

BIG POSSIBILITIES

ALL ABOUT THE NEW MINES, RAILROADS AND COTTON PLANTATIONS OF WESTERN AFRICA.

WASHINGTON, D. C., Dec. 15.—Uncle Sam should keep his eye skinned as to the development going on in West Africa. That part of the world is practically unknown to us, and still its trade is growing like a green bay tree. All along the coast, from Senegambia to German Southwest Africa, railroads are building, experimental plantations are being set out, and here and there mines of various kinds have been discovered. Away down near the cape, in the German possessions, there is a place called Otavi, where valuable deposits of copper are now being mined. The ore in sight is said to be 300,000 tons, and it is claimed that it can be produced so as to net \$19,000,000 clear profit. Portuguese West Africa has copper, iron, petroleum and salt, and its oil and asphalt fields are now being worked by a British syndicate. I have already written of the Great Katanga concession, which King Leopold of Belgium is working in connection with the English on the watershed between the Zambesi and the Congo. This is to be reached by a railroad 1,200 miles long through Portuguese West Africa to the Congo Free State. It will open up larger copper deposits than any ever known, and will flood the world with that metal and with tin. The tin mines run through a range of hills 150 miles long, and the copper mountains are something like 300 miles in length. An extension of the Cape to Cairo road has just been projected to this great mining region, and within a short time it will probably be a beautiful industry.

There are valuable minerals in the northern part of the Congo Free State, and the French Congo contains gold, copper, and iron. Gold has been recently found in the Kamerun, belonging to the Germans, which lies just to the north; and a little beyond that is the famous Gold Coast, on the Gulf of Guinea, from which the English got the name of their \$5 gold pieces. The mines there have been worked for generations, and they are still turning out considerable. The output is now something like \$4,000,000 a year, which is 40 times the product of 1901. In 1905 217,000 ounces of gold were taken out, and there has been a steady increase in the product for more than five years. At present both quartz and placer mining is going on, and large crushing mills have been installed.

WEST AFRICA'S NEW RAILROADS.

As to the railroad development, it embraces the whole coast of the continent. The Germans have several large projects under way in southwest Africa. They have already built a line 27 miles long from Swakopmund, their port, near Walvis bay, to Great Windhoek, the capital; and they have made arrangements for a railroad 500 miles long to go from Swakopmund to Otavi and the copper mines. This road will probably some day be connected with the Cape to Cairo line running northward from Cape Town to the Zambesi; and, in that case, it will shorten the distance between England and Bulawayo by 1,300 miles.

The Lobito Bay railroad has already been constructed for a hundred miles or so inland from the Atlantic; and there are now several thousand laborers working upon it. This road will be over 1,000 miles long and it will be made after the usual South African fashion. Its gage is three feet six inches, and the rails weigh 65 pounds to the yard. The ties are to be of steel on account of the white ants, which eat everything wooden; they will weigh 70 pounds each. All the bridges are standardized, and the rolling stock is the same as that used in Rhodesia. Some of the engines are being built in England, but the heaviest ones are to

be supplied by the Swiss and the Germans. By the time this road reaches the copper mines the Capricorn Colliery, and the other coal fields, and the route to South Africa will probably change, as far as fast travel is concerned. Passengers will be taken to Lobito bay, thence by rail to the Transvaal, and especially to all parts of Rhodesia. There will probably be an extension to Lake Tanganyika, and we shall have a line across the southern part of the continent. There is no doubt of the completion of the Lobito bay road. The company which is interested in it is the one which owns the copper mines; and there are billions of dollars of minerals awaiting its traffic possibilities.

THE RAILROADS OF THE KONGO.

The Lobito Bay railroad will be largely controlled by the Kongo Free State. The king of Belgium and his associates own a majority of the stock of the great copper mines, and they will see that it is operated in the interests of Belgium's colony. It will probably be connected with other roads which will open to trade the navigable tributaries of the upper Congo, and will form a part of the extensive railway system which has been projected for that country.

Few people realize what is going on as new railroad building in the Kongo Free State. The Kongo river is as long as the distance from New York to San Francisco, and two of its tributaries are each almost as long as from the mouth of the Hudson to the Great Salt Lake. The navigable waterways of the system if stretched in one line would reach from New York to Singapore, or half way around the globe, and there are so many that there is not a spot in the whole Kongo basin, which is 80 miles distant from navigable waterways.

