

of the preceding night, during that part of the day which remained; but as we could not persuade ourselves to turn back, after having so accomplished the ascent, we resolved to take our chance of spending the night on whatever part of the mountain it might overtake us.

"Wilson had not yet been seen, but as no time could be lost, we resolved to go as soon as possible to the top of the Peak, and look for him on our return. We met, as we proceeded, such numbers of unknown and interesting plants, as to occasion much delay in collecting, and ~~we~~ were under the disagreeable necessity of passing by numbers which we saw in situations difficult of access. As we approached the summit, these became less frequent, and at length ceased entirely. Few cryptogamous plants are seen about any part of the mountains, and neither these nor any others occur frequently on the top of the Peak. There is an area of ten or fifteen acres, forming the summit, which is nearly level, and on this part scarce a lichen is to be seen. It is covered to a great depth with large splintery fragments of a rock entirely similar to that found at the base of the Peak, except, perhaps, a little more compact in its structure.

"By removing a few of these fragments, they were found to rest upon a bed of ice, which is of great thickness, and may perhaps be as permanent and as old as the rocks with which it occurs.

"It was about 4 o'clock P.M., when we arrived at the summit. In our way we had attempted to cross a large field of snow, which occupied a deep ravine, extending down half a mile from the top, on the south-eastern side of the ~~Peak~~. This was found impassable, being covered with a thin ice, not sufficiently strong to bear the weight of a man. We had not been long on the summit, when we were rejoined by the man who had separated from us near the outskirts of the timber. He had turned aside and lain down to rest, and afterwards pursued the ascent by a different route.

"From the summit of the Peak, the view towards the north, west, and southwest, ~~is~~ is diversified with innumerable mountains, all white with snow; and on some of the more distant, it appears to extend down to their bases. Immediately under our feet on the west, lay the narrow valley of the ~~Arkansas~~ Arkansas, which we could trace running towards the northwest, probably more than sixty miles.

"On the north side of the Peak, was an immense mass of snow and ice. The ravine, in which it lay, terminated in a woodless and apparently fertile valley, lying west of the first great ridge, and extending far towards the north. This valley must undoubtedly contain a considerable branch of the Platte.* In a part of it, distant probably thirty

miles, the smoke of a fire was distinctly seen, and was supposed to indicate the encampment of a party of Indians.

"To the east lay the great plain, rising as it receded, until, in the distant horizon, it appeared to mingle with the sky. A little want of transparency in the atmosphere, added to the great elevation from which we saw the plain, prevented our distinguishing the small inequalities of the surface. The Arkansa with several of its tributaries, and some of the branches of the Platte, could be distinctly traced as on a map, by the line of timber along their courses.

"On the south the mountain is continued, having another summit⁸ (pro-

Footnote *Bald Mountain; with King's Cone (altitude 13,030 ft.) at its southeastern extremity, five or six miles southeasterly from the summit of Pike's Peak. ^{F.W.C.} probably that ascended by Captain Pike,* at the distance of eight or

Footnote See Chapter on Zebulon M. Pike in Colorado. — F.W.C.

ten miles. This, however, falls much below the High Peak in point of

~~the expression, "High Peak", Doctor James here refers to~~
~~Peak, which we have already seen he identified with the~~
~~"Great Peak" (Pike's Peak) of S.M. Pike.~~

elevation, being wooded quite to its top.* Between the two, lies a small lake, about a mile long and half a mile wide, discharging ~~down~~ eastward into the Boiling-spring creek.* A few miles farther

Footnote *Lake Moraine, discharging northeastward and then more nearly eastward by Ruxton creek, into Fountain creek. — F.W.C.

towards the south, the range containing these two peaks terminates abruptly.

