THE MINERALS OF

Results Do Not Demonstrate tion. That the Field Is Either Large or Varied,

THE HOLGUIN GOLD MINE

Copper Occurs Frequently and There Are Quantities of Manganese and ron.

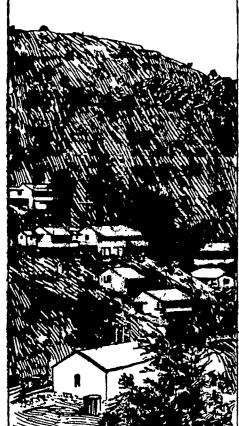
Mines That Elad Lain Idle for More Than a Company-Tetal Lack of Systematic Expleration-Coast Range Rich in Hematile and specular Iron Ores—Many Claims Located in the Sierra Massire.

If we listen to the voice of the charmer, or go to books on Cuba for our information, we shall find that the mineral resources of this island include gold, silver, mercury, lead. antimony, copper, chrome, iron, manganese, pitch, bitumen, and even coal; but when we look for practical mettallic results commensurate with these varied mineral resources we shall be disappointed.

The gold fiction is the most timehonored, for the original Spanish settlers expected to find gold mines in Cuba. According to their historians, "much gold was taken from this island at the beginning of the conquest," but it seems probable that most of this wastaken from the chiefs, or cacques, the east and west of Santago de Cuba. of the indians and very little from the ground. "El Viagero Universal," Madrid, 1797, says: "Some of this metal (golf) is still found at Holguin." Whenever the existence of gold in Cuba is discussed this "mine" at Holguin is invariably brought forward. It is true that some work has been done at this point and a little gold has been extracted, but there has never been any systematic exploration, and there is nothing there which may be dignitied with the name of a mine.

In like manner most of these mineral resources fade away in the search light of investigation, until only copper, iron and manganese remain. Of most of the others listed above, it is fair and proper to say that they have been found but not worked. It may fairly be doubted if mercury and coal have ever been found, although "denunciations" of mercury exist.

Copper occurs frequently, in greater or less quantities, in the metamorphic rocks which form a large portion of the island of Cuba. The principal occurence is as chalcopyrite, in quartz veins in the metamorphic rock, at the village of Cobre, in the mountains about twelve miles west of the city of Santiago de Cuba. The mines at this point were discovered some three hunhred years ago and were worked to a limited extent, but always as crown or under royalties to the They were abandoned and had been idle for more than a century when, in 1830, an English company reopened them and worked them systematically and actively, employing asmany as 2,000 men. A railroad was built from the mines to Santiago Bay. The remains of this road still exist.



JURAGUA MINE. The railroad was owned by a Spanish corporation, and the mines and railroad became involved in litigation. The railroad company won its suit, "but killed the goose that lay the golden egg." for the excessive freight charged by the railroad, the reduced price of copper, the scarcity of labor. and the breaking out of the ten-years' war combined to close the mines once

The extensive plant of the English company-which included what was, in its time, the largest Cornish pump in the world—their crushing and concentrating machinery and buildings, are now nothing but a picturesque heap of ruins.

There is no available record of what these mines have produced, but the deepest shafts were 900 to 1,000 feet deep and the underground workings. are said to have been very extensive. There are a number of manganese mines in the province, mostly to the west of Santiago de Cuba, which have been worked in a desultory way the

lack of proper transportation facilities, making it impossible to operate on any considerable scale, although the ore is very high grade. The Ponupo Mining Company, an American corporation, has built a branch of the Sabinilla y Moroto railway into its mines and is shipping extensively.

The coast range near Santiago de Cuba, generally known as the Sierra Maestre, is rich in hematite and specular iron ores. Great quantities of ferric oxide have been dissolved out by the action of surface waters, from which they have been re-deposited in concentrated form. In many, probably in most cases the ore bodies are the result of the weathering of isolated bodies of corniline, and their replacement by ferric oxide from the

percolating waters. For this reason they are without definite wails or reg. ularity of arrangement. They are scattered along the range of hills for a distance of eighteen or twenty miles. but there is no continuity of forms

The region where these deposits exist was formerly occupied by the plantations of wealthy Spaniards. Everywhere in these beautiful hills can still be seen the remains of the fine roads shaded by bamboo hedges, over which the proprietors passed in their volan-



HARBOR OF SANTIAGO.

tes. One of these roads passed through the ore body that is now the Magdalena mine, and was known as the "black road" because it was practically pulverized iron ore. These rich old grandees must have known, but apparently did not realize what was at their feet, and it was actually not until the year 1861 that the first claim was "denounced." Since then more than two hundred claims have been located in the Sierra Mnestre, both to - angineering Magazine.

