

Journal of the Astronomical Society of Barcelona,
VOL. VIII, No. IV.

Monthly Weather Review of the Government of India
for July 1916 and August 1916.

The Observers' Handbook for 1917, published by the
Royal Astronomical Society of Canada.

The Kodai Kanai Observatory Bulletin, Nos. LI and LII.

Vijnan—An Organ in Hindi of the Vernacular
Scientific Society of Allahabad for March 1917.

The following gentlemen were elected members of the
Society :—

1. Padam S. M. Godrez, Esq., Bombay.
2. Robert Crawford Paterson, Esq., Calcutta.
3. K. J. Luke, Esq., Barrackpore.
4. Major H. L. Crosthwait, R.E., Calcutta.
5. Sirkar Sri Nanda Lal Guha, Esq., Calcutta.
6. Gordon Peace, Esq., Naini Tal.

The papers read at the meetings are published in this issue

Note on the New Comet Neujmin,

BY REV. A. C. RIDSDALE, M.A., F.R.A.S., F.R. MET. S.,
M. LOND. MATH. S., F.PH.S., A.L.C.M., FOREIGN MEMBER
OF SOCIETE ASTRONOMIQUE DE FRANCE.

MR. SROBODA of the Petrograd Observatory has shown that
this new comet of December 1916 has an orbit very similar
to that of Eucke's. A comparison of their respective elements
seems to show that the Comet Neujmin has been formed by
the partial disintegration of the latter.

Paper on "Recent increasing disagreement between the theoretical and observed positions of the Moon,"

BY REV. A. C. RIDSDALE, M.A., F.R.A.S., F.R. MET. S.,
M. LOND. MATH. S., F.PH.S., A.L.C.M., FOREIGN MEMBER
OF SOCIETE ASTRONOMIQUE DE FRANCE.

IT is by no means a rare occurrence, that the predicted or
theoretical position of the Moon should be in slight disagree-
ment with its observed positions. There are two great Lunar
Tables equally authoritative, the "Nautical Almanac,"
founded on Hansen's calculations with Newcomb's correc-
tions, and the "Connaissance des Temps," based on Radan's

Tables and founded on Delannay's Theory of the Moon. Not only does the Moon differ in its position, by as much as 0·20 seconds from time to time, but these two almanacs themselves are not always wholly in accord, thus testing the highest skill of the mathematicians. But during the last two or three years, it has been observed at Greenwich and Paris Observatories, that the discrepancies of the Moon's position have been more marked, reaching a maximum of 41 seconds. Indeed it now seems quite hopeless to try and account for these discrepancies any longer on the theory of the various gravitational influences of the nearer stars. Professor Brown, one of the greatest living authorities on lunar motion, believes that it will be necessary to take into account electrical or magnetic forces, whose action at present in this connection is wholly unknown. But perhaps the chief cause of error in the calculations may be that the Earth is not rigorously a solid of revolution. And if this be so, the corrections for lunar parallax will have to be modified according to the place of observation. By this means observations may be made to square with theory. The only means of ascertaining whether the Earth's equator be a true circle will be to take observations of the Moon from several points along it.

Paper on Wolf Rayet Stars and their relation to Novæ,

BY REV. A. C. RIDSDALE, M.A., F.R.A.S., F.R. MET. S., M. LOND. MATH. S., F.PH.S., A.L.C.M., FOREIGN MEMBER OF SOCIÉTÉ ASTRONOMIQUE DE FRANCE.

AMONG all the stars of heaven, there are none more difficult to classify than the Wolf Rayet stars. They were first noticed in 1867. Their spectrum is very remarkable, in that it consists exclusively of bright lines, often there is no continuous background at all to the spectrum. They are all very faint stars, none exceeding the 6th magnitude. This may be the reason that they have so long been ignored. It is now, however, fully recognised that these stars are of great cosmogonic importance, owing to their close relationship with Novæ. Many of the Wolf Rayet stars (those which doubtless are nearing the end of their evolution) present a continuous spectrum, with a few feeble bright lines, the chief of which is Λ 4688, the other characteristic lines being either very weak or wholly absent. These stars do not show the ordinary hydrogen lines, but many lines that are so far quite inexplicable. In many of the Wolf Rayet stars the red helium line is very marked, just as it is in most of the Novæ, especially in Nova Gemondrum and Nova Persee. This line, as also certain others of the lines of these stars, can be matched