

## CHAPTER VII. NEW ABERFOYLE

THE old overman's experiment had succeeded. Firedamp, it is well known, is only generated in coal seams; therefore the existence of a vein of precious combustible could no longer be doubted. As to its size and quality, that must be determined later.

"Yes," thought James Starr, "behind that wall lies a carboniferous bed, undiscovered by our soundings. It is vexatious that all the apparatus of the mine, deserted for ten years, must be set up anew. Never mind. We have found the vein which was thought to be exhausted, and this time it shall be worked to the end!"

"Well, Mr. Starr," asked Ford, "what do you think of our discovery? Was I wrong to trouble you? Are you sorry to have paid this visit to the Dochart pit?"

"No, no, my old friend!" answered Starr. "We have not lost our time; but we shall be losing it now, if we do not return immediately to the cottage. To-morrow we will come back here. We will blast this wall with dynamite. We will lay open the new vein, and after a series of soundings, if the seam appears to be large, I will form a new Aberfoyle Company, to the great satisfaction of the old shareholders. Before three months have passed, the first corves full of coal will have been taken from the new vein."

"Well said, sir!" cried Simon Ford. "The old mine will grow young again, like a widow who remarries! The bustle of the old days will soon begin with the blows of the pick, and mattock, blasts of powder, rumbling of wagons, neighing of horses, creaking of machines! I shall see it all again! I hope, Mr. Starr, that you will not think me too old to resume my duties of overman?"

"No, Simon, no indeed! You wear better than I do, my old friend!"

"And, sir, you shall be our viewer again. May the new working last for many years, and pray Heaven I shall have the consolation of dying without seeing the end of it!"

The old miner was overflowing with joy. James Starr fully entered into it; but he let Ford rave for them both. Harry alone remained thoughtful. To his memory recurred the succession of singular, inexplicable circumstances attending the discovery of the new bed. It made him uneasy about the future.

An hour afterwards, James Starr and his two companions were back in the cottage. The engineer supped with good appetite, listening with satisfaction to all the plans unfolded by the old overman; and had it not been for his excitement about the next day's work, he would never have slept better than in the perfect stillness of the cottage.

The following day, after a substantial breakfast, James Starr, Simon Ford, Harry, and even Madge herself, took the road already traversed the day before. All looked like regular miners. They carried different tools, and some dynamite with which to blast the rock. Harry, besides a large lantern, took a safety lamp, which would burn for twelve hours. It was more than was necessary for the journey there and back, including the time for the working--supposing a working was possible.

"To work! to work!" shouted Ford, when the party reached the further end of the passage; and he grasped a heavy crowbar and brandished it.

"Stop one instant," said Starr. "Let us see if any change has taken place, and if the fire-damp still escapes through the crevices."

"You are right, Mr. Starr," said Harry. "Whoever stopped it up yesterday may have done it again to-day!"

Madge, seated on a rock, carefully observed the excavation, and the wall which was to be blasted.

It was found that everything was just as they left it. The crevices had undergone no alteration; the carburetted hydrogen still filtered through, though in a small stream, which was no doubt because it had had a free passage since the day before. As the quantity was so small, it could not have formed an explosive mixture with the air inside. James Starr and his companions could therefore proceed in security. Besides,

the air grew purer by rising to the heights of the Dochart pit; and the fire-damp, spreading through the atmosphere, would not be strong enough to make any explosion.

"To work, then!" repeated Ford; and soon the rock flew in splinters under his skillful blows. The break was chiefly composed of pudding-stone, interspersed with sandstone and schist, such as is most often met with between the coal veins. James Starr picked up some of the pieces, and examined them carefully, hoping to discover some trace of coal.

Starr having chosen the place where the holes were to be drilled, they were rapidly bored by Harry. Some cartridges of dynamite were put into them. As soon as the long, tarred safety match was laid, it was lighted on a level with the ground. James Starr and his companions then went off to some distance.

"Oh! Mr. Starr," said Simon Ford, a prey to agitation, which he did not attempt to conceal, "never, no, never has my old heart beaten so quick before! I am longing to get at the vein!"

"Patience, Simon!" responded the engineer. "You don't mean to say that you think you are going to find a passage all ready open behind that dyke?"

"Excuse me, sir," answered the old overman; "but of course I think so!"

If there was good luck in the way Harry and I discovered this place, why shouldn't the good luck go on?"

As he spoke, came the explosion. A sound as of thunder rolled through the labyrinth of subterranean galleries. Starr, Madge, Harry, and Simon Ford hastened towards the spot.

"Mr. Starr! Mr. Starr!" shouted the overman. "Look! the door is broken open!"

