

berries, not yet ripe, on which, so complete was the log of their stores, they were glad to dine. Potatoes and wild onions are also used by the natives in those dismal regions. The "tea muskeg" affords a tolerably refreshing beverage in the absence of the cup "which cheers but not inebriates." This tea is made from the leaves and flowers of a small white Azalea which is found in considerable quantities, growing in boggy grounds. "The decoction," Milton and Cheadle say, "is really a good substitute for tea, and we became very fond of it. The taste is like ordinary black tea with a dash of senna in it." There is also a berry, the fruit of a kind of lily. This lily berry tastes like the fruit of the yew tree, and is exceedingly luscious, but not particularly wholesome. Lower down the Fraser, there are bilberries as large as English grapes, and of delicious flavour; large black haws and wild cherries in abundance.

WILD ANIMALS.

British Columbia does not appear to have been visited with the curse of venomous insects and reptiles of any kind. There are beasts of prey indeed, but none of the more ferocious sorts which frequent the countries bordering on the torrid Zone. The bears of this favoured land even appear to be less akin to their kind,—less savage than those of other countries. Milton and Cheadle give a remarkable instance of the meekness of these animals. Their attendant, a red man of Assiniboia, came suddenly one day upon three of these grim denizens of the forest. Believing that there was no chance of escape except by killing the brutes, the courageous Assiniboine boldly determined on the immediate use of powder and shot. But his piece missing fire, his only remaining hope was in stratagem, and finally in flight. This would not have availed him had not the three grisly bears returned, after the first surprise, to their occupation of tearing to pieces the trunk of a decayed tree in search of insects. The Assiniboine, meanwhile, having got to a safe distance from the enemy, primed the nipples of his gun with fresh gunpowder, and bravely returned to the charge. His arm again missing fire, he succeeded only in giving the animals another surprise and in directing their attention to his unprotected person. Wonderful to relate, the bears recovered their equanimity after a hasty shew of their anger and their teeth, and declining to resent the insult, applied their energies once more to the rotten trunk in search of less noble prey. This swarthy son of the forest was, on another occasion, still more fortunate. Not far from the fork of the North Thomson, he not only escaped being killed himself, but succeeded in killing a small black bear, which he carried into camp on his shoulders. This game of the wilderness afforded a rich feast to the wayworn party who had been so long without an adequate supply of provisions. They had not tasted any fresh meat since they partook of the flesh of a mountain sheep at Jasper House. They had neither bread nor salt to eat with it, tea to drink with it, nor tobacco to smoke after it. It was nevertheless, they declare, a great treat.

The elk or moose deer abounds in British Columbia. It is so active and wary that only the most experienced hunters succeed in killing or capturing it. Cariboo is also plentiful; but the isothermal line denoting the northerly limits of the Musk-ox, passes five degrees beyond the extreme north of the colony. The buffalo is not unknown, if we may judge from the circumstance that there is a lake named after this animal. It does not, however, appear in such immense herds as are often seen on the eastern side of the Rocky Mountains. The absence of wild cattle, even of the most useful kind, would by no means affect the prosperity of the colony, now that sheep and oxen have been so extensively introduced. Beaver is abundant, as are also wild sheep and wild goats in the mountains. Less important animals, such as martens, wolverines, and mountain marmots, chiefly prized for their furs, are also found.

The fastnesses of the Rocky Mountains are frequented by a species of sheep known to travellers as the *mouton gris* or big-horn, and by the *mouton blanc*, or white sheep, which, however, more resembles a goat than a sheep. But its soft white hair is different from that of the mountain goat, being more like the fleece of a sheep. Of this hair, or wool, the Aborigines of British Columbia weave excellent blankets. Both these animals are akin to the goat, inasmuch as they seek their food in the least accessible rocky places, and are active in their habits, like the chamois of the European Alps. The flesh of these goats supplies a delicious repast to travellers in the wilderness who are skilled in the nimrodic art, and are, at the same time, sufficiently courageous and active to climb the lofty crags where this remarkable goat, for the most part, has its abiding place.

