal longitudinal arc	11·5	11·6	13·5	14·0	13·0	13·0	11·6	11·4	13·8	13·0	
Occipital longitudinal arc	11·2	10·0	11·2	10·0	12·2	9·8	11·0	11·5	...	11·6	
Total longitudinal arc	34·2	34·6	38·2	36·6	38·2	34·8	34·9	35·5	...	38·1	
Vertical transverse arc	30·0	31·2	32·0	32·0	30·3	32·2	31·0	31·1	30·5	31·2	
Length of foramen magnum	3·5	3·5	3·8	3·6	3·5	3·3	3·4	3·5	...	3·4	
Basi-nasal length	9·6	9·2	10·4	9·3	9·9	9·1	9·5	9·7	9·3	9·5	
Basi-alveolar length	9·0	9·2	9·9	9·6	9·5	8·5	9·5	...	9·5	8·8	
<i>Gnathic Index</i>	93·75	100·0	94·19	103·23	95·96	93·41	100·0	...	102·15	92·63	
Interzygomatic breadth	12·6	12·6	13·1	13·5	12·9	12·5	13·0	13·1	13·0	12·8	
Intermalar breadth	11·5	11·3	12·0	12·0	11·0	11·2	11·5	12·0	11·3	12·0	
Nasio-mental length	12·0	12·4	11·5	10·4	10·6	
Nasio-alveolar length	6·7	7·5	7·0	6·1	7·0	7·3	...	6·8	7·0	
<i>Complete facial Index</i>	95·24	94·66	85·19	80·62	84·80	
Nasal height	4·8	4·6	5·0	4·9	5·0	5·1	5·6	5·0	4·9	5·1	
Nasal width	2·5	2·5	2·5	2·8	...	2·2	2·5	2·7	2·9	2·6	
<i>Nasal Index</i>	52·08	54·35	50·0	57·14	...	43·14	44·64	54·0	59·18	50·98	
Orbital width	4·0	3·6	4·0	3·6	4·0	3·7	4·1	4·0	4·0	3·5	
Orbital height	3·2	3·5	3·5	3·2	3·1	3·6	4·1	3·6	3·8	3·2	
<i>Orbital Index</i>	80·0	97·22	87·50	88·89	77·50	97·30	100·0	90·0	95·0	91·43	
Palato-maxillary length	4·5	5·2	4·8	4·6	4·4	5·5	...	5·3	5·1	
Palato-maxillary breadth	6·4	6·3	7·3	6·0	6·4	7·0	6·9	
<i>Palato-maxillary Index</i>	142·22	121·15	152·08	130·43	145·45	127·27	135·29	
Sympysial height of the lower jaw	3·4	3·5	3·0	3·2	2·8	3·7	
Coronoid height of the lower jaw	5·7	6·5	6·3	6·3	6·0	6·0	
Condylloid height of the lower jaw	6·0	6·5	6·5	6·8	6·5	6·6	
Gonio-sympysial length	8·5	9·0	8·5	9·0	8·4	8·5	
Inter-gonial width, outside	9·4	9·5	9·7	9·3	8·6	9·7	
Breadth of ascending rams	3·3	3·4	3·3	3·5	3·2	
Special features	No. 436	*	No. 436	

No. 436. Wormian bones.

* No. 454 has 5·6 an extraordinary height of nose for a mongoloid.

No. 457 has wormian bones.

Measurements of Crania of the Burmese (territorial).

