

The Iron Gateway to the Sudan

All About the New Railway Across the Nubian Desert From
Atbara to the Red Sea.

ATBARA.—I have come to Atbara to describe the new railroad which the British have built from here to the Red sea. The road begins 20 miles north of Khartoum in the heart of the Nubian desert, and goes over the sand and rock, up hill and down, for a distance of 222 miles to Port Sudan. It crosses one of the blackest deserts on earth. There is no vegetation at all between here and the Red sea, until within about five miles of the coast, where there is a scanty growth of thorn bush and acacia, which feeds small flocks of camels and sheep. The only inhabitants of the desert are some Nubian tribes, who go about from place to place, living in tents of matting, wearing purple and blue robes, and carrying on their backs their flocks and camping down by the occasional wells.

The Red Sea road was opened a little more than a year ago. It began doing business as soon as it was finished, and it now has more freight than cars. All the trade of the Sudan will probably go over it, and, it is believed, much of the tourist travel as well. Already the Mohammedan pilgrims, from central Africa and the whole Upper Nile valley are taking this railroad on their way to and from Mecca; some of the tourists who go up the Nile are returning by the Red sea and ship are now sailing regularly from Port Sudan to Suva.

A GREAT FREIGHT ROUTE.

This road is bound to make a great change in the freight rates to the Sudan. All the goods of the past have been landed at Alexandria and carried by rail or boat up the Nile to Khartoum, a distance almost as great as from New York to Chicago. There it has been taken by steamers to Wady Halfa, and thence on trains to Khartoum. The railroad freight had to be transferred on its way to Khartoum, being taken from the broad-gauge cars at Luxor, and placed on the narrow gauge from Luxor to Assouan. All of these transfers were costly, and the freight rates were high and the traffic slow. Now ships go right through the Red sea canal to Port Sudan, and from there the goods are taken by rail to Khartoum. There are excellent shipping facilities and the freight is transferred almost direct to the cars, which by one continuous 200-mile haul land them in Khartoum. In the past wheat could be sent from Chicago to Liverpool at a lower freight than that which formerly prevailed between Khartoum and Wady Halfa. The cause for this was the high price of coal, as it all had to be brought up the Nile from Alexandria and onward by ship and road. The coal is now coming in from the Red sea and the Egyptian government is erecting shipping facilities to accommodate the traffic.

THE ATBARA RIVER.

But first let us give you some idea of the station which forms the terminus of the Red Sea railroad. Atbara is right in the heart of the Libyan desert. It is about 20 miles north of Khartoum at the junction of the Atbara river and the Nile. It is also at the junction of the Red Sea road with the great trunk line which is to go from Cairo to the Cape. The northern section of the latter starts at Alexandria and runs northward through here to Khartoum, where the Blue and White Niles come together and form the main stream. The Atbara river, which can be plainly seen from this station, is the last branch that the Nile has between this point and the sea. The Atbara rises in the Abyssinian mountains and it carries down to the Nile every year millions of tons of the rich Abyssinian mud which makes so fertile the Lower Nile valley. During a part of the year this river has a volume which compares with that of the greater rivers of the world and at other times much of it is as dry as a bone. From March until June you can walk across it in most places without wetting your feet and there is only water here and there collected in the depressions and pools. These contain hippopotami, crocodiles, turtles and fish. This is the case for about 150 miles above Atbara.

The great floods begin in July and last until October. Then the waters are about 20 feet deep and they roll down the great river from a quarter to a half a mile wide. There are a reddish color and are loaded with the volcanic dust of which the Abyssinian highlands are made. When the floods come they bring down masses of driftwood, upon which are sometimes to be seen the dead bodies of elephants and buffaloes. The waters come with great force, and the Atbara bridge, over which the railroad crosses the river, has to be strong to withstand them.

MADE BY YANKEES.

