

most forcibly to those who have a smattering of geology. Throughout seven-eighths of the journey the river Columbia makes its way through the Cascade range of mountains, many of whose peaks are snow clad, and some of them attain an altitude exceeding 14,000 feet. Looking at this range from any other point than this river, it seems as if it were a vast plateau, some 5,000 feet high, and that the snow peaks rise out of this like kings seated upon raised platforms. But from the river it is plain that these great peaks, Hood, Jefferson, Adams, St. Helen, Baker, Ranier, the Three Sisters and others, are standing almost to their waists in their own lava, in the cooled floods which they have in times past belched out. There was a time when people believed that rivers cut their channels by their own unaided force in their way to the sea, but no one can look upon this scene and so agree. It is more probable that the lava contracted greatly in cooling, and that in the fissures made by such contraction the river found its outlet. It is true that a fissure so enormous as the channel of the Columbia, a mile broad, is opposed to the conceptions of all but theorists. But it is difficult to conceive that the river and the lava beds were coeval. Probably tens of thousands of years between the earliest deposits of this great section of the volcanic range that reaches so far south, and the Columbia. The upper part of the basalt gorge through which the Columbia pours its waters must have been reduced by disintegration to a broad glacis or slope before ever this was a river at all. One has only to look at the little lava beds on the surface of the ground to see in what order the fissures are formed by the contraction of the cooling process. They are both longitudinal and transverse, so the blocks are eminently rectangular. And what is true of the small masses five feet high, is equally true of the masses of the plateau 5,000 feet high. They are pierced by gorges which run east and west like the river, and north and south like the mountains. At first the mountains were rectangular masses, but disintegration has worn them away. And as the basalt is most unequalled in its hardness, and as some parts are more exposed than others to the action of the frost laeua winds, and the steady attrition of falling waters, it results that the appearance of these time worn rocks is most varied and most peculiar. One fact only is constant, the rectangular character of the rock itself. When this assumes, as it often does, the columnar form, the aspect of the basalt becomes enchantingly interesting. There is hardly a shape under the heaven's dome which it does not mimic, not, of course, with any intense resemblance, but there is a something in the outline and the mass which is very suggestive. Of course what is termed constellation is the most frequent, and those who have seen the upper Mississippi must admit that the towers and ramparts of its sandstone cliffs cannot enter into comparison with the terrible basalt formation of the Columbia. There are spots where the rock rises perpendicularly from the water and goes sheer up to a height of three hundred feet in one solid mass without a crack or crevice. This great wall of some Titanic fortification stretches for hundreds of yards in a straight line and then turns abruptly, leaving an acute angle. Lichens, ferns and mosses cover its sides and give it the appearance of a forgotten stronghold that has passed out of the history of the world. Above this great

stretch of rampart there is a grassy slope, covered with trees, yellow firs and pine. Above that again rises another huge rampart, and more bastions; above that another slope of grass and wavering green tress; then another rampart, then another slope, and so in regular gradation until the neck of the enchanted gazer is craned to the utmost, and the eye reaches the crest of the plateau.

In the consolidated form the basalt is regularity itself. In others nothing can be more irregular. There is a place along the river where originally there were for the whole sheer descent only two terraces, or, in other words, the lava, instead of spreading itself out in beds, had occupied itself in filling up a great hollow. The lower of these, being the softer, is very much worn, and disintegration has been exceedingly busy. But, in the center of the range, there is a mass which suggests strongly a Gothic cathedral. The lady chapel, greatly foreshortened, is in front, then above it comes a perfectly shaped apse, with its singular roof, then to right and left are the projections of the transepts, and above all towers the mighty roof of the nave, with the subordinate aisles. There is nothing to cheat the view as in the basaltic country of Hindostan, so well described by Bishop Heber. No vegetation to help the imagination, no clustering vines to hint the tracery of Gothic decoration. All is the bare basalt, but the masses are so wonderfully suggestive, that I doubt if any one can see it without receiving a similar impression. But the most ordinary form after all is the pyramidal. All will comprehend how readily a solid rectangular mass would by disintegration assume this aspect.