"The weather was calm and clear while we remained on the Peak, but we were surprised to observe the air in every direction filled with ~~in~~ such clouds of grasshoppers, as partially to obscure the day. They had been seen in vast numbers about all the higher parts of the mountain, and many had fallen upon the snow and perished. It is perhaps difficult to assign the cause which induces these insects to ascend to those highly elevated regions of the atmosphere. Possibly they may have undertaken migrations to some remote district*, but there appears

Footnote *Doctor James here makes a very apt surmise, as the insect in question was undoubtedly ~~the Rocky Mountain Locust~~ that "scourge of the West", the Rocky Mountain Locust (Caloptenus spretus, Thomas), preparing for one of its periodical migrations to the Great Plains, where ~~it has been seen~~ ^{it has been seen} especially in Kansas and Nebraska, it has, ~~at remote intervals, caused wide-spread destruction and~~ ^{at remote intervals, caused wide-spread destruction and} desolation. — F.W.C.

not the least uniformity in the direction of their movements. They extended upwards from the summit of the mountain, to the utmost limit

of vision, and as the sun shone brightly, they could be seen, by the glittering of their wings, at a very considerable distance.

"About all the woodless parts of the mountains, and particularly on the summit, numerous tracks were seen resembling those of the common deer, but they most probably have been those of the big-horn". The

~~Way~~ *A few of these Rocky Mountain Sheep (*Ovis montana*) are still found on Pike's Peak. — F.W.C.

skulls and horns of these animals we had repeatedly seen near the ~~licks~~ ^{licks} and saline springs at the foot of the mountain*, but they are

Footnote *There is a feeble ~~lick~~ ^{called "Sheep spring"} saline spring, or "lick", on the base of the mountain slope on the south side of South Ruxton Creek, where Mountain Sheep ~~are~~ still resort, and where they are occasionally seen ~~from the trains of the "Cog Road" (Manitou and Pike's Peak Rail- way).~~ This saline is on the route which Doctor James ~~followed~~ followed, and was doubtless seen by his party. — F.W.C.

known to resort principally about the most elevated and inaccessible places.

"The party remained on the summit only about half an hour. In this time the mercury fell to 42° , the thermometer hanging against the side of a rock which, in all the early part of the day, had been exposed to the direct rays of the sun. At the encampment of the main body in the plains, a corresponding thermometer stood, in the middle of the day, at 98° , and did not fall below 80° , until a late hour in the evening.

"Great uniformity was observed in the character of the rock about all the upper part of the mountain. It is a compact, indestructible aggregate of quartz and feldspar, with a little hornblend* in very small

Footnote ~~Some of the granite of the summit, some of Pike's Peak contains~~ ^{Some of the granite of the summit, some of Pike's Peak contains} ~~as its ferro-magnesian constituent, and some contains both biotite and hornblende. — much of it is porphyritic, having large phenocrysts particles. Its fracture is fine granular or even, and the mass ex-~~ ^{as its ferro-magnesian constituent, and some contains both biotite and hornblende. — much of it is porphyritic, having large phenocrysts particles. Its fracture is fine granular or even, and the mass ex-} ~~hibits a tendency to divide, when broken, into long, somewhat splintery fragments. It is of a yellowish-brown colour, which does not perceptibly change by long exposure to the air*. It is undoubtedly~~

Footnote *The reddish granites of the Pike's Peak region and of the Rocky mountains generally, wherever ~~such~~ such granites occur, owe their color to ~~the presence of a pigment formed by the oxidation of an iron constituent in the feldspar, and they usually become redder on long exposure to the weather, as may be observed by comparing the freshly quarried Platte canon granite with the same stone seen in buildings made from it. If these red granites could be observed at great depths, below what geologists call the "zone of oxidation", they would not have the ruddy appearance which, as exposed, they commonly exhibit.~~ — F.W.C.

owing to the close texture and the impenetrable firmness of this rock, that so few lichens are found upon it. For the same reason, it is

little subject to disintegration by the action of frost. It is not improbable that the splintery fragments which occur in such quantities on all the higher parts of the Peak, may owe their present form to the agency of lightning; no other cause seems adequate to the production of so great an effect.*

*They are, of course, due primarily to the original ~~the~~ jointed structure of the granite, and secondarily to the expansive action of frost; their displacement and irregular positions being brought about by the combined action of frost and gravitation. — F.W.C.

