

CLASS C.

~~Prize~~

SECOND PRIZE

A lump of

Coal

by Bleddyn Davies

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COAL IS MY LIFE - BLOOD

A hump of coal

If coal was able to talk it would probably say "I am the king of all minerals for I can reduce other minerals into dust before me. Through my help they can be so fashioned that they can be used by man to help him to enjoy the luxuries of life. The great industrial revolution was started by me. It is I who drove the great engines, the ships, and the machinery that made this island so important. It is I who made "John Bull" the envy of the world. In fact, where would "John Bull" be without me? I am his very make-up. His clothing is bright and colourful because I provide ^{aniline} ~~anyline~~ dyes. I warm.

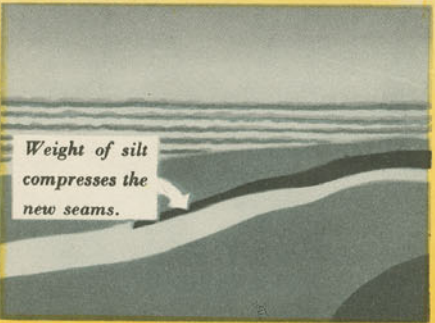
HOW COAL WAS FORMED



Many millions of years ago, parts of the earth were covered by large forests growing in or near shallow lakes. Thick masses of fallen trees collected on the floors of the lakes.



At intervals the lakes deepened. The forests were drowned and were covered by sand and silt deposited by rivers.



Beneath these sediments, which eventually hardened into sandstone and shale, the vegetable matter consolidated.



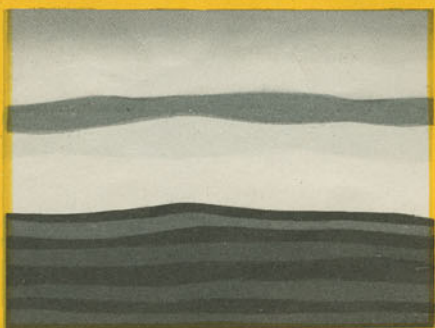
The process was repeated over millions of years: the lakes became shallow again; new forests grew and were in turn drowned and buried.



Thus one by one the coal seams were formed, separated by rocks of different kinds and thicknesses.

his house, cook his food and give light to his great cities. "King Coal" could go on telling of his wondrous doings but let us listen to him tell how he was made, where he once lived, and how he was dug out of the earth and taken on a long journey over land and sea.

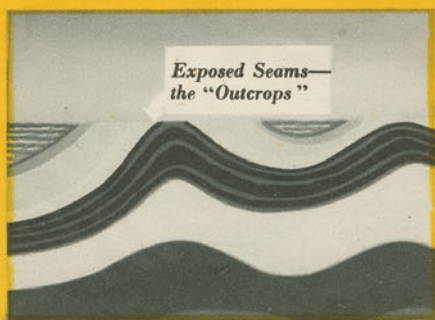
It may surprise many boys and girls when ~~a~~ ^{a lump of} coal ~~would~~ say ~~that~~ he was once a beautiful plant living near the mouth of a wide river which flowed into a blue lagoon many thousands of years before man ever roamed this earth. How he grew up very quickly into a giant fern surrounded by others of his kind, and what a happy life it was at that time for life and growth were



The rivers continued to deposit sediments until the coal seams were deeply covered. The areas slowly rose and became dry land.

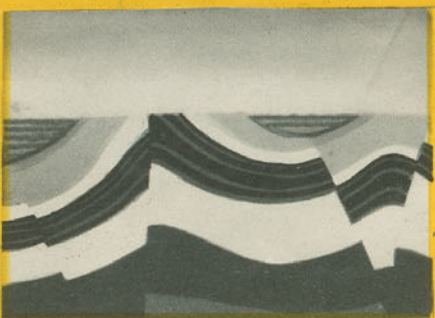


Internal earth pressures and stresses caused folding of the layers of rock.

