FURTHER ATTEMPTS ON RUWENZORI.

THE following communication (dated 'Church Missionary Society, Masindi, Uganda, B.E.A., February 11, 1906') has been received by the Secretary of the Geographical Society from the Rev. H. W. Tegart. Mr. Tegart and Mr. Maddox, of the C.M.S., accompanied Herr Grauer, an Austrian traveller, in an attempt on the highest peak of Ruwenzori in January last:—

'We failed to reach the highest peak, I am very sorry to say, and our failure was due to mists and want of porters to carry up sufficient outfit to enable us to camp out for a night. Even then I am afraid it would be a difficult undertaking, unless by good luck a whole day without mist was obtained. I enclose you a photograph which shows the peak or rock we got to on the watershed. It took us two days to get from the permanent snow-line, 14,150 ft., to the peak; we made three ascents from our camp just below the glacier.

'The first day we found a road up the rock alongside the glacier, only having small spurs of ice to cross, and got to the top of the icefall (about 100 ft. below the line of permanent snow), or 14,000 ft. I am afraid Mr. Mumm made a mistake in saying he got to 14,000 ft., for they did not get out of the sight of the chief who guided them, and he himself told Mr. Grauer that he only got to the top of the icefall; perhaps he had only an aneroid (most unreliable things).

'Well, the second day we got to 14,650 feet, and had to turn back owing to the thick fog, and knowing that a dangerous-looking ridge was ahead of us. On the third day we came up rapidly in mist in our previous day's tracks, and then we were about 4 hrs. doing the last 400 ft. We stood for 2 hrs. in thick mist and a hailstorm within 50 yards of our rock before it cleared a bit, and we then made a spurt, and got on to what Herr Grauer of Austria was good enough to name King Edward's Rock, the top of which is about 15,070 ft. or thereabouts. We waited for 2 hrs. to see if it would clear sufficiently to locate the peak, which is to the right of the photograph I enclose; but we had to come down, and we did not relish a fourth climb. To make a good confession, I think the three days was a strain, and we were a bit nervous on the last day coming over some difficult rocks. Anyhow, the weather broke, and we had two bad days coming down the lower slopes. However that central peak can be climbed if the porterage difficulty can be got over.

'Sir H. Johnston thought the Kyanja, or knob-shaped peak, the highest, but we looked down upon it from the watershed.*

'The mountain falls away very quickly on the Congo side, and there is a very sharp ridge and a deep crevasse along it; we crossed this on a snow bridge to get to our rock, which is about 40 ft. long and 30 ft. broad at the base, rising to a sharp point.

'I got you some specimens of the rocks, which I will send with the thermometer. At about 13,000 ft. the rock looks like good trap

* See, however, Mr. Wollaston's account of Kiyanja Peak, p. 146.

rock, or the stone used at home for the roads; below 13,000 ft. the rocks are soft and contain a good deal of mica. The rocks bear traces of the glaciers down far below their present lowest point. I don't think there is much quartz. I could see blocks of it on the other side of the valley, high on the hill-side, but they were few and of small extent.

'Of the stratification I am afraid I do not know enough to express an opinion. Indeed, we were going so hard at it that all our attention was given to getting over the rocks as quickly as possible.

'I am sorry to say that I forgot to take the certificates of the tests of the thermometers with me; we tried at most places, and found them read exactly alike, strange to say; yet I now find that there is a considerable error, comparing the standard instruments with each other. I read at the highest point the one numbered 18,867. Mr. Maddox checked my readings at every point, and kept a separate note of them. We then worked them out independently at Kabaroli, which we took as our base, using the tables in the Society's "Hints to Travellers." I have not a copy, or I would make the corrections for error now, but this I must leave to you. We should be extremely pleased to hear if our height for King Edward's Rock, on the watershed, is correct.

'Mr. Maddox thinks the height for Kabaroli, 5,000 ft., is fairly correct, for quite a number of aneroid barometers have been tried, and all closely agree. Mr. Maddox's own, registering to 15,000 ft., gave the height on our list when he first came out, and also when he returned five years later. I think it is fairly certain that the highest point is not over 16,500 ft.

'ALTITUDES ON RUWENZORI, B.E.A., JANUARY, 1906, FROM OBSERVATIONS OF BOILING-POINT THERMOMETER SUPPLIED BY ROYAL GEOGRAPHICAL SOCIETY AND AN ANEROID BAROMETER (25,000 FT.) LENT BY THE BRITISH MUSEUM NATURAL HISTORY RUWENZORI EXPEDITION. R.G.S. TABLES USED.

