

What the French Are Doing to Open Up the Greatest of Deserts



TUNISIAN BRAKEMAN AT WORK.

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AT BISKRA, in the Desert of Sahara, May 15.—Special Correspondence of The Bee.—The railroad is bound to revolutionize the African continent. Already the iron horse, who breaths smoke and whose eye is fire, is beginning to light up the darker spots of these blackest regions on the globe. The work is rapidly going on in eastern Africa, where they are building a line from the Cape of Good Hope to Cairo. This has been extended from the Mediterranean southward for a distance as great as from the Atlantic to far beyond the Mississippi, and the extension from Cape Town to the north is greater still. The Rhodesia railway system reaches the Zambezi river in 1905. During the last year it was extended beyond that point at the rate of almost one mile per day, and it is now at the Broken Hill mines, within less than 800 miles of Lake Tanganyika. I expect to go along the greater part of this route before I leave Africa, and will be able to describe the various stages. Of all the continents the coast of both east and west African railroads are being built into the interior, which will give access to the central and southern parts of the continent. Here in the north the French colonies have an extensive railway system; Egypt is crisscrossed with trunk lines and below this point along the Nile and in the Congo valley.

Africa Versus the World.

In fact, railroad building is now going on in Africa about as fast as in any other part of the world. The continent is increasing its mileage at the rate of over 30 per cent per year, and while it has not the fewest lines of any of the grand divisions of the globe, its means of communication are rapidly growing. At present the chief railroad continent is North America. It has between 250,000 and 300,000 miles of iron tracks. Next comes Europe with less than 200,000 miles, and after that Asia with something like 100,000. Australia has 15,000 miles of railroad lines, and Africa a little over 15,000. Of all the countries of the world the United States leads in its iron highways. We have more tracks than all Europe, and three times as many as all the continents outside ours. Here in Africa the principal railroads may be grouped into three systems. The first embraces the Tunisian-Algerian roads of the Atlas mountains, the second the Egyptian lines and the third the South African roads, which have a greater mileage than those of the other two systems combined.

Railroads of the Atlas.

In this letter I shall deal only with the railroads of northwestern Africa, and of several which the French are projecting across the Sahara. During the past few months I have traversed nearly every mile of track in the region of the Atlas and have gone over the roads which are being pushed down into the desert. I am writing these notes at Biskra, in the Sahara, at the end of a railroad which takes one almost 200 miles south of the Mediterranean sea, and I have already inspected the military line which goes down the desert far below this point along the borders of the Morocco.

It is generally claimed that the French are not good colonizers, and that they are allowing their vast possessions, scattered here and there over the world outside France, to remain as they were when they obtained them. This is not so as to Africa. The fertile parts of Algeria and Tunisia are covered with railroads. There is a line about as long as from Philadelphia to Chicago with branch lines to the north and south, connecting the ports with all parts of the Tell.

Algeria alone has now more than two thousand miles of railroads, and its railway receipts are between \$5,000,000 and \$10,000,000 a year. There is a heavy freight traffic, and the second and third class passenger cars are always well filled. There are sleeping coaches at high rates between Oran and Algiers, and one can go across a great part of north Africa by sleeper.

In Tunisia, which is almost as big as the state of Illinois, there are now something like 600 miles of railroads. They are mainly confined to the northern part of the country, although there are some lines running down the shore and to fertile deposits which lie there. These roads are all French, and the Tunisian government has recently authorized large appropriations for their extension.

A part of the Algerian system belongs to the government, and another part is in the hands of some of the French railroad companies. This is so of the road from Oran to Algiers; it belongs to the Paris, Lyons and Mediterranean corporation, and its chief offices are in France. The Sahara lines are largely military, and they could hardly exist without government support.

Railway travel in northern Africa is far different from that of the United States. In comparison with us these people are still a century or so behind the times. Express



FREIGHT TRAIN OF THE CENTRAL SAHARA.

paper so arranged that one-half of each receipt can be given to the passenger and the other doubled up and tied with a string to the baggage.

Most of the natives carry their belongings in bags and unlike coffee sacks and much of the checked baggage is of that nature. At the depots the poorer Arabs throw these bags over their shoulders and march off with them.

First and second-class passengers take numerous valises and bundles into the cars. I am now traveling with nine packages and all go into the car. At every stop and start the porters take all my stuff in and out for me and the rates are so low that the cost of handling is little. Four cents is a big enough fee for one man and one good, lusty Arab can carry my baggage.

In the Cars.

