

though rare, are occasionally found of from nine to thirteen carats in weight and without flaw. The revenue from these mines, which has been a royal monopoly, amounted in 1856 to about fifteen thousand pounds sterling annually.

As to the benefits to accrue to the new owners, the *Times* correspondent is sceptical. He says that to sanguine minds the prospect may appear tempting, and it may be thought that with proper mining appliances, and under British management, these mines might be made to yield a rich return. It may prove to be so, but "experience in India and Ceylon under more favorable circumstances of position does not justify that conclusion."

BRITISH CENTENARIANS.

THE British medical association assigned to one of its committees the task of inquiring into the medical history of the very aged. In answer to their widely distributed circulars, they have received a large number of records; and, of these, fifty-two cases refer to persons claiming the age of one hundred years or over. The detailed tables with regard to these fifty-two centenarians are published by Professor Humphrey, F.R.S., in a supplement to the *British medical journal* (Dec. 11 and 25, 1886). It is not meant to be implied that all these cases are beyond question: in only eleven cases (two males and nine females) was the age confirmed by baptismal or other records; and in the rest of the cases one can safely say that they were very, very old. It is satisfactory to find that in these tables the well-known pride of longevity and love of exaggeration have not induced any one to claim so high an age as 110: 108 and 106 are the highest ages recorded.

Thirty-six of these fifty-two are women: this excess undoubtedly indicates that females are more apt to reach these extreme ages than men; but it also indicates that females are more apt to lay claim to extremelongevity, and the ratio of 36 to 16 must be discounted accordingly. The average age of females, as well as of males, is slightly over 102 years; 11 were single (of these, 10 were females), 5 were married, and 36 widowed. The average age of marriage for the men was 31 years; for the women, 25 years. The average duration of married life for the former was over 54 years; for the latter, over 33 years. The average number of children was about six: only one male and one female had no children. The centenarian has a tendency to be among the first-born children: in thirty-eight returns his average position is about the second or third child, and in twelve cases is he the first (and in two of these the only) child. Only 3 of 49 spent their lives in afflu-

ence; 28 were in comfortable circumstances, and 18 were poor. The returns of their past condition show a remarkable unanimity as regards their health: they are a robust race, and spare as opposed to stout. They are not subject to ailments, as a rule, and show some remarkable cases of recovery in old age. One had epilepsy from 17 to 70 years; another an abscess connected with the spine, a stiff knee from injury at 50, and other troubles; a third had acute bronchitis at 95; and a fourth, paralysis at 90.

The qualities most frequently mentioned in these life-histories are a good family history; a well-made frame of average stature; an equable development of all the organs, including especially a good digestion, ready sleep, keen but not large appetite; retention of the hair and teeth; and little use of stimulants. Their habits, on the whole, show them to be, as a class, early risers, great out-door exercisers, and moderate in all indulgences.

The average height of the males is 5 feet 8½ inches, and their weight 138 pounds; of the females, 5 feet 3 inches, and their weight 129 pounds. Twenty-two report good hearing, and 34 good sight. Of 35, 28 use glasses, and 4 of the other 7 probably could not read. Fourteen describe themselves as placid in disposition, 8 as irritable, 11 as energetic, 8 as placid and energetic, and 5 as irritable and energetic. Of 46, 29 are reported as possessing average intelligence, 5 have low and 11 high intellects. The memory for recent events is good in 26, bad in 6, and moderate in 7. Similar figures for the memory for past events are 39, 4, and 4, showing the greater tenacity of early associations. One "remembers and will quote a great deal of the Bible;" another could "repeat about one hundred Psalms correctly." Of 45, 7 smoked much, of which 4 were women. The average time of going to bed was 9 o'clock, and of rising 8 o'clock. The average chest girth in inspiration was 36½ inches in the men, nearly 31 inches for the women; in expiration, 36½ inches and 30 inches. The slight differences indicate a weakening of the respiratory activity. The average pulse is 75, and the respiration 24, per minute. Of 42, 24 had no teeth; among 37 cases, there were 144 teeth, of which 63 were in the upper jaw (19 incisors, 8 canines, and 36 molars), and 81 in the lower jaw (23 incisors, 13 canines, and 45 molars). Evidences of debility are, of course, not rare: they occur in half the cases, and are connected with the heart in two cases, with the heart and lungs in 3, heart and urinary organs in 3, with the lungs in 2, with the brain in 3, brain and urinary organs in 1, urinary in 4.

