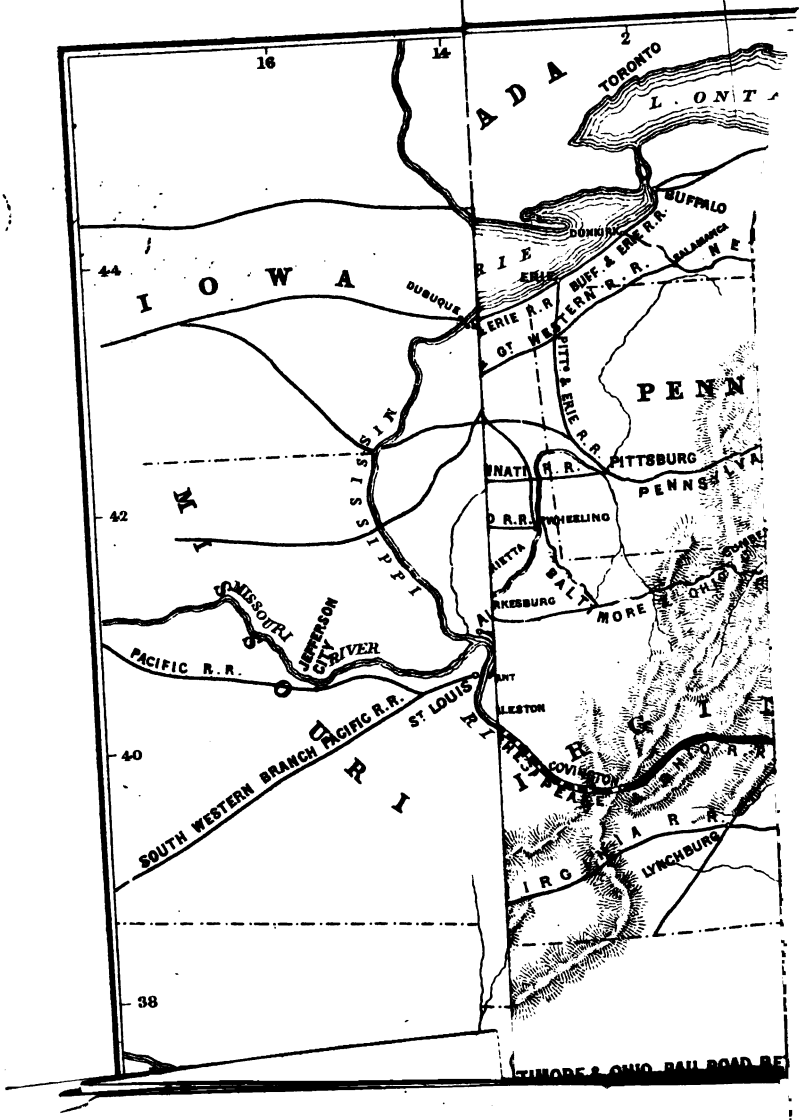
American railways. The
Chesapeake and Ohio...

1868.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AMERICAN RAILWAYS.

THE CHESAPEAKE AND OHIO LINE.

LATE

THE VIRGINIA CENTRAL LINE.

LONDON:
LOWE & OLIPHANT, PRINTERS & STATIONERS,
THREADNEEDLE STREET.

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portion the minimum radius is 1,000 feet—of this minimum there are only 2⅛ miles, which is scarcely one per cent. of the entire distance.

Two lines are now in the course of construction in the State of Ohio: one to meet the Chesapeake and Ohio Line at the mouth of the Big Sandy River, and the other to meet its branch line at Point Pleasant, both termini being on the Ohio River. The Chesapeake and Ohio Line is the shortest line between the chief cities of the west and the Atlantic seaboard. The distance from New York to Cincinnati, *viâ* the Erie and Atlantic and Great Western Lines is 862 miles.* The distance from Philadelphia to Cincinnati, *viâ* the Pennsylvania Central and Pittsburgh, Columbus and Cincinnati Lines is 711 miles. The distance from Baltimore to Cincinnati, *viâ* the Baltimore and Ohio and Marietta and Cincinnati Lines, is 578 miles. The distance between Richmond and Cincinnati, *viâ* the Chesapeake and Ohio Line, is but 545 miles. By equated distance—that is, allowing for difference in gradients and curvatures—the Chesapeake and Ohio route to Richmond is less by 123 miles than the Baltimore and Ohio route. The distance, gradients and curvatures of the Chesapeake and Ohio Line being more advantageous than those of the other lines, will enable that line to convey produce from Cincinnati and other points in the west to the Atlantic seaboard, and thence by water to New York, 25 per cent. below the rates charged by the other lines. In other words, at the same rates of freight the Chesapeake and Ohio Line will be earning a greater net-revenue than the Baltimore and Ohio, and Pennsylvania Lines. The cost too of the Chesapeake and Ohio Line, when fully com-