The first and second-class compartments are comfortable. I am traveling first class, and sometimes I have a compartment for myself and son. The cars are divided into little box-like rooms by partitions, which run across from one side to the other. They are usually entered from the sides and it is not possible to go through a whole train, as in our country. The seats are well cushioned, and as the sides are walled with windows the opportunities for seeing are good. The second and third-class cars are divided up in the same way and the second class is almost as good as the first.

The third-class seats are bare board benches and they are usually filled with Arabs, Moors and Kabyles, with a sprinkling of private soldiers. The latter receive wages of only about 1 cent per day, and hence cannot travel in luxury.

Eating Arrangements.

Within the past year or so dining cars have been put on some of these Algerian trains. Others stop at the stations for luncheon and dinner, and at every station there is a lunch room, called a buvette.

The usual rate for dinner is about 40 cents and for that sum one gets an excellent meal with a quart bottle of white

or red wine thrown in. Luncheons are often put up and brought to the cars at a cost of about 30 cents each. For that one gets two bottles of roast beef or a half chicken, several boiled eggs and a few olives, sweet cakes and fruit. There is always a quart bottle of wine put in. The wine is good and the food is excellent.

Railroad Employees.

I have not the railroad wages at hand, but they must be exceedingly low. Every station has a large number of officers and soldiers. A cross-road depot which in our country would hardly be thought worthy of an agent requires a half dozen guards and the large stations proportionately more. There is always a chief depot manager, a baggage master, a telegraph operator, a ticket seller and a number of porters. It takes a half dozen men to start a train. The engineer whistles, one of the guards rings a bell and others run from car to car and shut the doors while they cry "Get on, gentlemen, if you please."

On the cars themselves there are many employees. There are engineers, firemen and brakemen afoot. Every train has its mail clerk and its baggage man and often an express messenger as well.

New Railroads for North Africa.

The railroads of Algeria and Tunisia at present have a length of about 300 miles. The new lines projected number many thousand miles more, and in the near future the railroad system of this part of the world will probably be several times what it is now. One of the most remarkable of the new schemes is fathered by the young khedive of Egypt. His majesty is rich and he has trouble in investing his surplus. He proposes to build a railroad from Egypt to Tripoli which may be extended on around the Gulf of Gabes and thus connect with the railway system of Tunisia.

Another scheme is to build a line through the Atlas mountains of Morocco to Tangier, the two projects completing a great trunk line from the Nile to the Atlantic. The Morocco scheme cannot be attempted in the present condition of that country, and it is doubtful whether the travel and freight of the region between Tripoli and

the Nile would ever make that part of the road pay. The length of this trunk line, all told, would be about as long as from New York to Salt Lake City, and fully two-thirds of it remains to be built. Here in Algeria and Tunisia there are roads running east and west about as far as from New York to Chicago, and in Egypt the khedive has already built something like sixty or seventy miles from the Nile westward.

