

the water from their coverings and gratefully accepted the coffee which had been prepared.

"The mazes wrapped our feet in fold upon fold of ayate, a very soft bagging, and over this they laced our leather sandals," says Mrs. Llewellyn. "Donning our large, heavy, cone-shaped straw hats, procured at Amecameca, and putting on our vells and heavy gloves, we mounted our horses at 4:45 and filed silently up the narrow path. At 6 o'clock we gained Las Cruces, a cross, planted in a large boulder, which marks the place where the horses leave us. If I should make the trip again and in the rainless season I should endeavor to pitch camp here, and thus save the five-mile trip from the cabin in the early morning.

"The mazes returned with the horses, and we three, with our three guides, turned our faces toward the great volcano. About two-thirds of the way up we had our last outlook, for when we reached the top the clouds rolled in and obscured our view.

"As we looked out over the vast expanse we were filled with emotions which come rarely in a lifetime. We seemed to look from ocean to ocean. Range after range of what had seemed high mountains lay like rolling land below us. To the north appeared Iztacihuatl, 'The White Lady,' with her arms folded peacefully on her breast, covered with a fall of snow. Away to the west—fifty miles as the crow flies—we recognized a shadowy body of water as Lake Texcoco. Beside it, hardly discernible, lay the City of Mexico. On the other side Puebla appeared as a mere speck in the distance.

"With infinite difficulty we made out the pyramid of Cholulla, greater in size than any of Egypt, and on its topmost pinnacle the church of the Remedios, a mere speck of white. Here and there, among the valleys, threads of silver shimmered in the sun, marking where, amid the lowlands, the rivers wound their devious ways. In the dots upon the plains we recognized so many villages. At this great height the country loses detail, and even color.

"As we mount higher our progress becomes slower. We dare not look behind, lest we be completely unnerved by the appearance of the abysses which yawn beside the trail. Step by step we go through the lava and the snow. The summit seems to recede and mock our efforts. Every few moments we are forced to rest, feeling that we can go no farther. But we do not give up the struggle, and at last we reach the topmost summit, where we sink upon the snow, two happy but terrified women.

"Not for some minutes do we dare to look down into the infinite depths. As we do so we breathe the prayer of the mariner at sea—'Oh, God, we are so small, and the creations of Thy handiwork are so great.'

"No one who has not made this or a similar ascent can imagine the tremendous nervous strain of the struggle. The altitude of Popocatepetl is 17,540 feet, but the physical endeavors necessary to reach its summit are as nothing to the effect on the emotions of the awe-inspiring surroundings. The crater opens suddenly at our very feet and fills us with new terrors. I should judge the distance across at about a kilometer. The crater seems to be full of water, from which arise jets of sulphurous steam. The small stones which we cast into the opening bound from side to side to send up a noise that rolls and reverberates like thunder. One can climb down to a large boulder to about 30 feet below the rim and may then ascend another point on the other side."

The travelers remained an hour on

the mountain top. The descent presented new terrors and new sensations. The guides spread on the snow for each of the women a double square of matting, to which was attached a long rope. Each woman sat on her matting, wrapped her robes about her, held on tightly and then the guide took the long rope and started at breakneck speed down the mountain-side.

"When I placed myself on that bit of matting," Mrs. Llewellyn wrote, "it was the supreme moment of my life. Think of it! A toboggan slide from a height of over 17,000 feet. After a few moments I realized that my guide had perfect control of himself and of me, and I gave myself up to the exhilaration and excitement of that wildest of wild rides. In a few moments we safely reached the bottom of the snow line. Yet, if the guide had gone a shade too near those sloping depths, or had lost his footing—"

The remainder of the journey back to the starting point was commonplace enough, after the exciting experiences of the mountain. Mrs. Llewellyn and Mrs. Walthman were highly praised in the City of Mexico for braving old Popocatepetl.

FOODS, EATING AND NUTRITION.

[Since the closing of Dr. Hall's series of lectures in the Brigham Young Academy, a desire has been widely expressed for their publication in a more unabridged form than was given in the brief synopsis during the institute week. Commencing with today, therefore, the News will present one in each Saturday evening's issue until the series has all been published.]

