

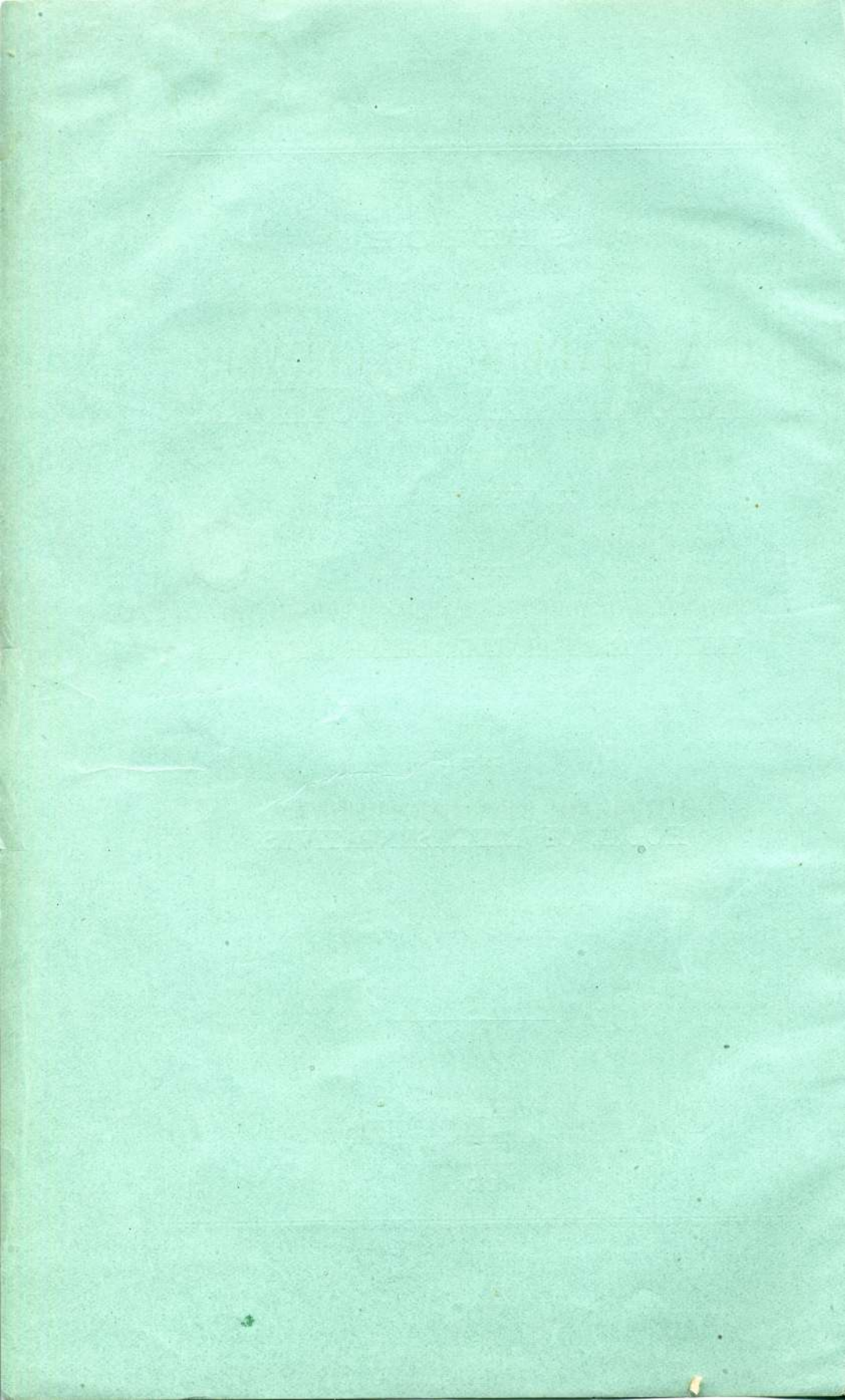
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SPEECH  
OF  
HON. CHARLES J. FAULKNER,  
OF WEST VIRGINIA,  
UPON THE  
MINERAL AND AGRICULTURAL RESOURCES OF THE  
STATE OF WEST VIRGINIA,  
IN THE  
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REPORT

OF THE

COMMISSIONERS OF THE GENERAL LAND OFFICE

IN

RESPONSE TO A

RESOLUTION OF THE HOUSE OF COMMONS

PASSED

1871

HOUSE OF REPRESENTATIVES

1871

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W.C.



SPEECH  
OF  
HON. CHARLES J. FAULKNER.

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On the bill (H. R. No. 3022) making appropriations for the construction, repair, preservation, and completion of certain public works, of rivers and harbors, and for other purposes.

Mr. FAULKNER. Mr. Speaker, the bill now under consideration contains five separate appropriations for the improvement of the rivers of West Virginia; and, as many gentlemen now upon this floor are unacquainted with the present condition and undeveloped resources of that State, this is an appropriate occasion to show the fair and just claims which it has to a participation in any system designed to extend and facilitate the inland navigation of the United States.

The rivers provided for by this bill are the Great Kanawha, the New River, the Big Sandy, the Elk, and the Monongahela. Provision should also have been made for the Little Kanawha; but, as the estimates for that improvement were not embraced in the report of the War Department transmitted to the present Congress, the consideration of its claims has been postponed until such a report shall hereafter be received. The sums this year appropriated are small, being less than one-third of the official estimates of the Engineer and War Departments. But we cheerfully submit, in common with all the other interests concerned, to this reduction upon the estimates for the present year, concurring fully in the general policy that in the present depleted condition of the treasury, and in the existing depressed industries of the nation we should reduce the expenditures of the Government to the lowest point consistent with the interests of the public service.