"Near the summit, some large detached crystals of feldspar of a pea-green colour*, were collected; also large fragments of transparent,

*Amazon stone; now a well known article of the tourist trade in Manitou, etc. It is a colored microcline, and chemically ~~microcline~~ and ~~amazon stone~~ in crystal form, differs but slightly from the common potash-feldspar, orthoclase. — F.W.C.

white, and smoky quartz, and an aggregate of opaque white quartz with crystals of hornblend.

"About five in the afternoon we began to descend, and a little ~~before~~ before sunset arrived at the commencement of the timber, but before we reached the small stream ~~which is the source of the~~ at the bottom of the first descent, we perceived we had missed our way. It was now become so dark as to render an attempt to proceed extremely hazardous, and as the only alternative, we kindled a fire and laid ourselves down on the first spot of level ground we could find. We had neither provisions nor blankets; and our clothing was by no means suitable for passing the night in so bleak and inhospitable a situation. We could not, however, proceed without imminent danger from precipices; and by the aid of a good fire, and no ordinary degree of fatigue, we found ourselves able to sleep during a greater part of the night.

"At day-break on the following morning the thermometer stood at 38°; as we had few comforts to leave, we quitted our camp as soon as the light was sufficient to enable us to proceed, and had travelled about three hours, when we discovered a dense column of smoke rising from a deep ravine on our left. As we concluded this could be no other ~~than~~ than the smoke of the encampment where we had left our blankets and provisions, we descended directly towards it. The fire had spread and burnt extensively among the leaves, dry grass, and small timber, and was now raging over an extent of several acres. This created some apprehension lest the smoke might attract the notice of any Indians who should be at that time in the neighbourhood, and who might be tempted by our weakness to offer some molestation. But we soon discovered a less equivocal cause of regret, in the loss of our cache of

From the Middle Branch creek, which flows in Beckwith's Gulch, south of and not far below the summit, on the old trail from Brown Lake to the Summit. F.W.C.

of provisions, blankets, clothing &c., which had not escaped the conflagration. Most of our baggage was destroyed, but out of the ruins we collected a scanty breakfast, of the half consumed fragments of the bison's meat. We chose a different route for the remaining part of the descent, from the one we had taken in going up, and by that means avoided a part of the difficulty arising from the crumbled granite; but this was nearly counterbalanced by the increased numbers of yuccas and prickly pears."

Expand to the regular spacing.

We can only conjecture as to this detour in the return route; but it is not unlikely that it was in part by the ~~original route~~ ^{course} followed by the trail to Crystal Park, that leaves Ruxton creek by starting up a small ravine a short distance below Minnehaha and Shelter Falls, passing around the west and south sides of the noted and conspicuous boulders of disintegration, "Gog and Magog". It is possible that they went through Crystal Park, but that would make their detour unnecessarily large, and it is more probable that, from the southern offing of "Gog", they passed easterly to the head of the

Footnote

*Of these ~~two~~ striking landmarks, "Gog" ~~was the southern~~ ^{was the southern}, "Magog" the northern position of the two. It is said that a certain facetious educator — formerly resident in Colorado, but now in Texas — used to insist that their astonishing character could only be suitably expressed by the exclamations, "Gosh!", and "By Gosh!"

small branch known as ~~east and north~~, and down the latter, ~~past~~ the vicinity of the present Manitou station of the Colorado Midland railway, to Ruxton creek and the Boiling spring.

"We arrived, a little after noon," says Doctor James, "at the Boiling spring, where we indulged freely in the use of its highly aerated and exhilarating waters.

"A large and much frequented road passes the springs and enters the

Footnote

*See chapter on Manitou Springs. — F.W.C.

mountains, running to the north of the high Peak. It is travelled principally by the bisons, sometimes also by the Indians who penetrate here to the Columbia.