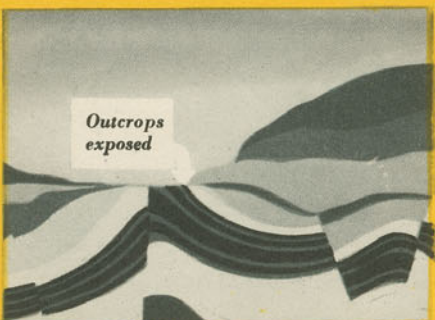


Exposed Seams—the "Outcrops"

Erosion—the action of frosts, wind and rain—wore down the higher ground, sometimes leaving the edges of seams exposed as "outcrops".



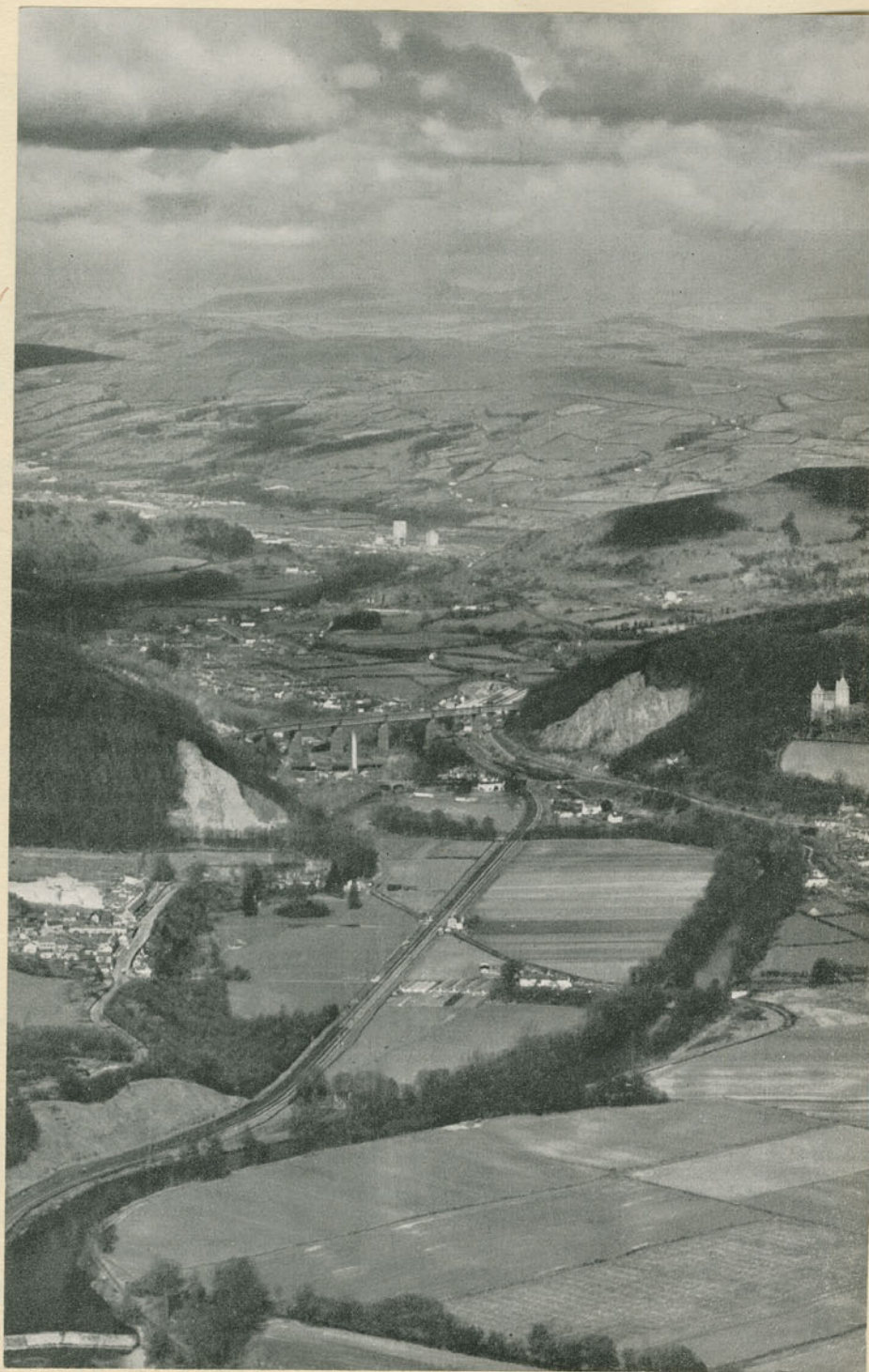
The continuity of the seams was often broken by "faults" caused by the earth movements.