Before I proceed to advert to the specific appropriations contained in this bill, I will present some general views upon the



extent and character of the resources of the State of West Virginia, which, when they shall be understood and justly appreciated, cannot fail to attract the attention of the capitalists of the world and to satisfy the people of the United States that they have, in the great undeveloped wealth of that State, elements of national power and advancement which they must recognize as worthy of the patronage and protection of this Government.

I may perhaps startle and astonish gentlemen upon this floor when I assert that West Virginia, in the variety, quality, and magnitude of her coal-fields and in the extent and quality of her iron-ores, is capable of becoming, for its territorial area, one of the most productive States of this Union. It is true ours is a mountain country; its population is comparatively thin; we enjoy, so far, but few improvements and have but little capital, and we are generally now classed among the poorer States of this Republic. Such, indeed, is admittedly our present condition; but this classification, as applied to our State, will cease when we shall be able to throw off that embargo with which nature has encompassed and imprisoned our wealth, and when we shall by your aid become able to establish such commercial communications east and west of us as will bring the now unexplored riches of our State into a condition of active and practical development.

#### COAL.

First, then, let me call the attention of this body to the extent and magnitude of the coal-fields that underlie the surface of that State.

The great Appalachian or Alleghany coal-fields extend from Pennsylvania as far south as Alabama. Throughout this distance of upward of eight hundred miles they vary greatly in the quality and value of their deposits. It is in West Virginia that the richest, the most extensive, and the most available portion of this great coal-field lies. Its area in that State is estimated to embrace 16,000 square miles, which is something more than two thirds of its entire territorial surface. It has, indeed, been well termed an enormous area of nearly horizontal strata, with geographical features of great simplicity.

It embraces every variety of valuable coal, from the fat and gaseous bituminous, the iron-smelting splint, the rich and oily



cannel, to the anthracite, which is found to exist in the western parts of Berkeley County. They have been found upon analysis and experiment to be purer, better, and more available for all the purposes of trade and manufacture than in any other portion of the Alleghany coal-fields. The seams are more numerous and their thickness greater, so that they can be mined cheaper and with more economy generally than in any other country of the world.

It is one of their peculiarities that they are generally above the water-level; thus "no borings are needed to prove the presence of the minerals; no shafts are required to reach them; no pumping is necessary to drain them; and no machinery to open and work them; and they are naturally and easily ventilated."

When I was a member of the State Senate of Virginia some years ago, a geological survey of that State was projected, to be executed by Professor William B. Rogers, a gentleman of high scientific attainments. He made five annual reports of progress for the years 1837, 1838, 1839, 1840, and 1841, in which were embraced some of the most interesting portions of what is now West Virginia. His reports, though imperfect and detached, were marked by great research and profound learning; but unhappily his valuable labors were brought to a close from the want of funds, and his work thus left in an unfinished condition.

While, therefore, we have not that exact and scientific survey of the mineral resources of our entire State which would be desirable, yet the enterprise of our own people, with the aid of some foreign capital, the demands of trade and of fuel, and the occasional visits of geologists of high distinction, both European and American, enable us to have a very clear general view of the boundless wealth which lies under the surface of our soil.

If I may, therefore, as the result of my own reading and observation, be allowed to classify the principal coal-measures of our State by geographical description, I would say that they present five clearly-defined lines of observation, They are:

First, the Ohio River district. This line of observation extends from the northern limits of Hancock County, thence along the Ohio River to the mouth of the Big Sandy. At Wheeling, and for many miles down the river, the cliff or bank presents an uninterrupted bed of bituminous coal, upward of six feet thick, of such a quality as to furnish fuel for all the dwellings and

manufactories of that enterprising and prosperous city and its neighborhood. So at the extreme southern limit of that district we find the deposits as rich and abundant as in any intermediate portion of it. In his geological report of the survey of Kentucky, David Dale Owen, after referring to the abundant coal west of the Big Sandy, the dividing line between West Virginia and Kentucky, says, "That the coal-beds *increase* in thickness and number *east* of the Big Sandy; and as far as can be seen in unwrought outcrop, the coal appears to be of excellent quality."

Secondly, the Monongahela Valley district. This valley occupies within the limits of West Virginia, a space of about one hundred miles in length, by sixty or eighty in breadth, and lies between the Alleghany Mountains and their collateral ranges on the east, and the Ohio River on the west: Its general direction is north and south, with a rapid declination from its southern border to its northern extremity. Between the ranges of mountains, long but narrow strips of level land here called "glades" are to be seen. The table-lands of Mexico are here represented in miniature. Professor Rogers, in speaking of this section of the State, says:

"At Clarksburg and northward down the valley of the Monongahela, there exists one of the richest coal deposits in the State. One of the seams in some places in the neighborhood of this town is from ten to twelve feet in thickness, below which, and separated chiefly by a heavy bed of sandstone, there lies a thinner stratum of a more highly bituminous character. \* \* \* We may form some idea of the vast extent of these coal seams from the fact that from some distance above Clarksburg they may be followed with scarcely any interruptions throughout the whole length of the valley of the Monongahela down to Pittsburgh."

Thirdly, the Potomac district. This embraces the counties of Hampshire, Mineral, Hardy, Grant, and Pendleton. Professor Rogers gave but a very limited examination to this section of the State; but what he states in regard to Hampshire is equally applicable to other portions of that district.

