

ASTRONOMICAL NOTES—OCTOBER-NOVEMBER.

BY THOMAS LINDSAY.

THE most interesting astronomical event of the past month and one of the most important of the century is the discovery by Professor Barnard, of a fifth satellite in the Jovian system. This new member is not within the light-grasp of humble instruments as it is only of the 13th magnitude and never more than $2\frac{1}{2}$ times the radius of the primary from its centre. The period is 11h. 59m. A question arises in this connection that is of the deepest interest to astronomers—whether the satellite is really a new one formed from the matter surrounding a planet not yet condensed, or whether it has been there for thousands of years but not seen till now. A Toronto observer, Mr. E—, has long held that new satellites were in course of formation, and some short time since published his reasons which were mainly deduced from observations of the great red spot on Jupiter.

The planet itself is now the most beautiful object in the evening sky, much brighter than Mars and presenting a much more interesting appearance in a small telescope.

From midnight on Oct. 15, until the evening of the 17th, all the phenomena of the satellites will be visible at Toronto, and also on the evenings of Oct. 24th and 25th.

In the early mornings Venus is still an object of great beauty, but her brilliancy is rapidly decreasing. She is now about one-half illuminated. The eclipse of the sun, Oct. 20th, is the most interesting event of the month. The first contact is predicted to occur at 11h. 53m. 36'. a. m. standard time at Toronto, and the last contact 2h. 53m. 42'. p. m. It is hoped that observers generally will report the observed times accurately. A series of observations from different stations in Ontario would be very valuable as a means of determining geographical positions. It is a matter of extreme regret that there are comparatively few places in the Province the longitude and latitude of which are laid down with rigorous accuracy. In the sidereal heavens we have now the great nebula in Andromeda in good position for observation. A line from Jupiter to the pole passes midway between the nebula and the beautiful double Gamma Andromeda. The continuation of a line joining these two, passes nearly through Algol, the variable about which so much has been written.

Eclipses of this wonderful star will occur Oct. 8th, 11h. 24m., and Oct. 31st, 9h. 56m. Occultations of stars by the moon occur on the evenings of Oct. 6th and 7th.

EDITORIAL NOTES.

IN this number of the CANADA EDUCATIONAL MONTHLY special attention is given to examinations. Our readers will find some indication of the current of opinion amongst educated men by reading the various articles, extracts and notes to be found in this number. It is our belief that we have not yet arrived at

the best attainable in examinations; that the whole question, for educational purposes, should be carefully reconsidered. As a matter of fact, the crudeness and unfairness of our methods force the question upon us year by year. Can we in Canada give any assistance in solving this difficult and perplexing problem in education?