The biggest European steamers now go up the Kongo 100 miles from its mouth to Matadi. At that point there is a railroad 250 miles long, which climbs past the rapids to Stanley pool. This road has been in operation for a number of years. Within a short time a second gap on the river has been remedied by building a line just above Stanley pool 90 miles long, and a third line is projected of 200 miles far above that. This line is near Hell's Gate cataract and between Sendwe and Bull. Another railway is projected which will cross the lower Kongo to the copper mines, and others are to connect the Kongo with the Mediterranean through the French lines proposed for the Sahara desert, and with the Sudan system by railway from the Velle river to the Nile.

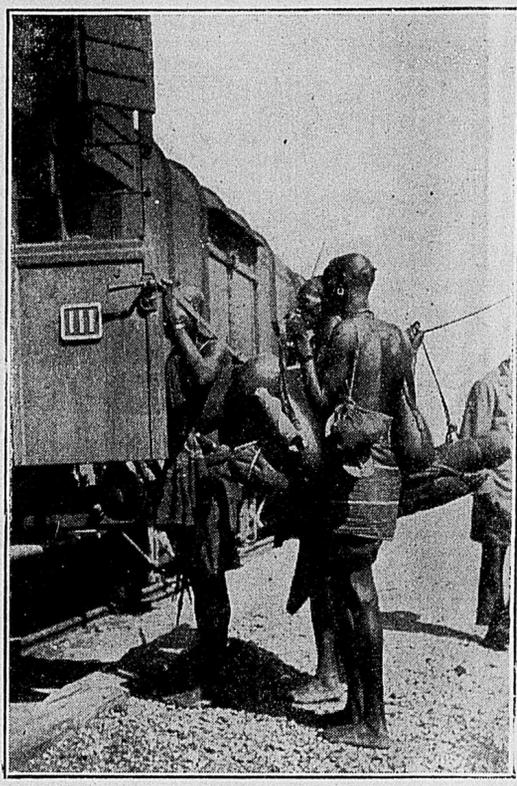
MOTOR CARS FOR MID-AFRICA.

Speaking of the Uelle region, this is in the northern part of the country approaching the Nile watershed, and until recently all transportation there has been by porters. Within the past year or so the government has been making roads and putting on motor cars and traction engines. There is to be one road from the Kongo to the Nile, which will be 600 miles long, and motor cars built especially for it are now being constructed at Liege. In addition to them very serviceable traction engines carrying cars each holding several tons of goods have been made, and these will be used for heavy freight. The Belgians are also training the African elephants as a beast of burden. They first tried the Asiatic elephants, thinking the African beasts intractable. The Asiatic elephants died, and about three years ago the work of training the African elephant was begun. Twenty-eight elephants have already been domesticated, and they are now carrying bricks and timber for railway construction.

THE GUINEA COAST ROADS.

Going northward along the gulf of

The Germans Have Copper Worth Millions and the British Much Gold—New Railroads All Along the Atlantic—The Lobito Bay Trunk Line and Its Connections—The New Nigerian System and the Railroads of the Kongo—Across the Desert to Lake Chad and Timbuctoo—How the Governments Are Educating the People—The Cotton Fields of the Guinea Gulf and Something About Rubber and Mahogany.



Photographed for the "News" by Frank G. Carpenter. NATIVE RAILWAY PASSENGERS.

Guinea, a number of other important railroads have been projected, and some are already under construction. In the Kamerun the Victoria Lassoko road has been extended as far as Soppo, a distance of 22 miles, and another railway is building. In Togoland, also belonging to the Germans, there is one railway 26 miles long, extending from Lome to Little Popo, and in French Guinea, a railway which is to run from Konakry on the Niger has been opened as far as Kindia. This is about 83 miles inland. The road will meet the Niger at Kourossa, and will have a big traffic. The French have also built two

important railroads in Dahomey, one of which is 140 miles long. Another goes along the Lagos frontier. They are extending both lines. They also propose to construct a track inland from the Ivory coast, and they have important railroads in operation in Senegal.

TO OPEN UP NIGERIA.

