

NEW CUBAN MINES.

VAST IRON AND COPPER DEPOSITS OWNED BY AMERICAN SYNDICATE.

Special Correspondence of the Deseret News by Frank G. Carpenter.)

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SANTIAGO DE CUBA.—New iron mines have been recently discovered on the highlands above Nipe bay. Borings have already been made to determine the extent of the deposits, and it is said that millions of tons of iron are almost in sight. Mining engineers are now testing the ore to determine its value and how it may be best treated, and if their experiments are successful the mines will be a enormous value. The deposits are such that the mines can be worked on steam shovels, and the ore will be hauled by machinery from the time it leaves the earth to the smelters which will carry it to the smelters of the United States. The managers say that the ore can be shipped as cheaply from Nipe bay to the great works on the Chesapeake as that of Lake Superior and be brought down to the smelters on Lake Erie.

RICH IRON MINES OWNED BY AMERICANS.

These deposits are being investigated by the same syndicate of capitalists which already controls the chief iron mines of Cuba. It is a combination of the Pennsylvania Steel company, the Maryland Steel company, and others. They own the Juraguá mines, and have large interests in the Spanish-American iron company and in the Cuban Steel Ore company.

The Juraguá mines are among the richest in Cuba. They were first opened about 1887, but it was not until 1893 that foreign capital became interested in them. Since that time they have produced about 4,000,000 tons of ore, and they have now an output of 40,000 tons per month. These mines belong to the Bethlehem Iron company, the Pennsylvania Steel company and the Maryland Steel company. They are not far from Santiago and the ore is brought there for shipment.

The Spanish-American iron company is operating mines near Daiquiri, which lies on an open roadstead twelve miles east of Morro Castle. The deposits are four miles back of the seaport, and about 14 miles east of Santiago. The company has a standard gauge railroad from the mines to the bay, and steel tracks similar to those of Lake Superior. It was just beside these docks that our troops made their first landing during the Spanish-American war.

The Daiquiri mines are valuable. They were located by Samuel P. Ely of Cleveland in 1880 and Mr. Ely founded the Spanish-American Iron company to operate them. He had made a fortune in mining in the Lake Superior iron region, and when he opened the Daiquiri mines he introduced the best of modern machinery. The mines began to produce in 1885, and at the end of 1903 their output was equal to more than three and a half million tons of ore, worth in the states in the neighborhood of \$10,000,000. These mines are now turning out forty or fifty thousand tons of ore a month, and the only limit to their production is the labor supply. The company started by opening three mines. It is now working ten and

has recently begun the development of another district which will feed into Daiquiri. I am told there is more ore in sight than the amount so far mined.

The Cuban Steel Ore company has iron mines in the mountains 40 miles west of Santiago, and about six miles back from the seaport of Chiriquio. The mines are connected with the sea by a railroad which is said to be one of the best equipped of its kind on the island, and at the Chiriquio are two wharves and a steel dock a thousand feet long.

MINING WITH STEAM SHOVELS.
The iron ore of Cuba is both magnetite and hematite. It is found chiefly near the tops of the hills in small, irregular bodies without definite walls. It is very hard and must be broken loose from the country rock with sledges and explosives. It is of such a nature that steam shovels are largely used to tear away the earth and uncover the ore. There are hundreds of such shovels now working at Daiquiri, and the Lola mine there is being gouged out much as we are excavating the Culebra pass at Panama.