Province or State and District .	Prome No.	Prome No.	Prome No.	Promo No.							
Collection mark . . .	459	460	461	462	463	464	465	466	467	468	495
Age
Sex
Cubic capacity . . .	1300	1350	1620	1370	1350	...	1120	1210	1230	1340	1370
Glabello-occipital length . . .	17.7	18.3	17.5	17.5	16.8	17.0	16.0	17.0	16.4	16.5	18.3
Basi-bregmatic height . . .	14.0	14.0	13.1	13.3	14.0	13.7	12.8	12.5	13.0	12.9	13.7
<i>Vertical Index</i> . . .	79.10	76.50	74.86	76.0	83.33	80.59	80.0	73.53	79.27	78.18	74.86
Minimum frontal diameter . . .	10.0	9.3	9.5	9.4	9.3	9.3	8.8	9.0	8.5	8.9	8.7
Stephanic diameter . . .	9.7*	10.0	12.0	10.0	10.7	11.0	9.7	10.9	10.3	10.0	10.5
Asterionic diameter . . .	10.0	10.8	11.5	10.5	10.9	11.2	10.5	10.0	9.9	11.3	10.3
Greatest parieto-squamous breadth . . .	13.3	13.2	15.7*	13.8	14.0	14.5	13.6	13.9	13.9	14.4	13.3
<i>Cephalic Index</i> . . .	75.14	72.13	89.71	78.86	83.33	85.29	85.0	81.76	84.76	87.27	72.68
Horizontal circumference . . .	50.1	51.0	52.8	50.5	49.5	50.7	47.8	48.8	49.0	49.5	51.0
Frontal longitudinal arc . . .	13.2	13.0	13.0	12.5	13.0	13.0	11.2	11.5	12.0	12.2	13.8
Parietal longitudinal arc . . .	12.8	12.8	12.2	12.5	13.0	14.0	12.0	12.5	12.0	12.0	12.2
Occipital longitudinal arc . . .	11.0	11.0	12.0	11.0	11.0	10.2	10.5	11.5	11.2	11.3	11.2
Total longitudinal arc . . .	37.0	36.8	37.2	36.0	37.0	37.2	33.7	35.5	35.2	35.5	37.2
Vertical transverse arc . . .	31.0	31.1	34.3	31.0	32.0	32.1	31.0	30.6	30.2	31.0	30.2
Length of foramen magnum . . .	3.6	3.7	3.7	3.8	3.8	3.5	3.5	3.5	3.4	3.6	3.6
Basi-nasal length . . .	10.0	10.6	9.3	10.0	9.6	9.7	9.1	9.6	9.3	9.4	10.4
Basi-alveolar length . . .	9.5	10.5	9.3	9.5	10.0	9.4	9.0	9.3	9.1	9.0	9.1
<i>Gnathic Index</i> . . .	95.0	99.06	100.0	95.0	104.17	96.91	98.90	96.88	97.85	95.74	87.50
Interzygomatic breadth . . .	12.6	13.0	...	13.8	13.0	13.5	12.0	12.0	12.7	13.6	13.5
Intermalar breadth . . .	11.0	11.4	...	12.0	11.4	12.0	10.5	10.5	11.0	12.0	11.7
Nasio-mental length . . .	7.1	7.7	7.4	6.7	7.3	7.0	7.0	6.5	6.3	7.1	7.1
<i>Complete facial Index</i> . . .	5.4	5.3	4.1	5.0	4.8	5.0	4.8	4.9	4.9	5.0	4.9
Nasal height . . .	2.4	2.6	2.9	3.0	2.6	2.7	2.5	2.6	2.9	3.0	2.7
<i>Nasal Index</i> . . .	44.44	49.0	70.73	60.0	54.17	54.0	52.08	53.06	59.18	60.0	55.10
Orbital width . . .	4.0	3.7	4.1	3.8	3.6	4.0	3.6	3.4	4.0	4.0	4.2
Orbital height . . .	3.5	3.7	3.7	3.4	3.2	3.3	3.5	3.0	3.4	3.5	3.7
<i>Orbital Index</i> . . .	87.50	100.09	90.24	89.47	88.89	82.50	97.22	88.24	85.0	87.50	88.10
Palato-maxillary length . . .	5.0	6.0	6.0	5.1	5.4	5.1	5.1	5.0	5.0	4.8	5.2
Palato-maxillary breadth . . .	6.2	6.2	6.5	6.5	6.6	6.9	6.5	6.0	6.3	6.8	...
<i>Palato-malar Index</i> . . .	124.0	103.33	108.33	127.45	122.22	135.29	127.45	120.0	126.0	141.67	...
Symphysial height of the lower jaw . . .	No. 459	...	No. 461
Coronoid height of the lower jaw
Condylloid height of the lower jaw
Gouio symphysial length
Intergonial width, outside
Breadth of ascending ramus
Special features . . .	No. 459	...	No. 461

No. 459. Stephanic diameter 9.7, unusual for a Burman.

* No. 461. Is the broadest head in the collection.

BURMESE.

PROPORTIONS OF HEAD.

(Cephalic—Index.)

INDICES.	Number of subjects.	Percentage on number of subjects.
Average	1	2
Maximum	3	7
Minimum	3	7
Range	7	17

HEAD.

Long Heads, (Dolicho-Cephalic). { 70 and under 72.5.
72.5 and under 75.
75 and under 77.5.

Medium Heads, (Meso-Cephalic). { 77.5 and under 80.
80 and under 82.5.
82.5 and under 85.
85 and under 87.5.
87.5 and under 90.
90 and over .

Broad Heads, (Brachy-Cephalic). { 40 and under 45.
45 and under 50.
50 and under 55.
55 and under 60.
60 and under 65 .