"In Hampshire County," says this distinguished geologist, "upon a stratum of valuable iron-ore not less than fifteen feet in thickness, there rests a bed of sandstone, upon which reposes



a coal seam three feet thick ; above this another bed of sandstone, then a two-foot vein of coal, then sandstone, then another coal seam of four feet ; again a stratum of sandstone, and over it a seven-foot vein of coal ; over this a heavy bed of iron-ore ; and, crowning the series, an enormous coal seam of from fifteen to twenty feet in thickness."

Fourthly, the central district, which lies west of the first range of the Alleghany Mountains, south of the northwestern railroad, and north of the Kanawha Valley, and is that important section of the State, embracing fifteen counties, through which the Washington and Ohio Railroad and the Washington, Cincinnati and Saint Louis Railroad are destined to penetrate before many years, revealing the boundless wealth yet undeveloped in its mountains and valleys. Some idea of the hidden treasures of this section may be gathered from the extract of a letter from John R. Bestor, civil engineer, written a few days ago from Weston, in which he thus speaks of one of the veins of coal which he had personally examined :

"I as the assistant of the State board of centennial managers for West Virginia have visited this remarkable vein at Roaring Creek, Randolph County. At one place it appears from an approximate measurement to be about thirty-eight feet thick. The Washington and Ohio Railroad will run on this vein of coal from the mouth of Roaring Creek to near Buckhannon. The deposit covers not less than eight hundred square miles, to my personal knowledge."

Fifthly, the great Kanawha Valley district. It is here that the God of nature has poured out his choicest gifts, and it is here that the deposit of coal is to be seen in all its richest and most varied developments. That river, running at right angles to the Ohio, traverses the wonderful coal-measures of this region, and renders accessible to the industry of man their mineral treasures in a manner most available for practical production. Coal River, Elk River, and Gauley, tributaries of that river, spread their branches over one of the most remarkable coal regions upon earth, and pour their wealth into one common center on the Kanawha. Well has Mr. Daddow said that this is the natural mining and manufacturing center, not only of West Virginia, but of the great Alleghany coal-field, and he



very justly anticipates that the day will arrive when Charleston will become a formidable rival to Pittsburgh. Although a Pennsylvanian, he concedes that Charleston has natural advantages superior to Pittsburgh, it being two hundred miles nearer to Cincinnati, with a river, improved as this Government is now improving it, always open to navigation, while the Ohio to Pittsburgh is frequently closed by ice in the winter, and interrupted by low water in the summer.

No one is better capable by his long residence and familiarity with the subject to speak of the wonderful deposits of this valley than Benjamin H. Smith, one of the most highly esteemed and respected residents of Charleston. I take the following extract from one of his letters :

“ Four-fifths of West Virginia lie on the western slope of the Cumberland range, and nearly all the country west of it abounds in coal; but in that part of the State on the Great Kanawha and its tributaries, Elk and Coal Rivers, and on the Guyandotte River, coal is found on a magnificent scale. It exists in numerous strata of different thicknesses, rising from the base of the hills to their tops, all nearly horizontal, and slightly dipping to the north. This place is sixty miles above the mouth of the river. Here the hills become lofty, and increase in elevation to Cotton Hill or Gauley Mountain. Ascending the river a distance of thirty-six miles, coal of all varieties, except the anthracite, is found of superior quality—the cannel, splint, bituminous, and all varieties of each. Geologists and others report in those thirty-six miles, at different points, workable strata of good coals amounting in all to from sixty to one hundred feet in thickness, aggregating the several strata. These strata are severally from three to fourteen feet thick. They extend over the whole country for miles, running from creek to creek, and river to river. They are readily made accessible to the Great Kanawha, Guyandotte, or Big Sandy Rivers. \* \* \* The amount of coal in the Kanawha and its tributaries, Elk and Coal Rivers, is incredible. There is nothing equal to it anywhere.”

While the coal-fields of West Virginia embrace, as I have before stated, an area of 16,000 square miles, it is not thence to be inferred that the whole of it is equally accessible to the en-



terprise of capital or to the labors of the industrious miner. This would not be in accordance with the ways of Providence nor consistent with the received theory of the formation of the crust of the earth. In view of the mountainous character of our State, it must necessarily be that vast fields are buried at considerable depth under the surface of the soil, and which, at this time, could not repay the cost of production. This condition of our deposits has been justly remarked by an eminent and reflecting geologist as a wise and providential arrangement of the Creator in view of the wasteful propensity of mankind, whether in a savage or civilized condition of life. It is a provision of nature not only for the present but for all future generations that may inhabit our State or this continent. When that which is most easily accessible to the enterprise of man shall in the course of many centuries hence become exhausted, then the generations which at that distant period shall succeed to the inheritance of our soil, armed with new facilities and implements of labor, will penetrate into these hidden recesses and extract from the bowels of the earth that which it would not be either wise or profitable for us to attempt to apply to our present uses. Thus has our beneficent Creator stowed away at different depths in our soil incalculable quantities of this great element of private comfort and national wealth, with enough now accessible to cover our entire territory with prosperity, population, and wealth, and enough to supply all future generations until the last syllable of recorded time.

