

donkeys and cattle during a recent ride across the desert, and at one point stopped by a pile of skeletons which had been dug up from an Inca ruin and left there to bleach.

It is a curious thing that there are no bad smells on the desert. Flesh does not rot, and you could leave a dead chicken in your back yard at Pacasmayo and never get a smell. The air is so dry that it sucks all of the juice out of anything left on the sands. A short distance north of here is the valley of the Plura river, which has the same surroundings. Not long since a traveler, in passing through this valley, saw an open coffin in the cemetery, and within it the body of a dead priest clothed in nothing but a purple shirt and white cotton drawers. The body was lying alone out under the hot sun of the tropics, and the man, who was a devout Catholic, offered to bury it, expressing great indignation that one of the fathers should be so treated. The priest of the town, however, refused to permit anything of the kind, saying: "My dear sir, you do not understand. That is the body of my friend, which I have put out there to dry, so that I may send him to his family in Guayaquil."

This dryness of the air is the cause of the mummies of Peru being found in such good preservation. There are plenty of mummies to be had here, and every now and then one is dug up in the excavation of the ruined cities of the Indians, who had possession of the country when the Spaniards came. The mummies are found in a sitting posture, wrapped in cloth and tied up with strings. All about here I see the vestiges of the works of the Incas. They had a civilization on the average higher than that of Peru today. They cultivated a vast deal more of the land, and their irrigation works included thousands of acres which are now desert. I went, the other day, up through the desert of the Inca ruins of Jequetepeque. I doubt whether any of you have ever heard of them. Still they mark the site of what must have been once a populous city. They are situated high up above the lands which are now irrigated by the little river which flows near them. Just below the ruins are the remains of what were once Inca fortifications, great mounds of sun-dried bricks, the ruins of which are still about 200 feet high. The remains of the city are in the heart of the desert. They cover several hundred acres and the walls, in many places, higher than your head, still stand, while within them the outlines of the houses can be plainly seen. In the center of the city there is a large mound, probably the site of an Inca palace, or of a temple devoted to the vestal virgins of the sun. I rode my horse up to the top of this mound, and in my mind's eye could easily repeople the ruined streets below me. All about me were bits of pottery, the broken dishes of that great nation of the past. Here you could see the outlines of a square, and there the remains of a large house, which may have been the residence of one of the rich nobility from whom the Spaniards got their gold.

Notwithstanding this part of the Pacific coast has had no rain for a long time, the people are expecting it this year. Do you know why? It is because it does rain here almost regularly every seven years, and the last big shower was in 1891. There was a shower seven years before that, and I am told that about every seven, eight or nine years there is a period of a week or more that the rain pours down, and as it touches the earth, vegetation almost instantly springs up. Almost within a night the desert becomes covered with green. There are great fields of green grass, and flowers by the thousands come in bloom. There are plants which we have only in hot houses and flowers more

brilliant than any we know. This vegetation often lasts but a few days. It has, however, been known to continue a month, and at its height the cattle are driven from the irrigated valleys out upon the desert to feed. The seeds of all sorts of plants, trees and flowers seem to keep perfectly in the hot, dry sand, and to be ready to jump into life if touched with moisture. I doubt, in fact, if there is a more fertile soil on the globe than that of the desert of Peru. It seems to be fully equal to that which borders the Nile valley, and wherever it can be irrigated it produces in many instances two crops a year. Planting goes on here all the year around in the irrigated valleys, and I see corn dropped in the same neighborhood where it is almost ripe enough for husking.

The only cultivated portions of the coast region of Peru are, as I have stated, the little valleys of the rivers fed by the Andean rains and snows. There are on the coast of Peru about forty of these valleys, which the waters have cut out of the desert. At the end of many of them you find little towns, which form the ports of the country, and in the interior there are numerous villages and small cities. The capital of Peru, Lima (pronounced Lee-ma), is in the valley of the Rimac river. Paita, where we first stopped on our way south, is the port for the valley of the Plura river, and here we are near the mouth of the Jequetepeque (Heke-topeka) river. As I write this I can see droves of fat cattle as any which are ever shipped to Chicago, being driven out upon the pier to be loaded for Lima and the ports further south, and when walking out this morning I took photographs of the fat beeves as they were swung by a derrick high up in the air and dropped into the lighter, in which they were taken to the steamer in the harbor.