It seems strange to me when I look at the mighty steel spans which cross the Atbara and reflect that John Bull had to hire Uncle Sam to make them for him. The Atbara bridge was constructed by one of our bridge-building companies and was sent here in sections. It consists of six great steel spans of 200 feet each, built upon piers which extend about 30 feet down under the river to the bed rock. The bridge is well built and I am told that it easily withstands the great floods.

A DESERT RAILWAY CENTER.

Atbara might be called one of the

railway centers of the Sudan. Lying at the junction of its two chief lines, it has the principal offices and shops, and is the home of the director, Capt. E. C. Midwinter, D.S.O. It was through a letter from the governor general that I met Capt. Midwinter, and had a long talk with him about this new road to the Red sea. He had a part in building the line and is now its manager. We first visited the railroad shops, which lie here in the sands of the desert, covering two or three acres of the blackest part of the earth. They are great steel and iron and plate glass. There are locomotives, cars and steel ties and telegraph poles lying outside, and going in I found all sorts of railway repair and construction work were going on. The machinists were a mixture of whites, blacks and yellows, representing a half dozen different nations and tribes. There were British, under the direction of a British engineer, and a Greek and Italian mechanics. Nubian blacksmiths, and many Nubian boys, who were taking a sort of manual training course in order that they may serve as locomotive engineers, under the direction of a British engineer. The machinists are of modern make and the shops are about as well equipped as our shops at Panama.

HOW THE DESERT RUINS RAILROADS.

As we walked from the shops and from planning machine to planning machine, Capt. Midwinter pointed out some of the peculiarities of the desert and the way in which it ruins upon railway materials. "Here," said he, as he pointed to the wheel of an American locomotive, in which was cut a groove so deep and wide that I could lay my three fingers in it. "It is an example of how the sands ruin our car wheels. The desert is covered with grains as hard as sand. They blow over the rails, and as the cars move they grind cut the steel as though they were emery powder. As a result a wheel's life is short, and we have to cut down its life every few months. Moreover, the sand gets into the bearings, and there is a continuous wearing which necessitates almost constant repair."

"How about your sandstorms?" Are they serious obstacles to traffic?" "At times, yes. They come with such violence that they cover the tracks; they darken the sun so that when you are in one you cannot see your hand before your face. They often spring up at night, and you can watch them coming. At such times the sand gets into everything, and we have to put in extra boards to fill up. This is so as to all sorts of woodwork."

THE DESTRUCTIVE ANT.

"Another trouble is the white ant," Capt. Midwinter continued. "That little termite eats anything wooden. It chews up the insides of our cars and even attacks the furniture. Where there is the least moisture the ants will go for the railroad ties, and they will also chew out the insides of the wood telegraph poles. They always work at night, leaving a thin shell of wood outside. The result is that a tie or pole may look sound, but all at once it crumbles to pieces. We have to inspect the road very carefully at regular intervals and watch out for weak points. We are now using steel shoes as ties. They do not make so smooth a road as the wooden ties, but the ants cannot eat them. We are also using steel telegraph poles."

AMERICAN VS. BRITISH LOCOMOTIVES.

"I understand that you have some American locomotives. Do they compare with those from Great Britain?" "Not well," replied the railroad director. "We have some of your engines which we bought seven years ago. We are still using them, but most of them have been repaired and made over. You people make locomotives, expecting to run them to their full capacity for four or five years and then throw them on the scrap heap. This is not advisable out here in the desert, where freight costs so much and the trouble of getting our rolling stock is so great. We want machinery that will stand all sorts of trials, including the climate. We want it rugged and self-repairing and heavily made all around. We have here not only the dry air and the sand to contend with, but in the neighborhood of the Red sea, also the salt air and the alkali water. The latter ruins our boilers, and more so, in some respects, than the sand. Take a look at this English locomotive which has just been sent in for repairs. Its boiler is full of holes. That comes from the alkali water."

DESERT WATER STATIONS.