NOSE.

Fine Noses, (Leptorhine). { 40 and under 45 .
45 and under 50 .
50 and under 55 .
55 and under 60 .
60 and under 65 .

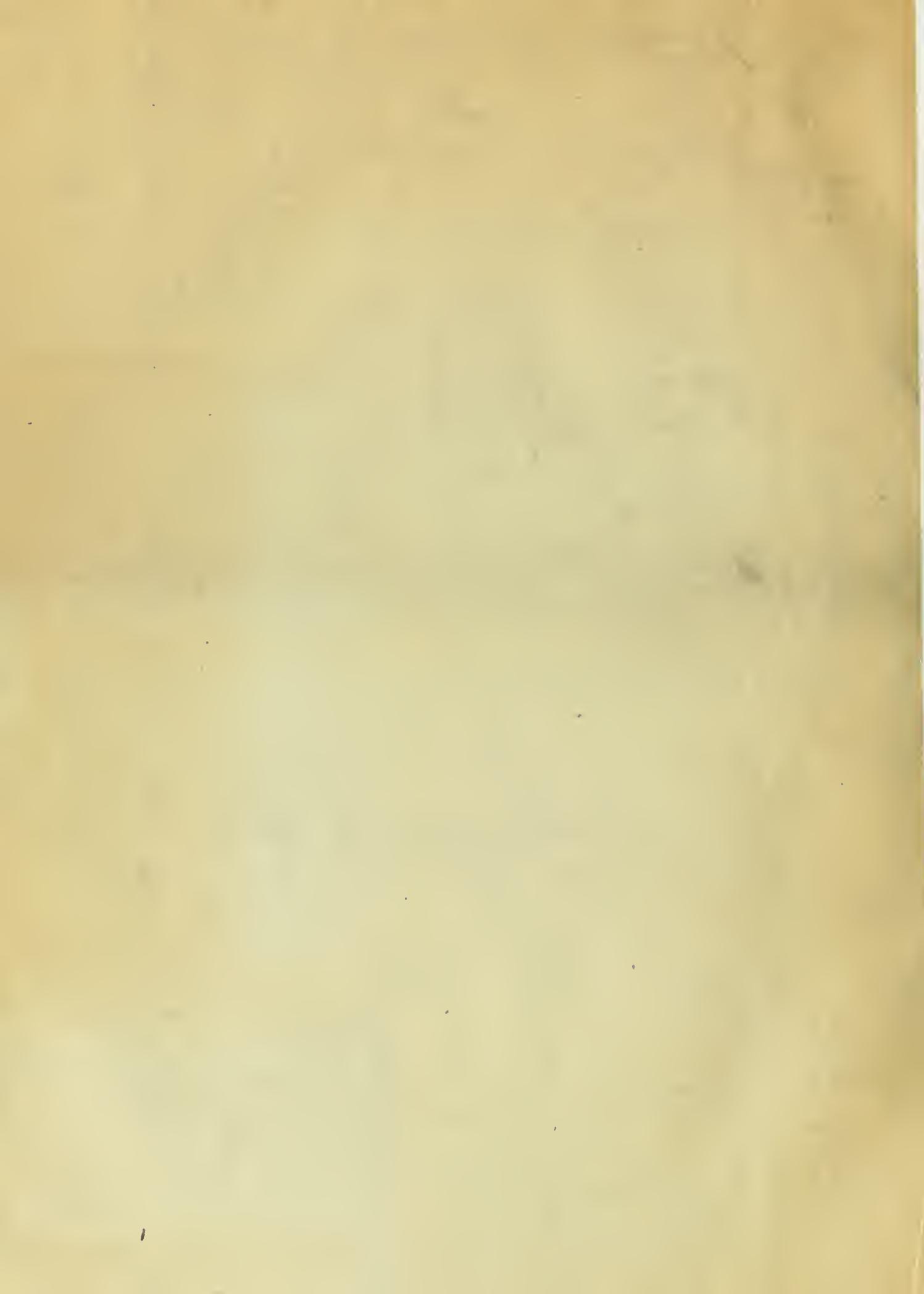
PROPORTIONS OF NOSE.

(Nasal—Index.)

INDICES.	Number of subjects.	Percentage on number of subjects.
Average	3	8
Maximum	4	10
Minimum	22	58
Range	6	15

FINE NOSES.

Leptorhine. { 40 and under 45 .
45 and under 50 .
50 and under 55 .
55 and under 60 .
60 and under 65 .



27-1-3

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