Outcrops exposed

Sometimes the seams were covered again by later rocks, so that there is no evidence of coal at the surface.

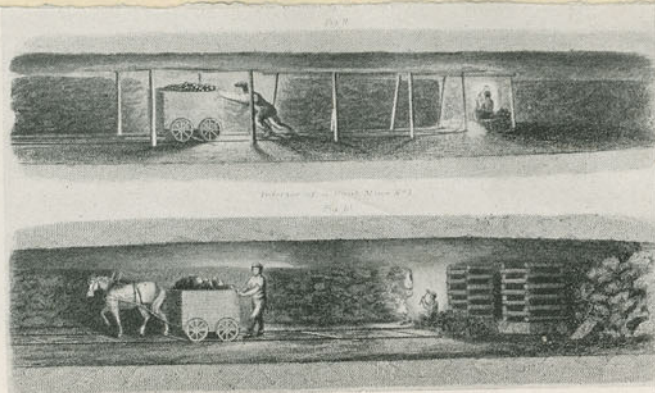
so free and easy. Coal would say how the land on which he grew slowly but steadily sank, and as it sank the coal river deposited sediment on its sinking shores. It was in this marshy land that we giant plants died to form coal beds, for as each generation of plants died it sank into the swamp. slowly, through the ages one jungle followed another and this, in turn, would be covered over with a fresh layer of sediment. These massive plants became hardened, and were pressed down time and again by the weight of rock above. So that is how coal became the rocky substance we are so familiar with today. It was a hard time that coal went through before it saw the light of day again.



THE MAIN GATEWAY TO THE TAFF VALLEY

The earth's crust was continually changing and part of the decaying fern, now coal, was pushed upwards and exposed to air.

Continuing his life story coal would say "I lay with a lot of other coal for many centuries on a steep mountain side which now forms part of the great Taff Valley in South Wales. I saw the Ancient Britons scramble down its slope chasing the deer which tore by. Later the Romans marched by and it was they who first began tearing parts of us from the west of the hill. It was not until centuries later that many men came with their picks and shovels to force us out of our safe retreat