* The Atlantic and Great Western is not, as its corporate title indicates, and as is generally thought in Europe, a through or trunk line. It begins at Salamanca, a station on the line of the Erie Railway, 414 miles north-west of New York, and extends across Pennsylvania in a south-westerly direction to Dayton, Ohio, a town 60 miles north of Cincinnati.

pleted, will be one-third less than the cost of either of the other lines crossing the Alleghanies; and the operating expenses and maintenance of way will be much less owing to the more favorable climate possessed by the Chesapeake and Ohio Line. The Virginia Central, now the Chesapeake and Ohio Line, is worked at 50 per cent. of the receipts, while all the lines north thereof are operated at a cost of 70 to 75 per cent.

There is uninterrupted water communication between Richmond and New York throughout the year, while the navigation at Baltimore and at Philadelphia is frequently suspended during the winter season by the ice in the Patapsco and Delaware Rivers. While the traffic of the Baltimore and Ohio, and the Pennsylvania Central Lines is thus, to a certain extent, cut off in the east for a part of the year, their traffic is also, in a degree, cut off in the west by the ice in the Ohio River, at their respective termini, Parkersburg, Wheeling and Pittsburg, whereas there is seldom any ice as far south as Point Pleasant or the Big Sandy River, the western termini of the Chesapeake and Ohio Line on the Ohio River. This ice difficulty seriously interferes with all the lines running to the lakes.

The through passenger traffic to and from the west, over three-fourths of the Chesapeake and Ohio Line, will be enormous, its finer climate rendering it the most pleasant of all the routes. The shortest distance by rail from Cincinnati, and all points west and south-west thereof, to Washington, Baltimore, Philadelphia, and New York, is *viâ* Gordonsville, a station on the Chesapeake and Ohio Line, 320 miles east of the Ohio River.

The line runs through the most populous counties of Virginia and West Virginia, and when it reaches the Ohio River it will have the advantage of an enormous western, south-western, and north-western traffic already made to its hand. No railway ever constructed across the Alleghanies has had, at the outset, a traffic of such magnitude as the Chesapeake and Ohio Line will possess. The local traffic, too, will be immense.

The James River Canal runs to the base of the Alleghanies on the east, and the Kanawha River Canal will soon be completed to the base of the Alleghanies on the west. The railway, then, will form the connecting link between the two canals for heavy produce going east and west—such produce as would not bear the expense of railway transportation for a long distance—and much produce of a kind that now, for the sake of economy in transit, is sent by water to New York, *vid* New Orleans, will be forwarded over the Chesapeake and Ohio route. In truth, the completion of the Chesapeake and Ohio Line will be but the realization of the views of WASHINGTON, expressed 80 years ago, that there should be some artificial communication between the waters of the Chesapeake, which empty into the Atlantic, and the waters of the Ohio, which empty into the Mississippi River, and from thence into the Gulf of Mexico.

Besides the local traffic to be derived from the agricultural and mineral resources of the counties along the line of the railway, and the portage business of the James and Kanawha River Canals, the Chesapeake and Ohio Line has a local traffic of a character that no other line in America, or perhaps in the world, possesses. Situate immediately on the line, 226 miles west of Richmond, and 203 miles east of the Ohio River are the celebrated White Sulphur Springs. These and other famous medicinal springs in the same neighbourhood attract large numbers of persons every year from all the States of the Union, and the revenue from this source alone will be very great, especially as the springs being about midway on the line of the railway, will give a passenger traffic both east and west. At present there is no railway communication with any of these springs; they are all reached by stages.

Immense deposits of iron ores abound along the line of the Chesapeake and Ohio Railroad, east of the Alleghanies, with lime and coal in juxtaposition. These iron ores yield metal of the very best quality. It is from this metal that the famous iron manufactures of the Tredegar works at Richmond are

produced. The tenacity of the iron for cables has been ascertained to be superior to any other used for that purpose.

