

*February 5th.* Spots are now near the centre of the Sun—remarked two bright spots, with dark circles towards the Nucleus, in the Southern Penumbra—Penumbra generally had a jagged look.

*February 6th.* Definition indifferent—light scud passing over Sun, the Penumbrae of small spots forming angles towards the centre of the Sun—the Penumbra surrounding the small spots lighter than the Penumbra of the principal one.

*February 10th.* Definition very indifferent—heavy wind and scud flying over Sun—prominent Faculae near north-eastern limb, as if a spot was about to appear—large spot much diminished in size—only a little larger than the lower one.

*February 12th.* Definition indifferent—new spot appeared in north-eastern limb, in position indicated by the brilliant Faculae on the 10th instant—most brilliant Faculae all round the spots in the western limb, their extent marked by dotted line in the accompanying drawing.

*February 13th.* Spots still on the sun, but the definition so vile that no drawings of them could be made—from edge to edge of Penumbra=75 seconds. Observed same spots again on 13th and 17th of March (see drawing appended), extent of edges of Penumbrae of both spots, A A,=113 seconds, or 52,658 miles on the 17th March. The appearance of portions of the Penumbra between the Nucleus of the spots gave some impression of a vortex, the Penumbra being stretched, and the streaks parallel to its edges generally—observed some small spots near Sun's centre, and spots also going off and coming, in the western and eastern limbs.

*March 12th.* Observed two large spots on south-eastern limb; these spots to my vision had all the appearance of cavities when I first saw them near the Sun's limb on the 8th instant. On the 12th I measured the diameter of the two principal spots with a parallel wire Micrometer, from the exterior edges of the Penumbra which enclosed both Nuclei of the two spots—the diameter was 75 seconds. I measured the same again on the 13th, when the spots were near the Sun's centre; the extent from edge to edge of the Penumbra was 2 minutes. Since communicating the results of these observations to the Canadian Institute, I have continued to note the changes which occurred, and especially observed those affecting the dimensions of the spots measured on the 12th and 13th. On the 17th I again measured the distance from edge to edge; it then was 113 seconds, which is equivalent to 52,658 miles. The appearance of the spots on the 17th March is given in the accompanying diagram. There were sev-