WORKING IN MINES IN THE NINETEENTH CENTURY

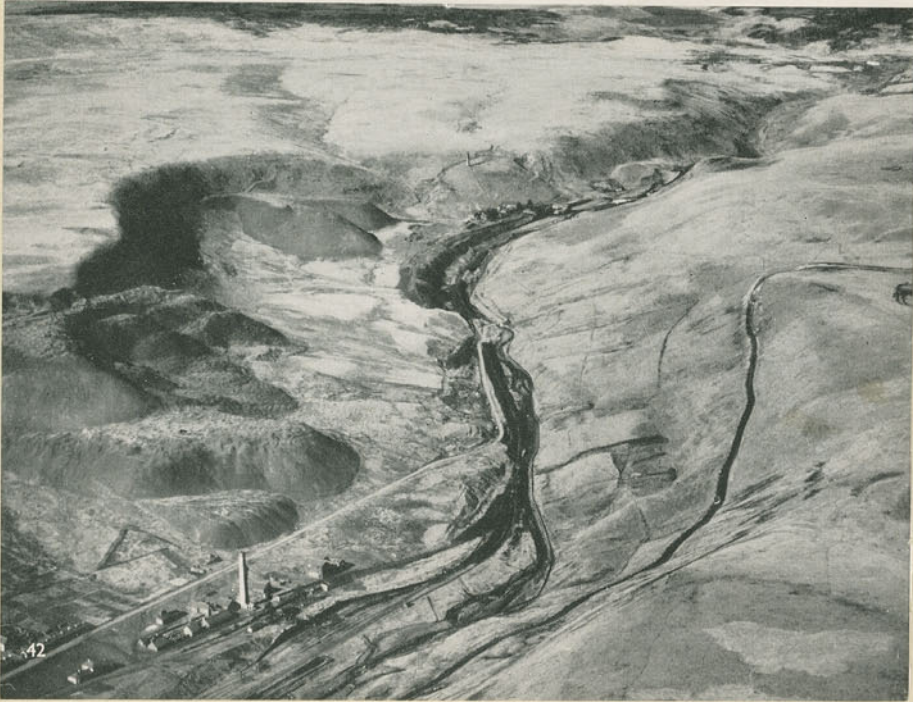


MINERS AND COAL LEAVING DRIFT AT THE END OF THE SHIFT

It was then common knowledge to us that the great "Industrial Revolution" had begun. As a lump of coal I was more fortunate than most of my brethren because the greater part of me was left behind to support the shale-roof above. Therefore, when the rest of my companions were being torn from their rocky beds, I was left behind as a pillar, seeing all that was going on. I heard the neighing of the pit-ponies and the rumbling of the trams. I saw the miners pass to and fro with their Davy safety lamps and I heard talk of brawshay and the great

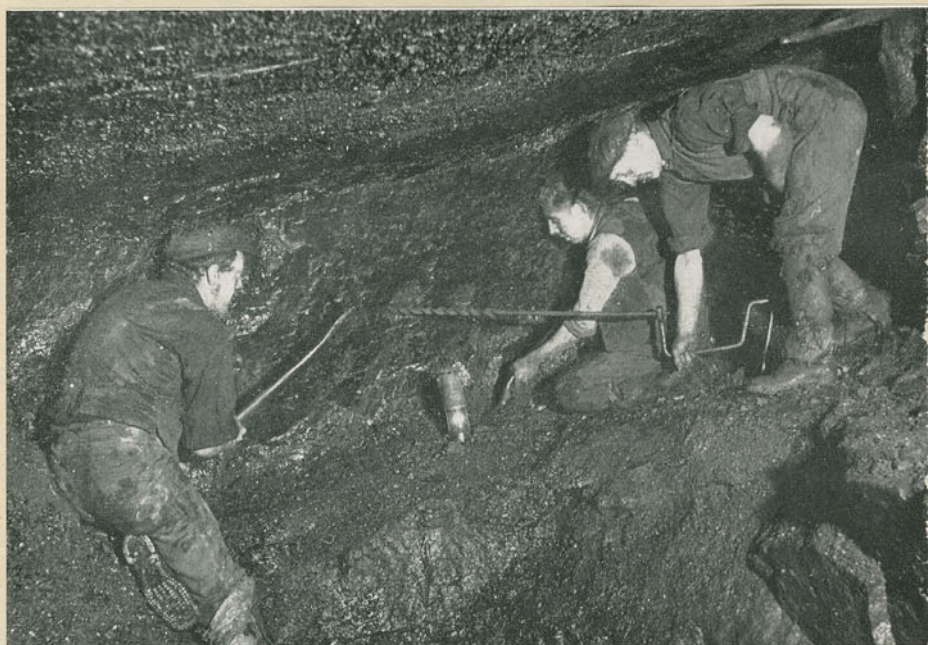
THE HEAD OF THE RHONDDA FACH

This area is rich in coal and is going to be developed on a large scale by the National Coal Board.