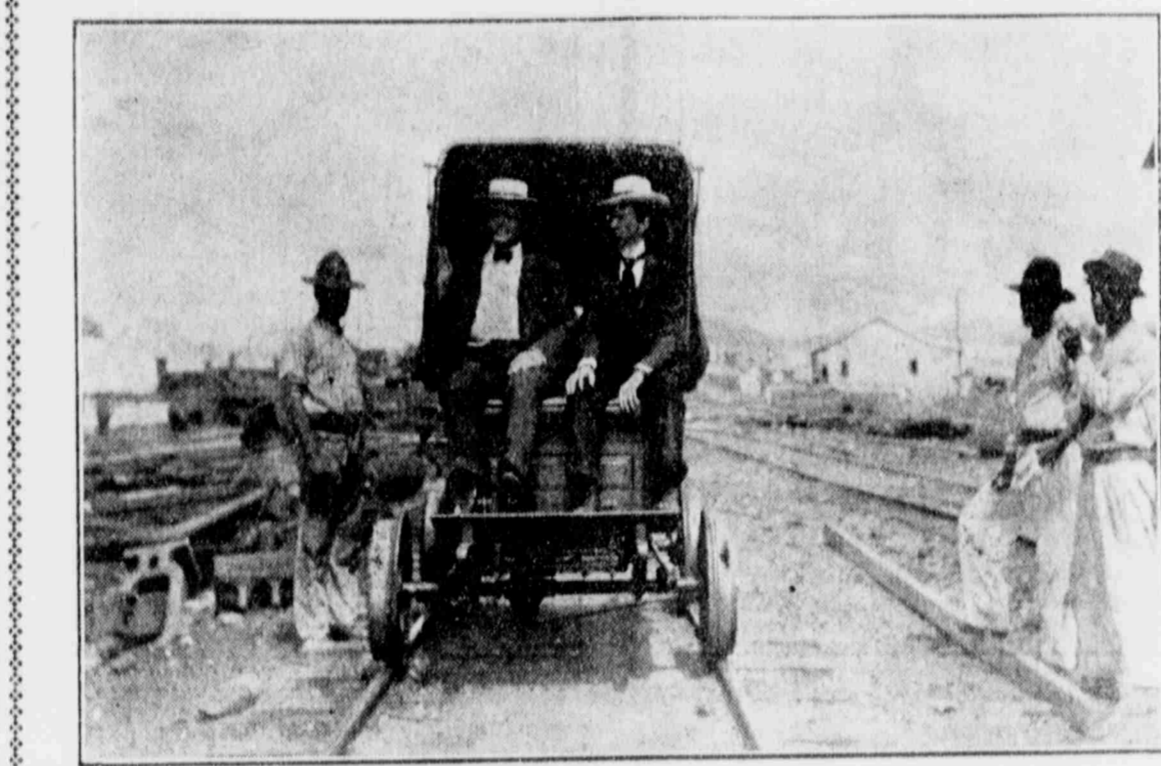
The most of the Cuban miners are immigrants from northern Spain. The natives work well with the machete, but they seem lost in the presence of picks and shovels. Labor is comparatively cheap, the ordinary wage being \$1 a day for 10 hours. The companies feed the miners if the men desire it, but in this case they are charged 25 cents a day for their food, making their pay 75 cents a day and food. The miners live in villages built for their use in the immediate vicinity of the mines. Barracks are provided for the bachelors and huts for those who have families. Nearly every mining property has its store where meals, provisions and clothing can be purchased.

CUBA A LAND OF MINERALS.

These mines give some idea of the rich iron deposits of Cuba. The island has never been carefully prospected, although hundreds of mining concessions have been taken out, and mining properties are owned here and there all over the island. It is easy to get a mining concession, and it costs only a bagatelle to hold it. If one wishes to take out such a right he has only to conform to certain legal technicalities, and thereafter pay a small government tax per year. The government grants concessions for an unlimited number of years, and the owner may work his mine or not, as he pleases. His tax for all metals except iron is at the rate of \$5 per hectare, or two and one-half acres per annum. If it is an iron concession he will pay only \$2 per hectare.

At present the Cuban government has granted over 200 iron concessions. It has granted 145 concessions for mining manganese, 10 for copper, 29 for gold, 19 for lead, 4 for quicksilver, 3 for zinc, six for petroleum, and 78 for asphalt. These items will give an idea of the minerals which exist in the island. Minerals are found in every province from Pinar del Rio to Santiago, although the latter is, above all others, the richest in Cuba. The concessions granted in Santiago number 428, of which the largest number are for iron, manganese, copper and lead. The total value of the mineral products of Cuba in 1901 was \$2,000,000, of which the most came from Santiago.

MANGANESE MINES.
Speaking of manganese, this is a met-



MR. COX AND I RODE TO THE MINES IN THE AUTOMOBILE.

Specially photographed for the "News" by Frank G. Carpenter.

al which looks like iron and has a strong affinity for it. It is not used by itself in the arts, but only in combination with other metals, and is of great value in making steel. The best of the manganese mines are situated about 15 miles northeast of El Cristo, and the ore is brought into Santiago by railroad for shipment. The ore occurs in pockets, the bulk of it being in wash-dirt, although by picking some good manganese is obtained which does not require washing. The richest mines are owned by the Ponopo Mining company of Santiago, and others, known as the Boston mines, are owned by the Standard Manganese company of New York. The latter company began shipping in 1902. Its works are well equipped, having a Corlies engine, large pumps and other powerful machinery. The manganese usually lies in limestone and sandstone, associated with jasper. The deposits vary in size, from a pebble to masses that weigh several hundred tons.