#### IRON.

Magnificent as our coal-fields are, they do not surpass our resources in iron. The iron of West Virginia may be said to exist literally throughout the State. The ores are hematites of various aspects, yielding a high percentage of metal of the finest quality. Daddow and Bannan, speaking of the existence of that metal in West Virginia, say :

“This region of iron-ores will perhaps rival any locality in our country—Iron Mountain, Pilot Knob, or Lake Superior not excepted—either in quality or quantity. There is no limit to the resources of brown hematite in this section. It exists in massive beds of great extent, and ranges through a vast area of country. We have seen beds of ore in this region equal to the

celebrated Cornwall deposits, and can state from practical experience, there is no richer or purer iron-ore of this description to be found. The miniature map shows the coal of the Kanawha to be in close proximity to this great region of iron, and connected by a large river which levels, as it were, the mountains, and grades a uniform path through the huge Alleghanies."

AUTHORITIES CITED.

I now propose to fortify what I have said as to the mineral wealth of West Virginia by a few citations from some of the most recent and approved works of authors treating upon the mineral resources of the United States.

James Macfarlane, a citizen of Pennsylvania, in his admirable work on the coal regions of America, devotes a chapter to those of West Virginia, and thus speaks of them :

"The coal regions of West Virginia are so rich and extensive, that they afford a tempting subject for conjecture as to the future greatness of this State. The reader will be permitted to indulge in these for himself; and to aid him in forming a just estimate of the value of this coal-field, he is referred to the chapter of this work as to the requisites of a successful coal trade."

Again, at page 278, he says :

"Everything bespeaks West Virginia to have been originally an extended plain, which was afterwards gently tilted on the east side from the horizontal position, so that its surface and the body of the rocks beneath were made to decline with a slight but very uniform depression very gently toward the northwest to the valley of the Ohio. The great inequalities of surface were evidently caused by the furrowing action of a mighty and devastating rush of waters, which, by a rapid draining, scooped out enormous valleys. The *parallel position of the strata* keeps the *coal seams near the surface* over enormously wide spaces of country, while the great depth of the valleys exposes them to the day under positions for mining the easiest imaginable."

Daddow and Bannan, in their treatise upon "coal, iron, and oil," thus refer to West Virginia :

"In no other portion of our country, North or South, are there more inviting prospects to labor, enterprise, and capital than is now presented in the Great Kanawha Valley. Not only



its *unlimited mineral resources* invite attention, but the best portion of the trade of the great Mississippi Valley may be diverted into the channel of the Kanawha by ordinary means."

The same intelligent writers, after referring to the extraordinary variety and richness of the mineral resources of that section, thus proceed :

"The whole valley of the Mississippi is open beyond controlling competition to the trade and the production of this region, while the present avenues to the East and the commerce of the world are but little less available than from the older and more developed centers, with *this* advantage ever open to the Kanawha region, that a route may be constructed having every advantage over the most favorable avenues of trade now open from the East to the West. This is, therefore, the *natural mining and manufacturing center*, not only of West Virginia, but of the great Alleghany coal-field.

"Looking to the natural results of location and availability, now that this magnificent region is open to free labor and a corresponding development, we may anticipate for Charleston the dignity of the State capital at no very distant day, or what may be better, *the metropolis of the mining and manufacturing interests of the West.*"

From a printed memorial addressed to Congress from the State of Pennsylvania I will make the following extracts :

"If we consider carefully the causes of the troubles we are at present laboring under, and survey the deplorable condition of the iron industry of Pennsylvania, we shall be convinced that we may not expect much of a change until this country realizes and acts upon the axiom that capital must submit to nature and harmonize with it; that wherever the raw material exists in the best quality and greatest abundance, and can be mined and worked up at the least cost, there is the only natural field for the employment of capital and labor in the development of our mineral resources, whether that field be north, south, east, or west.

"This is no new or experimental theory, but a plain, practical question of trade; for if the iron-master can afford to consume millions of tons of bituminous coal, with the heavy transportation charges added to its cost, and produce iron from his

furnaces in Eastern Pennsylvania at even the lowest percentage of profit, he can readily calculate how much greater his profit would be were he *to transfer his furnaces to West Virginia*, where his supplies of coal would cost him nothing beyond the mere labor of mining. An experience of twenty years in the use of this cheap coal has conclusively proved it *to be the best in the world for iron-manufacturing purposes.*"

Mr. Speaker, I am unwilling to consume the time of this House by a further citation of authority upon a point so clear and undeniable as the vast and wonderful mineral resources of the State of West Virginia. It is a fact of universal recognition by all who have bestowed any attention upon this subject. And now, sir, with such established and recognized facts before us, what is the duty which devolves upon Congress? Shall this immense mass of yet undeveloped and unexplored wealth be allowed to remain unused in the bowels of the earth, or will you, by reasonable and moderate appropriations, open these hidden treasures to the active industries of the world? As I have before remarked, ours is a mountain country. Its population is thinly scattered through its hills and valleys, not exceeding twenty inhabitants to the square mile. We have little capital, few improvements; and yet we have rivers which, if we can get the aid of this Government in their improvement, will enable us to pour into the markets east and west such an amount of mineral treasure as never before floated on the surface of any river of this continent. The plainest dictates of practical economy would authorize and justify such appropriation. The expenditures in themselves will be small, while the results flowing from them will assume national importance.

