

until, turning the side of a mountain of moderate elevation, the ocean of prairie again spread before us. This monotonous plain, of which we had been hitherto so weary, now burst upon our sight, and for a moment exhibited a cheerful and pleasant contrast to the rude mountain ruins, we had, with such toil and hazard, been clambering over. This charm was, however, soon to be dispelled. On descending to the plain, it became, as usual, desirable to find a good situation for an encampment, abounding with grass for the horses, and convenient to a water course. For this purpose, one of the party rode to a small line of timber, about a mile on our left, which ran in a parallel direction to our line of march. He overtook us again at the distance of two or three miles, having discovered a copious stream of water. It was about three miles below the point at which the water had been discovered, that we gained the line of timber, only to experience the mortification of disappointment, in finding a naked bed of sand, the stream having no doubt sunk into the earth, some distance above. We had therefore to undergo the pains of abstinence still longer, until we again sought the timber farther below, where the water had reappeared on the surface.^{**}

Footnote
The course here, was probably eastward, and in part northeastward, ~~running~~ near and along the south branch and then southeastward down the main trunk of one of the two small water-courses that descend the south part of the east slope of Cheyenne mountain, north of Little Fountain creek, and join Fountain creek respectively at and two or three miles above the town of Fountain. — F. W. C.

Of the camp established ^{on} Fountain creek, for observations ~~on~~ on Pike's Peak and vicinity, Doctor James wrote:

"Near this encampment we first observed the great shrubby ~~cactus~~ cactus, which forms so conspicuous a feature in the vegetable physiognomy of the plains of the Arkansas." This he refers to the "Cactus cylindricus of Humboldt"; it is ~~now~~ now known in botanies as Opuntia arborescens, of ~~Humboldt~~ Engelmann. We omit here, for lack of space, his descriptive and other comments on this cactus, and on other plants observed in this vicinity, including particularly a cucurbitaceous vine which he calls ~~the~~ "Cucurbita perennis. American colycinth", and identifies with one mentioned some years earlier by Brackenridge "under the name 'Arkansas simblin', from ^{the} information of hunters."

Reverting to the return from Turkey creek ~~to~~ to Fountain creek, and then to the camp on the latter, he says; "

"From an elevated ridge which we passed in the morning, some bisons had been seen at the distance of five miles; and as we were in want

of game, Mr. Peale with two hunters, rode forward in pursuit of them. They overtook the herd near a small creek, and attacked one of the largest, which was at length killed. On examining the body, twenty balls were found to have entered in different parts before the animal fell. They arrived at camp, bringing the meat, at a little after noon.

"From this camp we had a distinct view of "the Highest Peak". It appeared about twenty miles distant, towards the northwest; our view was cut off from the base, by an intervening spur of less elevation, but all the upper part of the peak was ~~obscured~~ visible, with patches of snow, extending down to the commencement of the woody region.

"At about one o'clock P.M., a dense black cloud was seen to collect in the southwest, and advancing towards the Peak, it remained nearly stationary over that part of the mountains, pouring down torrents of rain. The thunder was loud and frequent, and though little rain fell near our camp, the creek soon began to swell, and before sunset it had risen about six feet, and again subsided nearly to its former level. When the stream began to rise, it was soon covered with such a quantity of bison's dung, suddenly washed in from the declivities of the mountains and the plains at its base, that the water could scarcely be seen.

"As one of the objects of our excursion was to ascertain the elevation of the Peak, it was determined to remain in our present camp for three days, which would afford an opportunity for some of the party to ascend the mountain."

CHAPTER (Part 2)-

LONG'S EXPEDITION TO THE ROCKY MOUNTAINS—CONCLUDED. — *Part 2*
(MANITOU SPRINGS, PIKE'S PEAK, ROYAL GORGE, AND RETURN OF THE EXPEDITION
FROM THE MOUNTAINS.)

That accomplished by Doctor James, July 13th to 15th, 1820, being the first ascent of Pike's Peak, so far as known, is of especial interest; we give therefore, nearly in full, except technical descriptions of animal and plant species, his account of it, and of the observations made on that occasion concerning the Peak, ~~itself and the carbonated springs (the noted soda springs of present Manitou) at the foot of it~~ as well as those made at the main camp and elsewhere on Fountain creek.

"At an early hour on the morning of the 13th, Lieutenant Swift, accompanied by the guide [Bijou], was despatched from camp, to measure a base near the Peak, and to make there a part of the observations requisite for calculating its elevation. Dr. James being furnished with four men, two to be left at the foot of the mountain to take care of the horses, and two ^{to} accompany him in the proposed ascent to the summit of the Peak, set off at the same time.

