

Delegacy caused it to be undertaken; to Mr. Bell, who seems to have very efficiently performed the actual task of translation; <sup>1</sup> to Mr. Garrod for the Appendix already mentioned; and last, though not least, to Prof. Peters for supplying the use of the very plates which illustrated Müller's work.

OUR BOOK SHELF

*Proceedings of the London Mathematical Society*, vol. ix. (November, 1877, to November, 1878.) 279 pp. (Hodgson and Son, Gough Square, 1879.)

WE have, in previous notices, indicated the character of the papers contained in former volumes, and the same remarks apply equally well to the volume before us. We shall content ourselves, in our present notice, with giving the titles and author's names only of the more important papers.

Prof. Cayley, not so large a contributor as usual, furnishes a short paper "On the Geometrical Representation of Imaginary Quantities, and the Real (*m*, *n*) Correspondence of Two Planes," and another equally short, "On the Theory of Groups." There are brief notes "On a Generalised Form of Certain Series," by Mr. Glaisher; "On the Transformation of Elliptic Functions," by Dr. Klein, of Munich; "On Certain Extensions of Frullani's Theorem," by Mr. C. Leudesdorf; "The Flexure of Spaces," by Mr. C. J. Monro; "On the Relation between the Functions of Laplace and Bessel," by Lord Rayleigh; "Notes on Normals," and "The Decomposition of Certain Numbers into Sums of Two Square Integers by Continued Fractions," by Mr. S. Roberts. Longer papers are: "On the Singularities of the Modular Equations and Curves," by Prof. H. J. S. Smith; "On Partial Differential Equations with Several Dependent Variables," and "On a General Method of Solving Partial Differential Equations," by Prof. Lloyd Tanner; "A Method in the Analysis of Plane Curves," by Mr. J. J. Walker; "On Conjugate Four-piece Linkages," by Mr. A. B. Kempe; and "A New Method of finding Differential Resolvents of Algebraical Equations," by Mr. R. Rawson. M. Halphen contributes a long and valuable paper on "The Characteristics of Systems of Conics."

Physical papers are "On the Electrical Capacity of a Long Narrow Cylinder, and of a Disk of Sensible Thickness," by Prof. J. Clerk Maxwell; "On the Conditions for Steady Motion of a Fluid," by Prof. Lamb; "Notes on the Solution of Statical Problems connected with Linkages and other Plane Mechanisms," by Prof. A. B. W. Kennedy; "On the Astatic Conditions of a Body acted on by given Forces," by Prof. Minchin; and "Progressive Waves," by Lord Rayleigh. Mr. H. McColl contributes a paper in two parts bearing on logic and probabilities, viz., "The Calculus of Equivalent Statements."

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. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

Brorsen's Comet

I OBSERVED Brorsen's comet, about 8h, on March 29, through a whitish haze that extinguished the small stars near it. It appeared about the seventh magnitude, by estimation 3' in

<sup>1</sup> We might take exception, perhaps, to his rendering of the title, which, we think, might have been more literally and better expressed by "On the Hitherto Unknown Diversities of Type in the Singing Organs." &c.

diameter, its light very much condensed in the centre and approximately circular.

On April 4 I obtained the following places, although the moonlight much diminished its brilliancy:—

1874.	G.M.T.		App. R.A.		App. decl.
	h.	m. s.	h. m.	s.	° ' "
April 4 ...	8	29 59	2 56	53'7	+ 25 42 36
" ...	8	38 31	2 56	55'3	+ 25 42 56

At the first observation the comet was compared with the star Arg. + 25°, No. 485; at the second with Arg. + 25°, No. 496 (Bonn Obs., vol. vi.). The observations admit of more accurate reduction.

The correction to the ephemeris of Herr Schulze (reproduced in NATURE, vol. xix. p. 510) is—

$$\text{In R.A. ... } - 5^{\circ} 0' \text{ | In decl. ... } - 31'' 20$$

On both evenings when the equatorial was set to the position given in the ephemeris (with Strasser's correction, A.N. 2250) the comet was not in the field of a low power. The above correction to the declination may prevent loss of time in finding the comet.

G. L. TUPMAN

I, Vanbrugh Park, Blackheath, April 6

Madagascar Forms in Africa

A PARAGRAPH in a recent number of NATURE (p. 470) mentions the discovery of a new species of *Ouwirandra* in Eastern Africa, the genus being hitherto supposed to be peculiar to Madagascar. The plant in question, which was collected by Dr. Hildebrandt, is, however, as has been pointed out by Dr. Trimen and myself (*Gardeners' Chronicle*, February 1, p. 149), not a species of *Ouwirandra*, being destitute of the fenestrated leaves, which is the only distinguishing character of that not very sound genus. It is, in fact, a well-known and widely-distributed African plant, *Aponogeton leptostachyus*, E. Mey. Dr. Hildebrandt, when lately in this country, fully assented to this identification.

A more novel fact in the same connection is the discovery by my colleague, Prof. Oliver, of a new monimiaceous plant amongst the collections of Gustav Mann in East Tropical Africa. The order itself, though represented in Tropical America and Asia, has hitherto been unknown in Africa, although the Mascarene Archipelago is well supplied with species, and one at least is known from the Comoro Islands, whence its remarkable fruit was sent to the Kew Museum by Dr. Kirk.

W. T. THISELTON DYER

Transportation of Seeds

IN NATURE, vol. xvii. p. 390, which through the carelessness of my agent has only just reached my hands (together with the numbers for August, September, October, and part of November), I see Mr. Francis Darwin notices the penetration of certain grass seeds through the skin of sheep. It may interest him and your readers to know that I can corroborate this from what I have witnessed here and at the Cape of Good Hope.

In passing a butcher's shop in Noumea, lately, I was struck with the appearance of a fore-quarter of mutton. On a closer examination I found it so full of grass-seeds that it resembled a ham just unpacked from its bag of chaff. Many of the seeds had still their long thin tails drawn through the flesh like threads interlacing each other in every direction. On questioning the butcher, he said they rarely killed a sheep that was not more or less punctured.

All our sheep are imported for slaughter from Australia or Norfolk Island. This particular one came from the former place.

At the Cape of Good Hope I have skinned "spring-bucks," in which the shanks were pierced through and through with these "awms" and small thorns. My wonder has been how the animals could endure the pain of moving, but I suppose they do not suffer as we do.

E. L. LAYARD

British Consulate, Noumea, New Caledonia, February 1

Rayons de Crépuscule

WHAT does Mr. Abbey call (vol. xviii. p. 540), the "low country" in Ceylon? If he means the sea-board generally, I