In describing the mineral wealth of West Virginia I have so far confined myself to the two great articles of coal and iron, for these are the great sources of national power and advancement, the mainsprings of modern civilization. Upon what foundation has the gigantic structure of British power been reared? Clearly and admittedly upon her coal and iron. But nations have their periods of decline as well as of prosperity. The cloud which now casts a shadow over the greatness of England is the growing scarcity and increasing cost of the production of coal in that country. Mr. Bell, the president of the Iron and Steel Institute, and doubtlessly one of the best informed persons



in regard to iron and coal now living, appeared by request before a committee of Parliament, and in his testimony presented some striking and astounding statistics, and expressed the grave apprehension which he felt that the prosperity of the British Empire was destined to be materially affected by the absence of a more ample supply of coal. He says :

“The impediment which stands in the way of any great extension of the iron trade is coal. Our great rival is the New World. In ores of the finest description the resources of the United States are unlimited, while in coal our own wealth is in comparison but poverty.”

The London Daily Advertiser says :

“As to the future, it is, we think, not difficult to speak with confidence. As we have frequently said in these columns, we believe that England has passed the zenith of her greatness as an iron-producing country, and that she must steadily lose ground against the growing competition of the United States.”

The British Quarterly, in reviewing the report of the royal commission appointed by Parliament to look into the subject of coal in Great Britain, says :

“If the present rate of increase of consumption continues, the last ton of coal in Great Britain will be extracted within a hundred years, and the United States will be the only nation that can supply the world’s demand for coal and iron.”

Assuming this fact to be true, the inquiry very naturally suggests itself, from what portion of the United States is this supply to come? Doubtless there are many sections of the Union from which large contributions can be made; but where upon this continent is the coal and iron region to be found that can justly compare with West Virginia? Where is the State or country that in the variety, richness, and manufacturing qualities of its coal can rival those wonderful deposits which are comprehended in our sixteen thousand square miles of exhaustless wealth? There are to be found coal, ore, and limestone, the three great elements of iron manufacture, in close proximity, enabling the West Virginia operator to surpass that of any portion of the civilized world in the cheapness of production and in the quality of the articles of his labor.



In confining my remarks so far to the two articles of coal and iron, it is not to be inferred that West Virginia does not possess other elements of great commercial value. Lead is known to exist in considerable quantities; copper has been found in several places; petroleum abounds; and our salt-wells have acquired a national celebrity.

I have spoken of West Virginia as a mountain state; let me not be misunderstood. It is true that from the North Mountain to the Ohio River it is a succession of mountain elevations; but she has also valleys, which upon one occasion inspired a distinguished statesman to say of them that they were "fairer and fatter than the vale of Tempe," and lofty elevations, where the richest grasses and cereals find a compensating cultivation to their highest summits. I trust I may be pardoned for quoting from an English work, published in London by Edward Bull for the use of British emigrants, the following just and measured account of the agricultural capacities of that State:

"The face of the country in West Virginia is undulating and unequal, being crossed in all directions by mountains, which attain their highest elevation—about three thousand feet above the level of the sea—at nearly two hundred miles from the coast. These mountains are extremely productive, and are covered with the finest timber-trees, many specimens of which denote the richest and most fruitful soil. As the hills are generally not precipitous, but of easy and gradual ascent, they are susceptible of being cultivated to their summits. Between them lie some of the most fruitful valleys of the earth, rich in their productions and in the luxuriant and majestic beauty of their variegated scenery. As the country affords a course to many great rivers and to innumerable tributary streams, large tracts of alluvial soil stretch along their banks, varying in width from a hundred yards to two miles. The uneven surfaces of these tracts prevent their retaining water so as to form swamps. A natural draining carries off all the superfluous water, leaving the soil firm and dry as that of the higher lands.

"This alluvial deposit, though low, is still not sufficiently so to be overflowed during the periodical risings of the rivers. It is moreover of extraordinary fertility, yielding rich crops of wheat, barley, oats, rye, turnips, potatoes, hemp, flax, Indian corn, and tobacco. The upland soil is equally productive, and



contains, besides, beautiful pasture lands for the raising of cattle and stock, including horses, sheep, and hogs, in which a considerable trade is carried on, not only with the circumjacent cities and towns, but also for exportation. The sides of the highest and steepest hills are admirably suited to the cultivation of the grape. The mulberry-tree, which, as well as the vine, is indigenous, flourishes there in great luxuriance and vigor. The production therefore of wine and silk may be looked upon as a new source of wealth which a very few years will develop in Western Virginia. The olive-tree also grows extremely well in most parts of the country and bears abundantly."

I do not believe that I have in any respect overdrawn or exaggerated the resources and capacities of West Virginia. I have preferred to restrict my citation of authorities to those sources which could be least suspected of partiality. And what have you thus before you? A State possessed of every element of prosperity and greatness; a State adapted to furnish homes to millions of happy and contented laborers, and of adding incalculably to the power and resources of this Republic, and yet whose treasures lie in a great measure unproductive and locked up in their natural depositories for want of easy and convenient communication with market. What man having a valuable private estate yielding him little or nothing, and who could by the expenditure of a few thousand dollars make it productive and profitable, would not consider it the highest practical economy to invest such sum in such improvements? It is true in this case the United States has no ownership in the soil of West Virginia; but as a government it is clothed with the entire commercial power of this nation, not only with foreign powers, but between the States; and if it should apply some small portion of those funds which are derived from commerce to extend and advance this interest, it would be acting in the same line of practical economy that the proprietor of a tract of land would do who would secure to his estate access to a market where he had none before.