This is not the best cotton raising section of Peru, but in every ride which I take into the country I see bushes and trees lining the streams and irrigating ditches white with cotton bolls. This is the natural home of the cotton plant, and it is the one place in the world where I have found cotton growing on trees. There are trees of cotton in Peru fifteen and more feet high, which produce two or three crops of cotton a year, from ten to twenty which has a cotton tree in its back yard. The cotton from the tree is sufficient, the landlord says, to pay for all the eggs consumed in the hotel. This native Peruvian cotton is not white, like our cotton. It is of different shades of brown, some being quite tawny and some decidedly red in color. The white cotton is also raised.

The finest quality of rough Peruvian cotton is raised in the department of Piura, just north of where I now am. It grows in the river valleys after the seven years' rain, which there is much heavier than at Pacasmayo. At such times the rivers flood the country, bringing down rich slime from the mountains, and when the rains have ceased every one starts to planting cotton. The demand for labor is such that many people go there at the time of the rains for the work which they know will be needed. The wages paid are from 25 to 30 cents for a day of ten hours. Raising this cotton may be called the luxury of agriculture. The soil is so rich that the plants do not need manuring or tillage. The grounds is not plowed, but holes are dug for the cotton seeds with a spade, and the seeds covered up. A plant soon sprouts and the planters know they are sure of three good crops within the next year or so. The first crop matures in nine months and the others follow. After these three crops there are irregular crops from the same plant or tree for a number of years. The trees grow to a

height of fifteen feet and more. All that is necessary is to keep them trimmed and pick the cotton. In the lands along the river which can be irrigated the crops are regular, and from two to three crops a year are common. The cotton ripens, in fact, throughout most of the year, and you see buds, blossoms and cotton wool on the same tree at the same time. In the irrigated lands the cotton yields 300 and 400 pounds to the acre, and it is estimated that the growing and baling cost about \$1 gold per bale. This cotton is very valuable. It now brings 13 cents a pound and has brought as high as 23 cents. It outsells any other cotton on earth, for it is used as wool. The fiber is more like wool than cotton, and when it is ginned it would easily pass for wool. It is used by the manufacturers of hats, hosiery and underwear to mix with wool, and is said to give the articles into which it goes finer luster, a better finish, and to render them less liable to shrink. The fiber is longer than any other, except the Sea Island and the Egyptian cotton. I am told that the area in which it will grow is limited. Peru is now raising considerable white cotton. The first seed planted came, I am told, from Egypt, and the product is said to be very good.

I almost despair of giving you a picture of the country along these little irrigated valleys of Peru. Nature has painted things differently here than in any other part of the world. Now you imagine yourself in Egypt; at the next step you think of the highlands of Mexico, and again are in Southern California or on the Pacific coast of Asia. The very sky is different. I am stopping here with Mr. B. H. Kauffmann, an Ohio man, who came to South America twenty odd years ago, and who now has the largest shipping and importing business of this part of Peru. His house is on the beach, and waves roll in with a surf like that of Atlantic City or Cape May. Every evening the sun sets upon the waters before us in a blaze of color such as I have never seen elsewhere. The tints are more gorgeous than those of the Indian ocean, and more soft and beautiful than those of Italy or Greece. Such colors have never been put on canvas, and such scenic effects are unknown in our part of the world. The changes of the sun at its setting are wonderful. It looks twice as large in this clear air as at home, and as it sinks down toward the sea the waters seem to pull it to their surface, so that it assumes the form of a balloon, the lower end of which is slowly submerged. A moment later the top spreads out and you have a great golden dome resting on the dark blue horizon. It sinks lower, and the waters turn to gold and silver and the most delicate tints of purple and red to match the soft bright colors of the skies. Last night, just before the sun went down, we had double rainbows in the Andes, though there was no sign of rain here on the coast. The air is so clear that you can see twice as far as in the eastern parts of the United States, and though it is now midsummer the heat is not oppressive, and we have a steady sea breeze every afternoon. There is no better climate anywhere than this, and nature, notwithstanding the desert, has done much for northern Peru.

I have never been in a land that has so many varieties of fruits. We had nine different kinds as our last dinner, all of which were raised near here. There are oranges, bananas, limes and lemons growing almost side by side with peaches, apples and pears. There are grapes as hard and as luscious as those of California; cherries, plums, dates and figs. There are watermelons and muskmelons, guavas, mangoes and cherries. We have also the alligator pear, which has a flesh that