It will perhaps strike my hearers unpleasantly that my first lecture bears the prosaic title: Foods, Eating and Nutrition. It is necessary, however, to dwell upon it as a background to the lectures which follow. This subject is the new link, or newly understood link, between the school and the home.

One of the most attracting if not attractive sights in the Kensington museum, London, is a series of vessels graduating from a large jar to a small phial. They are marked respectively oxygen 92 lbs, carbon 31 lbs, hydrogen 14 lbs, nitrogen 4 lbs, calcium 1 lb, phosphorus 1.4 lbs—and eight other minerals in fractions of an ounce; all of which make up John Doe, who died in the hospital; not a grain of his original weight being lost. Such is man—minus something which physical science cannot touch.

The analysis might have been made by another series of chemicals, as proteins, fats, carbo-hydrates, and various minerals, but suffice to draw the conclusion that man is of the earth earthy. Six lbs of food and drink daily are required to compensate the waste during active life. The work of digesting and assimilating means merely that so many pounds of a lower compound are torn apart and recombined in a higher. This requires the expenditure of much energy.

It is easily demonstrable that every element of our bodies is directly or indirectly traceable to solar forces. Scientifically therefore, we are, from a physical point of view at least, children of the sun.

BODIES WONDERFULLY MADE.

Consider the living body from another point of view. Fourteen thousand billion cells make up the body and 4,000 million cells the brain. Each cell presents under the microscope 16 well defined parts; each of these parts contains millions of molecules, and each molecule a myriad of hypothetical atoms. Man is wonderfully made.

Two million seven hundred thousand

heat units—a heat unit is the amount of heat necessary to raise a pound of water one degree Fahrenheit—are required daily to keep up the chemical action which we call life; enough heat to cook the flesh off our bones, were we covered for thirty hours with gold foil. One-fifth of this energy goes to produce muscular action, the rest is used in digestion, keeping in mind that digestion includes every process of the body not expended in muscular activity. Our bodies are machines for distributing energy. We live mainly to digest, and digestion is life. It is the kind of digestion that determines the kind of life.

Digestion on a low plane produces dull eyes, doughy features, coarse tissues, and a stupid brain. Higher and more elaborate digestion produces all that contrasts with this coarseness—the flashing eye, the beautiful countenance, the silken hair, the elastic carriage, the marvelous powers of body and mind. The old adage, "It is not what we eat that gives us power but what we digest," should have this qualification, "What we digest on a high plane." Food lies therefore at the bottom of all human achievement. Much attention has been given to different kinds of food and their effects in muscle producing, bone producing and brain producing, and diets based on the kinds of work to be done are common in medical doctrine. Students often go to ridiculous extremes on a fish diet, owing to the notion as the German proverb puts it: "Without phosphorus there can be no thought."

If excessive phosphorus were the cure for dullness, I should often feel like prescribing whale for certain students in my classes.

The will to live, the desire to push upward, is the primal or fundamental force in nature. It is a movement which the child illustrates by mouth and arms almost at its first breath. It is the necessary law of existence.

The law of the cell is, divide or die; that is, when the cell has grown to a certain size it loses the power of getting nutrition for further growth, without becoming two cells. Out of this necessity has grown the multiplicity of animated forms.

The law of existence is, "Eat or be eaten." You shall be my food, otherwise I cannot escape becoming yours. All wings, legs, fins, tails, or other means of locomotion have been evolved in obedience to this law—evolved either to get food or escape being made food. All teeth, bills, claws, or other means of attack or defense are also the result of this law. The reason they differ is that animals have singled out, under necessity different kinds of food. The following of exclusive lines of living is sufficient to explain the difference in the bill of the duck and the woodpecker or the jaws of the wolf and the hare.

Certain animals have developed the power to hibernate, which is likewise connected with the law of food, or rather the absence of food; others haeistivate, or sink into the mud when the season of food scarcity comes around.

The area of animate life fluctuates according to this same law. Where food is plentiful and danger to life small, animals swarm, as the case with rabbits in Australia. The counter-check which nature furnishes is always some other form of life which begins to prey upon the dominant race.

Food, even from the point of view of political economy, is the first form of property with every race. If a man has nothing else, he seeks to provide himself with the immediate means of prolonging life. It is likewise a striking fact that almost everything in the world serves somebody or