

THE ENGINEER VS. HIGH FINANCE

How a Sulphur Mine Handed a Railroad Some Brimstone.

By AMOS STOTE

AWAY down in the wilderness of Louisiana thrives the largest sulphur mine in the world; but there was a time, not so long ago, when it was threatened with extinction. It is not often that the technical man has to buck up against the financier, and for that reason it is all the more interesting to know that in this instance the engineer was more effective, with his trained ex-

perience, than the giant corporation, with all its millions.

he felt sure that conditions would be named later, so he made his answer as much to the point as the question had been. "Yes," he replied, and did not make the mistake of adding any qualifying statement.

The stranger seemed pleased. He gave the dimensions and nature of the country, and asked the engineer to be prepared the next day to state the time



HOW THE DREDGES WERE BROUGHT IN

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One day, in the Fall of 1905, a big, raw-boned man, with a peculiar accent walked into the New York office of a contracting engineer. The stranger told the engineer that he had heard of the latter's work and, without introduction, asked if he was prepared to build a canal. For a moment the technical man was unable to answer, canals are not playthings and can not be built in a day—the question seemed rather abrupt. But

he would require for the completion of the canal. It was understood that speed was the all essential thing, and if ever a man needed to turn himself into a human dynamo, it was that engineer. He was given to understand that he was expected to accomplish the impossible, and that he would be paid accordingly.

On the next day, at the appointed hour, he laid before the stranger an agreement to build that $17\frac{1}{8}$ mile canal in 150 days after the machinery was on the ground. That was so much better

than had been expected that it seemed altogether too impossible. Seventeen miles of canal through swamps and hills and timber in 150 days! Surely nothing but a demigod could do such a great task in so short a time! But it was decided and the papers signed.

And now we come to the reason for all this haste.

Several years ago a company of men

methods with mining skill. The managers went to the railroad, the only carrier in their territory, for just rates. If they could win this point, all right; if not, there was no excuse for going farther in the matter. They told the railway company that they had an option on this sulphur mine, and that their taking it up rested with the railway. They asked for a rate they had figured would



DIGGING THE WAY TO FREEDOM

secured possession of an extinct volcano, that is literally a mountain of sulphur. Others had tried to work this mine, but every attempt had proven a failure, for the cost of bringing the sulphur up from the depths of the crater, with the crude machinery they then had, and the railway tariff, more than ate up the market price.

Profiting by the experience of their unsuccessful predecessors, a new company endeavored to combine business

be profitable for both parties. The railway company was delighted to help an infant industry, and as the sulphur company agreed to ship a certain number of cars, making the minimum limit about the full amount of production the organization had then planned, the railroad signed for the rate asked, and for several years.

The sulphur company prospered, so did the railroad. Machinery of greater capacity was brought into the work of the

mine, and the amount shipped had grown far beyond the contracted minimum. Both companies were delighted with results, and both found the agreed transportation tariff a profitable adjustment of the rate question.

When the sulphur mine had grown until it was producing a thousand tons of mineral a day, fifty carloads, the largest production in the world, the railroad began to realize that it was the only outlet for one of its greatest customers. This caused it to look up the existing contract to see what mistake it had made,

aiding and abetting them. There has been a mistake made, no other railroad is in sight, none is expected to come in sight. We will be the robber barons, and in addition to our very profitable freight rate for carrying this sulphur, we will levy a tribute. When the present rate expires we will include the tribute in the new rate. And then the sulphur miners may have the option of handing their profits over to us for the privilege of mining, or they may abandon their work. The latter possible turn of events would be uncomfortable for us



THE CANAL

for the sulphur company was surely making money. To its consternation, it found that the rate it had granted the sulphur company when it was small, and counted for little either way, was still in force. This would never do. Here was a concern that was paying no more than it would have to if there were several competing lines running beside its plant, while in truth there was no other railway.

The railway thought quickly, and in this strain: "Here is this beautiful, kindly disposed volcano, permitting these greedy men to rob it of its wealth of golden sulphur, and all the while we are

as it would deprive us of all revenue from that source. But we don't think they will take that step, for the industrious mind is always hopeful and expects a favorable turn of affairs, and, besides, they have hundreds of thousands tied up in machinery and structural work."