The English have some railroads in their colonies upon the Gulf of Guinea. There is one 124 miles long, which goes from Lagos to Ibadan. This has just been extended to Oshogbo, which is 62 miles farther, and it will be built on from there into northern Nigeria to con-

nect with Africa, one of the most important roads in Africa, which is now being constructed. Northern Nigeria is almost as large as Texas and it has more than 7,000,000 people. A great part of it is high and healthy, and it promises to be one of the richest lands of west Africa. Its inhabitants are more like the Egyptians or Algerians than the Gulf negroes. They are Mohammedans, and are noted for their thrift and intelligence. In the past these people have been supplied almost entirely by the caravans which cross the Sahara. Their chief town is Kano, the terminus of the trade routes from Tripoli and the Upper Niger, which in olden times had caravan connection with the ocean, with the Mediterranean, and with the Red Sea.

This road which is now building will make it possible to take goods to Kano by steam. It is to begin at the town of Baro, the highest navigable point on the Niger, and to extend from there 400 miles eastward to Kano. When this road is built all the supplies for northern Nigeria will be sent to the Gulf of Guinea up the Niger and inland by rail, and the caravan trade will be destroyed as far as crossing the Sahara is concerned. This will be a great blow to the countries alongside the Mediterranean.

A loan for this Nigerian railway has already been authorized by the British government, and I understand that the line is to be pushed with all possible speed. The track is to be of a forty-inch gage, and is to be completed within four years. The cost is estimated at about \$7,000,000 or \$8,000,000, and it will be met by bonds raised on southern Nigeria, the interest of which will be guaranteed by the government. As to dividends, the road will hardly pay much for some time to come. It will greatly develop the country, however, and it is advocated by the authorities as a military necessity.

A BIG TRANS-AFRICAN LINE.

These rich lands of Nigeria form an important link in another big scheme which is going through the Kameruns to the Gulf of Guinea and branch lines extending east and west from these two. The French part of the road may be built southward to Timbuctoo, or, what is more probable, to the southeast and strike Kano. I went over the first 400 miles or so of this road. It now extends from Oran along the border between Morocco and Algeria to Colmar Buchar in the heart of the desert. I also saw the railway which leads from eastern Algeria down to Biskra, in the Sahara. It is more probable that the latter road will be extended than the former, and I understand the survey from Biskra to Lake Chad has been made. The road will go to the oasis of Wargia and thence up the Ichar-say valley. It will cross the Atlas range of mountains at an altitude about that of the Alleghenies, and will thence make its way to Kuka, on Lake Chad. The cost of construction is estimated at about \$16,000,000 kilometer. From Kuka the Germans

are expected to take the road down through the Kameruns to the Atlantic, and there will probably be an extension westward to Kano to connect with the Nigerian line above spoken of, and also other branches which might connect with the roads of the Congo.

TO TIMBUCTOO BY STEAM.

Timbuctoo has always seemed one of the most inaccessible parts of the world. It will surprise many to know that it can now be reached by steam. The French have built a railway from Kayes to the Niger, a distance of 243 miles, and they have also a road connecting St. Louis and Dakar. One can go by steamer from St. Louis to Kayes, and on the vessels of the Niger from there to within a few miles of Timbuctoo. The time is comparatively short and the expense inconsiderable.

Timbuctoo itself has dwindled. It used to be one of the chief trading stations on the southern side of the Sahara, and caravans of thousands of camels from Morocco and Algeria came there every year. Today most of the goods go by this steam route, and the camel trade amounts to but little. Timbuctoo is now not even a mission center, and the old song has lost its meaning. You may remember it:

"I would I were a cassowary
In the wilds of Timbuctoo!
Wouldn't I eat a missionary,
Skin and bones and hymn book, too!"

EDUCATING THE NATIVES.

On the other hand, mission work is increasing in West Africa. The churches were never so strong nor the converts more numerous. The various governments have assumed their part of the white man's burden and are introducing schools at the principal centers. It is five years since the French adopted a uniform system of education for their West African colonies, and they now have 16,000 native children, who are receiving elementary instruction, and of these 3,000 are girls. Their expenditure on education there last year was a quarter of a million dollars. They have schools at all the towns of Senegal; at Dakar there is a technical school, and at St. Louis there is a normal training school, where interpreters and minor officials are taught. There are also schools in Dahomey and French Guinea.

