

If he stands at the top of the mountain chain, he will have full view of the wall near him, and only half of the walls on the opposite. The whole mountain chain will appear as shown below :—



As the observer standing on the summit of the peak  $\alpha$  will have a full view of the tops of the mountain chain all round, he will see a magnificent appearance of the peaks and the bed of the plane below during the lunation period. With the rise of the sun on the west, the few peaks on the western wall catch the light first, and soon after the entire wall on that side gets illuminated. Gradually the tops of the mountains surrounding the ring planes in the interior come out from the shadow of the night, while the dark mass of shadow still envelopes the floor of Clavius. A little while after light points appear on eastern walls rapidly widening into an illuminated mountain chain all round. By the time the tops of the mountains get distinct, five streaks of light begin to run across the dark mass of shadow on the bed of the crater, breaking through the mountain passes on the west wall. Gradually these streaks widen near the centre, and rapidly illuminate the interior. The ground at the foot of the western wall and the ground beyond the eastern wall still remain in the shadow of the mountains, while the ring planes in the middle have their floors still totally immersed in darkness. As the sun rises higher and higher, the shadows of the mountains get shorter and shorter, and darkened interiors of ring planes get illuminated. At mid-hour the whole surface becomes fully illuminated, and the whole crater becomes a mass of light.

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## Meteors.

By THE DIRECTOR OF THE SECTION.

In February there are five meteoric showers ; the first is from 5th to 10th, the second and third on the 15th, and the fourth and fifth on the 20th. They are not very important, but as the first deserves more attention than the others, a brief description of it is now given. The meteors of this shower are slow and bright, and the radiant point is situated in the constellation Auriga. Most persons, I suppose, know the constellation Orion. At about 9 p.m. it can now be seen very high up in the sky. The line joining the three

stars which form Orion's belt (*i.e.*)  $\delta$ ,  $\epsilon$  and  $\zeta$  Orionis points to Aldebaran, the first star in the constellation Taurus, and on the north and a little towards east of it will be found Capella (*i.e.*)  $\alpha$  Aurigæ. It is of distinctly yellowing color and its magnitude is 2. The R. A. and Dec. are 5 hrs. 10 mts. and  $45^{\circ} 55' N$ . On the 5th February next it will cross our meridian at 9 hrs. 4 mts. p.m. and will be  $23^{\circ} 22'$  north of our zenith. Towards east will be found the second star in the constellation, namely  $\beta$  Aurigæ, a star of 2nd magnitude; and south of it is  $\theta$  Aurigæ. On the west are the three stars  $\epsilon$ ,  $\delta$  and  $i$  Aurigæ. Of these  $\epsilon$  Aurigæ is a variable star, the magnitude varies from 3 to 4.5; the magnitudes of the other two stars are about 3. The R. A. and the Dec. of the radiant point of the shower are 5 hrs. and  $41^{\circ} N$ . They are almost exactly the same as those of the star  $\eta$  Aurigæ, whose magnitude is 3.2. On the 5th February the radiant point will cross our meridian ten minutes before Capella, and at that time it will be  $18^{\circ} 34'$  north of our zenith.

The last Boötid shower of 2nd and 3rd January, it appears, was very poor. On the morning of the 3rd January I watched from 3 hrs. 16 mts. a.m. to 3 hrs. 56 mts. a.m. standard time, and observed only one meteor. The following is its description:—

*Duration.*— $\frac{2}{3}$  of a second.

*Magnitude.*—3.

*Direction.*—Its direction is represented by the straight line drawn a little north of  $\delta$  and  $\epsilon$  Ursæ Majoris and parallel to the straight line joining those two stars.

*Color.*—It appeared to be white.

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## Note on a Large Meteorite.

BY H. H. THE MAHARAJ RANA BAHADUR OF JALAWAR.

A very luminous meteor was visible here at about 3-55 p.m. on Sunday, the 22nd January 1911. The meteor shot across the northern sky from west to east. It was as bright as a rocket and as big as a cannon ball. The forepart was radiant blue, the middle white, and the back purple. It burst into two on the eastern horizon and gradually got out of sight. A loud and prolonged report like that of thunder followed. It took about five minutes to reach us, and hence the surmise that the meteor burst at a point 60 to 65 miles away from here. The long milky trail left by the meteor rapidly vanished, the sun shining in full glare at the time.