

broken bottles about, for I was able to pack the jelly in the bottom of one, tie a cover on, and carry it down from the fell. I sent it, with the sod on which it appeared to have grown, to my colleague, Mr. E. A. Newell Arber, with a brief sketch of my story and the reason why I thought it of interest. Mr. Arber reported that it was no nostoc, and said that he had sent it over to Mr. Brookes, in the Botany School, who reported that it was a mass of bacteria.

That is the end of my story, but I confess I am not satisfied. The jelly seemed to me to grow out from among the roots of the grass, and the part still tangled in the grass was not only translucent but quite transparent.

What is it, and what is the cause of its having a meteoric origin assigned to it? Has anyone ever seen it luminous?

Should anyone come upon it I should be very grateful if they would send it, and the sod on which it is found, to the Botany School at Cambridge, with a label indicating what the parcel contains, so that it may be attended to before decay has perhaps obscured important features.

T. McKENNY HUGHES.

THE TOTAL SOLAR ECLIPSE OF MAY 9, 1910.

UP to the time of writing (May 28) no account has been received from Mr. F. K. McClean with regard to the erection and adjustments of the various

two specimens of the work which had to be undertaken. The first (Fig. 2) shows the avenue which had to be made from the camp to the instrument site. The figure standing up is Mr. Young, the bending figure Mr. Dowsett. In Fig. 3 is shown the method adopted for carrying the loaded packing-cases from the water's edge to the site; the figures from right to left are Messrs. McClean, Young, Brooks, Dowsett, and the last one, on the extreme left, unknown, probably one of the miners who was in the locality, and who assisted the members of the expedition.

The communication to which reference above has been made was dated April 17, and was dispatched from Port Davey by the steamer *Wainui*. The contents are as follows:—

"On April 5 Mr. Hughes, of the Union S.S. Co., supplied us with a time-table of the *Wainui*, and informed us that the steamer would call in when passing in each direction if weather permitted, but at the absolute discretion of Captain Livingstone.

"News arrived the following day that the 6-inch Cooke O.G. of 30 feet focus would arrive by the *Athenic* on April 14, and arrangements were made for its dispatch to Port Davey.

"A telegram was also received from Mr. J. Short, of Sydney Observatory, in answer to an invitation to set up his instrument alongside of ours, in which he said that he was awaiting Government sanction, and would be glad to join us.

Finally, on April 9, the *Wainui* arrived from Melbourne, and all our instruments, tents, timber, ironmongery, food, drink, clothing, and a whale-boat were put on board,



FIG. 1.—The Country about Hixson Point, the site of the Eclipse Camp.

instruments he took out with him for the solar eclipse. It will be remembered that the observing station he chose was near Port Davey, and he selected a small island, called Hixson Point, for the actual site of the camp. The accompanying illustration (Fig. 1) indicates the position of this island in relation to the neighbouring country, and is from a photograph taken towards the east from Morning Hill.

Mr. McClean has, however, sent an intermediate letter, which will, no doubt, be read with considerable interest, describing the first week's operations from the time of the arrival of his entire party by the *Wainui* on April 7, with their whole kit and instruments. This account shows vividly the strenuous life which the party had continually to undergo during the initial stages of their settlement, and in a letter Mr. McClean states that so far "this trip is a triumph of matter over mind, as the latter has not had a look in yet, and never would have if it were not for the muscles of the party."

The accompanying illustrations, from photographs taken by Mr. H. Winkelmann, will serve best to show

altogether about 140 cases and packages, and we left Hobart at 9 p.m.

"The following morning we entered Port Davey in a strong south-west wind and a heavy swell, but as soon as we passed the Breaksea Islands the sea became calm, and the landing was effected without trouble. One of the ship's boats took the instruments and cement to the foot of Hixson Point, where they were hauled up the low bluff on planks by block and tackle, and left in a pile covered with a large tarpaulin until they could be carried to the observatory site. Our whale-boat took the camp equipment up the cove to where a small stream ran through a clump of bush, and here we set up our tents after the steamer left. The landing was done between 9.30 a.m. and 2.0 p.m. with the help of some of the officers and crew of the *Wainui* and two miners who were hunting in the neighbourhood. The weather all the time was fine, but rain started in the evening after we had set up three tents, in which we spent the first night.