The country through which the uncompleted portion of the Chesapeake and Ohio line passes west of the Alleghanies, also abounds in coal and iron lands of the best descriptions, which in consequence of their inaccessibility to market hitherto, are still undeveloped. The completion of the railway, with the canal connections, will make these productions accessible to both the eastern and western markets.

While the number of railways in the States west of the Ohio River is constantly on the increase, being constructed not so much for profit in themselves, as for the sake of improving the value of the lands through which they pass, the number of through railways east of the Ohio River, has not of recent years been increased, nor can the number be increased. The Alleghanies are natural barriers to their construction. The Pennsylvania Railroad Company controls the only eligible passes—the Indian war paths—in Pennsylvania; the Baltimore and Ohio Railroad Company controls the only eligible pass in Maryland; and the remaining passes in Virginia and West Virginia are occupied by the Chesapeake and Ohio Line. Hence there cannot be, as is the case west of the Ohio River on prairie and level lands, too many railways crossing the Apalachian range for the wants of trade. Each new "developing" railway constructed in the west, necessarily adds to the traffic of the few mountain lines. The two finished east and west mountain lines are now being worked to their utmost capacity; and the Chesapeake and Ohio Line, therefore, completed to the Ohio River, is actually needed for existing commerce. The population of the States, west and north-west of the Ohio, has doubled since the opening of the Baltimore and Ohio and Pennsylvania Lines. The Pennsylvania Railroad Company contemplate laying a third track. The revenue of the Pennsylvania Company the first year of the opening of its line as a through line, from the Delaware

to the Ohio River, in 1854, was $3,512,595. In 1867 the revenue was $16,540,156, an increase of nearly five-fold in money, with a much larger increase in tonnage.

It is stated in the first part of this pamphlet, that produce from Cincinnati can be sent over the Chesapeake and Ohio Line, by reason of the shorter distance by rail and delivered in New York at lower rates of freight than by any other line. Though this is perfectly true, it may be observed that it is not necessary to send the produce to New York. A few miles below Richmond, at City Point, on the James River, vessels of the largest class can load, and do load for European ports. On the other side of Richmond, there is communication by rail with West Point on the York River, 38 miles distant. At West Point vessels drawing 23 feet of water can at all times take in cargo. There is also communication by rail, as well as water, with Norfolk, which Port possesses the finest harbour on the American Continent, at the entrance of the Chesapeake Bay. Norfolk, like Falmouth, England, and Queenstown, Ireland, has for a century been a port of call. Most of the produce that is transported over the Pennsylvania and Baltimore and Ohio Lines, finds its way by canal, river, and sea, to New York, and a large proportion of the emigrants and merchandise landed at New York pass over the Pennsylvania route to the west. The increase of tonnage on the more southern lines running east and west is greater than that of the more northern lines, as will be seen by the following statement:—

Roads.	1857. Tons.	1867. Tons.	Increase.
New York Central	838,791	1,667,926	99 per cent.
Erie	978,069	3,484,546	256 „
Pennsylvania	530,420	4,000,538	654 „

The figures of the Baltimore and Ohio Line for the same years are not at hand; but for 1862 and 1865 they were, 2,793,220 tons and 4,819,900 tons, an increase of nearly 75 per cent. in three years.

The Chesapeake and Ohio Line, like the Baltimore and Ohio and Pennsylvania Lines, is organized on old-fashioned business principles, with a *bonâ fide* American constituency; and the Chesapeake and Ohio Line has a paid up capital stock, greater in comparison with the cost of the line than that of any other railway in the United States of America. Its bonded debt, therefore, is amply secured; and the mortgage upon which the bonds are based is without "flaw," and not wanting in any particular. It is probably the most comprehensive document of the kind ever engrossed, combining, as it does, all the legal technicalities necessary to perfect its validity. Many American railway mortgages have proved to be utterly valueless, in consequence of their not conforming to the laws of the States through which the lines run. The Chesapeake and Ohio mortgage has passed the scrutiny of the best lawyers in Virginia and West Virginia, the only two States in the American Union whose railroad and other laws are identical in all respects.

The Chesapeake and Ohio Railroad Company is the owner of a large amount of lands, taken for subscriptions to its capital stock at minimum prices. It is entitled by its charter to possess lands to be sold within a period of 10 years, to the extent of 5,000,000 acres.