The wood-partridge furnishes a no less acceptable treat, and it is very numerous in the Alpine regions of British Columbia. The porcupine of those places, it would appear, forms a dish scarcely less savoury than the flesh of the partridge. There is a thick layer of fat under the skin which is almost equal to that of the turtle. Lord Milton and Dr. Cheadle dined, one day, on this very fat *pork*. They found it "delicious, although rather strong flavoured." A good opinion in such matters of gastronomic science arises, not unfrequently, from a good appetite; and this excellent sauce is seldom wanting to the courageous explorers who traverse the solitary passes of the Rocky Mountains.

The subject of British Columbia is not yet exhausted. Its fisheries, gold mines and political history will demand another paper.

SCIENTIFIC EDUCATION FOR WOMEN.

Scott Russell thinks a certain amount of science is a necessary qualification for a good wife. In other words, that the art of good and economical living which mainly depends upon the exertions of the wife, no matter how liberal the provision made by the husband, can only be secured in the highest degree through the aid of technical knowledge. He asks, "Ought a wife to know anything about fuel or not? Should she know that there is good and bad coal?—that what is sold to her as best coal is oftener bad coal than good?—that bad coal produces smoke and flame and not heat, and that the one wastes money and the other uses it? Ought a woman to know this knowledge, or is it beneath her?"

"I must answer once for all, that I do not think any household knowledge of this sort is beneath any well-born woman. When of two things you have to choose, whether you will do the better or the worse, it seems to me you have a grave responsibility. It seems to me, if you choose the worse, or don't choose, you are to blame. It seems to me, then, that a woman should know good coal from bad, or she may waste her husband's earnings. But next, if she buys only the best coal, comes the question, 'Is there a right way of using the coal and a wrong?'"

"Ought a wife to know how to use good coal? to use it to the purpose for which it is bought? to use it for light, cheerfulness, ventilation, warmth, cookery, cleanliness, or to use it to waste, smoke, discomfort? Is any knowledge necessary for that? Cannot anybody make a good fire?—keep a good fire, prevent smoke, maintain cheerful heat, warmth without waste?"

"Verily, there are few women who know this: the art to make, to maintain a good fire without excess, without waste, without smoke. Much science goes to understand a fire. 1. What is fuel made of? 2. What feeds the fire? 3. What wastes the fire? 4. What regulates the fire? 5. What makes flame? 6. What wastes heat? 7. What preserves and maintains heat? 8. What spreads it equally around a room? 9. What creates smoke, drafts, rheumatism, and colds?"

"It is not the work of a moment to understand and answer all these questions. A wise housekeeper should have asked them all, and get a good answer to each; that is one element of a home, health and comfort. Can every housekeeper solve all this?"

"To feed her household well, agreeably, wholesomely, without stint, without waste, there is a technical problem of home life. What does each kind of food cost? What parts of food are the more wholesome, the more nutritious? What kinds of food do harm?—to the young, the middle-aged, the old? What quantity should be cooked, so as to give plenty without waste? What is the real value of each kind of food compared to its price? What is the price of food bought wholesale and bought at retail? What is the true weight of good kinds of food? How do I know good food from bad? How can I tell adulterated food from pure and wholesome food?"

"What are the wholesome ways of cookery? What kinds of cooking render wholesome food more or less nutritious, palatable? What dishes are comely, elegant, clumsy, gross, vulgar? How can I use the least sum of my husband's earnings in housekeeping, and yet never make him feel in want of anything?"

"Shall I be told that all these things come by intuition, by experience, by practise? That they are for the servants to study, not for the mistress? That in every household they are already perfectly well done? If I am assured that this is already known and done, I have only to admit that no technical education in housekeeping is required by women."