"This detachment left the camp before sunrise, and taking the most direct route across the plains, arrived at eleven o'clock at the base of the mountain. Here Lieutenant Swift found a place suited to his purpose, where ~~was~~ also was a convenient spot for those who were to ascend the mountain, to leave their horses in a narrow valley dividing transversely several sandstone ridges, and extending westward to the base of the Peak.*

b *This horse camp was evidently that part of the Fountain creek bottom just above the mouth of Glen Eyrie creek, known also, and from earlier times as Camp creek.—*W.W.C.*

"After establishing their horse camp, the detachment moved up the valley on foot, arriving about noon at the Boiling spring, where they dined on a saddle of venison and some bison ribs they had brought ready cooked from the camp.

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We here pass over the Doctor's observations on the Soda Springs of present Manitou, at the foot of the Peak, as these will be given, in connection with those of other early travellers, in a special chapter. After describing the great Boiling Spring and the one now called the Sulphur Spring, he continues:

"After we had dined and hung up some provisions in a large red cedar tree near the spring, intending it for a supply on our return, we took leave of Lieutenant Swift and begun the ascent of the mountain. We carried with us each a small blanket, ten or twelve pounds of bison meat, three gills of parched-corn meal, and a small kettle.

"The sandstone extends westward from the springs, about three hundred yards, rising rapidly upon the base of the mountain. It is of a deep red colour, usually compact and fine, but sometimes embracing angular fragments of petrosilex and other siliceous stones, with a few organic impressions. The granite which succeeds it, is coarse, and of a deep red colour. Some loose fragments of gneiss were seen lying about the surface, but none in place.* The granite

Mr. C. C. C.
*It is evident, from this statement, that Doctor James did not examine Williams canon, in part of whose bed he would have seen gneiss in place. Had he visited it, he would also doubtless have mentioned its majestic and bestling walls of cavernous limestone.—F. W. C.

~~masses~~ at the base of the mountain, contains a large portion of feldspar of the rose-coloured variety in imperfect cubic crystals, and disintegrating rapidly under the operation of frost and other causes, crumbling into small masses of half an ounce weight or less.

"In ascending, we found the surface in many places, covered with this loose and crumbled granite, rolling from under our feet and rendering the ascent extremely difficult. We began to credit the assertions of the guide, ~~Ernest~~, who had conducted us to the foot of the Peak, and

left us with the assurance, that the whole of the mountain to its summit, was covered with loose sand and gravel, so that though many attempts had been made by the Indians and by hunters to ascend it, none had ever proved successful. We passed several of these tracks ^{or steep inclines} ~~tracts of granite gravel~~, not without some apprehension for our lives, as there was danger, when the foot-hold was once lost, of sliding down and being thrown over precipices.

"After clambering with extreme fatigue over about two miles, in which several of these dangerous places occurred, we halted at sunset at a small cluster of fir trees. We could not, however, find a piece of even ground large enough to lie down upon, and were under the necessity of securing ourselves from rolling into the brook*, near which we

Footnote
 *Ruxton creek. Could they have started early enough to have reached the locality of the ~~Minneconjou~~ present Half Way House, or points a little above there, they would have excellent camping ground, but it is evident that they reached ~~soon~~ on that evening, only a point in the steep, narrow ~~glen~~ confines of Engelmann's canon, lower down.—F.W.C.

encamped by means of a pole placed against two trees. In this situation we passed an uneasy night, and, though the mercury fell only to 54°, felt some inconvenience from cold.

"On the morning of the 14th, as soon as daylight appeared, having suspended in a tree whatever articles of clothing could be dispensed with, [and] our blankets and provisions, except about three pounds of bison flesh, we continued the ascent, hoping to be able to reach the summit of the Peak and return to the same camp in the evening. After passing about half a mile of rugged and difficult travelling, like that of the preceding day, we crossed a deep chasm, opening towards the bed of the small stream we had hitherto ascended, and following the summit of the ridge between these, found the way less difficult and dangerous*.

Footnote
 *The chasm here referred to was probably that of South Ruxton creek, crossing which, Doctor James and his companions proceeded up the divide between Ruxton and South Ruxton in the direction of Lake Moraine, following ~~the~~ in this part of their ascent substantially the course of the Manitou and Seven Lakes trail.—F. W. C.