THE GIRLS OF PORTO RICO.

Four of Them is a smoking Tournament With Americans.

Americans who come down here are both amused and surprised at the vast amount of smoking indulged in by the native women, writes a l'orto Rican corrèspondent of the New York Sun. Those of high standing socially are not addicted to the habit, but among the country women the practice is almost universal. And the fair ones do not confine themselves strictly to cigarettes, either. Big black eigars in the mouths of really very pretty young girls are a common sight in the country districts. Cigarettes are really more of a luxury, because the paper in which they are rolled has to be bought, but the all-tobacco cigars can

other three were not more than fifteen, in the inner walls of the Cabanas. It ted with a kingdom and a surfelt of although they had the development of was here that General Lee conferred worship. merican girls much older. often seen in the mulatto in whom is luose from his guards and escape down high priests of those gods to be pos

Ricans invited the stranger into their horrors of his prison. home, and then began the customary simplest ideas were exchanged only the outer works of the fort. To the sation so called by courtesy-the posse, or ditch between the land apwoman with the baby became so exproaches and the outer works. From cited that she lit a cigar which lay on the top of this massive outer defence he table and began puffing at it furi- the ground slopes inland, the only apously to calm her nerves. The visitor proach to the castle being a smooth. was also smoking, and although some sloping sward, raked at all points by most natural thing in the world. They reached for a box of matches, which by the way, are the most plentiful the famous Fosse de los Laurele, marthings on the island, there being three tyr ground of Cuba's liberty A long, match factories in successful operation-and lit up with a most nonchalant air. They smoke with much gusto and left are the frowning walls of the inhaling the smoke like the ordinary American cigarette smoker. And how they did spit! It may not be a thing to boast of, but the Porto Rican woman can spit with all the power and precision of the most inveterate male tobacco chewer that ever lived. It is really amazing. Sad to relate, all their skill is wasted. The spittoon is unknown, and the genius which would enable them to hit it around corners and between the rungs of chairs is exhausted in the futile drawing of fancy figures upon the floor.

So with the Caguas quartet. They were, of course, unconscious that their conduct might provoke criticism. They had been doing this almost since they were babies, and there was nothing indecorous to them about it. When their visitor left them they gathered in the doorway to see him off, and the place takes it name. Twisted and dislast he saw of them they were still,

smoking and spitting and smiling. Certainly tobacco does not seem to hurt these people. They are as healthy draw their nurture from the bloodand as buxom a lot of girls as a man drenched ground, and nature abborwould care to meet. Their spirits are rent at such a price for being, has high, though their lot in this country would be considered far from a happy

Smakes the Cats of the Philippines. The spakes are the professional rat catchers in the Philippine archipelago. and every well-regulated household must have its snakes. "Nearly all the older bungalows in Manila," a corre spondent writes, "possess what are called house snakes-huge reptiles, twelve or fourteen feet long and as thick as a fire-engine hose, that permanently reside in the roof and live on rats. These big creatures are harmless and rarely, if ever, leave their abodes. Judging from the noise over my cloth ceiling, a pair of these pets find pasturage up above, and I can hear them whacking around about once a week in their chase after rats.

They are good though noisy rat catchers; but since they must needs eat all they catch, their efficiency seems to be limited to their length of stomach. The only way to get rid of the rats seems to be to buy more snakes, and this is simple enough, for you often see the natives hawking them around in towns, the bons curled up around bamboo poles, to which their heads are fied.

The "Cabanas" Where Many of Cuba's Sons and Daughters Mer their Fate.

GREWSOME DUNGEONS.

Cells Whose Secrets Are More Dreadful Than Were Those of Ancient Venice.

Prisoner's Walk-Where General Les Conforred With Competitor I risoners-The Famona "Fress de Los Laureles" Where Executions Look Place-Pacent Wall With Backs to Firing Sauad.