Dr. Humphrey concludes his comments upon these cases with the hopeful consideration that the result of the investigation is found to be that "the means most suited for prolonging life . . . are the means best calculated to turn it to good account and to make it happy."

THE MELANESIAN RACES AND LANGUAGES.

SOME of the most perplexing problems of ethnology are encountered in Oceanica. As is well known, this vast island world, stretching eastward from south-eastern Asia far into the Pacific ocean, is commonly divided into five geographical provinces, — Malaisia, or the East Indian archipelago, extending from the Straits of Malacca to New Guinea; Melanesia, comprising New Guinea and the groups east of it to the Fiji Islands; Polynesia, including the islands of the southern and eastern Pacific, from New Zealand to the Hawaiian group; Micronesia, the range of small islands in the North Pacific, east of the Philippines; and Australasia, comprising Australia and Tasmania. The tribes that inhabit these various regions differ in all the traits which are supposed to indicate distinction of race. The Malays are short, with light-brown complexion, straight black hair, and small Siamese features. The Polynesians are tall, of clear yellow hue, with wavy black hair, and handsome, almost European countenances. Of the swarthy Melanesians, some, like the Papuans, are tall, with prominent, aquiline features, and frizzled locks; others, like the Negritos and Samangs, are short, with woolly or tufted hair. The Australians are black or reddish brown, with negroid features and wavy or crispy hair; while south of them the now extinct Tasmanians had similar features and complexion, with completely woolly hair. The question to be decided is, Do all these tribes belong to one race, or to two, or to many? Ethnologists of the highest ability and attainments — Crawford, Pritchard, Huxley, Wallace, Lesson, Von der Gabelentz, Winchell, and many others — have taken part in the discussion, and we seem as far from a definite conclusion as ever.

The latest and perhaps the most valuable contribution yet made to the evidence on this subject is the comprehensive and profound work of the Rev. Dr. Codrington on the Melanesian languages. The materials for the work were gathered during many years of missionary labor spent chiefly on Norfolk Island, in the Melanesian mission-school

of the Anglican church. Australasia is not included within the scope of the work, and New Guinea is only noticed in some incidental allusions; but all the groups lying east of that island, and extending from New Ireland southward to New Caledonia, and eastward to Rotuma and the limits of Polynesia, are illustrated by it. No less than thirty-four languages and dialects are carefully described, and are compared with one another and with the idioms of Melanesia and Polynesia, as well as with the language of Madagascar, which, as is well known, belongs to the Malayo-Polynesian family. Dr. Codrington is an Oxford scholar, versed in classical studies, and familiar with the methods and results of philological research. To a student of linguistic science it is no small pleasure to peruse a work in which the laws of the science, as they have been wrought out by the ablest minds in the study of the Indo-European and Semitic tongues, are applied with a happily illuminating effect to the languages of these barbarous tribes.

The first result is to raise considerably our opinion of the quality of the languages, and our estimate of the intellect of those who speak them. The author finds these idioms remarkably copious. Of this fact he gives an interesting illustration from his own experience with one of them, — that of the island of Mota, of which many of the pupils in the Norfolk Island school were natives. "After some twelve years' acquaintance with the language, talking, teaching, and translating," he writes, "and after having acquired, more or less correctly, a considerable vocabulary of Mota words, I began to buy words that I did not know at the rate of a shilling a hundred from the scholars at Norfolk Island. I left off when lists of three thousand words unknown to me had come in. It is certain that elder natives living at Mota use many words hardly known to those who have gone away from their own island as boys, and that the boys had by no means exhausted their stock. I calculate, therefore, that there were probably as many words still to come as would bring up my vocabulary to at least six thousand words. Of these, many, of course, are compound and derivative; but they are distinct words. This concerns a small island, with less than a thousand inhabitants, with whom European intercourse began within the memory of living men." This fulness, it should be added, is not merely in names of objects and actions. Purely abstract terms are common, and are formed by a system of derivation as clear and regular as that of the Greek or the Sanscrit. Thus from *toga* ('to abide') we have *togara* ('behavior') and *togava* ('station'). *Nonom* ('to think') yields *nonomia* ('thought'); and