

# THE OBSERVATORY,

## A MONTHLY REVIEW OF ASTRONOMY.

VOL. XXIV.

SEPTEMBER, 1901.

No. 309.

### *An Eclipse Expedition, 1901 May.*

EARLY in February I received a letter one morning from Greenwich suggesting that I should form one of a proposed party of four to go to the Dutch East Indies with the instruments used by the Astronomer Royal in observing the eclipse last year at Ovar in Portugal, and intimating that a Man of War would probably be placed at our disposal for the forthcoming eclipse on May 18th. In a postscript it was suggested that tigers were believed to exist in the jungles of Sumatra in such numbers that there might be some difficulty in firing a rifle without hitting one.

Not mentioning the tigers, but putting special emphasis on the Man of War, in an airy manner I asked my family at breakfast what should be my course if the honour were really done me of asking me to accompany the Greenwich expedition in the capacity of an observer. To my great surprise the verdict was unanimous, that I must go if I could possibly arrange my affairs so that I could be away from home during the time necessary for such a long trip. Having thus secured my wife's leave, I promptly wrote off, if the Admiralty provided a vessel, I would go; and on the 21st of February I heard from Mr. Dyson that a ship would be given us, and that the party would consist of Mr. Turner from Oxford, Mr. Newall from Cambridge, Mr. Dyson from Greenwich, and myself. It was finally arranged that we were to proceed by the Nederlands Line boat 'Kœningin Regentes' from Genoa, straight to Padang in Sumatra, where Mr. Dyson and myself were to be picked up by H.M.S. 'Pomone,' and with the Greenwich instruments in our care were to be thus conveyed to the most likely spot on the line of totality.

On Friday the 8th of March, after a most pleasant meeting of the Royal Astronomical Society, and dinner afterwards, I took my final orders from the Astronomer Royal near Charing Cross railway station at 12 o'clock at night: these were, that as we should travel on board the same liner that the Dutch astronomers

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were going out upon, and as very great preparations had been made for their accommodation and no expense spared, by the Dutch Colonial Government on their expedition, we should endeavour on our way out, and immediately after our arrival, to find from them where we had best establish our instruments, and form no fixed plan of where we should go until we had exhausted every source of information on the spot and from the best authorities.

I left Charing Cross on Sunday night the 10th of March, intending to spend the following day in Paris and proceed to Genoa to join Mr. Dyson and go on board the Dutch liner on the 14th. After a most comfortable journey through Italy, I arrived at my destination at 2 o'clock on Wednesday, and found that in consequence of a storm in the Bay of Biscay the 'Koenigin Regentes' had not turned up. I was rowed about for a couple of hours by an Italian boatman before I discovered this, and as I could speak his language no better than he could speak mine, and Ciceronian Latin was of no avail in searching for my ship, I was obliged to attempt to return to land; this was attended by no small degree of difficulty, as the Douan officials insisted on examining my luggage and charging me for my rifles and cartridges, under the impression that I was landing from some vessel in the Port. I had a terrible fight, from which I finally emerged victorious without paying a penny to the Imperial Customs, or to the very officious porters who had insisted on carrying my things to the Custom House instead of to the vehicle I had engaged to take me to an hotel. After this excitement, a bath and a good dinner were necessary to bring me to a proper frame of mind to meet my friends, and I was enjoying a postprandial cigar on my way to the post office when I heard my name shouted, and there in the thick of an Italian crowd I found Mr. Dyson and Mr. and Mrs. Newall, who had also dined and come out to see the fun, and walk about this very interesting city. I had learned that four American astronomers were in Genoa, and we hunted them up, hoping to find some one we knew among them. They proved to be the party sent out by the Massachusetts Institute of Technology, and under the leadership of Professor Burton. They were going by the same ship as ourselves, and their subsequent friendship added greatly to the pleasure of our trip. We saw as much of the sights of Genoa as we could on the rainy morning of March the 14th, and then at 2 o'clock went on board the 'Koenigin Regentes.' Each of the Dutch passengers came up in turn and made himself known to us with the politest possible bow; thus the whole ship's company were at once placed on a most agreeable footing, which continued during the entire voyage. The stewards and cooks were all Malay, and very well they served us; in fact a restaurant in London run with Java boys as waiters would be the most paying thing I can think of, and a place where I should strongly advise the Royal Astronomical Club to dine. No matches were allowed on board,

