naturally and easily. The experience of past generations makes the acquisition of present experience easier, and so it comes about that we cannot help seeing it. But it is all experience, after all; although learned philosophers, by long, long thinking over the theory of groups and other abstruse high developments, may perhaps come to what I think is a sort of self-deception, and think that their geometry is pre-existent in themselves, whilst nature's is only a bad copy. Like the old Indian pundit, whose name was something like Bhatravistra, who, after fifty years inward contemplation, discovered God;—where—it would not be polite to mention. OLIVER HEAVISIDE.

September 22.

The New Senate of the University of London.

IN your paragraph (NATURE, September 27, p. 543) on the new Senate about to be elected in the University of London, you have put the issue as it has occurred to me. I have not been able to give my support to either of the two bodies which have set their electoral machinery in motion, for the simple reason that neither of them has produced a list of names of candidates in which higher educational work is adequately represented. I thoroughly endorse your remark that "It would be nothing less than a calamity were Convocation to elect sixteen irreconcilables with no idea outside that of introducing the peculiar needs of the external student into all deliberations of the Senate."

The University may boast of the value of the degree; but this is only to say that as an organism its *cell*-life is strong. As an organism, however, its *somatic* life is weak; and the *summation and co-ordination of function* is the main idea for the new Senate of the University to keep before it, if the University is to be a factor of real power in our national and imperial life in the centuries to come. An experience as a teacher of over a quarter of a century (Wellington College and Nottingham) entitles me, I think, to speak on this matter.

Bishop's Stortford, September 28. A. IRVING.

The Peopling of Australia.

IN the issue of NATURE dated December 28, 1899, there appeared a notice of my book, "Eaglehawk and Crow," from the pen of Prof. A. C. Haddon. A copy did not reach me till the end of February, and for that and other reasons which need not be mentioned I delayed replying to the criticisms passed. With your kind permission I shall now endeavour to meet the principal objections raised to my work, with a desire of advancing, if even in a very small measure, our knowledge of Australian ethnology. All ethnologists are agreed upon the difficulty of the Australian problem, and no one who attempts to solve it will be surprised at their agreement.

I regret that, owing to my omitting to define my use of the term Melanesian, Prof. Haddon misapprehended one of my fundamental positions. In a note on page 5 I say, "Papuan is applied, not in its narrowest application (dark New Guinean), but as the equivalent of Melanesian, and is meant to include the Tasmanian aborigines, &c." From this Prof. Haddon inferred that I excluded the Papuans proper from my Papuan race. Nothing was further from my intention. I included them as a sub-race under the wider term Melanesian, as many writers have done, as even the latest writer on the subject, Deniker, has done in his "Races of Man," page 285, and elsewhere. The basis of my ethnological position may be thus represented:—

Papuan or Melanesian Race.
- Papuan Proper.
- Malanesian Proper.
- Tasmanian Papuan.
  - Primitive Australian.
  - Tasmanian.

This classification underlies my whole book. I confess that I would now prefer to restrict the name Melanesian to the Melanesians proper as less liable to ambiguity, but in making Melanesian the general name I followed the lead of others much more competent than I am. That I recognised the narrower application of Papuan is evident from the above quotation from page 5, and such a passage as the following shows that I recognise Melanesians proper. "There are indications of groups of Melanesians having reached Australia on the eastern Queensland coast," page 73. Further, I invariably refer to the Tasmanians as Papuans, with occasionally some such qualifying word as *primitive*.

My solution of the Australian racial problem having received the approval of Prof. Keane ("Ethnology," pp. 291–2), I may state it briefly here. The now extinct Tasmanians represent the primeval Australian aborigines. They were probably not a pure race, but embraced Negrito and Papuan elements. At the time of their arrival in Australia they probably occupied the islands to the north, and their congeners were the first to occupy Melanesia. Upon the primitive Papuans there was a strong graft of what, for want of a better name, and following the example of others, I have called "Dravidians," using this as a term of convenience to indicate likeness to the people of southern and central India. Then followed a further migration, in a desultory manner, of people of Malay stock; the precise locality whence these came is indeterminable, but I give evidence of distinctly Sumatran influence in the north-west. Concurrently, or subsequently, companies of Melanesians proper and Papuans proper have mingled with the Australians on the north and east of Queensland.

The two earliest immigrations entered Australia from New Guinea or neighbourhood. The population became distributed by streams diverging from the base of Cape York Peninsula.

When allowance has been made for Prof. Haddon's misconception of my use of the term Papuan, there is little more in his notice that needs to be referred to, as he concedes my main positions.

Mr. S. H. Ray, having been invited by Prof. Haddon to offer observations upon the linguistic part of the work, criticised it in a manner which seems to be unnecessarily caustic, fastening attention upon petty points which he objected to, and ignoring the main issues. He begins by asserting that I belong to a school of Australian pseudo-philologists who believe that a likeness of words in sound and meaning is a proof of common origin, and this in spite of my explicit disavowal of such a position, and my exposure of the unsoundness of it on page 44, where I show that on such a principle the Australian languages might be derived from the English. Having made so fair a start with a *petitio principii*, by gross misrepresentation of my statements, he proceeds to buttress his assertion. "We are asked to believe," he continues, "that Malay immigrants, presumably from various parts of the Archipelago, entered Australia from the north, and wandering about the interior, scattered 'astonishing relics' of the speech of one of their sections all over the island continent." He is not asked to believe any such ridiculous nonsense, and it is singularly disingenuous to say so in the face of my sober statements on page 57, "Either the Malay inroad, if made at the north, took place in long past ages, or now and again parties of Malays, either from choice or necessity, landed and became naturalised at various spots on the east, north and west, and modified the speech of the people, first immediately round them, and then landwards": and on page 61, "This last influx (the Malay) may have come by several little rills, entering at places widely apart and gradually losing themselves in the life-lake." The "wandering about the interior" is a pure invention of Mr. Ray's. When the universal practice of exogamy is taken into account, along with the general pressure and movement of people, language, customs, &c., from north to south, my theory of Malay influence on the Australian people and language will be accepted as reasonable by unprejudiced minds. In the *Journal* of the Anthropological Institute for 1894–5, in a paper on "The Languages of British New Guinea," this very Mr. Ray uses language, and language alone, as a basis of classification for proving racial distinctions and affinities and movements. I do not say that this was an improper use of the linguistic argument, but it differs from mine in this, that I rarely rely upon language alone. I back up the linguistic evidence by that of other ethnological characters.

To come to particulars: my identifying a certain type of Australian words for "Head" with the Malay "Kapala" is objected to because "Kapala" is a word of Indian origin. But the word has been current in Malay for five or six centuries, and is in use in that very part of Sumatra from which, according to my hypothesis, came the authors of the best Australian rock-paintings. It is quite possible that I may be mistaken in relating certain Australian words to "Kapala," but Mr. Ray's ground of objection has little or no cogency.

"Mama" and "bapa" are terms for mother and father of