

tains some five hundred thousand square miles and has been but imperfectly explored. No safe estimate, therefore, can be made of its possibilities.

In a most comprehensive work entitled, "Peru in 1906," written by Mr. Alexander Garland by order of President Pardo, the author presents an elaborate table showing that eastern Peru has some ten thousand miles of navigable rivers. In fact, a large part of the water which gives to the Amazon its primacy among the world's greatest rivers is drained from the soil of this nation. According to Mr. Garland, steamers drawing twenty feet can penetrate four hundred miles into Peruvian territory; steamers drawing from four to eight feet can traverse nearly six thousand miles; while boats drawing from two to four feet can carry merchandise over an additional four thousand miles.

This inclined plane, extending from the timber line down to an altitude of less than three hundred feet, is now a vast forest containing trees of many varieties, the most valuable being that which produces rubber. A considerable quantity of hard wood can be cut from this section, and the cultivation of the rubber tree can be indefinitely extended. As this ground will, when cleared, produce every kind of grain, fruit and vegetable, it can be seen that its development means a large increase in the assessed value of Peruvian land, and in the population of the country.

The first thing needed is immigration, and the government is encouraging this. There are some four thousand Japanese in Peru now, but they are largely engaged on the sugar, rice and cotton plantations along the coast, and the officials are anxious to secure settlers from Europe and North America. Chinese immigration is by a recent statute prohibited.

Recognizing that railroads are necessary for the development of the eastern slope as well as for communication with the highlands, the administration is urging the building of several lines. There are already two steam roads that cross the first cordillera of the Andes. The Central runs from Lima up the Rimac river and over the crest to Oroya. At Cerro de Pasco, on this line, there is a great copper mine, owned by a group of American capitalists, headed by Morgan, Mills and Haggan. According to the Copper Year Book, twenty-three million dollars have already been expended on this mine, and a yearly output of forty-five million pounds of copper has been reached. An American company is planning an extension of this line to the navigable waters of the Amazon.

A second line, the Southern, is in operation from Mollendo, through Arequipa, to Cuzco and Lake Titicaca. This is also likely to be extended to navigable waters, and ultimately the two lines will be connected, giving Lima, the present capital, railway connection with Cuzco, the seat of the Inca dynasty which the Pizarros overthrew. Both these lines are owned by the Peruvian company, an English corporation, and are operated by American superintendents who were trained in Mexico.

The tourist should, if possible, take a trip over both these iron horses—some sixteen thousand feet—and along the route one sees a successful solution of every problem presented in railway engineering. In addition, he enjoys the fascinating view presented by the Rimac, as its tireless waters work their way down to the Pacific.

The Southern route gives one an opportunity to visit the centers of Indian civilization and to see the highest navigated lake in the world, Titicaca (12,500 feet), whose waters are plowed by capacious steamers, the largest having a carrying power of over seven hundred tons. The road passes through Arequipa, one of the cities founded by Francisco Pizarro and now the second in importance in the republic. Harvard University has an observatory here.

On the plateau between Mollendo and Arequipa the traveler has a chance to examine one of the most curious phenomena to be found in the physical world. At an altitude of about thirty-five hundred feet, the road crosses a stretch of almost level land, about thirty miles wide, a step, as it were, in the ascent of the mountains. It is a yellow, barren, sandy desert, the last place one would expect to find anything of interest. Over this desert are scattered innumerable dunes of fine white sand which the winds from the ocean are driving toward the higher ranges. These dunes are crescent-shaped and travel, points forward, at the rate of about two hundred feet per year. They move in such an orderly way and keep their shape so perfectly that they seem almost instinct with life.

It would be unfair to advise tourists to cross

the Andes without warning them that there is a mountain sickness, called *sorroche*, which one is likely to encounter in the higher altitudes; it is similar to sea sickness, and I can testify, from my own experience, that it is as likely to be remembered.

Before passing from the subject of railroads it is necessary to add that besides roads, built or planned, to which I have already referred, there is a projected line running from Paiza, in northern Peru, across the mountains to one of the navigable tributaries of the Amazon. This road will reach a maximum altitude of only about seven thousand feet—less than half that of the other roads—and will bring river commerce within three hundred miles of the Pacific.

It will be evident from the above that the people of Peru recognize the need of more railroads, and are preparing to supply that need.

This is a land of extremes, and conditions are so varied that one must be hard to please if he can not find what he desires. The snows never leave the mountain peaks, while frosts never come to the valleys below; in some sections there is practically no rain fall—at Arequipa, for instance, the average is two inches per annum—while in other sections the precipitation is excessive. Everything that grows between the Equator and the Antarctic circle can find a congenial climate here, and social conditions present a variety equally great.

In Lima one can find all that the most advanced civilization has produced. She has a magnificent cathedral, in which rest the bones of the great Pizarro, and more than thirty churches of considerable size; she has a university, a splendid library, largely the work of Senor Palma; a museum, which Prof. Uhle, formerly of the Pennsylvania University, has crowded with a most interesting collection of Indian relics; a geographical society; parks, avenues and statues; she has wide spreading Spanish houses which have come down from colonial days, rich in carving and filled with antique furniture; she has daily and weekly newspapers, opera houses, clubs, etc. Lima has an excellent city government and a large number of cultured and refined people, official and unofficial.