MILLIONS OF DOLLARS IN CUBAN COPPER.

The copper mines of Cuba have produced millions in the past, and the prospect is that they will yield millions in the future. Copper is found in nearly every province, but the great copper province is Santiago, which was long noted as having the richest copper mines of the world. These were the famous El Cobre mines, which lie in the mountains about 12 miles west of Santiago, and which are now again being worked by the Spanish-American iron company. El Cobre was opened about 1590 as a crown possession of

Spain. It was worked by the Spanish government for 200 years and then abandoned. A hundred years later an English company with a capital of \$240,000 reopened the mines, employing about 2,000 men in their development. Shortly afterward another company was formed to take possession, and the working was continued up until 1868. Between the years of 1829 and 1868 these mines are said to have produced about \$60,000,000 worth of copper, which is in addition to the amount mined by the Spanish government for 200 years. Between 1861 and 1862 the ore exported from El Cobre was valued at \$14,000,000; and they were, as I have said, the richest copper mines of the world until the Calumet and Hecla mines of Lake Superior were discovered.

Some of the best prospects among Cuban minerals are copper. This metal is found in nearly every province. Copper deposits have been worked in Pinar del Rio, in Havana and Matanzas. In Santa Clara valuable beds of this ore have been found near Cienfuegos and there are a number of mines in Puerto Principe. Some of the oldest copper mines of the latter province are now in the hands of Pennsylvania parties.

BOUGHT BY AMERICANS.

When El Cobre was at its best a railroad was built to convey the ore from the mines to Santiago bay. This was owned by a Spanish corporation, and it charged such exorbitant freight rates that the mining company had to shut down. Then revolutions broke out, and the machinery and buildings were destroyed, the railroad was wrecked and

The Iron Discoveries About Nipe Bay—Mining With Steam Shovels—Cuba a Land of Minerals—Something About Mining Concessions—The El Cobre Mines Which Have Produced Sixty Million Dollars Worth of Copper Ore—The Gold Mines of Holguin.

mines now have an output of about 10,000 tons a month.

A VISIT TO EL COBRE.

It was in company with Mr. Jennings S. Cox, the manager of the Spanish-American iron company, that I visited these mines and the smelter connected with them. The smelter is just across the bay from Santiago. We rode over in a steam launch belonging to the company, and landing at the wharves, walked by great piles of coke and limestone to the works. The coke is imported from the United States and the limestone from interior Cuba. The smelting works cover several acres, rising almost straight up from the water. They are of the most modern make, furnishing all the processes needed for turning the different grades of ore into the copper which is shipped from here to the refineries of the United States.

Most of the ore is of a low grade. When mixed with the rock it is a greenish colored stone in which shape it is brought to the smelter. The lowest grade ore is first crushed to a dust and then flowed over moving tables, each 15 feet wide and 20 feet long. Each table moves so that the copper sinks to the bottom and floats its place on one side of the table, while the dirt and gravel moves on. The gravel is again crushed and washed until the copper is about all out of it. Much of the ore is smelted, being mixed with limestone, coke, and iron oxide from Filley's Island, Nova Scotia.

UP THE MOUNTAINS BY AUTOMOBILE.

Leaving the smelter, Mr. Cox and I rode to the top of the mountain kept for the purpose. Our track was the railroad, the wheels of our machine fitting the rails. The road goes in and out along the Cobre river, winding its way through a deep canyon until it reaches an altitude of about 1,500 feet above the sea.

The track was that of the old Spanish railway and some of the rails were fastened together by chains and pinned to the ties by wooden pins. As we rode, Mr. Cox told me that it had cost the Spanish about \$600,000 to build the road, but that their freight rates were so high that they were able to realize several million dollars in dividends before the mines shut down. The Spaniards used mules as a motive power. The American company uses steam, and it has so improved and extended the road that the ore is now carried directly from the mines to the smelter.

A CUBAN YELLOWSTONE PARK.
I wish I could take you into the mountains back of Santiago where these copper mines are. The rocks have as bright colors as those of the Grand canyon of the Yellowstone, and a large part of the ore taken out is the color of

paint. There are great masses of brown earth and rock. Red rock, green rock, and rock of other colors rise about on all sides, and in their midst are the shaft houses of the copper mines, with the loads of ore coming out of them to be dumped into the cars for the smelter. Many miners are to be seen about the works. Something like a thousand are now employed, and this number will probably be increased as the development progresses. There is no doubt but that the Cobre mines are still a valuable property and that they will continue to yield great quantities of copper for a long time to come.