"Should the mother of a family know anything about her own clothes—her husband's—her family's? What sort, quality, price of stuff, they should be made of? What stuffs wear well? what wash well? what wash out? Which parts wear out first? How to make these parts last the longest? What sewing holds? How many yards of stuff go to each piece of dress? how much for lining, how much for trimming, how much for shaping, how much for sewing?"

"Should the head of a household know how to make anything with her own hands—out of her own head? to cut out, to shape and fashion, to use a sewing machine, to sew, embroider, mend?"

"All about clothes I think woman's work and woman's duty: price, stuff, shaping, sewing, durability, washing, ironing, and mending. A woman who cannot do all these things, and teach them to servants and daughters by example and precept, has not, to my mind, got a good technical education."

"There is no such physician as a wise wife or mother. Not to cure disease—that is a doctor's work—but to prevent disease, or to stop it at starting. What are our gravest illnesses?—neglected colds, indigestion, headaches. Who first finds out that we are ill? Who knows what has caused our illness? Who first takes alarm? Why should not every wife know the early symptoms of disease, the cause, the cure? There—not by the sick bed or in the hospital, but there, by the family fire-side, the kindly mother should wisely watch the first symptoms of disease, wisely give the early warning, wisely apply the simple cure. Which is better in the house, a wise wife, or a perpetual physician? There is no technical training so valuable to a woman as that which shall enable her both to keep the doctor out of the house, and to send for him the moment he is wanted."

THE GREATEST OF ALL FUTURE POSSIBILITIES.

The sun is beginning to be an object of great anxiety to many scientific men. Spots on that orb are not at all uncommon, as may be ascertained by any one who will take the trouble to look at it through a bit of smoked glass. But these phenomena have of late assumed an appearance which astrophysic astronomers, and is calculated to alarm that class which fancies it can detect portents of the future in the heavens. There are great gulfs now to be seen in the sun, each much larger than this earth which we think of so much consequence in the universe. They increase at a prodigious rate, and sometimes seem destined to work a convulsion similar to that which has undoubtedly overtaken other solar systems. Suns as vast as that which lights and warms this world have been shattered to pieces, or disappeared, and only the philosopher in his roving glance over the sky has detected the change. The inhabitants of other planets would not notice the disappearance of the planet we inhabit, any more than we can see a speck of sand carried off by the wind on the sea-shore. It is not a mere theory, but an ascertained fact, that the sun is always in a highly fluid condition—as one recent writer

describes it, "a hurricane of flame, the disturbance of which might, perhaps, be best represented to our imaginations by the occasional explosion of a planet or two of nitro-glycerine." It is, moreover, subject to "magnetic storms," produced, as many suppose, by the movements of the planets around it. The great disturbance which is now going on was predicted months ago by scientific men. That we are much more concerned in the event than many people suppose, is quite certain. Self-registered magnetic instruments have revealed the fact that whenever a spot breaks out on the sun, the earth thrills under a mysterious magnetic influence. In one case, a few years ago, it is upon record that telegraphic machinery was set on fire, and the "pen of Bain's telegraph was followed by a flame," at the very instant a sudden burst of light showed itself in the sun. "In the telegraph-stations at Washington and Philadelphia the signal men received strong electric shocks." In fact, the electric condition of the earth was changed, though by what precise agency none can fully explain. We are at once lost in a region of conjecture, and can only feel that the fate which was foretold of old for the earth may at any moment overtake it. The forces are all in existence by which, in the solemn language of Holy Writ, the "heavens shall pass away with a great noise, and the elements shall melt with fervent heat; the earth also, and the works that are therein, shall be burned up."

