MAGAZINE SECTION THREE

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100 Years of Hard Coal

A Romance of Industry that Scientists Say will be Closed in 75 Years More

COAL has contributed to America's history one of its most romantic chapters. A century ago the anthracite trade rose in a curious manner, and flourished increasingly until it became one of the greatest forces of all time. Now it is said to be doomed to extinction in seventy-five years.

It was just a century ago this year that Abijah Smith took from a jagged hole in the ground at Plymouth, Pa., the first "black stone"—that's what they called it then—for industrial consumption; and it was on February 1, 1808, that Judge Jesse Fell, at Wilkes-Barre, Pa., placed some chunks of the stone in a grate and discovered that it would burn without a bellows.

The first year's anthracite trade amounted to fifty tons; that of 1905 was 69,339,152 long tons, with a spot value of $141,879,000. The production of last year was 63,645,010 tons.

Anthracite coal has made one of the busiest industrial regions in the world that portion of Pennsylvania where almost the entire hard coal product of the earth is mined; has given employment to hundreds of thousands of men, has made immense fortunes, has given to mankind warmth and comfort such as had never been attained before, has contributed to the development of railroads, electricity and manufactories—has, in short, been a potent handmaid of progress.

It has also brought about the greatest labor strikes in American history, has been developed at the expense of thousands of lives, has caused suffering and distress to workers. No other industry so directly affects the lives—literally the firesides—of all classes of Americans. One can hardly conceive of a condition of life with hard coal eliminated.

And yet in seventy-five years more hard coal may be but a memory. One of the most interesting lines of conjecture revolves about the question, what is to keep us warm once this fuel is gone?

Fortunately, ingenious minds are active along this line, and there is little likelihood that we of today or those who succeed us on this planet shall have to freeze.

Interior of a Mine.

Proud of His Day's Work.

barring the miraculous, this cannot be.

Among those students of the subject who have recently placed seventy-five years as the limit of anthracite's life is Rear Admiral Robley D. Evans, of the United States Navy. Another is Edward W. Parker, the coal expert of the United States Geological Survey.

Perhaps one of the highest authorities on coal mining in the United States is William Jasper Nicholls, M. Am. Soc. C. E., of Pennsylvania, who has written the only history of American coals and other works bearing on the subject. Mr. Nicholls was asked to give, for this article, his opinion as to the future of anthracite.

"Based upon the present rate of consumption," he said, "the supply cannot last over seventy-five years. This is not guesswork.

"It is not like the soft coal situation. Bituminous coal exists in many states of the union, and in other countries. The supply may last for centuries.

"But the only bit of real anthracite coal, of commercial value—although there are other coals miscalled anthracite—lies in a long, narrow strip extending across a part of Pennsylvania. We have drilled under and over it—have poked drills all through it and all around it. We know just where every vein is located, its length, depth and composition. In fact, we have practically accounted for every pound of it that remains in the ground.

"It is estimated that less than 5,000,000,000 tons of anthracite coal remain unmined, which, at the present rate of increase in mining will last not more than seventy-five years.

"But, in my opinion, the demand will not keep up. It can only be kept up while people are willing to pay the high and growing price for anthracite as a luxury—in other words, it can only last until the people of the United States learn that they can burn soft coal—at half the price of hard coal—with just as good results.

"Paris is the only city I have visited where the people eat their meals in their yards. Yet, in Paris there is hardly any hard coal burned. Smoke-consuming appliances there eliminate the dirt nuisance.

"In my opinion, the price of hard coal has reached the zenith; people will refuse to pay more. Then must come the more general introduction of bituminous, which contains the same number of heat units, pound for pound, as anthracite."

"And must we all have our stoves, our chimneys and our factory furnaces made over so as to accommodate them to the use of soft coal?"

"Not necessarily. It is contrary to ordinary logic to suppose that fifty years from now we shall be each maintaining our own fireside as now.

"The logical thing is to have a common gas plant, from which gas for heating and lighting may be supplied at moderate rates to every house in a city. And this gas plant, understand, may be run with soft coal in such moderate proportions that the present known supply may last for many centuries."

Mr. Nicholls was asked about the prospects of manufacturing electricity at the mouth of the coal mine and supplying it by wire to the large cities, as suggested by Thomas A. Edison—a plan which might extend the usefulness of present anthracite supply several hundred per cent.