—	Boiling-point	Temperature	Difference in Altitude	Altitude	Barometer Readings
	°	°	Ft.	Ft.	Ft.
C.M.S. station, Kabaroli, Toro, as lower station	203·0	69·5	0	5,200	—
Kakindo, Mubuku valley	204·2	81·0	703	4,497	4,500
Camp at Bihanga	200·0	84·0	1,778	6,978	6,700
Kichuchu rock shelter	194·9	49·5	4,669	9,869	9,600
Bujongolo	190·4	45·0	7,281	12,481	12 { 300 / 500
Glacier camp	189·0	43·5	8,103	13,303	13,100
Base of glacier	188·5	45·0	8,409	13,609	—
Top of icefall	187·7	40·0	8,848	14,048	14,000
King Edward's Rock, Jan. 18, on watershed	186·2	42·0	9,756	14,956	15,030
Height of rock above last point about 40 feet	—	—	—	14,996	15,070

Permanent snow, 14,150 ft.

Examined and found correct { H. Y. TEGART. / H. E. MADDOX, F.S.I.'

We have to thank Dr. G. Scriven for kindly translating from the 'Mitt. D.u.Ö.A.-V.' the following account from Herr Grauer of the same expedition:—

'We have received the following account of an expedition in Central Africa, in the little known Ruwenzori range, from a member of the D. und Ö. A.-V. It is dated Fort Portal, Feb. 6:—

'"As a member of the D. und O. A.-V. for many years permit me to send you the news that, accompanied by two English missionaries, Messrs. Maddox and Tegart, I have been the first to reach the watershed of Ruwenzori, on January 8 of this year.* This is now the only unclimbed snow mountain in Africa, and it may be a long time before this splendid chain of mountains is really conquered. It stretches for a distance of about 40 kilometres between Lakes Albert Edward and Albert, and forms the boundary between the English Uganda Protectorate and the Congo Free State; † its height cannot yet be positively stated. Sir Harry Johnston, who was the first to set foot on the glacier, and who reached a height of 13,500 ft., estimated the highest point at 20,000 ft. or more; in my judgment it can scarcely be more than 18,000 ft.

'"The Mubuku glacier, which has hitherto been the starting point of all the attempted ascents, descends at its lowest point to 13,200 ft., though the boundary between vegetation and perpetual snow lies nearly 1,000 ft. higher.

'"In November of last year the well known English climber Mr. Douglas Freshfield, with Mr. Mumm, and a Zermatt guide, attempted to reach the highest point from this glacier; in consequence, however, of very unfavourable weather and extremely thick mists they only succeeded in reaching a height of 14,000 ft. at the end of the icefall, which was very steep and fearfully broken.

'"As an old Dolomite scrambler I preferred the rocks to the ice, and by them managed to circumvent the most difficult part of the icefall, so that I only reached the actual glacier at a height of 14,000 ft., from whence the further advance does not present any great difficulties if reasonable care is exercised. First there is 200 ft. of hard ice, which can be overcome with the help of crampons without step-cutting; then comes deep snow. This we crossed in very dense mist and a heavy snow-storm, reaching the end of the glacier, the watershed towards the Congo State, at a height of 15,000 ft. The measurements were taken with the instruments of the Royal Geographical Society of London.

'"The greatest obstacle to the ascent of this chain of mountains is the extraordinarily thick mists, which almost always enshroud the higher regions. We had to wait for an hour at a time in our tracks without being able to move a step backwards or forwards till a light puff of wind opened a view for a few minutes. Thus much time was lost, a great drawback, especially here on the Equator,

* Mr. Moore reached the watershed not far from the same point in 1900. See *Alpine Journal*, vol. xxi. No. 156.

† This is not accurate. See Mr. Freshfield's article in this number, p. 88.

where daylight only lasts for twelve hours. A practised climber could reach the watershed in four hours from the beginning of the glacier. Although we had already traversed the greater part of the route on the two previous days we took more than seven hours, for the numerous crevasses render an advance in the mist impossible.

'"I would be very grateful to you if you would make known this news in the 'Mitteilungen des D. und O. A.-V.' Perhaps it may induce some lovers of first ascents to come out to beautiful Uganda, to visit Ruwenzori, the fabled 'Mountains of the Moon' of ancient Arab writers.

"'I am, of course, always ready to give information. My address is: Entebbe, Uganda, East Africa.

RUDOLF GRAUER aus Troppau, Österr. Schlesien."'