"The men who had been left at the horse camp, about a mile below the springs, had killed several deer, and had a plentiful supply of provisions. Here we dined; then, mounting our horses, proceeded towards the encampment of the main body, where we arrived a little after dark, having completed our excursion within the time prescribed.

"Among the plants collected in this excursion, several appear to be undescribed. Many of them are strictly alpine, being confined to the higher parts of the mountains, above the commencement of snow.

"Most of the trees which occur on any part of the mountain are evergreen, consisting of several species of abies, among which may be mentioned the balsam fir (A. balsamea, Ph.), the hemlock, white, red, and black spruce (A. alba, A. rubra, and A. nigra), the red cedar, and com-

mon juniper, and a few pines. One of these, which appears to have been hitherto unnoticed in North America, has, like the great white or Weymouth pine, five leaves in a fascicle, but in other respects there is little resemblance between them. The leaves are short and rather rigid, the sheathes which surround their bases, short and lacerated; the strobiles erect, composed of large unarmed scales, being somewhat smaller than those of P. rigida, but similar in shape, and exuding a great quantity of resin. The branches, which are covered with leaves chiefly at the ends, are numerous and recurved, inclining to form a dense and large top: they are also remarkably flexible, feeling in the hand somewhat like those of the Dirca palustris. From this circumstance, the specific name flexilis has been proposed for this tree, which is in several respects contrasted with the P. rigida. It inhabits the arid plains subjacent to the Rocky Mountains, and extends up their sides to the region of perpetual frost. The fruit of the Pinus flexilis is eaten by the Indians and French hunters about the Rocky Mountains, as is that of another species of the same genus by the inhabitants of some parts of Europe.

(Contin'd on 36a)

Dr. James was ~~thus~~ the leader of the party that accomplished the first ascent of Pike's Peak by white men. If it was an honor to be of such a party, we can but think it would have been the fair thing for him to have given us the names of all who made the ascent. As he did not do so, there remains some doubt as to whether three men, and only three, made it, or four. It is clear that ^{Pike's Peak puffing} the Doctor's party proper consisted of but three, viz., himself, and two men detailed to climb with him; but he ~~mentions~~ of "Mr. Wilson", (Z. Wilson, the baggage master), "who had accompanied us as a volunteer", and ~~who having said~~ ~~who having, near timber-line,~~ "turned aside and lain down to rest," had "afterward pursued the ascent by a different route," and had rejoined the others ~~when they~~ when they "had not been long on the summit". In the absence of a complete list of names, the "puffing" does not seem to have been very equally distributed, we ^{therefore} can not say absolutely, on the basis of Dr. James' narrative, whether this volunteer was ^{one} of the three, or an independent fourth climber. One would suppose, however, that a man detailed to accompany the Doctor to the top of the Peak, would hardly have been mentioned as a "volunteer"; and we are inclined, therefore, to the view that on the 14th of July, 1820, Pike's Peak summit was reached by four white men.

--The history of the names of Pike's Peak, will be more fully discussed by the writer at another time and place. It will suffice here ^{to} ~~present~~ a few facts of more immediate interest concerning it.

This mountain was named James' Peak by Major Long, in honor of Dr. James, and in recognition of the latter's ascent of it in 1820; and this name appeared in print ^{in 1822} in the Atlas of Long's Expedition to the Rocky Mountains, ~~and again~~ ^{in 1823} in Dr. James' Account of the same, where the explanation of the naming is given in an extract from Major Long's manuscript notes, appended as a footnote in connection with the Doctor's use of the name in giving the Peak's bearing from a prominent landmark that he notices, ~~on~~ July 18th, in returning down Arkansas river from the Royal Gorge. That extract, being of more interest in the present connection, ~~than as a footnote in that connection, to which Dr. James gives it,~~ we here introduce ^{it} ~~in full~~, with some comments and related matter. It is as follows:

(Contin'd on 36 b.)