"I suppose the lack of water is one of your chief difficulties. Is it not?" "Yes. This railroad is over 200 miles long and the track is laid through the sand. For about one-third of the distance inland from the Red sea the country is mountainous, but the rest is flat. There are no streams, and we have to rely on ar-

It Was Opened in 1906, and is a New Highway to Central Africa—How it was Built And Queer Features of Travel Upon it—A Talk With its Manager—Desert Railways and How the Sand Cuts the Wheels—American Versus English Locomotives—The Sirdar Chats About New Railroads For the Upper Nile—The Central African Telegraph System—A Look at Port Sudan, The New City on the Red Sea.



THIRD CLASS CAR ON THE NILE AND RED SEA ROAD.

Photographed for the "News" by Frank G. Carpenter.

testian wells for our water supply. We have bored a number, but we find that the water in many places is salt. We struck one which had three per cent salt in it, and another in which the water was one per cent salt. Of course such water is useless for our locomotives."

"We are having trouble also in getting a good water supply at Port Sudan. We sank one well to a depth of 400 feet and struck a good flow of fresh water. We had hardly completed it, however, before the salt water from the Red sea began to seep in, and we are now drilling again. There are some stretches along the route where there is no water whatever. In such places we have to carry our supply with us. For this we have taken of galvanized iron, such of which will hold about 1,500 gallons."

TRAVEL ON THE RED SEA RAILROAD.

"With all this, Capt. Midwinter, can

you make your road pay?" "I think so. It is the shortest cut to the Sudan and Central Africa, and it will have the most of the carrying trade of that region. The country is vast, and it is just now on the edge of its development. Goods will be brought over the Red Sea road to Khartoum, and thence sent up the White and Blue Niles. We shall have new roads going out from Khartoum connecting the Nile with all parts of the country, and both the rivers and the road will be feeders for this line of ours."

THE SIRDAR ON RAILROAD BUILDING.

Speaking of the railroad of the Sudan, during a conversation with Sir Reginald Wingate, the governor general at Khartoum, I asked him several questions as to their possible future. He said:

"The development of the country depends largely upon railroad building. The road from the Nile to the Red

Sea is already increasing our trade, and it will do more as soon as we can bring the cars right into Khartoum and Omdurman. We are building a bridge across the Blue Nile, which will take it down to Omdurman. The road will probably be soon extended into Gezireh, the plain which lies between the White and Blue Niles, and we shall have another extension running off into Kordofan."

HOW ABOUT RAILROADS FROM THE SUDAN TO ABYSSINIA?

"There will come some time, but whether their building will start from the Sudan or from Abyssinia remains to be seen. There is talk now of extending the railroad which runs from Djibouti to near Hayer clear across Abyssinia and on into the Sudan to Khartoum. There are no natural difficulties in the Sudan to prevent such a construction and the same is probably

the "Shakespeare" manuscripts are hidden at Crosby hall may be proved or disproved comparatively soon. For unknown within a few weeks \$50,000 is raised in addition to the \$250,000 already pledged, this fine old relic of feudal times in London will be demolished to make way for the modern office structure. We have members of the aristocracy, great business men, small shopkeepers, and one of our most earnest adherents is a porter on the underground railway."

BEG NO MONEY.

"We make no appeal for funds, money flows in freely to us from our converts, who are grateful for the benefits they have received from our teaching. We have never had any difficulty in finding all the money needed for all the work we could undertake, and as our numbers increase our work and the available funds for it will increase in proportion."

SOME LARGE CLAIMS.

"Thoughtful people all over England are turning to us. They are beginning to realize that the old churches do not satisfy their spiritual requirements. In the army and navy we are gaining the very pick of the officers from the highly trained technical branches, who must be men of sound intellect and education. We are getting the flower of the aristocracy, and we are winning the best of the middle and working classes."

MYSTERY OF "SHAKESPEARE" MAY BE SOLVED.

(Continued from page sixty-five)

experts that the real author of the plays now attributed to Shakespeare was no other than Henry Wriothesley, third Earl of Southampton."

MAY BE DEMOLISHED.

Whether the British government pays any attention to Nichols' suggestions or not there is more than a chance that the latter's assertions that some of

the of Abyssinia. It is also a possibility of the far future that the railroad from the French Congo and those of the Sudan may be joined."