GOLD AND SILVER IN CUBA.

Cuba is said to have deposits of gold and silver. There are gold mines near Holguin, which were worked years ago, and which are now owned by an English syndicate, known as the Cuban Mining and Development company. Gold has been known there since the discovery of Cuba, and the mines have been worked from time to time. In 1883 Mr. Frederick Barnard, then British consul at Santiago, said that one mine there produced ore bearing 67 ounces of gold and 25 ounces of silver per ton, making a value of \$1,300 worth of gold per ton. It is also said that Don Vicente Guillen took out ore from the same mine which yielded three ounces of gold to every hundred pounds of mineral.

Another mine not far from Holguin contained a pocket of gold which within 15 days yielded \$100 to every hundred pounds. Samples of ore from the latter mine were taken to London and assayed. They showed a maximum of 22 ounces of gold to the ton. There are other mines in the same vicinity which contain gold-bearing quartz, and the streams about are said to contain some placer deposits.

FRANK G. CARPENTER.

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NOT all here yet, but enough to afford you splendid ideas of the styles that will prevail this season. We are showing a Good, Strong, Sensible Line, combining entire practicality with artistic beauty; more varied and extensive than ever.

AN EARLY INSPECTION IS RESPECTFULLY INVITED

In Suits the present tendency is towards the "Paddock" rage, mannish, long and tight-fitting styles; while the Correct Thing in Coats for the Fall Season of 1905 will be the "Empire" and the Fur Lined and Fur Trimmed Garments. Every model will satisfactorily meet the requirements of particular trade, while the values are such that they are bound to meet your price needs.