Ford's comparison was justified by the appearance of an excavation, the depth of which could not be calculated. Harry was about to spring through the opening; but the engineer, though excessively surprised to find this cavity, held him back. "Allow time for the air in there to get pure," said he.

"Yes! beware of the foul air!" said Simon.

A quarter of an hour was passed in anxious waiting. The lantern was then fastened to the end of a stick, and introduced into the cave, where it continued to burn with unaltered brilliancy. "Now then, Harry, go," said Starr, "and we will follow you."

The opening made by the dynamite was sufficiently large to allow a man to pass through. Harry, lamp in hand, entered unhesitatingly, and disappeared in the darkness. His father, mother, and James Starr waited

in silence. A minute--which seemed to them much longer--passed. Harry did not reappear, did not call. Gazing into the opening, James Starr could not even see the light of his lamp, which ought to have illuminated the dark cavern.

Had the ground suddenly given way under Harry's feet? Had the young miner fallen into some crevice? Could his voice no longer reach his companions?

The old overman, dead to their remonstrances, was about to enter the opening, when a light appeared, dim at first, but gradually growing brighter, and Harry's voice was heard shouting, "Come, Mr. Starr! come, father! The road to New Aberfoyle is open!"

If, by some superhuman power, engineers could have raised in a block, a thousand feet thick, all that portion of the terrestrial crust which supports the lakes, rivers, gulfs, and territories of the counties of Stirling, Dumbarton, and Renfrew, they would have found, under that enormous lid, an immense excavation, to which but one other in the world can be compared--the celebrated Mammoth caves of Kentucky. This excavation was composed of several hundred divisions of all sizes and shapes. It might be called a hive with numberless ranges of cells, capriciously arranged, but a hive on a vast scale, and which, instead of bees, might have lodged all the ichthyosauri, megatheriums, and pterodactyles of the geological epoch.

A labyrinth of galleries, some higher than the most lofty cathedrals, others like cloisters, narrow and winding--these following a horizontal line, those on an incline or running obliquely in all directions--connected the caverns and allowed free communication between them.

The pillars sustaining the vaulted roofs, whose curves allowed of every style, the massive walls between the passages, the naves themselves in this layer of secondary formation, were composed of sandstone and schistous rocks. But tightly packed between these useless strata ran valuable veins of coal, as if the black blood of this strange mine had circulated through their tangled network. These fields extended forty miles north and south, and stretched even under the Caledonian Canal. The importance of this bed could not be calculated until after soundings, but it would certainly surpass those of Cardiff and Newcastle.

We may add that the working of this mine would be singularly facilitated by the fantastic dispositions of the secondary earths; for by an unaccountable retreat of the mineral matter at the geological epoch, when the mass was solidifying, nature had already multiplied the galleries and tunnels of New Aberfoyle.

Yes, nature alone! It might at first have been supposed that some works abandoned for centuries had been discovered afresh. Nothing of the sort. No one would have deserted such riches. Human termites had never gnawed

away this part of the Scottish subsoil; nature herself had done it all. But, we repeat, it could be compared to nothing but the celebrated Mammoth caves, which, in an extent of more than twenty miles, contain two hundred and twenty-six avenues, eleven lakes, seven rivers, eight cataracts, thirty-two unfathomable wells, and fifty-seven domes, some of which are more than four hundred and fifty feet in height. Like these caves, New Aberfoyle was not the work of men, but the work of the Creator.

Such was this new domain, of matchless wealth, the discovery of which belonged entirely to the old overman. Ten years' sojourn in the deserted mine, an uncommon pertinacity in research, perfect faith, sustained by a marvelous mining instinct--all these qualities together led him to succeed where so many others had failed. Why had the soundings made under the direction of James Starr during the last years of the working stopped just at that limit, on the very frontier of the new mine? That was all chance, which takes great part in researches of this kind.

However that might be, there was, under the Scottish subsoil, what might be called a subterranean county, which, to be habitable, needed only the rays of the sun, or, for want of that, the light of a special planet.

Water had collected in various hollows, forming vast ponds, or rather lakes larger than Loch Katrine, lying just above them. Of course the waters of these lakes had no movement of currents or tides; no old castle was reflected there; no birch or oak trees waved on their banks.



And yet these deep lakes, whose mirror-like surface was never ruffled by a breeze, would not be without charm by the light of some electric star, and, connected by a string of canals, would well complete the geography of this strange domain.

Although unfit for any vegetable production, the place could be inhabited by a whole population. And who knows but that in this steady temperature, in the depths of the mines of Aberfoyle, as well as in those of Newcastle, Alloa, or Cardiff--when their contents shall have been exhausted--who knows but that the poorer classes of Great Britain will some day find a refuge?