THE CAPE TO CAIRO LINE.

"How about the Cape to Cairo road?" "I doubt if whether there will be an all-Cape. We shall probably have a steam route, and that at no distant time. The navigation of the White Nile short line of railroad around one or two places, we could send steamers from here to the great lakes of central Africa. We are now sending them as far as Gondokoro on the borders of the Belgian Congo. We have a monthly service to that place, and it is over 1,100 miles from Khartoum. The trip takes about two weeks. The trip made in comfortable steamers. We have also steamers going up the Blue Nile and are gradually exploring the several branches of the White Nile. Our steamers on the main stream of the White Nile are now carrying tourists, and we have boats which leave on the 15th of January and 15th of February. They are fitted throughout with electric lights, have hot and cold baths and some good double berth cabins. They carry a sufficient number of stewards and servants to supply comfortable accommodations."

CENTRAL AFRICA'S LONG TELEGRAPH ROUTE.

The sirdar tells me that telegraphic communication is being rapidly opened up along the Sudan part of the Cape to Cairo route. Khartoum has a direct connection with Egypt on the through her with all the rest of the world. The wires have been strung from Khartoum almost to the Belgian Congo, and the time this letter is published this place will probably be in direct communication with Entebbe on Lake Victoria, near the source of the Nile. There are now more than 4,000 miles of telegraph working wires in the Sudan; and last year more than 230,000 private telegrams were sent over them. There is one line which goes to Tadmek, at the junction of the So-

bat with the White Nile, and there are wires going some distance up the Blue Nile. Above Tadmek there is a great swamp through which telegrams are carried weekly on small launches to another telegraphic station farther

FRANK G. CARPENTER.

It Beats the Devil.

Should you ask me whence this story Whence these borrowed repetitions, I should tell you, I should tell you, 'Tis a story not of mortals.

Death had come unto the dreamer, And he tumbled straight to Hades, Headlong, fell through leagues of dark clouds.

Whirling on through vapory blackness, Found the iron gates of Hades, Heard the roar of Satan calling "Come right in my worthy subject, You can now possess your earnings. Long your flame has been ascending, Long your fire has been kindled; You have been my truest subject, You have always done my bidding."

On the wall the fire gleamed brightly, Gleamed the fire on fiendish faces, Whirled upon the burning sulphur, Stung the fiends to cruel torture: Blood red discs appeared their faces, Stench of burning flesh was awful.

Gazed with terror the new comer, Raised his very hair for terror, Shook his bones with mighty quaking, Then his injured pride and anger Rose above his fear of demons, "Back! You leering devils!" shouted, "Back! Into your flaming prisons!" "Back! your flashing pitchforks pointed!" Seeking my best coat to puncture,

I was on an upward journey When you hurled me from my pathway, When you bellowed forth your slander, Trampling me with hellish mocking, Friends of the infernal regions, I defy your "cursed" kingdom; I demand an explanation!" Would have answered more, but Satan Straightway snatched the conversation.

"You! A candy maker! 'upward?' Scarcely a dozen years in business, In your mother's kitchen starting, In her frying pan beginning, Owning now a block of buildings, Branches, too, in other cities, Wealth in tens of thousands, clearly, Not all gain without my methods."

"Answer me of weights and measures, Colors and adulterations, Of purged and laws, how you've used them, How you've dealt with luckless merchants, Have you always lined your pockets? Have you trampled down the poor man?"

"True as started as you've mentioned, With out father's fame to 'boost' us, For generations backward Had been famed as candy makers; Left us all their books and papers, Left us all their priceless journals."

Walter o'er the weary dreamer, This to him was perfect heaven.

Lo! The midnight whistle woke him From a slumber in the office, For as Christmas time approached, Midnight makes the busy day, Even the most strenuous worker, In such cases goes a-dreaming. He had napped too near the light, Including a dream of Hades, Till fearful visions, merry ones, Boiling, Wafted o'er the weary dreamer.

MARYE MORRIS.

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