but when anyone wanted a light, if no cheery Malay had anticipated your wishes, you called out "Arpee" and some one sprung to your side with a burning stick of scented incense. I shall miss my Malay boys all the rest of my life. We found at dinner-time that at the Captain's table, besides two daughters of the Governor of the Dutch East Indies, were the four members of the Dutch astronomical expedition, the four American astronomers, Mr. and Mrs. Newall, and ourselves, making up with a General and a Judge a very happy and friendly party.

The first day of our voyage turned out to be wet and uncomfortable, but this was our only experience of the sort, and on Saturday with land in sight all the day and Stromboli throwing out rocks on the one hand and Etna smoke from its snow-capped peak on the other, I never remember a more beautiful view. Except for a block in the Suez canal, when a Kamseen was blowing and the thermometer stood at 99° in the shade, the whole trip was most enjoyable, and we were sorry to part with our excellent captain and ship's company at 6 o'clock on Saturday the 6th of April, when we arrived in the lovely harbour of Emma Haven in Sumatra. To our dismay we found that the American Government Expedition were in front of us, and the Stars and Stripes were flying on a small transport, the 'General Alava,' once a Spanish gunboat. We had the pleasure of making the acquaintance of Professor Skinner and all the American astronomers afterwards, and very kind friends they proved to be, giving all of us every assistance in their power. I had boasted before I started of American hospitality to Britishers; Mr. Dyson sampled it, and would now "go one better" if he could. The Dutch, under Major Müller, received us magnificently and ran us up to Padang with a special train and saloon car, and we had our first experience of white duck suits, and a "rice table" at the Oranje Hotel. I am sorry to say I put my foot into it the first thing, by making a swimming-bath of a douche, and was told at dinner I might have got into hot water over it if it were known to the natives. On Monday, April 8th, we English astronomers called upon the Governor of Sumatra and were most kindly received. On seeing the mountains of this coast I had formed a very strong opinion as to the advantage of getting as far away from them as we could with our instruments, believing that they must attract more than their share of clouds, in this very rainy country. I therefore was anxious to take advantage of our having a Man of War, and steam away to an island about 70 miles west of Padang on the central line of totality. Governor Joeekes warned us against the savage inhabitants, and seemed so anxious that we should not go there, that Mr. Dyson compromised matters by accepting a small coral island called Aoer Gadang, about 6 miles west of the Dutch camp, on the mainland. We arranged to go in the Governor's yacht the next day with the Malay chief who owned the island, to visit it and select a site. On the evening of this day we heard that

H.M.S. 'Pigmy,' instead of the 'Pomone,' had arrived in the harbour. I was disappointed, as there was no ice-machine on the former, and as all our correspondence was addressed to the latter I only received about three letters and papers during five months, and as I refused the Captain's kind offer of his cabin I had to requisition the bridge of the Man of War to "sling my cot." We had also to send the 'Pigmy' about 30 miles each week for fresh provisions and ice for our developing-room. During the absence of our ship Mr. Dyson and myself were marooned upon our desert island from the Friday night to the Monday morning. However the anchorage off Aoer Gadang proved all that could be wished, and I look back to my 50 days on board the 'Pigmy' as one of my most pleasant memories.

I have not space to describe the marvellously clever buildings erected for our instruments and ourselves by the Malays, solely out of bamboo and palm-leaf, but they effectually withstood the tropical sun and rain, and we neither of us were sick or sorry a single day in our most picturesque camp, our only regret being that we could not transfer all the buildings, as they stood, to England.