We attended the annual charity entertainment given by the fashionable society—one of the sons of the president participating. The audience which filled the theatre from pit to dome might have been mistaken for an audience in New York or Chicago, on a similar occasion. This is Lima; but in the mountains the bare-footed Indian trudges along the trail, bearing his back-bending burden and suppressing hunger with the cocoa leaf, while the untamed savage still roams through the forests of the Montana section.

Peru has a republican form of government, but it is much more centralized than ours. The president appoints the prefects, who correspond to our governors, and the executive officers of the sub-divisions, excepting the cities—the mayors being selected by the city councils.

Everything is done at Lima; all power emanates from the capital. This partly accounts for the frequent revolutions; local interests are not balanced as they are in the United States; there is no centrifugal force to counteract the centripetal.

An attempt at revolution was made last May; the insurrectionists killed the guards, entered the rooms of the executive, captured the president and kept him a prisoner in one of the parks for some three hours. His resignation was demanded under threat of death, but he was equal to the occasion and declined, facing their guns with calmness and courage until rescued by the soldiers.

I have said that the centralization of government is partly responsible for the frequent revolutions; Mr. Garland suggests "lack of education" as a cause, and he is right. This is probably the most influential cause, for revolutions could not exist with universal education, and the strongest pledge which Peru gives to the future, is given in the development of her school system. While the percentage of illiteracy is still very large, she is making progress—and direction is, after all, more important than the exact position reached. Any evil can be overcome in time if a country is moving forward.

The number of primary schools was only 844 in 1890; in 1908 there were 2,339. The number of children enrolled in these schools in 1890 was 57,260; in 1908 there were 162,293.

The enrollment in the secondary, or high schools, is fifteen hundred, and in the university and other colleges about one thousand. Twenty-nine thousand attend private schools.

Another encouraging feature is to be found in the number of young men who are attending

college in the United States. The president has a son at the University of Wisconsin, and a number of other prominent families are represented in our colleges.

Several young men who had studied at Ithaca's famous institution gave "the Cornell yell" at the close of my speech before the National club. I find these returning students enthusiastic friends of the United States, and our colleges and universities might aid in the spread of American ideas and influence by offering scholarships to students from each of the republics of Central and South America, the students to be recommended by the several ministers of education.

But the most significant sign of intellectual progress in Peru is found in the fact that the government has sent to the United States for inspectors and teachers. Prof. H. E. Bard of Indiana, a graduate of Columbia, is associated in an advisory capacity with the minister of education, and Professors J. B. Lockey of Florida and J. A. McKnight of Colorado, also graduates of Columbia, are employed as inspectors of schools. Besides these, five Americans—one man and four women—are employed by the government as teachers.

As experiments had been made with teachers from several European countries, and as the American teachers were employed after a careful investigation of our educational system, their employment can be construed as an endorsement of our methods and as an evidence of increasing friendship for the United States.

This evidence of friendship, however, was not necessary, for no one can talk with Peruvians without being convinced that they have confidence in our good intentions. They look up to our nation as an elder brother, and speak with affection of "the great republic of the north"—whose influence is wholesome and whose aims are disinterested.

I was frequently asked why our merchants and manufacturers do not pay more attention to Peru. W. R. Grace & Company have houses all over South America, and have been the means of introducing a considerable quantity of American goods and machinery, but there is room for others—Americans will find an open door here and a welcome.

Peru is facing the dawn, and her public men feel that the time is ripe for an advance. She was for three centuries the victim of a Spanish colonial policy; her wealth was drained away to Europe and the masses were kept in darkness. Education was made so expensive that only the rich could afford it. In order to graduate from the university a young man must, up to 1743, finance a bull fight and a public dinner at a total cost of ten thousand dollars. Then a deposit of two thousand dollars was substituted for the bull fight and dinner. In 1870 the deposit was reduced to eight hundred dollars, and it has more recently been reduced to fifty and twenty-five dollars.

After independence was secured, Peru passed through a series of revolutions in which the ambitions of rival military chieftains played an important part. Her finances were badly managed, her resources were not developed, and she lost some of her territory by war.

But a new spirit possesses her; she is becoming conscious of her possibilities and is organizing to take advantage of them. She is planning to bring education within the reach of all, and with improvement in this respect, her political system will rest upon a broader base. She is encouraging foreign capital and immigration. Her mountains are a treasure-house of gold, silver and copper, scarcely yet unlocked; the production of the Pacific coast section can be largely increased; her hard woods, her rubber trees, and her cinchona trees will yield a large income; and her trans-Andine territory can, when brought under cultivation, feed an empire.

Peru moves forward with confident step toward a future that grows brighter with each passing year.

W. J. BRYAN.

Copyright, New York World.

#### OBSERVE THE DATE

The Detroit Free Press prints a long editorial entitled "Daily President Taft is Confounding His Critics."

This editorial appeared in the Free Press of April 1.

#### PROTESTING

A lot of magazines and periodicals who never uttered a protest when the Aldrich-Cannon tariff caused a heavy increase in the cost of living, are now howling in chorus because of a threatened increase in postal rates.