So it was understood that in a little more than a year, when the time should come to celebrate the making of the first freight rate that the anniversary ceremonies should include the installation of a new and enlarged freight rate. And the illustration for the agreement

should be a volcano surrounded by a gold railroad track.

But the joy this determination brought to the railway folk was too great to be contained, and the news of how they were to play the role of the fatted calf at the celebration, came to the ears of the hard-working miners. They never turned a hair, never changed their attitude toward the railroad—but the management held a special night session. The joy at the decision reached here was more easily contained, and never has the railroad known that it was held, except that subsequent events suggested it.

A representative of the sulphur company left for New York. He left quietly, and in a few days returned just as quietly.

Months passed, and the sulphur miners continued with their chosen work, undisturbed. The railroad grew more cheerful as each day brought it nearer the time for the celebration of the freight rate anniversary:

No one had seen a stout man, in riding clothes, prowling around the base of the volcano, shortly after the sulphur miner had returned from New York, at least no one remembers having seen him. But he had been there. And after looking over the ground he had disappeared in the direction of the Sabine River; seventeen miles away. A few days later this man came up from the river with a corps of engineers and surveyors. They cut their way through tangles of Louisiana swampland, and set out stakes, made notations of the character of the country, found the altitude above sea-level at a number of points, and compared them with that of the Sabine River, and then left the country.

And after that months had elapsed in which there was not even the appearance of mysterious strangers.

But early in December of 1905 every

able bodied man who was looking for work around that section of the country, was invited to bring his axe and start in clearing off a strip of land. His wages were to be enough to make him feel like working, for men were wanted who were prepared to work hard and fast. Before anyone knew what had happened a bee-line was cleared of timber and brush that looked straight from the base of the volcano down to the Sabine River. Then camps were built, rough but tight shacks with tiers of bunks and a great mess-room.

No one thought anything of this work, for few saw it, and they were not the thinking kind. As soon as one set of men had finished their work they were paid and dismissed.

Then, on the morning of the 23d of January, 1906, a string of ox carts, with twelve oxen to each wagon, made its appearance, flanked the clearing and collected in groups at four miles apart, all along the route.

In 150 days from the 29th of January a canal was to be completed, ready to carry ocean going barges. To accomplish this end Frank B. Gilbreth, who had the work in charge, had put in the months that seemed to be idle, so far as actual work on the canal was concerned, in superintending the making of seventeen gigantic steam dredges. It was the parts of these great shovels that the ox teams were pulling across the Louisiana wilderness.

All this time the freight haulers had been dreaming of increased rates on a thousand tons of shipped sulphur each day. They had noticed nothing out of the way in the attitude of the sulphur company, and in their imagined security they never thought of the necessity of keeping a watchful eye on movements around the volcano. No rival road was near enough to render help to the miners

they wished to plunder, and they expected to do the deed quietly and without disturbance.

Then the shock came. A report reached the headquarters of the railroad that the miners had a string of dredges reaching from their mine to the Sabine River, and an army of men were working them for all they were worth. A canal was more than half finished, a canal that was to carry ocean-going barges through a series of concrete locks.

railway people, but it ended in a unanimous vote to ask the miners to join them in organizing a local branch of The Hague Peace Congress. The railroad now saw its duty, clearly, and it called so loudly the railroad could not even apologize gracefully. For the first time it gave the miners their proper value as men of business, and even suspected them of eating some of the brimstone they dug.

So the railroad begged for mercy, and



THE MEN WHO TURNED THE TRICK

That was all the report needed to say, the rest was clear, for the Sabine River is deep and empties into the Gulf—they were losing their prey. While they had slept, in apparent security, contemptuous of the ability of the miners to escape their net, these same industrious miners had dug their way to freedom. Before the old rate contract had expired, barges would be standing where freight cars had stood, ready to carry the mountain to market.

A council of war was called by the

asked the miners what was to be done. The miners were content with the old freight rate. They had the mountain, they did not want the world. Let the railroad send around a new contract, just like the old, except for the change of dates. As to the canal, they would let it stand as it was, as a reminder—it would be easier to finish next time.

They gave "the human dynamo" a check for the entire amount of his contract, and he sped back to the north, well rewarded for work well done.