The Morro and the Cabanas, as they ear their drear walls above the barbor and city of Havana, frowning down at he hundreds of American and Cultan. flags, seem to cast a still lingering shadow over the dawn of Cuban independence. Although the red and yellow of Castle no longer floats over those buttlements, the grim fortresses still represent the shackled menace of Spain's vanished power. Within those walls, deep down in the rock's recesses, many a budding aspiration and thought of liberty has been foully crushed out.

The story of Morro and Cabanas prisons can never be adequately told. It contains such depth of human misery, such refinement of mental torture, such barbarity of physical suffering enforced by inhuman jatiers, that the fuil truth must ever hide its head from the scrutiny of civilization.

The entrance to the Cubanas is reached by a narrow passageway, winding round the face of the cliff from the rickety wharf at the water's edge. Zinc covered and paved, this road has been a way of sorrow for many a prisoner who has wearily tramped up the steep incline. Few have returned along that path. The majority have faced fate more or less brave ely, with their backs to the firing squad and a cry of "Cuba libre!"
Forty reet from the summit of the

cliff a small grass covered plot is reached. In front are two guntled and rugged laurel trees, their roots stretching down the slope and showing through the scanty soil like the bones of some partly exhumed mammoth.

Crossing this grass plot, a narrow weights and pulleys,

The southern portion of this most in gloomy walk, gravelled on one side, on the other the long rank grass. Right



ENTRANCE TO CABANAS FORTRESS fortress. At the northern end the walk twists round to the west. Midway are six trees of the class from which the torted, their trunks seem to have lost their natural shape by withesing many scenes of human agony. Ther shown her protest in crooked branch and dully tinted leaf.

Two paces from the trees is the execution ground. A mound of stones and a dented wall, cut and scarred by many a bullet, are the only existing memorials on the spot where so many of Cuba's sons have died for freedom, Here, in the cool gray of the morning, were led out those whose crime had been a too great devotion to what they deemed their duty.

The prisoner was placed against the wall, his back to the firing party, who were but a few feet distant. The soldiers idling around passed taunting remarks. Using the language of the bull ring, they asked jocularly what kind of a fight the victim would put up. Occasionally, if the condemned manwere some noted character, their feelings carried them so far that they actually assaulted him on his way to execution. The vilest taunts were poured on the head of the islander and his last hours were tortured by the unfeeling bitterness of his persecutors. But at last the farce was ended. The lieutenant in charge of the firing party threw away his cigar, the orders, "Load, "Present." "Fire," were given and the writhing corpse on the ground was all that remained of the follower of free

SAMOAN PECULIARITIES

the Inhabitants Are Children of Manual Apis is located on the considerable island of Upolu. It is bounded on one side by the singing sands of the harbor, white as the back of a girl's hand. The dust-scurrying trade winds blow interminably, roughly through the pairs. On the landward side a couple of instantificant stress that Enlive and of insignificant rivers—the Mulical and the Valsingano-form, with the Pacific Ocean, a three-sided fosse around the sone of trouble. For the rest, there are some ravises and a vast mob of childlike, bloody minded, naive scandal managering, cleanifolored matives of engaging manners and unpronounce alle names, to whom lighting and gos sip and head-getting is the breath of their nostrils. The islands lie to the westing and south and south and of Ran Francisco and south 21800, and can be reached by a fast racht -presupposing that the owner and no possible business elsewhere in the wide world-im a matter of a dozen or so days. On arriving, the yacht naster will find just whom Robert Louis Stevenson found when he turned als dark and kindly face islandwardcontemporaries of our tations knows. wrong side of the Roman wall." Very likely these contemporaries will, for the most part, be found surf-building and fishing.

The inhabitants are Christians, church-goers, singers of hyms, hardy cricketers, but within therehance by reason of the acquired veneer of civili



A SAMOAN GIRL zation) children of nature and head-To this spot such of Spain's prisoners hunters, devoted to fetish worship and be raised and rolled by any one taking who had been allowed the privilege of blassed politically by iccordemnin. One who had been allowed the privilege of the trouble.

