Besides the rarity of some of these plants, they have a habit of entirely disappearing after flowering, and indeed in many cases they will only appear at irregular and long intervals, which also conspires to make them difficult to procure, so that collectors are necessarily anxious to know the time of the year at which they should be looked for in flower, and this the author has where possible added to his description.

The volume includes, besides the typical Amaryllideæ, the Alstrœmeriæ and Agaveæ, but the Hypoxideæ and Velloziæ are omitted on the grounds that they have been elsewhere fully dealt with. This we think a pity, as it would have made the work more complete to have included these groups; but this will hardly affect cultivators, with whom the Hypoxids are rarely found favourites on account of their comparatively insignificant flowers and general similarity, while the Vellozias, though they would be welcome additions to our stoves on account of their beautiful flowers, yet baffle our gardeners on account of their bulkiness and slow growth.

In the Agaveæ it will be noticed that of many species (in fact, nearly one-third) only the foliage is known. For garden purposes perhaps the form and number of the leaves may be sufficient, at least for identification; but it cannot be considered satisfactory to publish as new species, and endow with scientific names, plants of which the inflorescence is unknown. The author, however, has but done his duty in incorporating these species into his work.

One may hope that the publication of this compendium will stimulate our amateur gardeners to turn their attention more carefully to this comparatively neglected group. Already for some time signs have not been wanting to show that they are rising into favour again to some extent. The Narcissi, Hippeastrums, and Crinums are undergoing elaborate cultivation and hybridization by the best of our gardeners with the highest success, and if this hand-book contributes to the study of this group it will have done its work.

H. N. R.

OUR BOOK SHELF.

Another World; or, The Fourth Dimension. By A. T. Schofield, M.D. (London: Swan Sonnenschein, 1888.)

THIS work consists of seven chapters. The first four—the land of no dimensions, the land of one dimension, the land of two dimensions, and the land of three dimensions—consist of large extracts from “Flatland,” with a running commentary upon them, bringing out their salient facts. Indeed, had not “Flatland” been published, the author admits his own book would not have been written. In Chapter V., the land of four dimensions is mathematically considered, and here we have stated, from analogy, the relations of a being in one dimension with that above him and its inhabitants, *e.g.* one in the third dimension (our world) with the fourth; and in Chapter VI. the land of four dimensions is considered in relation to ours of three. Chapter VII. considers generally the land of four dimensions, with facts and analogies. The fourth dimension is not discussed on the lines of Mr. Hinton’s “What is the Fourth Dimension?” but after the mathematical side of the question has been considered, our author “further considers the actual facts around us bearing on the question, and compares the deduced laws of the fourth dimension with some of the claims of Christianity as stated in the Bible.” Here we must close our notice—as we cannot go into an examination of these

topics in our columns—with saying that there is much of interest in the pages before us, and for some readers the speculations of the later chapters may have as much interest as the mathematical certainties of the earlier chapters have for others.

Euclid's Method, or the Proper Way to Treat on Geometry. By A. H. Blunt. (Shepshed: Freeman, 1888.)

THIS booklet consists of an introduction (pp. 3–10), and the method of treating on geometry (pp. 10–23). We let the writer speak for himself:—“In this small work I have attempted to show the proper way to treat on geometry, and which I conceive was the method of Euclid; for it will be seen that the results are right from the way in which they are arrived at, and that they agree with Euclid’s results. It is certain, I think none will deny, that when Euclid composed his ‘Geometry,’ he did everything in it under the guidance of reason and knowledge of what the true method consists in; but since he has not expressed or shown those reasons (and it would not have been proper, nor would it have been necessary to have done so in his ‘Geometry’), they therefore appear to have been known but very little to anyone else since his time, as is evident from the expressions and unjust fault-finding made against him in the writings of modern geometers, which greatly betray their own ignorance of the true method. So long as the true method remains unknown, it is not to be wondered at that men should busy themselves in finding faults with Euclid, his work being so complete and perfect as to leave them but little else to do. Not that I would be understood to mean that his works ought to be accepted in blind submission as everything perfect, or that no faults, if there are any in it, ought to be pointed out”; and so on. *Ex pede Herculem!* The author’s remarks are made sincerely, and for a certain order of mind his explanations are likely to clear up many points in the Definitions. It is to these only that he confines his attention in pp. 10–23, and he gives good reasons why Euclid should have taken them in the order he has taken them. This was his object: write, then, Q.E.D., and *Vivat Euclides!*

On the Distribution of Rain over the British Isles during the year 1887. Compiled by G. J. Symons, F.R.S. (London: Edward Stanford, 1888.)