Not one of the Trans-Alleghanian Lines can be said to be a competing or rival line, for there is business for all of them. The average distance between the Pennsylvania Central and Baltimore and Ohio Lines is upwards of 100 miles, and the average distance between the Baltimore and Ohio and the Chesapeake and Ohio Lines is little short of 200 miles. All of these lines are crossed by lines running north and south, acting as tributaries to their passenger and freight traffic both ways. Of the three Trans-Alleghanian routes, that of the Chesapeake and Ohio Line, is the only one that can be considered free from a "snow blockade" for many days during the winter season.

THE RESOURCES OF VIRGINIA.

The State of Virginia (now Virginia and West-Virginia) has more natural resources than any State in the Union. It is an empire within itself, and like France, could "live within itself." It has long been known to the world as the great tobacco State, and to the people of the United States as the great wheat producing State. The wheat of Virginia, is the only American wheat, excepting that of California, which when converted into flour, will answer for the South American and other tropical markets, and from its fine quality is the principal wheat consumed in the large cities of Boston, New York, Philadelphia and Baltimore. Virginia also is a large maize growing state; and owing to her long summer has become the chief vegetable state. Her soil is as fine as that of any state north of her limits, and finer than that of any state south of her limits; while her climate, excepting for cotton and rice, is better adapted for the several productions of the earth than that of any other State. Virginia is likewise, but to a limited extent, a cotton producing State.* She is, too, a very fine fruit State. Her mountains, as the magnificent growth of trees to their very summit indicate, are

* The limited quantity of cotton grown in Virginia is not owing to any defect in her soil; it is a question of price. Virginia grows cotton of as good staple as any other State. But her growing season is shorter than that of the more southern States, and her sun is less hot. Hence it is that the cotton plant in Virginia is not only longer in reaching maturity, but the blooming ceases at an earlier period, and less cotton therefore is obtained for the amount of labour bestowed upon it than in the extreme southern States. If the present price of cotton was certain to be maintained, the planters of Virginia could well afford to grow cotton in large quantities. The uncertainty as to price, however, retards the culture of cotton. Of all the American States that can cultivate cotton with white labour, Virginia, by reason of her climate, heads the list No State north of Virginia can grow cotton at all. If Virginia had sufficient white labour, and 12 pence for cotton could be assured, it would not be difficult for her to supply the demands of commerce with the leading staple.

almost as fertile as her valleys, thereby affording a greater variety of culture than is generally found in the same locality. In all the elements of agricultural as well as mineral and manufacturing advantages, Virginia is superior to any other American State. Her rich hill sides, combined with her mild climate, are adapted for the culture of every variety of grape. The introduction of emigrants from the wine districts of Europe will make Virginia the vineyard of America. In her central position in the Union, in her proximity to the sea, in her mild and delightful climate, in her vast forests of pine, oak, chestnut, walnut, poplar, beech, maple, cherry, and other varieties of excellent timber, in her rich soil, in her deep navigable rivers she is without a rival. The climate of Virginia is so genial, and her grasses are so nutritious that in many districts it is unnecessary to house-feed cattle during the winter. For this reason sheep are enabled to pasture throughout the year. Thus, for stock raising and wool growing, Virginia is unsurpassed. In Virginia, swine are fattened chiefly on acorns and nuts of various kinds, of which there are a great abundance. In the Autumn, before the swine are slaughtered, they are fed on Indian corn. Virginia, is also known in America, as an important State for raising horses.

The western and north-western States of America, with a few exceptions, are purely agricultural, producing but few staples. The disadvantage under which those States struggle, even as far as their own productions are concerned, is their great distance from market. Unless there be an European outlet for grain at prices above the normal rates, but a small portion of their surplus produce meets a demand; for the cost of transportation from the west to the east is greater, under ordinary circumstances, than the seaboard value of the produce. The few States west of the Ohio River that possess coal have a limited market for that article, and in many instances the coal beds are remote from navigable rivers, and hence are without value. The great consumption of coal west of the

Alleghanies is west, south-west and south of the western termini of the Chesapeake and Ohio Line. But the chief consumption of coal in America is east of the Alleghany Mountains. The large cities of the east, the manufacturing towns on the Atlantic coast, and the Federal and Mercantile navies are the great consumers of coal.