The appropriations made by this bill are—

First. For the Kanawha and its two tributaries, the New River and the Elk. These all contemplate the same general object—the development of the coal, iron, salt, and timber interests of



the great Kanawha Valley, and the opening of channels of communication for the transportation to market of the varied products of that interesting section of the State. The improvement of this valley has now become historical. It connects itself with one of the most useful and sagacious conceptions of the Father of our Country. The improvements of this valley form an essential link in that great Virginia and West Virginia water line which I hope to see one day completed, and which will furnish one of the shortest and cheapest routes upon this continent for the agricultural productions of the States of Ohio, Kentucky, Indiana, Illinois, and Wisconsin. This route is too well known to require any more particular description of it; yet I cannot refrain from quoting some remarks uttered by Hon. WILLIAM WINDOM, Senator from Minnesota, and chairman of the Committee on Transportation Routes to the Seaboard, whose valuable labors and active support of this great West Virginia interest entitle him to the grateful acknowledgment of the people of this State. On the 3d of March, 1875, he submitted in the Senate an amendment to the river and harbor bill, then pending before that body, to appropriate \$600,000 for the improvement of the Great Kanawha River. This amendment of Mr. WINDOM was adopted by the Senate, yeas 25, nays 19; but it was subsequently reduced by the committee of conference of the two Houses to \$300,000, the same amount which is asked for in the present bill. His remarks made upon that occasion are as appropriate to the present bill as they were to the bill of the last session; and coming from a source so impartial and disinterested, cannot fail to have their just weight and influence in this body. He says:

“The improvement of the Ohio and Kanawha Rivers is a condition-precident to the practicability and usefulness of the central water-route, and hence whatever may be done upon these rivers is in the line of that work. But aside from any question affecting the entire central route, the improvement of the Kanawha River, and by means of slack-water navigation, is of very great importance for the purpose of developing the inexhaustible resources of coal and iron to which I have already referred. The advantages to be realized by the improvement of the Kanawha River as now proposed are not uncertain or conjectural; they



are apparent and demonstrable. They can be best estimated from the results of similar improvements on the Monongahela River, which more than any other one thing has conduced to the development of the commerce and industries of Pittsburgh. The value of the coal transportation on the Monongahela prior to January 18, 1875, was \$34,179,403. The cost of the improvement was \$1,146,038; cost of the works only  $3\frac{1}{2}$  per cent. of the value of the coal. It appears also that the value of other commodities paying toll to the company was about equal to that of the coal. It is probable, therefore, that the total value of commerce developed by the improvement amounts to \$60,000,000.

“To put it in another form, it appears that an expenditure of \$1,146,038 has been an essential condition in the development of \$60,000,000 of wealth; and if we could trace the effects of the coal product thus developed upon the various industries to which it has given existence, we should find that the wealth created by it would be expressed by the value of the coal many times multiplied. The inexhaustible supply of coal in West Virginia, embracing bituminous, cannel, and splint, as well as of iron-ores of superior quality, and the entire practicability of improving the Kanawha River at a cost quite inconsiderable in proportion to the advantages which would be secured, prove that equal or even greater results may be expected than have been realized from the improvement of the Monongahela.

“Coal has been fitly termed ‘the bread of industry.’ The wonderful advancement in wealth and enterprise of all the commercial nations on the globe during the last fifty years has been attained largely through the creative power of coal.

“These facts, as well as the magnificent results which have flowed from the development of our own coal and iron resources, point to the proposed improvement of the Ohio and Kanawha Rivers as works which should not be delayed. I have mentioned only one or two of the principal reasons for these works. Time would fail me if I were to attempt to enumerate all the advantages that would flow from them.”

The New River, which is one of the tributaries, or perhaps it might be regarded as the head source of the Great Kanawha, is embraced as one of the objects of appropriation by this bill. I cannot withhold the very graphic and picturesque description

which Governor Wise of Virginia has given of this river in his address before the literary societies of Roanoke College, at Salem, on the 17th of June, 1873:

“The New River, which rises far south in North Carolina, is one of the strangest streams that wind their way through mountain passes. Coming north it crosses the southern boundary of Virginia and strikes the Alleghanies, where Iron and Ewing Mountains meet. Thence it cuts through ridge after ridge of mountain chains for one hundred and twenty miles. It flows apparently against the law of gravitation up the plane of water-shed to encounter and overthrow the rocky barriers of the Alleghanies and to penetrate them through gorge after gorge to join the Gauley and the Great Kanawha in their rapid descent to the Ohio, then with that river to turn south again to join the swollen floods of the mighty Mississippi and roll on to the Gulf, there to be swept by the gulf stream past the isles to the main ocean. And through what riparian grandeur flows the whole of its alpine course. Well may it be called the New River. It is a novelty in nature. It presents at every turn, in bed and banks, scenes of study for the topographer, physical geographer, engineer, and poet.

“It has swept away mountain sides like dams. It plunges from fall to fall, from deep to deeper profound for a hundred miles. Its coal and iron, salt and oil, and forests are subjects of wealth for Titans to work upon, and its pastures of blue-grass and its fish and game could feed a host of Titans at their work. Its awful precipice of the Hawk’s Nest is but a spot of its grandeur; it is not its dizzy height which so astounds sight and thought as the whole river itself, the grandeur of which rises up from its bed below above the height of its precipices. Whenever it is densely settled and has the necessary capital—and both will flow to it as soon as it is better known to immigrants—and whenever public improvement will develop its powers of production, it will be the most capacious and richest and strongest land and water of rivers of the same extent in the world. It is the Rhine of North America, and directly in the track of the great continental belt of transit toward its eastern outlet at the capes of the Chesapeake.”