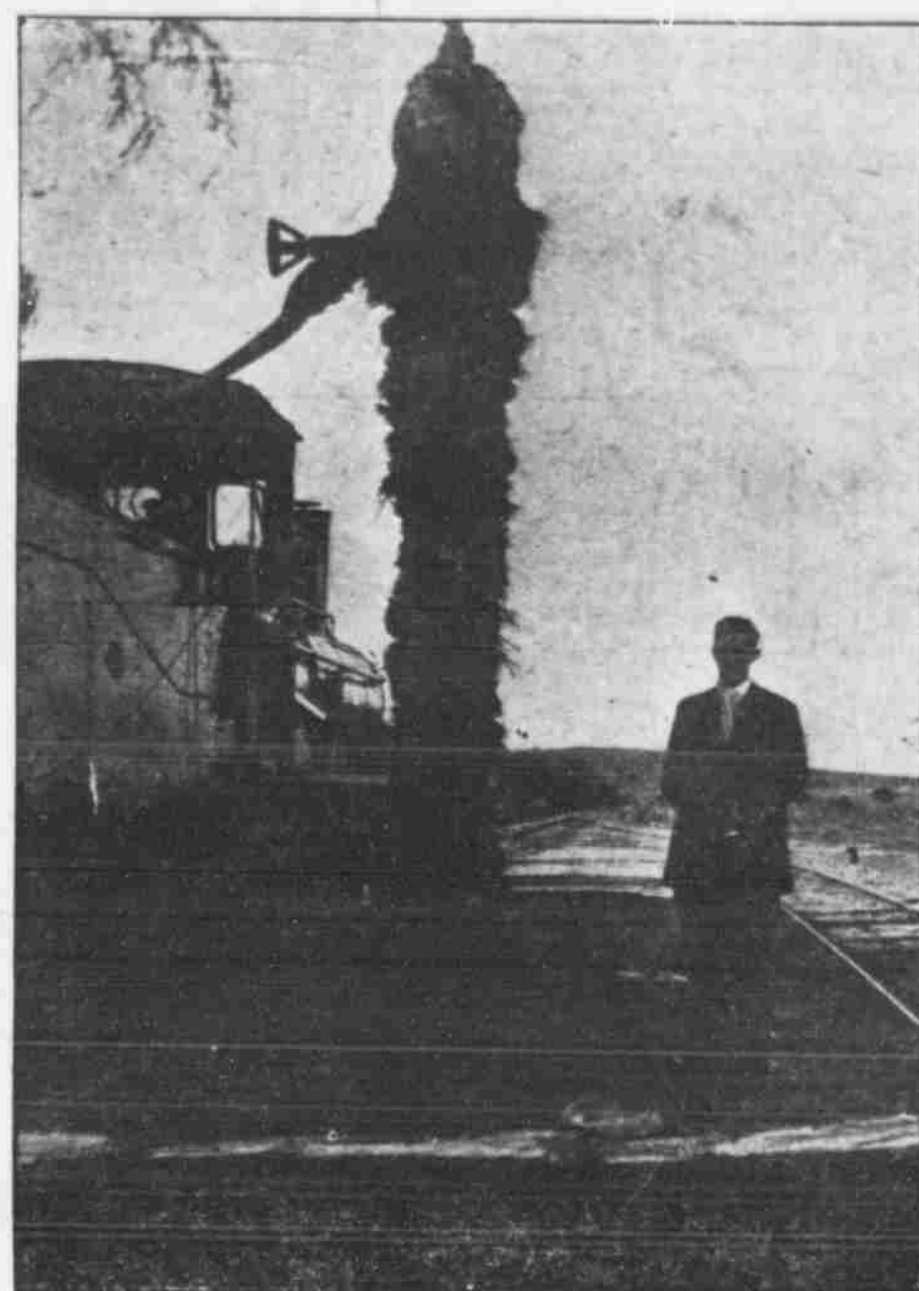
On the Libyan Deserts.

A part of this route goes along the Mediterranean through the Libyan desert. The khedive has traveled on horseback over this section and was surprised to find that the country has rich soil and that it once supported a large population. Everywhere he met the ruins of the Roman Empire. There were ruined towns and villages and enough stones in them to build a hundred new settlements. Here and there he crossed rich oases, and he has advanced the opinion that his road will pay. The part already built is now doing so, and he has widened the gauge to accommodate the traffic. If it should ever be completed to Tunisia, and the Morocco extension made, it would bring Africa within four hours of Europe by way of the Strait of Gibraltar, and there will be a probable connection with Asia by a road which might be built from Cairo to connect with the lines now going south through Damascus and Jerusalem.

Morocco's Railway Possibilities.

As to Morocco, that country will eventually form a live field for railroad engineers. It is now in such an unsettled state that the powers will have to take hold of it within a short time. Both life and property are unsafe, and it is impossible for foreigners to travel through it.

Morocco is one of the richest countries of Africa and one of the best governed and most backward. It has ten or more million population and it is said to be far richer than either Algeria or Tunisia. Excepting the French regions of the Desert of Sahara, Morocco is almost as large as these two countries put together, and it



WATER PIPES WRAPPED WITH STRAW TO PREVENT EVAPORATION.

has no roads nor any highways of communication except bridle paths. It has some large cities, such as Fez, Marrakech and Mekinez, and eight or more coastal ports. The country is such that railroads could be easily built through it, and I am told that the natural resources would eventually make the roads pay.

One of the first lines to be constructed in Morocco will be from Tangier, the port opposite Gibraltar, to Fez, the capital. The distance is 175 miles and at present all the freight between the two cities is carried on camels, donkeys and mules. Travelers usually go upon horses and they must always be accompanied by soldiers or pay a tribute to the tribes along the way.

Another scheme is to extend the Western Algerian road, which now goes to Tlemcen, on to Fez. This would connect the chief capital of the sultan with the French colonial railway system and give Morocco access to almost three thousand miles of railroad communication.

Still another road proposed is that from Mequinez to Marrakech and Fez. This would furnish Fez with a short route to the Atlantic ocean. This was the line favored by Si Mehdi el Menebbi, the ex-

minister of the sultan. Both the French and the Germans are now after railway concessions in Morocco.