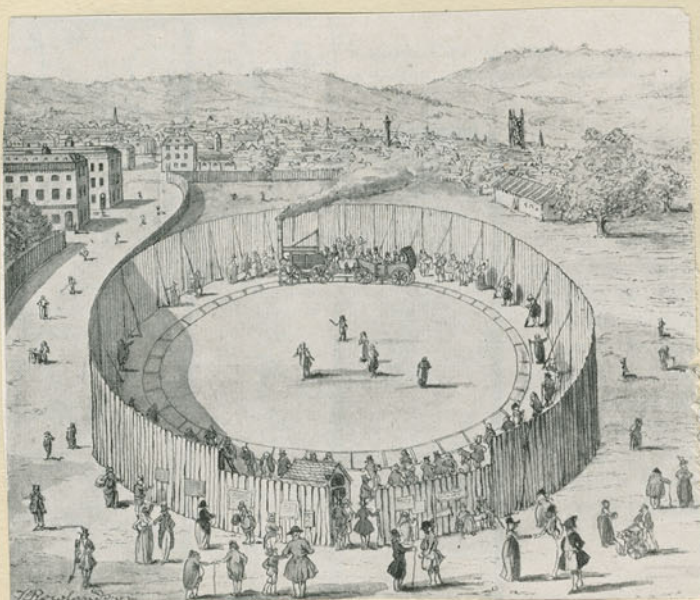


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"Cyfartha Iron Works", of David Davies discovering coal deep down in the earth in the Rhondda Valley, and that coal had been discovered in Australia, New Zealand; South Africa; India and Australia. I heard the miners talk of the Boer war as they passed to and fro and they gave topical names to districts where they worked, such as Spion Kop; Mafeking; Kimberly; Ladysmith and Rougers' Dip. I heard that a young gentleman called Mr Winston Churchill had escaped from the Boers, and I remember thinking to myself at the time "That young man will become great one day."



MINING COAL



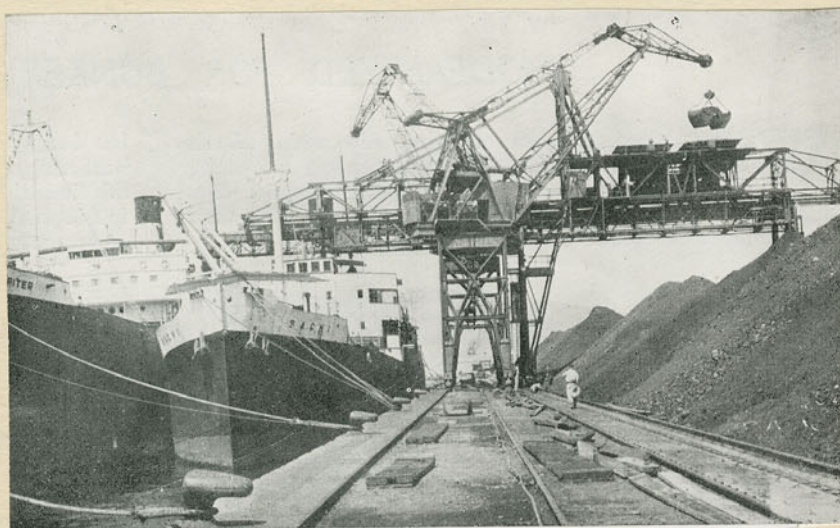
TREVE THICK'S ENGINE

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It was in 1912 (I remember
the year so well because the
miners were talking about the
sinking of the Titanic by a great iceberg)
that the great pillar in which I
stood was cut away. I was thrown
into an iron tram which was then
pulled away to the surface by a
pit-pony. There I was "tipped" into
a ^{railway} ~~railway~~ wagon. The engine was
to pull the waggons away from
the colliery whistled, and I thought
of Trevethin's engine which I had heard
so much about when the miners
were just beginning to cut the coal
which lay around me. We moved
away down the great Taff-valley to.