The greatest beauty of these mountain forms, in my judgment, is the terrace when it is upheaved. Let the reader fancy a broad terrace several hundred yards in width, that comes down to the water's edge, and rises by slight gradations to a height between 2,000 and 3,000 feet. These terraces are popularly called devils dyke's, for in everything that is sublime the vulgar mind sees the hand of the evil one rather than the finger of God. Ingersoll is undoubtedly an extremist, but there is some excuse for him in the reflection that churchmen have so vigorously miseducated humanity that such a blunder is possible. Had the church fulfilled its duty, or done even a tithe of what it might have done, the terrible mantle of horror, which has darkened mens minds and kept them from the sunlight of God's providence, would never have crazed human beings. This, a natural outburst, it must be allowed, for these upheaved terraces are very dear to me. For here the grasses grow softest and greenest, and cover the red volcanic soil with a tender, velvety carpet. And here the fir grows tallest and straightest. Here, too, are bushes of wild roses of an immense size. Sometimes in the center of such a dyke there is a slightly elevated ridge, mostly of boulder-like masses of basalt. Among these the wild syringa blooms with admirable luxuriousness, so that at a distance the bushes seem like patches of late snow. The odors of this bush resemble faintly the exquisite perfume of the orange. And when these combine with the fragrance of the wild roses, and balsamic smell of the firs, the air is heavy with sweets, that delight without cloying, and stimulate without reaction. From the ridge in the center burst tiny springs that trickle slowly across the terrace with many devious windings, wandering

downward, but still moving towards the edge, where they pour their crystal drops in a faint shower of spray into the abyss below. It is delightful to mount steadily upward to the very end of the dyke, and stand against the sky and look downward upon the trees in the gorge, and outward against the slopes and terraces of the central plateau. Here the sun shines brightly, and warmly, but the air is not enervating and the heat is not oppressive. The golden rays gild everything with a superb glory, and one watches the white fleecy clouds sailing over everything, making shadows upon the glittering river and casting a momentary gloom upon the little footpath through the gorge. The blood bounds in one's veins, and one feels an intense delight in living, an ineffable thankfulness to the Great Father of us all. But the crowning splendor of all is when one turns one's eyes either to the north towards mount Adams, or to the south towards mount Hood; for these are the only snow peaks visible from the immediate neighborhood of the river.

I have seen the mountains of the French Alps, and of the Appenines, but these of the Cascades have a peculiarity very singular and very beautiful. The snow line begins almost at the level of the plateau, and this varies from 4,500 to 5,000 feet; so that these giants are really snow-clad—not merely topped with snow. They have the appearance of huge pyramids of snow, through which one discerns, here and there, the basalt bones, in ridges and occasional precipitous cliffs. At the point I am describing, one is nearer to mount Adams than to mount Hood, but sufficiently close to the latter to be impressed thoroughly by its grandeur and its beauty. To those who have the color sense, the sight of these immense white pyramids against the blue sky will ever be one of the grand sensations of their existence. It is useless to attempt to describe what is indescribable. How can color be described, or in what words can man explain what is a sense, a feeling? The purity of it, the depth of it, the immensity of it are what one feels most when gazing at such a spectacle. But when the sun is sinking in the westward, and the sun-god flames with all his brightest colors before he disappears below the horizon, all the glowing tints, all the supernal tones of the sunset are reflected upon the snow masses of these mountains with a glory that brings tears into the eyes. It is the apotheosis of color. It is so bright, so splendid and yet so ethereal, that the glowing hues of the ruby and emerald become dirty and tawdry in comparison. The aurora borealis is the only thing with which it can be compared. That, however, is flickering and comparatively evanescent. This fades slowly into darkness through a long, long twilight, and at last becomes a faint cloud as the darkness falls upon the mountains, and the stars shed their light like dew.

CATTLE FOR THE EASTERN MARKET.—Messrs. Lang & Ryan, who have been in Wasco county for some time purchasing cattle, at last accounts had about 13,000 head purchased, which they intend to drive east as soon as spring opens. For some years cattle dealers have been taking several thousand head out of this country, and yet the supply seems scarcely diminished. Aside from this, quite a number of sheep are taken to the eastern market, where a good price is obtained for them.