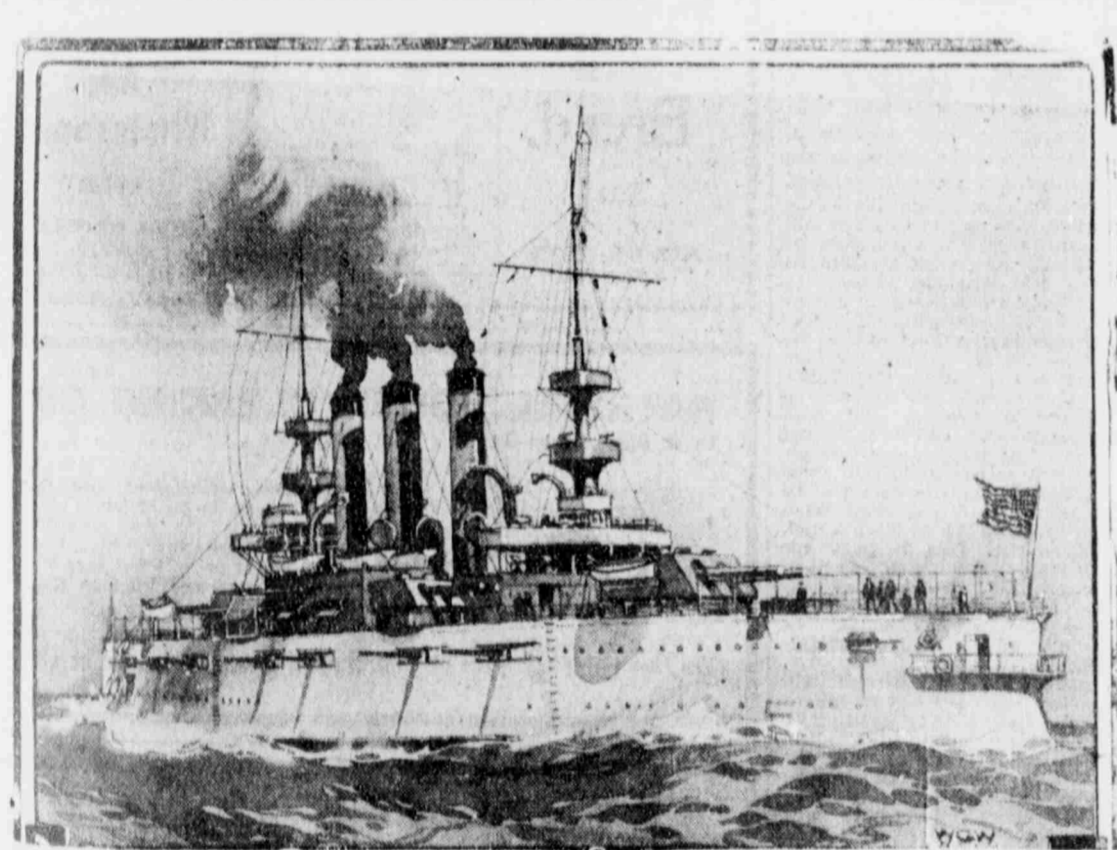
First Glimpse of Autumn Hats

MADAM TRUMBO has returned from her Eastern purchasing Trip and will welcome the many friends and admirers of the department over which she presides. Closely following her home-coming is the daily arrival of the Latest Creations in the Milliner's Art. Every new idea in Hats is included in the stock purchased for this season's business, including the latest Patent Leather, Taffeta and Felt three-cornered continental Hats that seem to have caught the popular fancy. There is an individuality and attractiveness about the New Fall Styles that will readily appeal to the most exacting tastes of every lady.



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NEW BATTLESHIP.

This is a picture of the Kansas, our latest battleship. One thing remarkable in the history of the ship, she is the only ship in the American navy which was christened without the use of wine. The Kansas was christened by Miss Anna Hoch, the young and pretty daughter of Governor E. W. Hoch, of Kansas. The Kansas is equipped for a flagship. Her twelve-inch guns will be mounted in pairs in two turrets on the midship line. This ship will be one of the most formidable fighting machines afloat. Of 16,000 tons displacement, she has the following dimensions: Length, 450 feet; breadth, 77 feet; draught, 26½ feet. She can quarter 850 men.

HOW TO REDUCE FLESH.

Listen, all ye fat women, and take hope. Amelia Summerville, who weighed 218 pounds when she appeared as the Merry Little Mountain Maid, and who is now one of the prize beauties in "The Earl and the Girl," has been telling how she did it.

And this is how:
"For the fat woman to lose weight requires the most heroic measures. Sitting and talking about it will never do a bit of good."

"Worry may take off a few pounds, but it will bring plenty of wrinkles. Diet and exercise alone will do the work."

"I shun much-advertised obesity cures. Unless one has then thoroughly analyzed and knows exactly what is in them I sincerely recommend that they be let alone."

"By diet I do not mean starvation. I mean simply the elimination of fat-producing foods."

"Fat is simply over-nourishment. When I say exercise I do not mean to wear yourself out by violent exertion. That makes muscle, and muscle is never attractive for a woman."

"Walking will do more for a woman in getting rid of her surplus fat than any other one thing."

"My daily walk has become a necessity. The day is incomplete without it. My meals are simple, but sufficient. For breakfast I have fruit, coffee and dry toast, with a little butter. I seldom eat luncheon and never anything more

heartily than some tea and toast or a salad."

"For dinner I forego soups, rich sauces, potatoes, creamed vegetables and sweets."

"Instead, I eat a piece of steak or roast beef or lamb or mutton or chops, some vegetable which is not fattening, and a salad."

"Green vegetables are splendid things to eat and the drinking of hot tea is helpful in the reduction. Milk, cream, butter and sugar are not to be thought of."

"Neither can a woman indulge in ale, beer or wine and hope to lose flesh. Plenty of sour lemonade is excellent for her to drink, even better than plain water."

"I think breakfast is the most fattening meal of the day. The woman who persists in eating a heavy breakfast will never reduce her weight."

"And no one can lose weight in a day or a week or a month. Patience and persistence are necessary, and it may be a long time before all your heroism begin to show results."

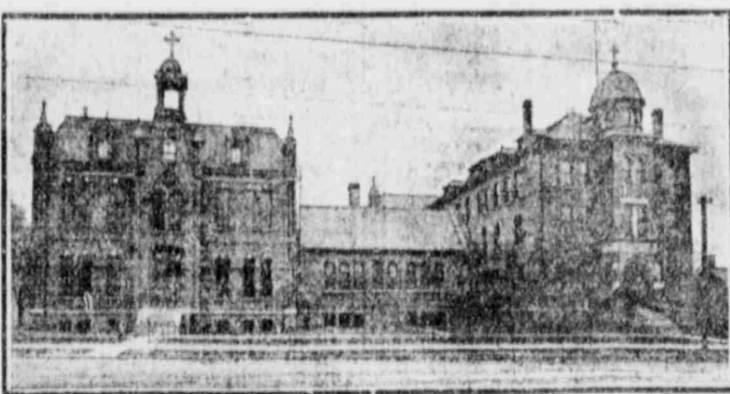
"However, don't get discouraged, and don't stop trying for a minute. In the end you will achieve your ambition."—New York Press.

\$1.00 and bank to stop race suicide. 43 W. 2nd South, Newell.

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