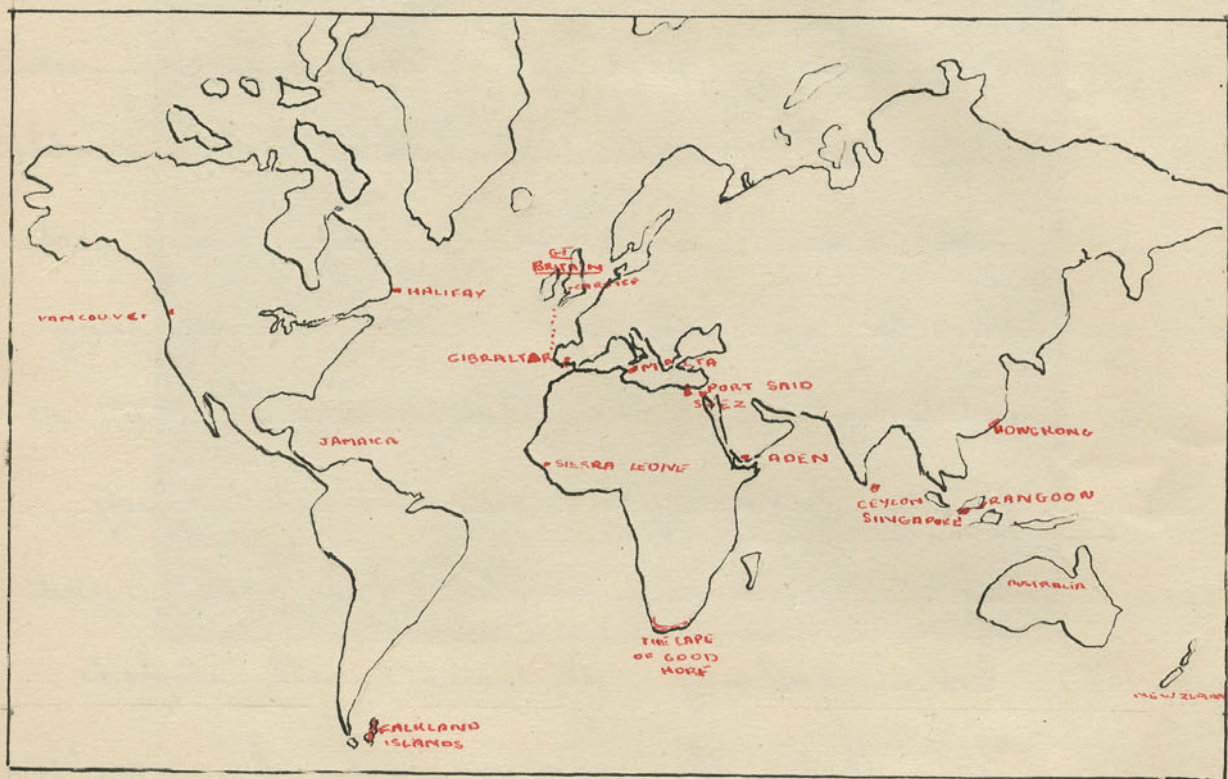


Aerial View of Bute Docks, Cardiff



The steamer inside is discharging from two holds into stock. The outer vessel is bunkering at the same time.

the busy port of Cardiff. As we lay in the railway sidings I could hear men say "This best Welsh coal is to go at once to the coaling stations of the Empire." It was said that Germany has a powerful navy and Britain must be ready and her coaling stations well stocked so that the navy can be supplied so as to guard the life lines of the Empire. I could hear Admiralty officials say "so many tons of this smokeless coal must be sent to the coaling stations of the Empire, such as Gibraltar; Malta; Port Said; Suez; Aden; Ceylon; Rangoon; Singapore; Hongkong; Jamaica;



