

## MICROSCOPY.

The annual reception of the New York Microscopical Society will be held on Monday evening, February 14th, 1881, at the rooms of the New York Academy of Sciences, No. 12 West 31st street.

Microscopical preparations of great interest will be exhibited, and the Board of Managers extend a cordial invitation to all possessing microscopes to attend the meeting. We trust that those microscopists residing in the city, who are not members, will avail themselves of this opportunity to observe the many facilities this society offers for extending a knowledge of this branch of science. Microscopical Societies do not profess to teach, but students will find ample opportunities of having the best methods of preparation practically explained to them, and by associating with the members at the ordinary meetings, information on any point relating to microscopy can be readily obtained. The annual dues of this society amount to \$5 a year. Cards of admission to the *soirée* can be obtained of Professor Hitchcock, 53 Maiden Lane, New York City.

## ASTRONOMY.

DR. B. A. Gould, Director of the Cordoba Observatory, Argentine Republic, has been unanimously elected a corresponding member of the Paris Academy of Sciences in the section of Astronomy, to fill the place of the late Dr. Peters.

The Observatory of Dunecht, near Aberdeen, Scotland, has undertaken the important matter of informing the astronomical observers in the United Kingdom, by means of circulars through the mails, of such facts as must be immediately made known to be of use. It has already issued thirteen circulars, and promises to be of the greatest advantage to British Astronomers.

W. C. W.

## REMARKABLE METEOR.

Whilst returning home on the evening of December 29, 1880, I observed a very brilliant and somewhat remarkable meteor. Having seen no observation of this meteor published, and as it may be of interest, I will give a description.

The night was just beginning to be dark enough for the principal stars to shine brightly, the sky being intensely clear, with a cold, cutting wind from the west, the thermometer being below zero. My attention was suddenly attracted by a brilliant light; looking hastily up, I observed the meteor. It was very white and brilliant, with a short train; there was no sensible disk. It started from near  $\delta$  *Aquarii* and moved at a moderate speed, passing some four or five degrees south of Venus, and appearing fully twice as large as that planet. After passing Venus a short distance, it suddenly flared up as if an explosion had occurred. It immediately slackened its speed, and assuming the brilliancy of a dullish first magnitude star, it floated slowly down in a slanting direction toward the southwest horizon. I watched closely, expecting to see it sink behind the horizon. It sunk slower and slower until, at an elevation of not more than  $2^\circ$ , it disappeared suddenly.

From the moment of explosion until its disappearance it was the size of a dull yellowish first to second magnitude star. No explosion was heard. It was first seen at about R.A. 22h. 54m. south declination, about  $15^\circ$ , disappearing at about R.A. 19h. 44m. and  $19^\circ$  or  $20^\circ$  south declination. Its visible path was about  $42^\circ$ .

It remained visible for fully half a minute, the greater portion of the time being after the explosion. Time, 6 hours Nashville m. t. Did any other observer note this object?

E. E. BARNARD.

NASHVILLE, TENN., *January 19, 1881.*

## JUPITER.

## THE RAPIDLY MOVING WHITE SPOT.

The white spot, described by me in "SCIENCE" (No. 24), having continued permanent up to the last observation of Jupiter, led me to investigate its history. Tracing backward through my note-book, I find observations at intervals of the same spot, the first observation being on June 26, 1880.

On account of its rapid motion and frequent variation of form I had at each observation failed to recognize the identity of the objects seen.

The spot has invariably borne the same relative position to a long sinuous rift in the northern part of the equatorial band. In 1879 a similar spot was observed, bearing then the same relative position to a similar rift. It is probable that the object seen in 1879 is identical with the present white spot.

My observations this year show a decided variation in the rotation period of this object. Its varying velocity is doubtless due to changes in its form. My sketches show it to be at times scarcely noticeable as a pale, tolerably well defined spot. At other times it is shown as a long curved brilliant spot with its head "tucked" under towards the south, apparently plowing the dusky material of the equatorial belt before it, and a well-defined luminous train following in its wake. A sufficient number of observations have not yet been obtained to decide under what form it attains its greatest velocity. It is likely some sort of violent action takes place in the spot, under the influence of which it becomes very white, increases its motion throwing off a luminous train and cleaving the matter composing the great equatorial "river" like a vessel scudding before the gale. The action in the spot then gradually becomes quiescent, its motion slackens and it drifts along shorn of its train and scarcely recognizable; remaining thus until the forces in it are again at work, when it will once more pursue its rapid course in all the glory of a streaming train. But a lack of observations leaves its times of greatest motion in doubt, and it may be that the motion is greater when its appearance is less conspicuous.

On December 31 this object was seen as a pale, well-defined spot without any train. It was slightly following—by about two or three minutes—the meridian of the following end of the great red spot, having, since the middle of November, made a complete circuit of the planet, and was once more passing the red spot.

At the next observation, January 7, it had left the red spot a considerable distance behind, coming to the middle of the disk one hour before the red spot was central, having passed that object at about the time predicted in "SCIENCE" (No. 24.)

From the observations of June 26, 1880, and January 7, 1881, I get a rotation period of 9h. 50m. 47s.; in this case the transit on June 26 was estimated from a sketch. The observations of Nov. 22 and December 2 give a period of 9h. 50m. 19s. Transits of November 22 and December 29, give a period of 9h. 50m. 14s. Transits of November 22 and January 7 give 9h. 50m. 5s. An estimated transit on August 17 and observed transit of January 7 give for its rotation 9h. 50m. 9s. It makes a complete circuit of Jupiter, compared with the red spot, once in 45.08 days. If at any time it is seen passing the red spot it will in forty-five days go completely around the planet and back to the red object again, which would indicate a daily velocity of 6170 miles, or 257 miles an hour.

E. E. BARNARD.

NASHVILLE, Tenn., *Jan. 18.*

DETECTION OF ALCOHOL IN ETHEREAL OILS.—A. Drechsler employs, as reagent, a solution of 1 part potassium bichromate in 10 parts nitric acid of sp. gr. 1.30. Alcohol, if present, is at once betrayed by the pungent odor of ethyl nitrite.