"That would be impossible," he replied, "for the reason that there isn't enough copper on the market to make the mammoth wires that would be necessary to convey this power even to the nearby large cities of the East. The only alternative, so far as at present known, would be to construct a system of relay storage stations between the mines and the cities, and this would prove more expensive than the present system of conveying and consuming coal."

Mr. Parker, the coal expert of the United States Geological Survey, fully agrees with Mr. Nicholls that the supply of anthracite will be exhausted in seventy-five years.

But these matters really do not call for serious consideration. Nature has had a way of always supplying heat to mortals in accordance with their needs and ingenuity, and it may safely be assumed that when hard coal goes there will be a substitute of even more practical utility.

How interesting it would be to know just what this substitute will be, and whether the story of its development will be as romantic, as tragic, as inspiring, as that of anthracite.

(CONTINUED ON INSIDE PAGE.)

ANTHRACITE'S STORY IN BRIEF.

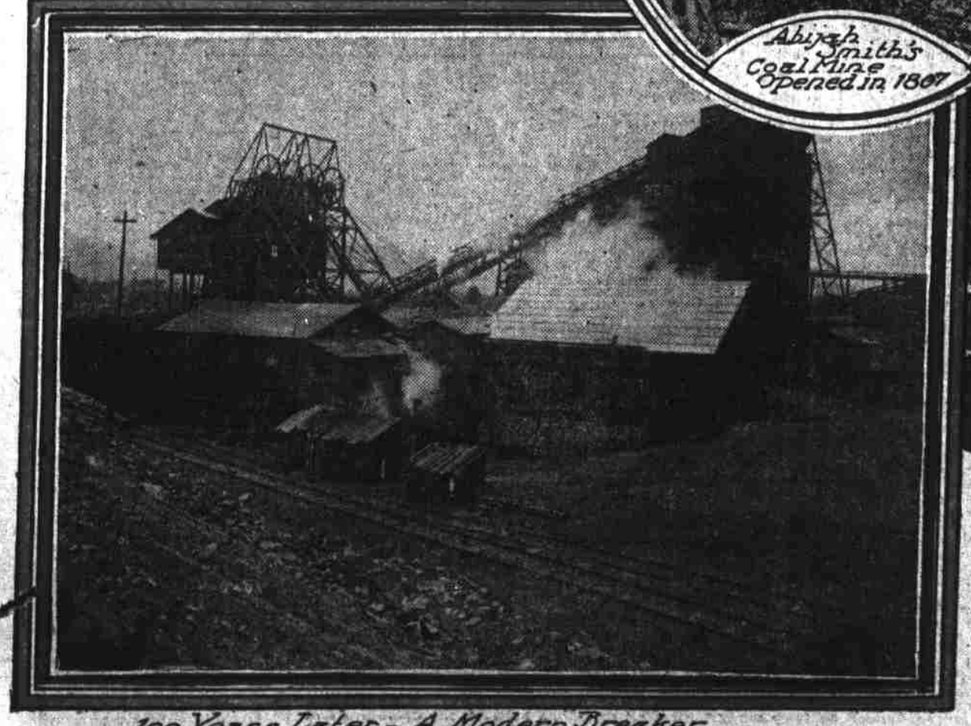
First mined for market, Plymouth, Pa.	1807
Fuel utility fully demonstrated, Wilkes-Barre, Pa.	1808
Output of mines in 1820	365 tons
Output in 1906	63,645,010 tons
Estimated amount remaining unminded in 1904	5,000,000,000 tons
Supply will end about	1982
Employes in mines, over	165,000
Annual loss of life through accident	500 to 600

AT Wilkes-Barre, Pa., next year, the centennial of hard coal's entrance into the world's industrial history will be celebrated. For, although coal had been used prior to 1808, and was first mined for the market in 1807, it was not until Jesse Fell's discovery that people learned they could burn it without using bellows.

Very few persons, probably, can find anything comforting in the prospect that there will be but this one centennial celebration of the discovery of hard coal, for there will be no celebration, probably, when the coal itself has passed away.

Most people would hope that it might be otherwise—that a bi-centennial and ter-centennial, and many more might be witnessed. But,

Abijah Smith's Coal Mine Opened in 1807



100 Years Later - A Modern Breaker