I found that the best assistance I could give to Mr. Dyson was to leave the whole plan of the erection and installation of the instruments to him, only acting as his Clerk of the Works, using my chief endeavours to allay his anxiety, and prevent him from overworking himself. I had hoped to get a few days of sport before the all-important 18th May, but I found that one Sunday off, when we were both invited to shoot wild boar, before our real work began, was all that I dare manage, and I take some credit to myself that Mr. Dyson did not wear himself out till the eventful day was past. We had only one neighbour on our island, an outcast heathen of eighty years, who kept the most appalling ape that ever I did see. This monkey was used by his owner for the purpose of climbing the gigantic cocoanut palms and throwing down the fruit, which he did in the most artistic manner by screwing the nuts off with his powerful arms, while he hung by his legs 70 to 100 feet from the ground. Mr. Dyson was especially warned not to go too near this animal, lest it should mistake his head for a cocoanut, when the first twist would be certain death after it had once made good its hold. I became most attached to this old Malay pirate, and with the help of a vocabulary, we held long conversations. He was the most perfect gentleman in his ideas, and never accepted even an empty soda-water bottle without making us some return, in the way of a present. He evinced the greatest interest in astronomy, and to see him, with hardly a rag on his body, explaining to casual strangers, who called, the merits of the different telescopes, and how they were "going to be used to wipe out the Sun," was most comical. A sparklet had a most exhilarating effect on him, and he considered it much too precious to be wasted on a follower of Mahomet, to whom he said spirits are forbidden, and who are consequently to be despised by a free-

thinking cannibal. Our leave-taking was most touching, he giving me a present of rice, which I had to sprinkle on my bare head.

On the 18th of May I had been up each hour after 12 o'clock to see the most inky clouds over the whole surface of the sky, and no prospect of any improvement—so much so that when Mr. Dyson came to my berth at 6 o'clock I refused to be comforted, and turned my face to the wall, intending never to go near the instruments, except to pack them up. However, at 8 o'clock the Captain said "We are going to have a fine day after all"; and now the fun began. We rushed ashore, and it was as good as the Liverpool Steeplechase to see the clouds race across the ground-glass of the big camera, as the moment of the eclipse arrived. Our whole complement were in their places, and the search-light displayed for the benefit of the Dutchmen on the mainland—when we "doused our glim" totality was complete, sixteen seconds before theirs began; this signal we gave them to a second, and they were grateful. I leave my colleague to tell what happened during the eclipse and the results we obtained. The anchor of the 'Pigmy' was up within an hour of the last contact, and I went off tiger-shooting, leaving Mr. Dyson with about as hard a week's work, in the developing-room, as he ever did, in a temperature never under 80°, quite expecting to find him dead on my return. He wasn't; he was never better in his life, but all those who helped him in my absence were in hospital.

J. J. ATKINSON.

### *After the Eclipse, 1901 May.*

#### *Notes of the Return Journey from Sumatra.*

ON Whit Monday, May the 27th, the observers of the Eclipse congregated from different parts of Sumatra at the Oranje Hotel, compared notes, and were as cheerful as could be expected under the circumstances. Most of us were leaving Sumatra the next day, and we said farewell in hopes of meeting again not later than at the 1905 Eclipse. When I explained that I was returning *via* America, Prof. Barnard, assisted by one or two of the Naval Observatory Astronomers, was good enough to spend an hour or more in planning out my route across the Continent, and to give me directions for travelling, besides kindly inviting me to stop at his house when I went to the Yerkes Observatory.

Early next morning the 'Pigmy' sailed for Singapore, going round the south of Sumatra, close by Krakatoa. Mr. Atkinson and I arrived at Singapore on June 2, and while waiting for a ship to Hong Kong were overtaken by Prof. Burton and the party from the Institute of Technology, who proposed to swing their pendulum for the determination of the force of gravity there. We also, at Singapore, met Prof. and Mrs. Todd, who had come from the other side of Sumatra. The weather with them had not been favourable and they were consoling themselves by taking a trip to Burmah.