The Elk as a tributary to the Great Kanawha comes in for a small appropriation. This river has its source in the highlands



of the central district of the State, and unites with the Kanawha at Charleston. It embraces the best lumber trade in the State, and its banks are the depositories of inexhaustible supplies of coal and iron. The aid proposed by this bill to the improvement of the Elk is, in the highest degree, wise and judicious.

Secondly. The next distinct interest provided for by the bill is the Big Sandy, the dividing line between the States of Kentucky and West Virginia. This river finds its head-springs among the elevated peaks of the Cumberland group of mountains, and among the flat mountains or table-lands found between the heads of the Holston and the Guyandotte, and empties into the Ohio southwest of the Kanawha. No survey has yet been made by Virginia or West Virginia of this wild but interesting country. Professor D. D. Owen, in his State Geological Report of Kentucky, bestows a considerable portion of it upon an exhibition of the mineral resources of the counties of Lawrence, Johnson, and Floyd, in Kentucky, and which lie along the east line of that State, on the Big Sandy, and contiguous to West Virginia. He shows that the richest varieties of coal abound in those counties, and remarks that they not only extend east of that and run into West Virginia, but that the coal-beds increase both in size and richness in that direction.

The last appropriation is for the Monongahela River. This is an improvement which has been so often and so favorably patronized by Congress that I need to add but little on the subject; and yet that little shall be a few extracts from the speech of Captain T. P. Roberts, who was employed last fall by the Government to survey that river from Morgantown to Fairmont. Being called upon for the expression of his views after the survey was finished, he made some remarks, from which I take the following extract:

“The improvement of our navigable rivers is a subject worthy of very careful consideration, and I am glad that I have the opportunity to express to you, gentlemen, the warm sympathy I have as an American citizen for this present proposed undertaking, namely, the improvement of the Upper Monongahela from Morgantown to Fairmont by means of locks and dams.

“About thirty-five years ago my father, W. Malnor Roberts, superintended the improvement of the Monongahela from Pitts-



burgh to Brownsville, as the company's chief engineer. I recollect hearing him say that upon the occasion of the opening of the slack-water navigation, he prophesied that before thirty years would pass by the demand for coal in the southern cities along the Ohio and Mississippi to the Gulf would be so great that at least fifteen million bushels of it would be shipped annually from the ports above Pittsburgh. \* \* \* His prophecy was ridiculed by some; but the facts showed that instead of fifteen million bushels being shipped from the Monongahela Valley, in 1870 the quantity was nearly ninety million bushels.

"Gentlemen, I propose to follow in my father's footsteps, and attempt a prophecy also, and it is not so hard now in the light of experience, which is this: That in less than twenty years the shipment of coal from the Monongahela Valley will exceed three hundred and fifty million bushels per annum. Already there are engaged in the trade one hundred and twenty-five stanch steam tow-boats, and three thousand barges and boats, forming an aggregate of one million three hundred thousand tonnage, owned in Pittsburgh; a tonnage greater than all the rest afloat in the Mississippi Valley from the Gulf to the Lakes, greater than the combined tonnage of New York and Boston, our great maritime centers."

After stating several other important facts, which I should with pleasure quote if time permitted, he proceeds to say:

"As you West Virginians mine coal for about one-half of what is paid in Pennsylvania, I am firmly persuaded that it would pay to extend the slack-water up to the eleven-foot vein between Morgantown and Fairmont. At least I shall certainly, in my report to Colonel Merrill, of the United States Engineer Corps, urge the extension of the slack-water to Fairmont. It is only here, in my opinion, that it should terminate. Here, properly speaking, is the head of navigation of the Ohio River. Here there is an outlet to the seaboard over the grand-trunk line, the Baltimore and Ohio Railroad."

I have now presented to you as fully as I have deemed it necessary to do the claims of West Virginia to a fair participation in any system that may be adopted by Congress to improve the inland navigation of the United States. It is certainly within its constitutional power, as it is one of the highest duties of Con-



gress to contribute its assistance to remove the obstructions which impede commercial intercourse between the States, and especially if any State be so situated that it cannot by its own means remove the obstacles that prevent this intercourse; and more especially if a comparatively small expenditure of money will add largely to the wealth, resources, and power of this Republic. I have shown that such is the condition of West Virginia. I have, I think, satisfactorily shown that no appropriation made by this bill to any improvement in the United States will be followed by more important and productive results than those which are asked on behalf of my State.

The State of West Virginia, although one of the smaller States of this Union, inland in her position, mountainous in her physical characteristics, and debarred from convenient access to the seaboard for the heavier articles of her commerce, she nevertheless possesses elements of wealth that must at some future day give her a prominent position in the sisterhood of States. It cannot be that in a country so distinguished for energy and enterprise these extraordinary resources can long remain hidden in the bowels of the earth. Already foreign capital has to some extent appreciated these bounties of Providence and has constructed across our territory two important highways, the Baltimore and Ohio Railroad through the northern portion of it, with one branch extended to Wheeling and the other to Parkersburgh, and the Chesapeake and Ohio Railroad through the southern part of our State. But for the crushing financial crisis of 1873 we should have seen the Washington and Ohio Railroad and the Washington, Cincinnati and Saint Louis Railroad far advanced through the central counties of that State. When these highways are all finished we shall want but one additional improvement of that character to complete the railroad system of our State, and that is from some point on the Pennsylvania line, crossing the Baltimore and Ohio Railroad, pursuing the valley of the Elk River, and terminating at Charleston. No improvement can be suggested that would more effectually bind the whole State into one homogeneous mass than the one last mentioned. That sectionalism which naturally results from our mountain barriers would at once disappear and an entire unity of interest and feeling would pervade every part of our State.