The Germans are beginning to educate the natives at Togoland, and they have established a government school or so in the Kameruns. There are 16,000 children in the mission schools of the latter country, and 3,000 in the mission schools of German Southwest Africa.

As to the Kongo Free State, it has now 100 mission stations, with a little under 500 missionaries, of whom 211 are Catholics and the remainder Protestants. The missionaries co-operate with the government, as far as education is concerned, and the latter has formed three agricultural colonies, where 1,000 children are taught. In the Portuguese possessions, notwithstanding the outrages which have been perpetrated on the native in the way of slavery and forced labor, there are 52 government schools and also municipal and private schools with about 2,500 pupils.

SOME BIG POSSIBILITIES.

All of these West African colonies have big possibilities, and the European nations to whom they belong are investigating them. In nearly every one cotton is being planted, and in some the experiments are successful. Nigeria, for instance, expects to be shipping 100,000 bales to Europe by 1910, and so far the growth of the cotton crop has been as rapid there as it was at the start in the United States. I understand that it took our cotton belt 10 years after the first crop was planted to reach a product of 100,000 bales, and that 1,000,000 bales was only attained at the end of 35

years. Cotton was first planted in Nigeria in 1901 and the crop has doubled each year since then. It is only recently that any attempt has been made to raise it in northern Nigeria, but experimental stations have now been started there and steam ginneries are to be introduced. This movement is backed by the British Cotton Growing association, which has a capital of a million and a quarter dollars, and which is pushing cotton planting on both sides of the black continent. The Germans are now setting out rubber plantations in their eastern and western African possessions. I understand they are doing well in Togoland and the Kameruns, and I know that they are raising some cotton on the highlands about Victoria, for I saw the bales loaded on the ships when I navigated that lake.

RUBBER AND MAHOGANY.

An equally great interest is exhibited in the timber products of the several colonies. The rubber industry is being pushed everywhere and nearly every nation is setting out rubber plantations. The French have planted 10,000,000 rubber vines in lower Guinea and Dahomey, and they plan to set out a half million more trees every year. The Germans are raising rubber and so are the English. I have been much interested in the mahogany resources. A great deal of that wood is now being exported from Nigeria. Something like 900 logs were shipped from Lagos last year, and altogether about 7,000 logs, containing over 4,000,000 feet, were then sent away by the English. Considerable is shipped from the Ivory coast and from other localities.

FRANK G. CARPENTER.

MRS. McRANEY'S EXPERIENCE.
Mrs. M. McRaney, Prentiss, Miss., writes: "I was confined to my bed for three months with kidney and bladder trouble, and was treated by two physicians but failed to get relief. No human tongue can tell how I suffered, and I had given up hope of ever getting well until I began taking Foley's Kidney Remedy. After taking two bottles I felt like a new person, and feel it my duty to tell suffering women what Foley's Kidney Remedy did for me. F. J. Hill Drug Co., 'The Never Substitutes'."

HARD COLDS.

People whose blood is pure are not nearly so likely to take hard colds as are others. Physiology goes into the reason. Hood's Sarsaparilla makes the blood pure, causing healthy action of the mucous membrane and giving strength and tone to all the organs and functions. This great medicine recovers the system after a cold, as no other does. 7

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Like William Penn, May Wear His Hat in the Presence of a King.



WILL G. FARRELL, LIFE UNDERWRITER.

Americans spend money freely. \$150 for an engagement ring, \$25 for a wedding ring, and \$1 for plated safety pins for the baby, is the way in which some young folks start in life. This is hardly economy and in the eyes of some people is poor judgment, but let us see how it compares with other expenditures made by the people of the United States, where last year they paid:

For chewing gum and candy, ladies' kid gloves and Thanksgivings turkeys... \$ 147,000,000
For diamonds, other precious stones and jewelry... 395,000,000
For automobiles... 100,000,000
For coffee, tobacco, beer and alcoholic drinks... 2,060,855,448
A total of... \$2,702,855,448

For life insurance... \$479,104,894
Building and loan savings... 494,286,896
Education... 399,688,910
Taxes for federal government... 665,306,134
Fire insurance... 300,000,000
Charity, (governmental appropriations)... \$1,421,630
A total of... \$2,419,804,354