THE COALING STATIONS OF THE EMPIRE



THE ENTRANCE TO THE MEDITERRANEAN

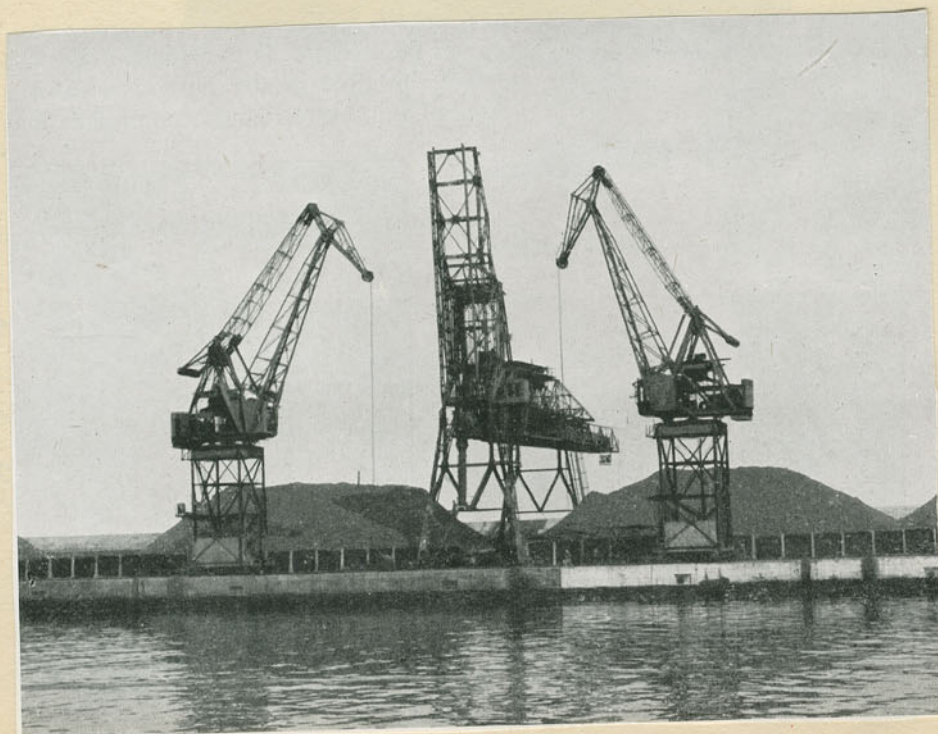
Sierra Leone; the Cape of Good Hope; Falkland Islands; Halifax; Vancouver and even Australia and New Zealand. Then one day the contents of the waggon in which I travelled was "tipped" into the hold of a ship bound for Gibraltar.

Later one night we left the dock and the ship sailed down the Bristol Channel. After a stormy passage through the Bay of Biscay we were all glad to see the friendly Spanish coast. After a time we approached the entrance to the Mediterranean sea and made our way past "The Pillars of Hercules" which the ancients thought were the end of the world. Little did I think