Not long ago the writer, then recently arrived, rode into the country one fine day and stopped at a native shack on the military road. Four smiling women greeted him at the door. One of them was perhaps thirty years of age and had a baby in her arms. The other three were not more than fifteen.

were all dark of skin, but with that here where Julio Sanguilly, after many after false gods, but they are not lackshining straight black hair which is so months' confinement, proposed to break ling in shrewdness; they require the combined the Spanish with the negro the cliff. Preferring the risk of immedial sessed of a fine order of manual dexblood.

At death by a Mauser bullet to contents. In ordinary life, when not entitue longer subject to the insufferable gaged in the sapent-house of norrors of his prison.

Samoan house of representativest or being to their own huge delight, flaved linguistic wrestling bout, in which the gateway to the left gives admittance to alive by European copra haptenants. the natives while away life hours in after the most violent mental, facial right, the landside towers a huge wall tailing gossip and scandal with their and digital effort. During the conver- cut out of the solid rock, forming a neighbors. In times nor far back they made holiday parties brinting heads.

Havana is taking on some of the aspects of an American town. The phonograph man has appeared in the Prado what surprised at his hostess' action, guns mounted on the walls. This ditch his pockets stuffed with cylinders he felt it to be his duty to offer cigars extends round the eastle until it ends scratched in the United States, and to the other members of the party, in the sea. On the Morro side it is every evening his sputtering instru The three young girls accepted the of crossed by a wooden drawbridge of ment is hedged in five deep by a penni fer with pretty little waves of the ancient construction, and raised and less crowd, watching the capitalists hand and just as though it was the lowered by an elaborate system of with the rubber tubes in their ears and listening for stray echocs of the jerky tunes. The hardest worked "re cord" of them all is "There'll Be a Hot Time in the Old Town To night." which by reason of its popularity with the army bands at Santiago, is counted by Cubans and Spaniards as much one our national airs as "Hall Columbia or the "The Star Spangled Banner."

The buttonhole edition of the Btars and Stripes has an immense circulation in Havana. The Culans them selves wear it more than their own single star. As yet there is no display of the American colors in the shops, though one merchant in Gallano atreet, whose sign before the war was two crossed American flags painted on his wall, has freshened up his pigments is indeed, a fand where insiness beand marked all his wares in American dollars and cents.

There are other and unmistakable signs that the Americanization of the city has begun. In street and shop you meet men by the score who insist on spluttering unintelligible Oliendorff the boy comes from a distance, and at you by way of delicate attention Most of them have mastered the the ory of American notation, but they make sad work of the individual numerals, and in the end they fall back on their native tongue. This leaven is working, however, and the tourist will find his way made easy for lifth. Even the beggars have scented prosperity from afar and demand "fill cents." where before they gave you blessings for a copper. In a minor way the ap-pearance of the street-spanning an-houncements of bargain sales, the recrudescence of "The Broadway," the "United States Bastar" and a dozen more shops with like prophetic names the revival of Milwaukee beer and American cocktails and the engerness of tailor and shirtbunkers to get hold American models are all significant of the coming change

According to German authority the fact that the locust tree attains in twenty-five to thirty years the same thickness as the pine in fifty and the oak in one hundred years has led to some valuable investigations as to the strong that acacla wood has an imthe properties of firmness and durawheels brings under sters etc. It is on the ground, to detect lead states well known, of course, that the tree lists to the resulting sound is not to question there is the property soil that complimental by their spinson was in the rubbles of store queries. wall known of course that the tro-in quanton thrives in the poleses soil even in the rubbles of some fluories and sharry declipings

Matters of Interest About the Quaint Old City of the Philippines.

AMUSING INCIDENTS.

The Feculiar Sleeping Machine That Was Not Calculated

-The Chambers that Where a Great Variety of Thing; May Be Benghi-The Curioni "Chie" system,

Everybedy is new reading of saking questions about the Philippines, in order to see whether he shall advise the Government to hold the blands or urge his friends to emigrate thittier. If the Philippines are to be held by the United States, of course Americana the United States, of course Americans in the very nature of things will go there to establish themselves in business or as employes of this Government; and the question must often be asked. "Are the Philippines a good place to live in?" Jaseph Earle Storens, in "Yesterdays in the Philippines," published by Charles Serimer's Sons, has done his best to answer the question.