Railroads Across the Sahara.

More interesting than any of these schemes are those which are planned to connect the rich regions of the Atlas mountains with the Sudan, that great fertile, healthy belt of north central Africa. The Sudan runs clear across the continent from the Nile to the Atlantic, and it is wonderfully rich in resources and people. The barrier between the two regions is the great Desert of Sahara, which is as long as the Mediterranean and as wide as from the Atlantic ocean to the Rockies. It is in this desert that I am now writing. I have ridden for many miles over its rocky wastes of stone and sand and have climbed the mountains and plateaus which are found here and there in many parts of it.

The Sahara itself is neither level nor low. It has vast plains where the sand stretches out on every side to the horizon, but there are many places where the country is rolling. There are gorges along the beds of dry rivers, there are mighty bluffs of stone and no end of hills and mountains. I am in sight of the chief range of the Atlas at Biskra, and its hills are dryer than the Sahara itself. I rode for several hundred miles along the range which separates Algeria and Morocco. The sands of the desert go to the foothills and pile up there in great masses, while the slopes above are absolutely bare of vegetation, and altogether arid.

The average level of the Sahara throughout is as high as that of the Blue Ridge mountains in Virginia. There are but few places where it drops to 500 feet above the sea, and only one or two in which it falls below sea level. Lake Chad itself is several hundred feet above the ocean.

In the lower part of the central Sahara, on the upper edge of which I am now writing, there is a plateau extending from northwest to southeast, which is on the average more than 2,000 feet high, and upon it there is a mountain range which rises in places to almost 10,000 feet. The mountains are so high that they are crowned with snow in the winter. In the western Sahara the country is almost equally rough, and there is much rolling land in the Desert of Libya, at the east.

Poor Place for a Railway.

In addition to its rolling character the desert offers many obstacles to railroad building. One is the long stretches over which the track must go without water, and another is the enormous cost of hauling the fuel. A Colorado locomotive, for instance, will burn 50 tons of coal, and the French are building southward toward Timbuktu, coal is now worth \$2 a ton, and unless mines can be found along the line of the route, a cheaper fuel must be obtained or the extension abandoned. The stations at present are, chiefly, just the boxes, but even there the pipes which supply the water tanks are wrapped with straw to retard evaporation and every means is used to increase the water supply.

The Sahara itself can furnish but little support for a railroad. It is peppered with oases, but the fertile spots are far apart, and it is only in such regions as the Fusan, Twat and Taflet, where there are a large number of oases together, that there will be many passengers or much freight. The Sahara has, all told, about 80,000 square miles of oases, but these are scattered over a region larger than Europe and many of them are unproductive. The most fertile are the oases of Timbuktu, but the probability is that they number but some fifty and one hundred million souls. There are, sometimes, like twenty-five millions in Nigeria alone, and the French and German provinces contain many millions more. There are big towns there, such as Kuka and Kano, which are now caravan centers, and others, such as Timbuktu, which were cities once, and which would be great cities if a railroad could be built to them.

At present the caravan trade is falling off. The trains of 1,000 or more camels, guarded by soldiers, which used to start across the Sahara with perhaps a half million dollars' worth of goods, consisting of ivory, gold dust and slaves, have dwindled to one hundred camels or less, and the caravan trade diminishes every year. It still carries some European merchandise across from Tripoli, Tunisia and Algeria to the Sudan, but most of the goods for that

are carried by the camel. The Sudan is far different. It has an enormous population of native blacks. No one knows how many there are, but the probability is that they number between fifty and one hundred million souls. There are, sometimes, like twenty-five millions in Nigeria alone, and the French and German provinces contain many millions more. There are big towns there, such as Kuka and Kano, which are now caravan centers, and others, such as Timbuktu, which were cities once, and which would be great cities if a railroad could be built to them.

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Warm Friend of America in Days of Revolution

ROCHESTER, N. Y., May 18.—One of the men who did most for the development of America before the Revolution was James D. Le Ray, a Frenchman, who, like his father, the Count de Chaumont, was one of the best friends of the American cause during the revolution. The aid which these two gave to this country at that time has been compared to that of Lafayette. Now has been written about them and it remained for Dr. Charles W. Collins, historian of the Franklin County society, to search out their deeds and give them credit for their part in the early history of the country and the state. The result of Dr. Collins' work appears in a little magazine called Forest Leaves which is published in connection with the work done for consumptives at Sanatorium Gabriela in the Adirondacks.