GIBRALTAR

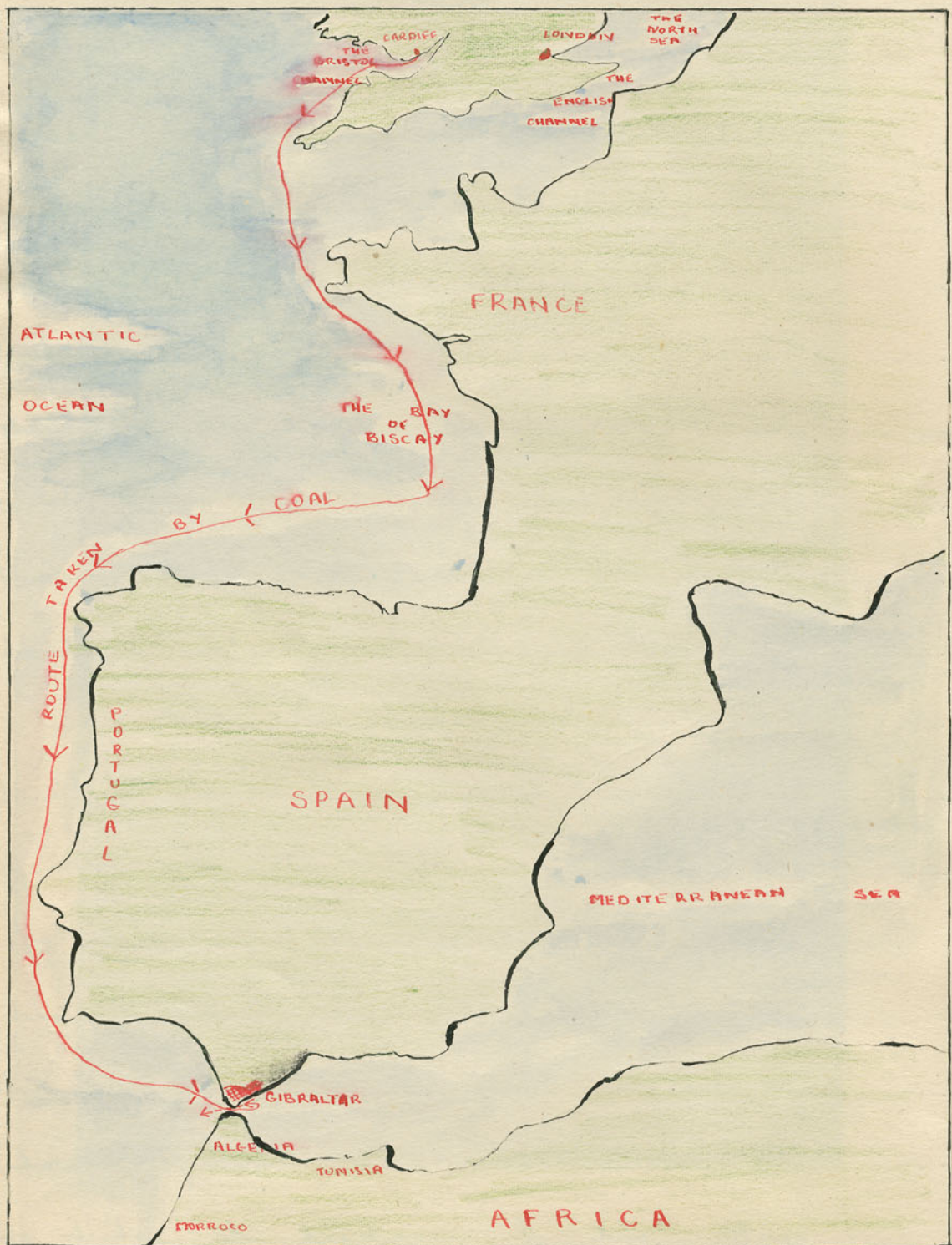


The key to the Mediterranean



COAL HEAPS ON THE QUAY SIDES

that under the very sight of these
pillars would I be changed into dust.
As we entered the dock we could see the
immense proportions of the Rock of Gibraltar. ^A
There it stood, about one thousand five hundred
feet high, one end seemingly coming out of
the sea. The other end slanting down to
the Spanish Peninsula. An old walled town
ran along this slant with part of it
nestling at various points on the cliff's edge.
Our ship was piloted into the dock
which was sheltered under the curtain of
the cliff. Soon we were unloaded and
we lay in huge heaps on the quay sides.
All around me were many naval
crafts and I wondered to which one
of them would I be thrown.



THE ROUTE TAKEN BY COAL

From my point of vantage on a huge coal heap I could see sailors enjoying themselves on donkeys riding through the narrow streets. These streets were always crowded with soldiers and sailors; Spanish girls; veiled Moorish maidens; with turbaned Moorish merchants and gaily robed Mohammedans, with a few Jews, scattered among the crowd, with their black skull caps. Right through the Rock were many tunnels in which stood big guns, frowning on the scene below, but at the same time making Gibraltar a vital link with the Empire.

I wish I could have tarried under the Mediterranean sun longer. But with others I was loaded into.

a large battleship and soon she
was steaming out of the harbour.
As we passed the "Pillars of Hercules"
I was thrown by a grumpy little stoker
into a fiery furnace. This was, I knew the
end of the world for me."

P.T.O.

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