It will thus be seen that while Virginia has, by her fine harbours, commercial advantages equal to those of the commercial State of New York, she has also agricultural advantages superior to the agricultural States of the West, and mining advantages superior to the Western States that have coal deposits. Her nearness to market, places Virginia in this excellent position.

Virginia, too, is already quite a large manufacturing State. Her water power at the Falls of the James River, and at the Falls of the Kanawha is extremely valuable. The water power, with her cheap coal, gives her advantages over the New England States, which States are recognized as the chief manufacturing States of America. Pennsylvania by reason of her cheap coal and water power, is now outstepping the New England States in many kinds of manufactures, and Virginia bids fair soon to follow her example.

Besides coal for ordinary manufacturing purposes, there is a variety of coal in Virginia of great value. It is called by Professor Hall, the State Geologist of New York, the "semi, or lamenated cannel." It is entirely free from sulphur, and is wholly indestructible from atmospheric agencies. Professor Hall thus speaks of it:—

"When partially burned it presents a fine porous coke, "finally burning away to a white or light coloured ash, without "any appreciable slag or other impurity. The flame and "quantity of smoke from a piece of cannel coal burnt at the "same time and place were not perceptibly different. For all "the purposes for producing steam, or for a steady dry burning "blazing coal, this bed will answer all the purposes of the real

" cannel coal, and for these objects will be equally valuable, " particularly upon the western waters and for steam boilers of " all manufacturers. Where the prevailing coals are of the soft " bituminous character, it is remarkably adapted to bear trans- " portation with little loss from breaking or waste. This com- " bination of qualities, which I hesitate not to say is possessed " by no other coal in the region, except the cannel coal, renders " it exceedingly valuable." In addition to the great beds of bituminous, splint, and semi-cannel coal, there are enormous beds of cannel coal in Virginia.

The Great Kanawha coal and iron fields are thus described:

"The coal fields of the Great Kanawha Region, in Virginia, are superior to those of Great Britain or Pennsylvania. They are regarded by eminent geologists *as the finest deposit of coal in the world.* The quality of Kanawha cannel coal is equal to the best English cannel; the quality of its bituminous coal is equal to the best found in Pennsylvania; and Kanawha splint coal, for smelting iron ore, is unsurpassed. The veins lie horizontally and vary from three feet to fifteen feet in thickness; and the aggregate thickness of the various veins in some localities amounts to forty and even fifty feet of solid coal."

The advantages of the Great Kanawha coal fields over those near Pittsburg may be summed up as follows:

"1. The Kanawha coal fields contain as good bituminous coal as the best found on the Monongahela and Youghiogheny, and, in addition thereto, large deposits of *cannel coal,* equal in quality to the best English cannel—none of which is found in the Monongahela coal fields."

"2. The veins of coal are thicker and more numerous on the Kanawha than on the Monongahela. Veins of splint and bituminous coal on the Kanawha are from four feet to fifteen feet thick, and the cannel from thirty inches to five feet thick."

"3. Coal lands on the Monongahela and Youghiogheny sell for $300 and $400 per acre, whilst better coal lands on the Kanawha can now be purchased at a very much less price."

"4. The Kanawha coal fields are 230 miles nearer to Cincinnati and the south-west cities than the Monongahela coal fields are. This gives to Kanawha coal an advantage of *at least one per cent. per bushel in cost of transportation* to such markets over the Monongahela and Youghiogheny (Pennsylvania) coal."

"5. The navigation of the Ohio at Point Pleasant the north-west terminus of the Chesapeake and Ohio Line is much better than it is at Pittsburg; therefore, Kanawha coal can be more frequently shipped from Point Pleasant than Monongahela coal can from Pittsburg."

"6. The navigation of the Kanawha and Lower Ohio is not interrupted by ice to the extent that the navigation of the Monongahela and Upper Ohio is, as New River, the chief tributary of the Kanawha, rises in North Carolina—whilst the Alleghany River (which, with the Monongahela River, forms the Ohio River,) rises near Lake Erie. This gives to the Ohio River at Point Pleasant an advantage of three weeks and more every winter over the Ohio at Pittsburg—and at a time when fuel is most needed in Cincinnati and Louisville."