"The following day we completed the camp and cut a path some 100 yards long through the bush with the help of the two miners, who later continued it on through the 2-foot scrub to the observatory site. We then set up the instrument tent close to the site of the observatory, but

on Thursday, April 14, we had to remove it, as the strength of the wind was so great that even with additional guys the whole thing threatened to collapse, and we cut



FIG. 2.—Cutting a path to reach the Eclipse Camp from the shore.

a rectangular space in the middle of some low bush where there was very fair shelter. Our camp consists of a dining tent 12 feet square, a dark-room tent 6 by 9 feet with red lining, three sleeping tents 9 by 12 feet and two of 8 by 10 feet, situated on both sides of a small stream on a site cut out of the bush, and at the head of a small bay.

"Then it was necessary to cut a path from the top of the hill to the instrument cases—some 200 yards of very bad ground—and carry the cases up. This was done mostly by four persons on two timbers 2 inches square, but some of the siderostat parts proved too heavy, and had to be left until they could be unpacked and placed directly in position. Also the case containing the large dark-slide for the spectrograph had to be unpacked *in situ*, and the dark-slide alone required two persons to carry it.

"During the whole of the week there was bad weather, nearly always cloudy—night and day—always wind, and frequently rain, so that the foundations for the siderostat and cœlostat had to be oriented by compass only. All the sand and water for the concrete had to be carried up from the stream by hand—a quarter of a mile uphill—which was a big additional labour, but stone was quarried on the hill. Finally, on the Sunday morning (April 17), the foundation of the siderostat was completed, and all but seven cases were on the top of the hill, and, after the severe physical work of the last seven days, we proposed taking a half-holiday for fishing and washing clothes, or anything

that the members of the expedition chose to do. But this was not to be, for on finishing lunch we saw an ominous smoke cloud across the sky, and from the top of the bush found that the scrub was ablaze close to the instrument tent. As we came up the flag-pole collapsed, but by much beating we kept the flames from the tent. Within 6 feet of it Worthington's cases—happily empty—were burning furiously, and the large case for the dark-slide of the spectrograph was a mass of flames, as into it had been put all the straw packing from three other cases.

"Having got the fire under control near the instrument tent, half the party were drafted off to prevent it reaching the camp, and later all but two, who were required to watch the smouldering remains on the top of the hill and the line of fire in the neighbourhood of the cases still at the landing place. In spite, however, of the efforts of these six, the fire reached the bush within 60 yards of camp, and it was only due to the constant wet weather of the previous week that it stopped there, as the trees were so saturated that nothing could burn them. Most of the camp equipment was quickly moved to the shore to be covered with a wet tent-fly, and food was placed in the whale-boat, but happily these precautions were not necessary. A constant inspection was kept of the still smouldering hillside, and at 6.30 a fresh blaze started on the edge of the bush close to the bay. This was temporarily overcome by beating and by buckets of water; but the soil was red-hot, being peat, and only constant attention and lengthy rain can put it out. In addition to this there has been a small peat fire the whole time in the bush within 50 feet of the dining tent, which has been watched, but not considered dangerous until now.

"The result of the fire is that two of Worthington's cases have been burnt and one of mine, and the legs of Worthington's equatorial have been singed. The fire was round more than two sides of the instrument tent, and within 4 feet of it at one point.

"The spectrograph dark-slide had already had one narrow escape, as, soon after it left Watson's workshop, the building was burnt to the ground, and now its case is destroyed by fire the day after it was unpacked. It was a near thing, and as we came up the hill we expected to



FIG. 3.—Carrying the instrument cases from the shore to the camp on the hill.

leave by the *Wainui* the following day without instruments or kit."

WILLIAM J. S. LOCKYER.