Mr. Stevens, as the representative of

Boston firm of mercliants, spent over two years in the Philippines. from 1803 to 1896. He says he arent his first night in Manilla at the Spanish Hotel El Oriente, where he first made the acquaintance of a Philippins hed. It was a tour-poster; the posts were very high, and the bed frame was strang tightly across, like a cane-bottemed tightly across. Ilke a came-bottemed chair; there were heavy folds of mosquito netting hanging down around the bod. After pulling away the netting the travejer found the came bottom "about as soft as the teakwood floor, and finally," he says, "I cut my way out of the peculiar arrangement, dressed, and spent the decidedly cool night in a long came chair, preventing not to in a long cane chair, preferring not to experiment further with the sleeping machine until I found out how it worked." Mosquitos did not treable

His description of the club, which seems to be quite an indication in Manila, and which shelters the English and American bachelors, cannot be without interest to a possible emigrant. The author writes: "After beginning the morning by ordering a dozen aults of white sheeting from a mative tailor—

of white sheeting from a mative tailor—

price, \$2 aplece—I was introduced to and when well scaled shade a

the members of the English club and apply a thin layer of the with a

began to feel more at home, attetched the half of such leaft put a

out in one of the long chairs in the cool of the atter on the grants. library. It seems that the club affords 'sever with the fire anotter and retreamment to its tonk score members ht two wilely separ-



A STREET SCENE IN MANILA.

the banks of the Pasis River, where

its waters slouching down from the big lake at the foot of the mountains, are first introduced to the outlying suburbs of the city, and the other in the heart of the business section. The same set of native servants do for both departments, since no one stays up town during the middle of the day, and no one down town after business hours. As a result, on week days, after the light breakfast of the early morning is over at the up town building the staff of waiters and sastistants heary down town in the train cars and make ready for the noon ment at the other structure, returning home to the suburbs in time to officiate at dipner. This somes second nature. If you want a book or a paper on the table, and they lie more than a yard or two from where you are located it is not pelley to reach for them. Oh no! You ring a bell twice as far off, take a map while wake up to find him handing it to you with a graceful 'Aqui, Senor? In fact, I have even just now met an English fellow who, they tell me, took a barber with him on a recent trip to the worthern provinces to look after his scanty beard that was composed of no more! than three or four dosen hairs, each of which grew one-eighth of an inch quarterly. At the Botics Ingless, or English chemist's shop, one can buy snyth

lawn mover, and it is to tale "rangly" store—variety in the purset sense of the word-that the American went to replenish his photographic outil. This brings him to chat about shopping, and he describes the "Chi!" system, which has been such a curse in the Far East. "In making purchase," he writes, "no one nevs cash for anything, since the heavy Mexican dollars—which are the only currency of the islands—are too heavy to bug around in the thin suits of white sheeting. One simply signs an "LO: U. for the smount of the bill in ize, and thinks no more about it till at industrial value of this variety of the end of the month all the Chite wood; the conviction was particularly which bear his name are sent around for collection. Result: One never feels portant future, especialy as regards its as it he were spending anything until employment for mining purposes. The the first day of the incoming month same timber is also found to excel in users in a host of these big or little cessinders. Counterful money 4 so perculates that one after the other or perculates blick the silver or dress in the properties of intimices will suited for parallent that one after the other of many other mechanical uses, such as to reallers bless the silver or drops to the country of detect less said as

from a glass of some to wirell he

fined by a mixture of Fr a restaurant in the Spi

that city come these farm Speniali stock is propered from pounds of stock the round prefe two downs half a dome red child tables populations, some gentle, is

and drippings.
Seed the chills and cores with ing water; sonk said moses accept the pair istantibly water the pair istantibly water the steak in sonal said. To it into thirter, and four and believe with the oblit solds, and the and the thysic, steamer as

Holl to prove of best-de makes, design til it is year tender; but it seed on it is small please. Mile des grapes with enough of the break, it was been was locked by saaks it was add two expense fourture of the plant beases with shift and tender.

Take three dones ped al the seed and recerbin a-m for a few tenends other piece, water and gried until fine, with a head of garder and bughly, In a sew pan piece so plays, and when hos, drop in the cook a wille and then dres a cup of rateins, a son of oil spoonts, of sugar, a little m per, and let it bell again. It

ated points of the compass—one fast on

Season with salt and a Peter ever the most Engille fried for in.