A private letter from Mr. Woosnam, of the British Museum party, adds some interesting details as to his repetition of Herr Grauer's climb:—

'Ruwenzori, February 2, 1906. . . . I have been away with Cruthers for a ten days' expedition up to the snow and missed the mail. It is absolutely the most extraordinary country up high that you can think of. Look at Sir H. Johnston's photographs of high ground; they are good. I have now been to the exact places and seen the same things and taken photographs of them. Most extraordinary, but a photograph can't give any idea of such a place, nor any description on paper. I will tell you all. It is beautiful, and terrible, and delightful, and yet horrible. The extraordinary vegetation—forest, then bamboos, then giant heather and bog, all hanging with long grey lichen, masses and yards of it, and half covered up in soft deep moss and what R. calls "rot of ages" (right too), and the great tall, thin posts of lobelias, taking many years to grow and die (I am sending you good dry seed of them); then higher, at 12,500 ft., only moss and lobelias and huge trees of groundsel left, and then the lobelias go, and only groundsel and moss and everlasting flowers, and at last only moss and glacier and snow, and highest of all rock.

'We have got some glorious new birds from high up, just below the glacier—most surprising and unexpected birds too, and animals. It is a little cold, but not very, but we had remarkably fine weather, *no rain* and little mist.

'We did a surprising thing. We also reached the watershed, the same point reached by Grauer and Co., and this is how it came about: The first morning after we got up to the head of the valley and camped at 12,500 ft., being a fine day, we started early to walk up to the glacier, to have a look at it and see what birds were there. There were very few birds—in fact, few above 10,000 ft. When we got to the foot of the glacier we took the spoor of Grauer and Co., which was still quite fresh, and followed it up the rock on the right of the glacier. We soon came to a place which is

described in Sir H. Johnston's book * as a "tunnel." Here we found no less than seven ropes hanging down, of different sizes. It is not really a difficult place to climb, so we took most of the rope back to camp with us on our return. The place is not a tunnel cut by water through the rock at all, but a great flat stone fallen across or lying across a water-worn crack or channel. After we had gone up about 500 or 600 ft. we lost all traces of Grauer's party at a point where they had left a tin with their names the first day. We knew that they had gone up the rocks higher than this before getting on to the snow, but the glacier looked to me to be quite climbable if a few steps were cut in it; but C. wanted to keep to the rocks, so he went to try the rock, whilst I tried to get up the glacier; and, with the help of my hunting-knife, I cut about forty or fifty steps in the ice and got up on to the middle of the glacier. By this time C. had got as far as he could go on the rocks, and came back to where I had got on to the glacier, and tried to follow me up, but failed here also. I was so afraid of mist coming on and spoiling the view from the top—for I could see now that, unless there was a crevasse, I could easily walk right up—that I could not go back to show him the way. So I just walked right up the snow to a black rock on the ridge; and when I got there (it was hard work breathing) I found I had got to Grauer's highest point (my aneroid read 15,100 ft.), and found a tin with their three names (Grauer, Maddox, and Tegart); so I put my card into the tin too with a rifle cartridge.

'I had a fairly good view over to the Congo side, and took some photographs (the first that have ever been taken, as it was misty when Grauer was here). He called this rock "King Edward's Rock." We could see a little lake down below on the Congo side. I could not, of course, see very far, as there were more hills beyond, but lower, and undoubtedly I was on the watershed. I might have gone on to a higher ridge on one side, but I was a bit tired with the altitude, and wanted to get back to C., as we had a long way to get back to camp before dark, so decided to turn back. I came down pretty fast, sliding over the snow, and sliding or falling down most of the glacier, for the steps I had cut had melted nearly away. I found C., and we had some lunch and returned safely to camp, having climbed as high as Grauer. My opinion is this: that there is no point on Ruwenzori higher than 17,500 ft., that the highest point is bare rock, not snow, and that on a *fine* day it is not hard to climb to the top; but on a rainy and misty day it must be awful; we were lucky and had fine dry weather. My aneroid read 15,100 ft., but that is about 150 ft. too high., for Grauer took the same point by boiling-point and made it 14,956 ft.'

We print next a note we have received from our member, Mr. A. F. R. Wollaston, describing two ascents made subsequently to those previously recorded here:—

'On February 16 Messrs. A. F. R. Wollaston, R. B. Woosnam, and R. E. Dent, starting from Bujongolo (12,660 ft.), reached the

* *The Uganda Protectorate*, vol. i. p. 184.

foot of the Mubuku Glacier in two hours. They followed the edge of the glacier to 13,560 ft., then turned away to the rocks on the right, up a steep gully full of loose stones, water, and moss, to about 14,000 ft., then sharp back horizontally on to the glacier near the beginning of the icefall. Thence, keeping near to the base of the rocks on the right (true left of the glacier), by an easy slope to the watershed at a point called by Herr Grauer "King Edward's Rock."* Herr Grauer reached the same point on January 18, 1906, by a somewhat different route. View down on to the Congo side mostly obscured by clouds. Rocks between 13,500 and 14,000 ft., not difficult but dangerous, owing to loose stones and water. Numerous avalanches falling from Duwoni Peak, on the right, can be mostly avoided by keeping towards the middle of the glacier. Time from Bujongolo to the ridge in wet weather, 5½ hrs.

