

the handsome coloured plates of blue ground and diamonds of various shapes and colours, presented by Mr. Gardner Williams, stand out conspicuously.

While it is evident that much has been achieved, it is equally certain that in some branches only a start has been made. In fact, the dominant feeling produced by reading the several interesting articles is one that should inspire the greatest hope and enthusiasm among scientific students in this country and throughout South Africa. Here lie new worlds of unknown possibilities. As yet we stand only on the threshold. Far off glimpses of a wonderful country have been obtained, but it is the sight of a Kilimanjaro enshrouded in mist, not of the unclouded mighty mountain-mass. W. G.

Stone Gardens. By Rose Haig Thomas. Pp. xii and plates. (London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd., 1905.)

An old wall sheltering such plants as are accommodating enough to grow in such a situation is often a delight; but to undertake the formation of a "stone-garden" in the way suggested by the author is to run counter to all our notions of the amenity and purpose of a garden. Various "designs" are offered for adoption, such as a lyre-shaped outline made of paving stones with flower-beds representing the strings, and separated by narrow strips of stone.

Another design shows three snakes intertwined, each snake made of flat stones of a different tint from its neighbour. The spaces between the serpentine convolutions are filled in with flower-beds. Other designs are more appropriate to a formal or architectural garden.

Of course, there is no disputing upon points of taste, and each garden-lover must exercise his or her fancies according to circumstances and in obedience to individual proclivity. But if the designer intends to furnish a model for other people to adopt, then we expect there will be comparatively few garden-lovers who will share the author's taste or feel inclined to adopt her suggestions.

Be this as it may, the author gives very clear directions as to how her designs should be carried out, and very judicious instructions as to the plants to be selected and the method of planting them. Provided these be properly carried out, kindly nature will do her best to conceal the flags and stones, and if the author's designs are somewhat interfered with in the process, that will not be a matter for regret on the part of most garden-lovers. The work is in quarto, with fourteen designs in colour.

Oblique and Isometric Projection. By John Watson. Pp. iv+59. (London: Edward Arnold, n.d.) Price 3s. 6d.

IN defining the forms and dimensions of solids by means of scale drawings, a very useful method in certain cases is that of metric projection whereby three systems of parallel edges of the solid are represented on paper by lines parallel to three axes drawn in arbitrarily selected directions, and to any three scales also independently chosen. The author deals only with isometric projection, and considers two cases, first, when the projection is orthogonal, secondly, when the projectors are oblique with the plane of projection taken parallel to a face of the solid, so that figures parallel to this face appear without distortion. The best part of the book is probably the chapter giving examples, mostly of joints in woodwork, used by the author in conducting classes in manual training; but it is doubtful whether it was worth while to publish a book of such limited scope.

NO. 1878, VOL. 72]

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.]

Eclipse Phenomena.

No opportunity for discussion was given at the Royal Society meeting last Thursday, but the following brief notes may be suggestive and possibly useful.

The particles in the corona which reflect solar light to us are presumably moving very fast away from the sun, and accordingly are illuminated by light of apparently extra-long wave-length. This light, thus lowered in refrangibility, they will emit; and inasmuch as they are probably moving at all sorts of speeds, we might expect that Fraunhofer lines would be encroached upon and blotted out from the resulting emission, especially as some particles would have a component of velocity towards us and others away from us.

If any of the particles are emitted with anything like the speed of some of those from radium, the maximum change of frequency to be expected would be great.

Particles illuminated by rays normal to our line of sight will send us a plane polarised beam, but when the illuminating rays are oblique to the line of sight, as may be the case from some of the longer streamers, then the polarisation would be only partial.

How far single electrons may be able to resist the forced vibrations of light-waves, and thus become themselves polarised sources, is a matter on which I hope to try some experiments. The illumination in which they are immersed near the sun is very intense.

The circular or ring appearance seen in the midst of the corona in some photographs, with geometric centre at a distance from the apparent centre of explosion, looked to me like a gigantic vortex ring. I see no reason why a sun-spot should not eject such rings occasionally.

OLIVER LODGE.

Geometry of Position.

IN connection with the review of Mr. Wilson's recent book, on p. vi. of your supplement last week, may I direct the friendly attention of the reviewer and your readers to an old paper of mine in the *Philosophical Magazine* for November, 1875, where some of the theorems referred to are given. I myself have found a slight modification of the rapid system of writing chemical formulæ there advocated, extremely useful, and should like to advocate its use by elementary students of organic chemistry—but that is another matter.

OLIVER LODGE.

October 20.

Eclipse Predictions.

THE discrepancies referred to by Mr. J. Y. Buchanan (p. 603) as existing between the French and British predictions for the recent total eclipse of the sun are due simply to the fact that a different value of the moon's diameter is adopted in the *Connaissance des Temps* from that in the *Nautical Almanac*, the former being about 2".7 greater than the latter. Hence the breadth of the zone of totality and the duration of totality on the central line are greater in the French than they are in the British ephemeris. But there is no occasion to impute mistake to the French calculators. They merely assume a value of the moon's diameter that is, in my opinion, too large for eclipse purposes.

A. M. W. DOWNING.

October 20.

Chelifers and House-flies.

IT may be that the view suggested in my letter to NATURE of August 31, that the association of the Chelifer with the house-fly is to the advantage of the former in providing it with a wider geographical distribution, is not sound. I believe it is, but at the same time admit that there is not sufficient evidence at present to prove that the association is of material advantage to the species.

The important point to determine, however, is whether