Making a difference in favor of the first group of... \$ 288,047,084

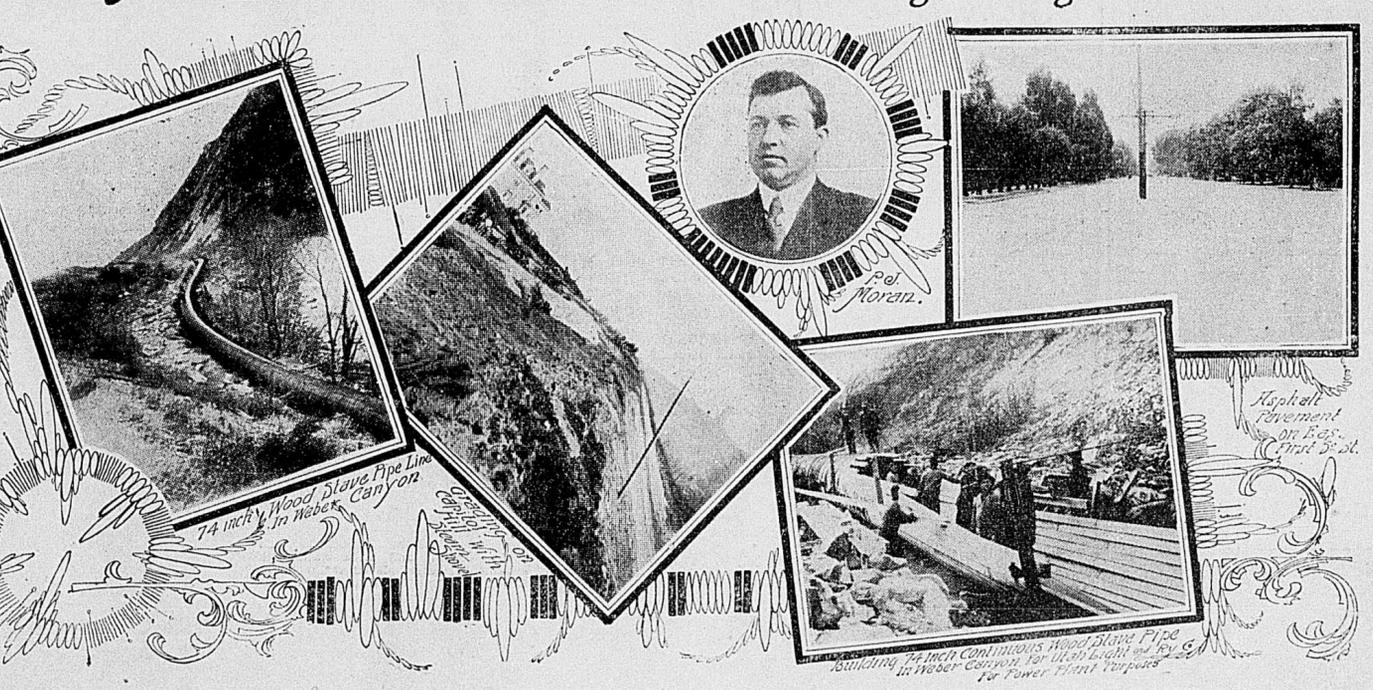
Nearly 86 adults in every 100 who die, have nothing in money or property to supply their needs. 90.1 per cent leave less than \$1,000, and only 3 per cent leave \$10,000 or more. In one almshouse out of 1,133 inmates, only three had been left any insurance, and 39 per cent of all the old men in the world are paupers.

If everybody should spend a little less than he earns, we would all soon be rich. If a part of the savings should be placed in life insurance, there would be no need of infirmaries, poorhouses or orphan's homes.

Men who truly devote their lives to insure society to attain to such a condition, are not only the beneficiaries of this work, but they originate and create the condition. Such men are chief factors in the cementing together of society. In Utah, a majority of those engaged in this work have organized themselves into a working entity called the Utah Association of Life Underwriters. Mr. Will G. Farrell, whose picture heads this column is its president. He is the state agent for Utah of the Penn Mutual Life Insurance company of Philadelphia with local offices at 411-414 So. Security Trust building, this city.