MR. SYMONS’S “British Rainfall” is so well known that we need only say of the present issue that it is in no respect inferior to the preceding volumes of the series. The marked characteristic of 1887 was the prevalence of droughts. According to Mr. Symons, the year has had no equal for widespread deficiency of rainfall since 1788. Naturally, therefore, much space is devoted in this volume to the subject of droughts; and in one chapter—on “Historic Droughts”—he has brought together, from a variety of sources, a large amount of information that ought to be as interesting to historians as to meteorologists. In the preface Mr. Symons calls special attention to important additions which have been made to our knowledge of the rainfall of the Lake District. These have resulted from a grant of £42 7s. made by the Royal Society from its own funds in 1886.

LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

The “Tamaron” of the Philippine Islands.

A LETTER, which I have just received from our Corresponding Member, the energetic traveller and naturalist, Prof. J. B. Steere,

of Ann Arbor, Michigan, U.S.A., announces that he has made a remarkable zoological discovery in the Philippine Islands. In the interior of the little-known Island of Mindoro he has procured specimens of a strange animal, which, although much talked of in the Philippines, is little, if at all, known elsewhere. This is the *Tamaron* of the natives, a wild species of the family Bovidae, allied to the Anoa of Celebes, which Prof. Steere proposes to call *Anoa mindorensis*. Its general colour is black, the hairs being short and rather fine. A greyish white stripe runs from near the inner corner of the eye towards the base of the horn. There is also a greyish white spot above the hoof on all the feet, and a greyish white patch on the inside of the lower fore-leg. The height of the male at the shoulder is about 3 feet 6 inches, the length from the nose to the base of the tail about 6 feet 8 inches. The horns are about 14 inches long. Prof. Steere obtained two males and one female of this animal, of which his full description will be read at the first meeting of the next session of the Zoological Society. The discovery is of much interest, as giving an additional instance of the similarity between the faunas of Celebes and the Philippines, which was already evident from other well-known cases of parallelism between the natural products of these two countries.

P. L. SCLATER.

Functionless Organs.

IN reference to the Duke of Argyll's letter, I should wish to say that I am not aware of any reason for regarding the electric organ of any Skate as a "prophetic structure," using that term in the sense given to it by the Duke. And I should be very glad if he, instead of confining himself to a simple assertion that it is so, would explain the reasons which lead him to regard it as being so. It might then be possible to combat those reasons.

Further, I think it is only right to say that my own observation of the progress of the doctrine of evolution during the last quarter of a century leads me to a conclusion diametrically opposed to the Duke's in regard to the balance of evidence in favour of, or opposed to, the doctrine of creative design in variations on the one hand, and that of the non-significance of variations on the other hand.

I do not hesitate to say that what may be called "pure" Darwinism—the doctrine of the origin of species by the natural selection in the struggle for existence of non-significant congenital variations—is everywhere being more completely demonstrated by reasoning and observation as the single and sufficient theory of that origin; to the exclusion of Lamarckism, and still more certainly to the exclusion of any vestige of the doctrine of design.

E. RAY LANKESTER.

45 Grove End Road, N.W., August 4.

WITH a certain class of thinkers, when endeavouring to disparage the labours of Charles Darwin, no argument appears absurd. Does the Duke of Argyll, in his letter which appeared in your last issue (p. 341), mean to imply by his "prophetic germs" that such cases as the mammary in the male indicate a time when he will be able to take part with the female in suckling the young, and that the coccyx is prophetic of a tail to the human family, or that a time is approaching when the rudimentary covering of hair on the human body will develop into a warm coat similar to that of the bear or the beaver? For myself, I fail to see how a "functionless organ" can build itself up. Perhaps the Duke of Argyll will explain.

J. T. HURST.

Raymond Villa, Geraldine Road, Wandsworth, S.W.,

August 11.