So thoroughly satisfied was I, when a member of the State constitutional convention, of the importance of such a channel of intercourse between the southern and northern sections of West Virginia, that I was prepared, as a matter of State policy, to make it an exception to all other limitations and prohibitions of the constitution, and to have vested in the State full authority to aid in the construction of such a road.

But, while no one appreciates the benefits and advantages of railroads more than I do, they cannot dispense with that class of improvements which it is the purpose of this bill to supply. For heavy articles like iron and coal no mode of transportation can compare in cheapness to that of water, and when, under the benign auspices of this Government, our rivers shall be cleared of their obstructions and made capable of floating upon their surface our rich products to market, we shall bid defiance to competition and feel that we are prepared "to stand up against a world in arms."

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[From the *West Virginia Journal*, Dec. 8.]

## OUR GREAT NATIONAL WATER LINE.

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ITS ADVANTAGES TO OUR STATE AND THE COUNTRY.

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*An Open Letter from Hon. Chas. J. Faulkner.*

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MARTINSBURG, September 25, 1875.

J. BRISBEN WALKER, ESQ. :

Your kind letter has been received, in which you say, that some of the people of your county apprehend that I will be so engrossed by providing for improvements in the northern part of our State that I shall have no time to devote my attention to the interest of the southern part of it; and you inquire of me, whether I propose to take an active interest in securing the appropriation necessary to the Kanawha improvement? I thank you for inviting my attention to this subject, and especially if any of your



citizens are unacquainted with my past course in reference to your improvement, or labored under any erroneous impression as to what my future course will be as one of the Representatives in Congress, of the State of West Virginia.

I have long regarded the water line between tide waters of the James and Ohio Rivers as one of those great central avenues of trade which demand public patronage and support. Accordingly, as a member of the Virginia Legislature, my votes will be found recorded uniformly in support of that work, and no one, I am sure, in the legislature co-operated more cordially with the venerable Joseph C. Cabell and the eloquent James McDowell, than I did, in the furtherance of that great State enterprise, so far as it has advanced westward.

The interest which I took in former days in promoting that improvement is certainly not diminished by the fact that it has now become the most important public work in West Virginia. The immense development of the coal and iron industries of the valley of the Kanawha renders a continuous canal, or the easy navigation of that river, an object of the deepest concern to every person feeling an interest in the welfare of our State. I therefore expect, at the approaching session of Congress, to co-operate with my friend and colleague, Mr. Hereford, and under his lead, to do whatever may be in my power to advance the progress of that important public work.

It is the misfortune of the present condition of things in Congress that no single improvement, however meritorious, can obtain the support of either House upon its *own merits*. The system of *log rolling* in such cases has been the avowed and recognized rule of action in the national legislature. A general bill, founded upon the estimates and recommendations of the department, is ordinarily introduced every session, appropriating several millions for river and harbor improvements in the States, and here commences a struggle, as to what proportion of the sum or an increased amount, shall be distributed to this State and what to that. All these appropriations are embraced in one bill, and they stand or fall together. To secure the passage of such a bill something must be accorded to a sufficient number of States to concentrate in its favor a clear majority of the two Houses. I do not like the system. I would prefer, if possible, that each improvement should stand upon its own merits, but that seems to be now impracticable in the present condition of our legislation, and I shall be forced, I presume, like others, to yield to a necessity which I abhor. *Still, I would like to see more justice to this State in the future distributions that may take place. It seems to me that West Virginia has heretofore in this scramble received less than a fair and just dividend, and that the appropriations made for our State, and especially for the Kanawha, have been much less than the national character of the enterprise demanded.* It is not, I con-



fess, very consonant to my views for the sake of a small appropriation of five hundred thousand dollars for this State, to vote away, in a single bill, fourteen million dollars for similar improvements in other States; but if constrained to do so, I think at least that the standard of our demands should be enlarged, and *in view of the national character of the Kanawha improvement, that demand should rise to millions instead of a few hundred thousand dollars.* And I have no doubt if the West Virginia delegation is firm and united in such a policy, as I am sure it will be, it may be accomplished.

The small appropriations heretofore made for the Monongahela and the Kanawha, amounting *in all* to less than half a million of dollars, seem to have been accepted by many persons as a great boon to our State. Upon this point I am by no means satisfied, as in obtaining them our delegation had probably to vote for the *omnibus bills* for the last five years, making similar appropriations in other States, amounting in the aggregate to near twenty-seven million dollars. This may be the only path left open to us for success, yet it does not strike me as any great favor from Congress, nor as even meting out to West Virginia what is fairly and honestly due to her upon any fair and just principle of distribution. In making these remarks I am not to be understood as depreciating the valuable services of my friend and colleague, Mr. Hereford, or of the former Representative of my own district, Mr. McGrew. I know the adverse circumstances against which Mr. Hereford had to contend, and I know the earnest and diligent attention which he devoted to that particular interest of his district. And he having, by his assiduous labors in 1873-4-5, successfully procured for the Kanawha improvement a regular recognition in the general river and harbor appropriation bill, as an enterprise worthy of national patronage, he has in that respect done great service to his State, and rendered all future and larger appropriations a subject of less difficulty and contention.

Believe me very truly and respectfully yours,

CHAS. J. FAULKNER.