"7. The Kanawha coal fields are situated on what must be, in time, a great highway for the trade and travel of the Mississippi Valley to the Atlantic sea-board. The vast and rapidly increasing trade of the Great West is seeking new routes for transit to the cities of the sea coast; and the route through the Kanawha Valley has advantages over all others in *shortness of distance, grade of road and mildness of climate.*"

"At a meeting held in Cooper Institute, (New York City,) a few months ago, in which Peter Cooper, William Cullen Bryant and others presided, to consider what should be the Atlantic terminus of the Pacific Railroad; it was resolved, in the opinion of the meeting, that the shortest and most feasible and practical route for the Pacific road from San Francisco to the Atlantic was *vid* St. Louis to Covington, in Alleghany County, Virginia, and thence down James River by Lynchburg, Richmond, and Norfolk to the Atlantic, thereby making Norfolk

or some point near there, the Atlantic terminus of this great central national highway."

"The Virginia Central Railroad extends from Richmond to Covington, in Alleghany County, Virginia, 205 miles; and the Covington and Ohio Railroad is to extend from Covington, through the Kanawha Valley to the Ohio River, 224 miles. The Virginia Central is in active operation. Upon the Covington and Ohio Railroad, $3,250,000 have been expended by the State of Virginia. These two roads have just been consolidated under the name and title of *"The Chesapeake and Ohio Railroad Company,"* and when completed will constitute the shortest railroad from Cincinnati and the great west to the Atlantic sea-board; and will furnish an outlet to the Atlantic for the products of the Great Kanawha Valley."

"In a speech in Parliament, Mr. Gladstone said the commercial superiority of Great Britain over all other countries was attributable chiefly to her coal deposits and their location near iron and other minerals; *that coal was the substratum of England's commercial prosperity;* that as the coal of Great Britain became exhausted, so must her commerce decline; and that as the United States contained such extensive coal fields, that country would, consequently, in time become the chief commercial power of the world."

"What Mr. Gladstone said respecting the prosperity of Great Britain is equally applicable to Pennsylvania. It is the coal deposits of that State and their location near iron and other minerals that constitute the basis of her wealth, and have made her such a prosperous State."

"Virginia has the same natural advantages. Along the Kanawha and New River Valleys are found iron ore in great abundance and of superior quality; and these two elements of wealth, *coal and iron,* are situated near each other on Kanawha and New Rivers. But in consequence of the imperfect navi-
ation of the Kanawha River, superior coal lands in the
awha Region can, at this time, before the railway is com-

pleted, be purchased at low prices, whilst in Pennsylvania the average price of coal lands is $250 per acre; and where favorably located are worth $1,000 per acre. In Great Britain, coal lands accessible to market sell for $5,000 per acre."

Were it not for increasing the length of this pamphlet beyond the designed limit, some remarks might be made upon the lead and the gold mines of Virginia: upon her valuable salt springs, her granites, her dye stuffs, her petroleum wells, her white and red sulphur and alum springs; also, upon her oyster and other fisheries.

Virginia embraces 61,352 square miles of territory, or 39,265,280 acres of land, of which in 1860 only 11,435,954 acres were improved, leaving 27,829,326 acres unimproved! The question may be asked—How is it that so old a settled State has so small a portion of her territory unimproved? The question can be easily answered. Most of the unoccupied lands of Virginia were, during the latter part of the last century, taken up in large tracts by speculators, whose successors have since held them. No inducement was offered to small and actual settlers to purchase these lands, and for that reason emigrants from Europe and from the Eastern States have been attracted to the far West, where Government lands could be purchased at low rates and in quantities to suit the purchasers. This order of things in Virginia is now changed. Not only are these vast unoccupied tracts of land placed upon the market in moderate quantities at low figures, but many of the old plantations hitherto tilled by slave labour are being cut up into small farms and cultivated by white labour. While slave, or capitalised African labour, answered admirably well in the semi-tropical states where cotton and rice are produced, that kind of labour, if anything, retarded the progress of Virginia, because energetic white labour has always been more suited to that State. The two systems of labour—free and slave—will not harmonise; and, as white labour is so well adapted for the climate of Virginia, it will eventually annihi-

late even the free negro labour. The gradual disappearance of negro labour from Virginia, and the immigration of white labour, already pouring in from the Northern States and from Europe, has given a new impulse to the prosperity of Virginia. So soon, then, as the Chesapeake and Ohio railway shall be completed to the Ohio river, Virginia must necessarily become one of the most prosperous States of the American Confederation.

From Commander Maury.

