21 C.—1A.

Mr. Farquhar, who observed from Wellington also—Lat. 41° 17′ 42′4″, Long. 174° 48′—notes that as the shining crescent of the sun narrowed to a white band of light, the advancing limb of the moon was beautifully illuminated with a silvery white band, and he could distinctly see the rugged formation of the moon's surface. The solar spot was reached at 7h. 32m. 53s. The white band of light extending round nearly a third of the moon's circumference was very beautiful, and just before totality it appeared to be broken to pieces, which seemed to be drawn into the moon, the last fragment disappearing at 7h. 34m. 24s.

Immediately after totality he noticed a protuberance on the lower right-hand side, extending 12° or 13° round the dark disc of the moon and a quarter diameter in height, and as he had determined to confine his attention to one, selected it for scrutiny. It seemed a rosy golden tint, not unlike a luminous cloud, but having a more defined form and permanent appearance. Another protuberance was noted as high as the first, but very narrow, shooting out like a flame in the opposite direction. Totality ceased about 7h. 35m. 51s. At first the bright band of sunlight was unsteady, but it immediately formed into a crescent, the receding limb of the moon became beautifully illuminated with a band of golden yellow and bright red.

Mr. F. Bull, who observed from a spot overlooking Wellington Harbour, furnishes a sketch bered. He describes the most noticeable feature of the corona, as the long films on the left-hand upper limb at the point where afterwards the sun reappeared. The greatest distance these films reached seemed about one and a quarter solar diameters, and they appeared somewhat curved as if fanned by a breeze. There was a strong body of bright rays on the opposite lower limb in the line of the moon's transit, but they did not reach a great length like those on the upper limb.

Mr. Malings, who furnishes two sketches, of which one is reproduced, observed the eclipse through the telescope of a 5" theodolite, noticed that shortly after first contact, when the sun emerged from the clouds, there appeared round that portion of the moon which seemed to cut into the sun, a narrow, dark, yellow border, and that the light was gradually so affected as to cause the birds to notice it, as was well seen by their manner, larks rose on the wing and fluttered about, poultry seemed scared. At 7h. 13m. the colour of the yellow border deepened to orange, and a similar tint was observed on the outer edge of the sun. At 7h. 23m. the cusps, which had hitherto seemed sharp, deadened and assumed blunter points, continuing so until the eclipse was total.

During totality tongues of flame, at short intervals, shot out in the direction opposite to the moon's passage, one huge flicker projecting one-third of the sun's diameter, while the opposite edge seemed to scintillate and glisten. There appeared on the moon a light resembling a distorted comet, the nebulous part being highest, and this continued nearly up to the time of totality. At 8h. the band of colour round the moon appeared of a greenish yellow, and the sun also appeared as having a band of the same colour extending for about 50° beyond the moon's contact with its outer edge.

Two spots were seen, the larger one was covered by the moon, without any perceptible change in its appearance.

A. BARRON.

THE first thing I noticed after totality, about 5 seconds after the disappearance of the sun's disc, was three feathery projections of a brilliant crimson with sparkles of green through them, at a point about 135° from the upper end of a vertical line through the sun—they did not seem to be connected to the sun, but had more the appearance presented by a burning jet of gas issuing from a black piece of coal, the flame of a brilliant red. The centre one projected furthest and appeared to extend to one-twelfth of the sun's diameter.

At 315°, or exactly opposite, were two well-marked red projections, which appeared to mark the centre of greatest disturbance, as from this point the coronal light extended furthest. I traced it distinctly to a distance equal to a full diameter of the sun, and just beyond it I saw 7 or 8 streaks of silver white light, sharply defined and parallel, which must have extended  $2\frac{1}{2}$  to 3 diameters, as in following them along, I quite lost sight of the coronal light. The best idea I can give of them is by comparing them to 7 or 8 very fine, brilliantly polished silver wires reflecting an electric light. I saw them distinctly for about 5 seconds, but, after looking back at the moon to see if there was any change there, I could not pick them up again.

There were two other crimson projections, one at about 25° and another about 220° degrees from the vertical line; they projected about one-eighteenth of the sun's diameter.

The red projections appeared perfectly steady, but the shape of corona varied a good deal. I have sketched it as it appeared to me about the middle of totality.

About ten seconds before the conclusion, the most brilliant red flames were visible along an arc of of about 30°, of which the two red projections noted at 315°, formed the centre, they increased in brilliancy till the sun emerged near that point. This was the most brilliant display of colour during the whole scene.

My sketch does not bring out as clearly as I should like, the distinction between the two classes of coronal light, the inner very white light extending about a quarter of the sun's diameter all round, and fading into the outer which gave the idea of a light reflected by a vapoury mass, and the marked changes in its shape giving more the idea of a varying amount of light falling on it at different parts than any change in the shape of the material itself.

To guide me with regard to positions, I had a circular protractor suspended on a plumb line, by

which I formed an idea of the relative positions before totality commenced.

Captain Acland, R.N., tells me he distinctly noticed 5 bright sharp streaks of light extending 2½ diameters from 315°, and particularly remarked their parallelism, as I did; he was using binoculars. He says they were visible for quite half the duration of totality.

J. DUDLEY R. HEWITT.