'On February 17 Messrs. A. F. R. Wollaston and R. B. Woosnam, starting from Bujongolo, left the Mubuku valley half a mile above the camp, following the first stream that comes in from the left. Over a low hill into the valley coming from the Kiyanja glacier. Three hours through trackless swamp and moss and bushes of everlasting flowers. Crossed the stream coming from Kiyanja glacier, about 13,500 ft. Thence up a steep gulley to the left (W.) and on to loose boulders and screes at 14,000 ft. Turning N. good granite rocks were reached at 14,800 ft., which led to the glacier on the S.W. side of the mountain at 15,500 ft. Thence up over easy ice and snow to Kiyanja Peak, which Sir H. Johnston thought to be the highest point in the range. 16,125 ft. by aneroid, 16,000 ft. by boiling-point thermometer. The last three hours in dense fog, which led the party to the lower of the two tops of the peak. At the moment of starting to descend, the true top, a snow mound connected with the point reached by a short snow arête, was seen to be perhaps 150 ft. higher. There seem to be no higher peaks than this on the Uganda side of the range, but at least three on the Congo side—one N.W., about 16,800 ft., and two to the N. (? Saddle Mountain), perhaps 17,000 ft. Rocks easy and good going. Moss and bog at the foot of the mountain very heavy and tiring. Time from Bujongolo to the summit, about 6 hrs.'

Mr. Freshfield supplies the following further information and comment on the preceding narratives:—

'Mr. Tegart's interesting letter to some extent exonerates my informants for having sent me in November; for in January, one of the months specially recommended by local experts, Herr Grauer and his companions had, it seems, five consecutive days of broken weather. There are one or two points in Mr. Tegart's letter in which he will, I trust, shortly make his narrative more definite. Mountaineers would like to know what was the nature of the difficulty which made the party spend two hours in climbing the last 400 feet before reaching their Rock. And how long did they take,

* 15,100 ft. by aneroid; 14,956 ft. by boiling-point thermometer.

exclusive of halts, from their highest camp to their highest point? I felt convinced from the first that the summit depicted as Kiyanja by Sir H. Johnston was higher than any point on the watershed between itself and Duwoni and therefore must be higher than the Rock. Mr. Wollaston has proved this to be the case by his recent climbs. I can only suppose, therefore, either that in the mist Herr Grauer's party mistook a lower crag for Kiyanja, or else that they had previously wrongly identified a minor peak as Johnston's Kiyanja. While far from contesting the possibility of traces of ancient glacier action being discovered in the lower portions of the Ruwenzori valleys, I do not think they are so easily recognisable by the passing traveller as Mr. Tegart supposes. On this subject I shall have an opportunity to write elsewhere.

'With regard to the lofty peaks "on the Congo side" of the chain noticed by Mr. Wollaston, it is quite possible that the double summit I saw from Butiti may lie (like the Orteler) near, but off, the watershed, and not be identical with Johnston's and Wollaston's Duwoni. But the photographic plate and drawing of the range from the W., published by Dr. Stuhlmann, show no detached and lofty spurs running out to any distance towards the Semliki. There are, it is evident, plenty of topographical questions left for further investigation by the British Museum party and the Duke of the Abruzzi's formidable expedition of twelve Europeans, amongst whom is Signor Vittorio Sella. The Duke and his companions sailed from Naples on April 16.

'As to the height attained by Mr. Mumm and Inderbinnen, we (as I have written elsewhere) attached no importance to what was an off-day excursion. Expecting to make a serious attempt in a day or two, we took no measurements. But my companion is convinced, and he speaks with much experience, that he climbed something like 1,000 ft. above the glacier's snout (13,500 ft.), and he adds that the statement that the local chief had him in sight *all the time* must not be taken in a strictly literal sense, though it is quite true that he watched the climbers as far as he could with great interest.

'Ruwenzori has already a considerable literature of its own. I may mention here two of the latest additions to it, Mr. Maddox's account of his first visit to the Mubuku glacier ("Uganda Notes," June, 1905), and Mr. Dawe's botanical article in the "Journal of the African Society" for January last. Allusions to an ascent on the western side of the mountain by Dr. David are made in the "Globus" for 1904, and a map compiled from Dr. Stuhlmann's observations has been issued in the "Proceedings of the Hamburg Geographical Society" for 1901 (vol. xvii.). There is as yet no complete map of the range that has any pretension to accuracy in detail, and no attempt has been made to define and delineate its glaciers.'