Any member of the association will give information concerning life insurance freely and without obligation on the part of the enquirer. All that the general public has to do is to place in a frank, postal card addressed to Mr. Farrell will bring a free booklet telling "The How and the Why."

P. J. Moran's Perfect Contracting Organization



SALT LAKE CITY improvement work accomplished this year surpasses as it did last year, all of the city improvement work done in all of the larger middle west and Pacific coast cities combined. It is likewise true that no city in the United States with the same population has spent as much money on street paving, water supply, sewers, sidewalks, and public works generally during the past three years, as Salt Lake City.

Salt Lake residents generally have but little conception of the great amount of material and labor used in this great upbuilding of the city. It is telling but the simple truth that by the statement is made that by far the largest part of Salt Lake City's public work this year as well as last has been done by P. J. Moran, than whom there is no better known contractor in the entire intermountain country. Facts and figures speak for themselves and some better idea of his vast undertakings this year can best be understood when some of the figures are given.

THIRTY CITY BLOCKS PAVED.
Cold figures, of course, carry but little impression when the great task accomplished is taken into consideration. As an example, 11 streets, embracing 30 city blocks, or four and one-half miles, were covered with asphalt pavement through Mr. Moran's direction. The material excavated amounted to 125,000 cubic yards and to fill the excavations it required 30,000 yards of concrete; 18,000 loads of sand and gravel, and 25,000 barrels of cement.

Mr. Moran during this year laid 145,000 square yards of asphalt pavement, which being laid in two courses, necessitated the usage of 30,000 tons of material for surfacing. Besides the above character of paving, Mr. Moran contracted for an undecompleted 15,000 square yards of other kinds of paving, including cement and stone block work. In this same connection, this enterprising contractor built 45,000 linear feet of curb and gutter.

The total material used this year by Contractor Moran in accomplishing the work done for the city would be 3,325,000 cubic yards, or 25 trainloads extending over a distance of 25 miles. The material which filled these cars included for the most part sand, gravel, asphaltum, etc.

It can be readily understood, that to accomplish such vast achievements in public works in Salt Lake City, completion of all contracts was made possible only by the use of the very latest machinery, the most modern methods of organization and through employing the very best skilled and common labor. Every working day this year Mr. Moran has had 100 teams and 350 men constantly at work.

STEAM SHOVELS USED.
In the grading of streets, steam shovels instead of plows and scrapers were used. This in turn accomplished at one fell swoop considerably more work than could be done by 200 workmen. But what is still more to the point, the paving accomplished is better, lasts longer and is more satisfactory in general by the steam process than by the former manual labor. All sand and gravel used in the making of concrete was hauled to a convenient point and there mixed in one of the latest concrete mixers which is operated by steam.

For excavating work, the latest improved trench diggers are used. Literally speaking, these great monsters in the art of contracting scoop up the ground, pile the excavated earth on either side of the trench, and in the outlook, the work seems as easily accomplished as a tot would dig sand with his shovel on the seashore.

MOST CAPABLE DIRECTION.
Those experienced in municipal affairs and people generally who have large projects to contract for understand that these large and varied undertakings are successfully accomplished only through the most perfect organization and capable direction. It is a well known fact that Contractor Moran's success in Salt Lake City in his various public work contracts was due entirely to his accurate knowledge of all the principals underlying the general public work contract business. Mr. Moran has a very keen foresight. It is a splendid organizer and is a keen judge of men qualified to join his organization.

EXAMPLES OF WORK.
In wages alone workmen for Mr. Moran earn between \$250,000 and \$275,000 a year. Aside from this fact Contractor Moran spends locally for materials, supplies and fuel an amount of money well up in six figures.

Mr. Moran is recognized in the state of Utah and throughout the intermountain country as a progressive contractor in the contracting business, who is entirely equal to the largest task which can be imposed upon him. He is just as painstaking in caring for a small contract as for a large one.

PROUD OF THIS CONTRACT.
One large contract which Mr. Moran is just completing and of which he is extremely proud is a 74-inch wooden stave pipe line in Weber canyon, Utah, for the Utah Light & Railway company. In this mammoth undertaking 1,000,000 feet of lumber and 20 carloads of steel bands have been used.

Each of the illustrations shows in itself just exactly what Contractor Moran has done and proposes to continue to do in beautifying and upbuilding Salt Lake City from a public work standpoint.