Dr. Romanes's Article in the "Contemporary Review."

ABSENCE from England has hitherto prevented me from seeing Mr. Poulton's letter in your issue of July 26 (p. 295). Having just read it, I am not a little surprised that he should have deemed it necessary to refer me to the titles of two of the most notorious essays in the recent literature of Darwinism. Nor can I fail to wonder that, without a particle of evidence, he should accuse any man of "not making himself acquainted with views which he professes to express."

If I could think it worth while to discuss a somewhat lengthy matter with a critic of this kind, it would be easy enough to justify the incidental remark in my paper to which he has drawn attention. But my only object in noticing his criticism is to

observe that, if its tone is due to his supposing that I have not sufficiently appreciated the importance of his own experiments in this connection, he is entirely mistaken. For, although I do not agree with his theoretical interpretation of them, it has always appeared to me that the experiments themselves are among the most valuable which have hitherto been made regarding the causes of variation. But it has also appeared to me that my appreciation of their importance in this respect depends upon what he calls "the Lamarckian conception," i.e. a conception which he expressly repudiates. Were it not for the attitude of theory which he thus adopts, of course I should not have alluded to him as a naturalist who concerns himself less with the causes of variation than the other (or Lamarckian) writers whom I had occasion to name. But, as the matter stands, I have merely forestalled the expression of his opinion as stated by himself, where he says in his letter to you, "I agree with Dr. Romanes in the belief that my work does not throw any light upon the causes of variation."

My paper was concerned only with the opinions of others, and I nowhere expressed the "belief" thus attributed to me. In point of fact, "the Lamarckian conception" enables me to hope that work of the kind on which Mr. Poulton is engaged is more calculated than any other to throw light upon the problem in question; and it seems to me a curious corroboration of the remark to which he objects that, on account of his loyalty to the school of Weismann, he is obliged to regard his own experiments as destitute of significance in this respect.

August 9.

GEORGE J. ROMANES.

Taxation in China.

NATURE (vol. xxxvii. p. 269), in its review of M. Simon's "China: its Social, Political, and Religious Life," represents on that author's authority that in China "taxation is very light—not one-hundredth part of what it is in France," a statement so misleading to publicists, so illusive to economic science, that I take upon myself the task of exposing its fallacy, both as regards direct and indirect taxation.

Taking for illustration the amount of taxation at Ningpo (M. Simon was the efficient Consul of his country at that port, where he won golden opinions of foreigners generally, and natives as well), it will be seen that he has been led into egregious errors by incompetent interpreters.

M. Simon says that "five francs per hectare is the utmost that is paid for the best land."

From municipal archives I tabulate the following relative to the three qualities of rice land:—

Quality of Land.	Relative Quantity.	Taxation per Mou.	Taxation per hectare.	Taxation per acre.
1st	60%	\$0.35 ...	\$5.25 ...	\$2.10
2nd	25	0.28 ...	4.20 ...	1.68
3rd	15	0.25 ...	3.75 ...	1.50
Average ...	100	0.29½	4.40	1.76

Six mou = one acre. Fifteen mou = one hectare.

Hill land, \$0.13 per mou. From the second quality only one crop is obtained.

Instead, therefore, of the *best land* being five francs per hectare, it is (according to present rate of exchange) about 21 francs, and for the average about 17 francs per hectare.

With regard to indirect taxation, that author affirms that the Chinaman has no excise duties to pay. So far from that being the case, his octrois (*likin*) contribute far more to the State demands than the levies on his land; but from lack of trustworthy data, that is altogether an incomputable quantity.

Nevertheless, with such levies, and the salt gabel and so forth, it may be shown that the Chinese are not overburdened with taxation; albeit to imagine that their taxation is "not one-hundredth part of what it is in France" is sheer economic hallucination.

D. J. MACGOWAN.

Wenchau, June.

Partial Eclipse of August 7.

THE above eclipse was observed at Cambridge, and the times of contact were estimated as follows:—

	h.	m.	s.
First contact ...	6	44	50 G.M.T.
Last contact ...	7	7	20 "

At the time of greatest eclipse, 6h. 56m., a photograph was taken which on being measured gives a magnitude of about