Once in every eleven years the sun exhibits the stupendous phenomena which are at present engaging the attention of philosophers. In 1859 "chasms and abysses," similar to those which are now reported, were seen by many observers. Their recurrence was predicted for 1870. Great disturbances in the world have usually accompanied these outbreaks, though why it should so happen is another of the unfathomable mysteries of the universe. In 1848 there were magnetic storms, and we had the French revolution. Again in 1859 they occurred, and we saw wars and rumors of wars in Europe. The electrical condition of the atmosphere is thought to exert a greater influence upon the minds of men and nations than many are willing to believe, or than any one is able to explain. The telegraphs denote the changed condition of the earth, but they cannot indicate the extent of the change. In the language of the astronomer whose description of the sun we have just quoted, "the pens of all our telegraphic wires may some day trace in flame a handwriting more ominous of human destiny than was the handwriting which, during Belshazzar's feast, traced a warning on the wall of the fall of the Babylonian dynasty."—*N. Y. Times.*

A PEEP AT QUEEN VICTORIA.—A correspondent of the *Chicago Journal* has recently seen the Queen, and writes as follows about her:—"The Queen has made herself quite prominent during the past week. At the drawing-room, of course, none but the *crème de la crème* were present, but at the opening of the new buildings of the University of London there was a more mixed crowd, and in fact a fair representation of English society in all its grades. Hence the test of the sovereign's popularity was on that occasion the best. It is impossible to resist the impulse that seizes one at such a time, and I doubt if any British lungs were more severely tried that day than were my own. To me, of course, the mere idea of royalty never once presented itself. But there was something truly magnificent in the appearance of that solitary woman, something that appealed instantly to every chord of generous sympathy and enthusiasm; and I venture to say that never were such honest shouts raised in honour of any potentate on earth. The Queen has a particularly graceful manner, and her very bow, when acknowledging the greetings of her people, is worth going a good way to see. But I think the very prettiest sight I ever saw was when she led the Princess of Wales forward in response to cheers also awarded to her. The Queen seemed even more gratified by this demonstration than by that made to herself. Of course these ceremonies are always very brief, and the royal presence was vouchsafed only a few minutes, but I feel certain that during those few minutes, the Queen, to use a familiar American expression, made no end of capital, and went home more firmly seated in the hearts of her people than ever."

George Augustus Sala, in his last rambling letter to Belgravia, says he never heard railway whistles so shrill in tone, so terrifically prolonged in screech, as the whistles on the line between Marseilles and Paris, and adds: "There is something almost sarcastic in those sibilations as they rush through the night air; and, indeed, did not some irreverent wag—was it Sidney Smith? once remark that the sound of the railway whistle must be precisely the one emitted by the attorney-at-law, when after a long career of writ-issuing and judgment signing, the enemy of mankind at last clutches hold of him, and strikes his three pronged fork into the small of his back." Think of that, oh lawyers! when next you hear the railway whistle's agonizing squeal.

Temperature in the shade, and Barometer indications for the week ending June 28, 1870, observed by John Underhill, Optician to the Medical Faculty of McGill University, 299 Notre Dame Street.

		9 A. M.	1 P. M.	6 P. M.
Wednesday,	June 22	62°	60°	67°
Thursday,	" 23	66°	79°	81°
Friday,	" 24	78°	86°	87°
Saturday,	" 25	80°	87°	74°
Sunday,	" 26	78°	84°	76°
Monday,	" 27	78°	86°	86°
Tuesday,	" 28	77°	83°	78°

		MAX.	MIN.	MEAN.
Wednesday,	June 22	69°	45°	57°
Thursday,	" 23	82°	56°	69°
Friday,	" 24	89°	66°	77° 5
Saturday,	" 25	89°	70°	79° 5
Sunday,	" 26	86°	64°	75°
Monday,	" 27	92°	63°	77° 5
Tuesday,	" 28	86°	66°	76°

Aneroid Barometer compensated and corrected.

		9 A. M.	1 P. M.	6 P. M.
Wednesday,	June 22	30.30	30.26	30.22
Thursday,	" 23	30.24	30.22	30.18
Friday,	" 24	30.22	30.20	30.15
Saturday,	" 25	30.20	30.20	30.18
Sunday,	" 26	30.26	30.20	30.15
Monday,	" 27	30.13	30.08	30.04
Tuesday,	" 28	30.10	30.10	30.08