"Having passed a level tract of several acres, covered with the aspen poplar, a few birches and pines*, we arrived at a small stream running

Footnote
 *This level tract was the flat divide between the upper part of Ruxton creek basin and Beaver creek, beneath which has penetrated, in recent years the Strickler tunnel, ~~being~~ bored by the city of Colorado Springs, to bring water from Beaver creek into the Lake Moraine reservoir.— F.W.C.

towards the south, nearly parallel to the base of the conic part of the mountain which forms the summit of the Peak. From this spot, we

"In marshy places about this part of the mountain, we saw an undescribed white-flowered species of *caltha*, some *Pediculariace*, the shrubby *cinquefoil* (*Potentilla fruticosa*, Ph.), and many alpine plants.

"The day was agreeably bright and calm. As we ascended rapidly, a manifest change of temperature was perceptible, and before we reached the outskirts of the timber, a little wind was felt from the northeast. On this part of the mountain, the yellow flowered stone-crop (*Sedum stenopetalum*, Ph) is almost the only herbaceous plant which occurs. The boundary of the region of forests, is a defined line encircling the ~~peak~~ peak in a part which, when seen from the plain, appeared near the summit, but when we arrived at it, a greater part of the whole elevation of the mountain seemed still before us. Above the timber the ascent is steeper, but less difficult than below, the surface being so highly inclined that the large masses when loosened roll down, meeting no obstruction until they arrive at the commencement of the timber. The red cedar and the flexible pine,* are the trees which appear at the

* *Pinus flexilis*, J.

greatest elevation. These are small, having thick and extremely rigid trunks, and near the commencement of the woodless part of the mountain they have neither limbs nor bark on the side exposed to the descending masses of rocks. These trees have not probably grown in a situation so exposed as to be ~~ever~~ unable to produce or retain bark or limbs on one side; the limber must formerly have extended to a greater elevation on the sides of this peak than at present, so that those ~~trees~~ which are now on the outskirts of the forest, were formerly protected by their more exposed neighbours.

"A few trees were seen above the commencement of snow, but these are very small and entirely procumbent, being sheltered in the crevices and fissures of the rock. There are also the roots of trees to be seen at some distance, above the part where they are now standing.

"A little above the point where the timber disappears entirely, commences a region of astonishing beauty, and of great interest on account of its productions; the intervals of soil are sometimes, and are covered with a carpet of low but brilliantly flowering alpine

plants. Most of these have either matted procumbent stems, or such as, including the flower, rarely rise more than an inch in height. In many of them, the flower is the most conspicuous and the largest part of the plant, and, in all, the colouring is astonishingly brilliant.

A deep blue is the prevailing colour among these flowers, and the *Pentstemon erianthera*, the mountain Columbine (*Aquilegia coerulea*) and other plants common to less elevated districts, were here much more intensely ~~coloured~~ coloured than in ordinary situations.

"It cannot be doubted that the peculiar brilliancy of colouring observed in alpine plants inhabiting near the utmost limits of phænogamous vegetation, depends in a great measure on the intensity of the light transmitted from the bright and unobscured atmosphere of those regions, and [is] increased by reflection from the immense impending masses of snow. May the deep coerulean tint of the sky, be supposed to have an influence in producing the corresponding colour, so prevalent in the flowers of these plants?"

"At about two o'clock we found ourselves so much exhausted as to ~~make~~ render a halt necessary. Mr. Wilson, who had accompanied us as a volunteer, had been left behind some time since, and could not now be seen in any direction. As we felt some anxiety on his account, we halted and endeavoured to apprise him of our situation; but repeated calls and the discharging of the rifleman's piece produced no answer. We therefore determined to wait some time to rest, and to eat the provisions we had brought, hoping in the meantime he would overtake us.

"Here, as we were sitting for dinner, we observed several small animals, nearly of the size of the common gray squirrel, but shorter and more clumsily formed. They were of a dark gray colour, inclining to brown, with a short thick head, and ~~small~~ erect rounded ears. In habits and appearance, they resemble the prairie dog, and are believed to be a species of the same genus.* The mouth of their burrow is

Rocky

*This animal was the Mountain Marmot (*Arctomys flaviventer*), of the same genus as the eastern Woodchuck, and somewhat less closely related to the Prairie Dog (*Cynomys*). — F.W.C.

usually placed under the projection of a rock, and near these we afterwards saw several of the little animals, watching our approach and uttering a shrill note somewhat like that of the ground squirrel. Several attempts were made to procure a specimen of this animal, but always without success, as we had no guns but such as carried a heavy ball.

"After sitting about half an hour, we found ourselves somewhat refreshed, but much benumbed with cold. We now found it would be impossible to reach the summit of the mountain, and return to our camp