

him," and also to remove from the mind of the reader the unpleasant feeling he has all along had whilst perusing the papers, that he was a party to a mean action in so doing.

The earliest essay, in an unfinished form, written whilst *in statu pupillari*, is entitled "Some Remarks of a Girthing girl on Female Education," and combats those "male sycophants" who "would prevent us from competing with you; you would separate yourselves on your island of knowledge, and sink the punt which would bear us over to your privileged shore. Of all the twaddle—forgive me, male sycophants!—that the world has ever heard, I think the greatest is that which you have talked about female education."

The second paper is a "Lecture on the Theory of Brain-Waves, and the Transmigration and Potentiality of Mental Forces." She takes the usual equation

$$y = \frac{a}{r} \sin \frac{2\pi}{\lambda} (vt - r),$$

and determines λ by the method of mesmerism. "We find the ratio of brain to brain—the relative strength which one bears to another; and then, by an application of our formula, we can actually determine the wave of thought, and read the minds of our fellow-creatures. An unbounded field for reflection and speculation is here suggested. Like all great discoveries, the elements of the problem have unconsciously been utilized by many who are unable to account for their method of procedure. . . . The development of this theory of brain-waves may be of great practical utility to the world. It shows that great care ought to be exercised in the domain of thought, as well as that of speech." Some verses follow, and then we have Papers iii. and iv., which are, in our opinion, the best part of the book, viz. a "Lecture on the Social Properties of a Conic Section," and the "Theory of Polemical Mathematics." Paper v. contains a "Lecture upon Social Forces, with some Account of Polemical Kinematics," and Paper vi. carries on the preceding into "Polemical Statics and Dynamics"; Paper vii. expounds the "Laws of Political Motion," and Paper viii. closes the book with a lecture "On the Principle of Polemical Cohesion." We ought to apologize for going into such detail, but our account will show our readers that the present work does not deal with mathematical discoveries. It is a "skit," with the perusal of which a reader acquainted with mathematics may while away, not unpleasantly, an odd half-hour or two.

Antipodean Notes. By "Wanderer." (London: Sampson Low, 1888.)

Lights and Shadows of Melbourne Life. By John Freeman. (Same publishers.)

THE "notes" in the first of these two books do not embody the results of a very wide experience. They simply record some observations made by the author in the course of a nine months' tour round the world. "Wanderer" does not, however, pretend to offer an exhaustive account of any of the subjects on which he touches. He has an easy, pleasant style, and gives with some vividness his first impressions of the scenes he describes. The greater part of the book relates to New Zealand, the practical, commercial, and social aspects of which he had, he thinks, more and better opportunities of studying than are obtainable by the majority of "globetrotters." There is a short but interesting chapter on the Maoris, of whose qualities, as they have been affected by contact with civilization, "Wanderer" has no very exalted opinion. He admits, however, that there are exceptions to what he calls "the average of uselessness." One of the native members of the House of Representatives is, he says, "highly educated, intelligent, and even eloquent." The question whether women should be admitted to the House was lately discussed, and the speech of this deputy on the

subject was "by far the most brilliant and entertaining of a debate in which many colonial legislators soared above the ordinary level of dull mediocrity."

The second book consists of a series of papers, some of which were originally contributed to Melbourne newspapers. They are written in rather too "smart" a style, but contain much information which it would be hard for Englishmen who may be interested in Melbourne to find elsewhere. The book will no doubt be welcomed by many visitors who will go this year to Melbourne to see the Centennial International Exhibition.

LETTERS TO THE EDITOR.

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The Salt Industry in the United States.

I CAN sympathize to a great extent with your correspondent George P. Merrill on the question of salt statistics. For a number of years I have been accumulating information on the whole subject of salt, and have found the greatest difficulty in obtaining much of a trustworthy character. The most extensive salt literature is in Germany; even there the statistical part of the subject is not dealt with so extensively as the geological, geographical, chemical, and manufacturing. Perhaps the most complete salt literature is that of India, which is issued yearly by the Government; but it deals almost exclusively with Indian salt.

I am not much surprised that the information in our Encyclopædias respecting the salt industry of the United States should be so scanty. Most of the information derivable respecting it has to be obtained from public newspapers, trade pamphlets, or papers in scientific journals. It is true that, so far as the deposit of Petit Anse, in Louisiana, is concerned, the United States Government published an account of it shortly after the termination of the great war. Dr. Sterry Hunt, whom I had the pleasure of meeting at Manchester at the British Association, has written probably more than anyone else on American salts; but it must be borne in mind that it is only within the last twenty years that the great salt discoveries in Western New York and Michigan have been made. I have a complete or nearly complete list of all the Michigan works, which was issued in the *Chicago Tribune* of January 24, 1888. I have also before me a copy of the *Saginaw Courier* of December 18, 1887. This gives some valuable tables respecting the Michigan salt. In Michigan, in 1887, 3,944,309 barrels of salt were inspected by the salt inspector. In 1869, only 561,288 barrels were made; and in 1880, 2,676,588. There was more salt made in Michigan in 1887 than had been made previously to 1869 in that State. The growth of the salt manufacture has been exceedingly rapid in the States; hence the reason why so little is known of it outside the persons interested in the trade.

Within the last five or six years there has grown up a most extensive salt manufacture in the Wyoming Valley in Western New York. Already this new district bids fair to cut out entirely the old Syracuse or Onondaga district. The make of American salt has much more than doubled itself in the last ten years. I am sure that personally I shall be much pleased if Mr. Merrill will, either through your columns or direct to me, give any information more accurate than is obtainable from our Encyclopædias. I am striving to establish at Northwich, the centre of the Cheshire salt trade, a Salt Museum, and although I have been for a long time accumulating specimens of salt from all parts, and have, thanks to the East Indian Government, and through the kind exertions of Mr. J. T. Brunner, M.P., our Parliamentary representative, who is most handsomely furnishing the Museum, a complete set of specimens of Indian salt, yet I find great difficulty in obtaining works treating on salt, also maps, plans, and diagrams. I trust, by degrees, to have a Museum perfectly unique, I believe.

When I say that until the last two or three years our English salt statistics have not been trustworthy, and that it is only by the indefatigable exertions of Mr. Joseph Dickinson, H.M. Inspector of Mines, assisted by myself and one or two other gentlemen connected with our salt trade, that they are now very nearly complete, Mr. Merrill must not be surprised at the difficulty of getting