Va. Military Institute, Lexington, Va.,
Sept. 17th, 1868.

My dear Colonel,

The study of railways in their political economy and commercial bearings has been with me a speciality.

I am familiar with all of them in the United States, from Portland in Maine to Fernandina in Florida, and, throughout this distance, there is not one which connects the Mississippi Valley with the seaport towns of the Atlantic Ocean that is more promising than yours.

Consider the Erie Railroad, (a lake road) the Pennsylvania Central, the Baltimore and Ohio, all of these were especially built as thoroughfares for the vast and growing trade between the West and the Atlantic seaboard. They are all now doing a "*roaring*" business, and have been since they were first completed. They cost nearly twice as much as your road will cost when completed.

The distance by them to the sea from Cincinnati, Louis-
St. Louis, and other centres of trade in the North-West,
ıter than it will be by the Chesapeake and Ohio Road.

This road offers not only a shorter and cheaper route to the sea than any of them, but its grades are also easier, and its curves more gentle than theirs, consequently its capacities will be relatively greater, and its cost of maintenance less.

Consider these facts, look at the business which these roads are now doing, the vast amount of produce in the West which is annually wasted for the want of cheaper conveyance to market, and, there seems to me to be no room for difference of opinion as to the merits of the Chesapeake and Ohio Railroad.

There is already languishing and awaiting the completion of this road, business enough for a double track.

I am now preparing to undertake, in connection with the Va. Military Institute, a State Institution, a physical survey of Virginia and West Virginia, with the view of developing their resources, encouraging enterprise, and making known their commercial advantages. An official report upon these subjects will be submitted at an early day. In it the subject of this and other internal improvements connecting the great West with Norfolk, and other tidewater harbours of Virginia, will be treated in a commercial and other points of view.

I, therefore, must beg to postpone a reply in detail to your letter, and refer you to that report, a copy of which as soon as published, I shall be happy to lay before you.

Respectfully, &c.,

(Signed) M. F. MAURY,

Professor of Physics, V. M. I.

To Col. E. Fontaine,
President, Chesapeake and Ohio
Railroad Company, Richmond, Va.

(Copy.)

From General Lee.

Lexington, Va., September 21st, 1868.

My dear Sir,

I am greatly pleased to learn of the execution of the contract for the completion of the Covington and Ohio Railroad, and of the formation of the Chesapeake and Ohio Railroad Company, for the extension of the road to the Ohio River. There is no work of internal improvement, within my knowledge, which unites greater interest in its favour, or promises to be of more usefulness when completed.

Its advantages to Virginia, though second to no other work in the State, is of minor importance in comparison with its great value to the commerce of the country.

The products of the west, seeking eastern markets, already tax far beyond their capacity all the existing avenues of trade.

The amount of these products is steadily increasing, and if we may judge of the future from the past, the united capacity of the present high roads of commerce, aided by the Chesapeake and Ohio Railroad, and the projected James River and Kanawha Canals, will be found too limited, unless with an increased number of tracks, in a few years to supply the demands of trade, as an outlet for the products of the Mississippi Valley to the Atlantic.

The Chesapeake and Ohio Railroad has greatly the advantage over the northern routes in distance, in grade, freedom from interruption by severity of climate. It has also another important advantage; it will be a more direct route from St. Louis to the Atlantic, and may therefore become one of the most prominent of the eastern branches of the Pacific Railroad. The trade of the east from San Francisco across

the continent, will naturally follow the most favorable channel to the sea—debouching, as this will, at the best harbour (Norfolk*) on the eastern coast.

With my earnest wishes for the early completion of this important road,

I am very respectfully,

Your obedient Servant,

(Signed) R. E. LEE.

COL. E. FONTAINE,
President Ches. & Ohio Railroad Co.

Distances of the principal American Ports from the Atlantic Ocean, with their draft of water:—

Port.	State.	Distance.	Draft.
Boston.....	Massachusetts ..	100 miles ..	21 feet.
New York....	New York	30 „ ..	23 „
Philadelphia ..	Pennsylvania ...	100 „ ..	24 „
Baltimore	Maryland.....	160 „ ..	20 „
Norfolk	Virginia	20 „ ..	30 „

* Norfolk is the only Port in America at which the steam-ship "Great Eastern" can load to her full capacity.

Lowe & Oliphant, Printers, 47, Threadneedle Street, London.