"Among the great men associated with the early history of Franklin county," says Le Ray de Chaumont, son of the Count de Chaumont. He was born at Chaumont, on the Lorie near Blois, France, on November 12, 1760, was educated at the celebrated college of Juilly and at 17 became a courier of Louis XVI and Marie Antoinette.

He was a handsome, distinguished, intelligent and noble birth, and soon became a court favorite. No Frenchman had better prospects of social and political advancement when the arrival in France of Benjamin Franklin changed the entire course of his life and eventually led him to the wilderness of northern New York.

His father, the count, believed in the doctrine of Rousseau, and when the revolution started he became an advocate of American liberty. He received in his palace in Passy the American commissioners when they reached Paris, and Franklin remained a guest of his household during the eight years of his sojourn in France.

Louis XVI could not receive the commissioners without danger of precipitating a war with England. The Count de Chaumont was an officer of the government in the same fix, so he resigned his post, although he was about to join the French ministry, and as a private citizen took up negotiations between the king and Franklin which finally resulted in the French recognition of American independence.

In a letter to Washington in 1879 Franklin said that Chaumont was "the first Frenchman who gave us credit before the war, and he was the only one who trusted us with 2,000 barrels of gunpowder and from time to time afterward exerted himself to furnish the congress with supplies of various kinds."

The various supplies mentioned included food, clothing, muskets, cannon, ships of war, and money. In fact these were absolute gifts and more than half of Chaumont's great fortune was used in advances to the American cause. Some of the advances were provisional loans, but nothing was expected in return until the colonies achieved independence and the new nation became abundantly able to discharge its obligations.

To all of his father's work the son, James D. Le Ray, gave his most enthusiastic as-

stance and he learned the English language and American doctrines from no less a teacher than Franklin. For months Le Ray was engaged in providing clothing and equipment for Lafayette's army and he was his father's first lieutenant when Paul Jones' famous fleet was purchased and equipped.

Dr. Collins considers the work of the Chaumonts quite as important as that of Lafayette and he remarks upon the fact that these noble Frenchmen are almost unknown in America, while the name of Lafayette is a household word. He finds a parallel in the case of Robert Morris, the great financier of the revolution, who died in poverty, neglected, and of whom not even a biography was written for more than a century. But recent historians are giving to Morris a just measure of fame, he says, and it may not be a far cry when the American people will put Count de Chaumont and his son in the first rank among the men who made the republic.

The American loans caused financial difficulties for the count, and two years after the end of the war he sent his son to this country to try to arrange a settlement. Washington, Morris and Franklin urged the claim, but an indifferent congress al-

lowed five years to pass before voting an adequate appropriation. During this delay the young Frenchman formed intimate friendships with eminent and progressive Americans, so his time was not lost. Among these men were Gouverneur Morris and William Constable. Le Ray renounced his title of nobility and allegiance to France, became an American citizen and married an American girl, Miss Grace Core of New Jersey.

The American citizenship later proved extremely valuable to him. When he returned to France to put his father's affairs in order he escaped arrest during the French revolution because he was an American, and was also able to keep the family estate from confiscation.

In 1794 Le Ray was special envoy of the United States to Algiers, and again his citizenship proved useful. The Count de Chaumont was arrested as a royalist and would have been guillotined but for the intervention of his son. The American envoy's threats were too much even for the half mad revolutionists, and the devotion to the American cause which the old count had shown years before resulted in the saving of his life and fortune. At this time Constable, Moseomb and McCormick had effected their great pur-

chase of northern New York lands and William Constable was in Paris negotiating for the sale of 30,000 acres of wild land in what are now Lewis and Jefferson counties to Pierre Chassanis. Le Ray's brother-in-law, Chassanis and his associates planned to found cities in America where refugees from the reign of terror could find peaceful homes.

They organized the company of New York, known later as the Castorland company, whose story of high purpose and culture is one of the most romantic in the state of New York. After the futile attempts of the Chassanis syndicate to colonize, Governor Morris and Le Ray took charge of the property and Le Ray eventually became principal owner. He also purchased of Constable vast tracts in the present counties of Jefferson, St. Lawrence and Franklin, and the great work of his life began.

He established his residence and offices in Jefferson county, where the homes of his agents, surveyors, clerks and servants formed the village of Lerayville. From this center the work of developing the country progressed rapidly. Explorations were made, roads were built, mills erected and the region was prepared for settlement.



NOTE OF JAMES D. LE RAY AT LERAYVILLE, NY, ERRECTED IN 1868.