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REPORT

OF THE

COMMISSIONER

ON THE

Kanawha Road and Navigation,

TO THE

GENERAL ASSEMBLY OF VIRGINIA.

In obedience to the act of the General Assembly, of the 2d of February, 1823, I beg leave to submit the following report:

In the month of March last, I was notified of my re-appointment to the office of Commissioner on the Kanawha Road and Navigation, and at the same time was furnished with a copy of the act of the 8th of March, 1827; which, among other provisions, provides for the re-building of the bridge at the mouth of Gauley river, "upon such model as, in the opinion of the Commissioner, will combine economy with public utility;" also, authorising the removal of the toll-gates on the Kanawha Turnpike Road, and letting out the repairs of the road by sections, for a period not exceeding three years.

Shortly after my appointment to office, I executed my official bond and took the oath of office as prescribed by law, and proceeded to carry into execution the provisions of the act of the 8th of March, above referred to.

I proceeded immediately to place the collection of tolls on the mountain section of the canal, the towing path and bridge, under the provisions of the before mentioned act; and caused public notice to be given in the news-papers published in Lynchburg, Lewisburg and Charleston, that on the 10th of May, 1827, I should attend at the mouth of Gauley, for the purpose of receiving proposals for re-building the bridge at that place; for placing in the Kanawha river a suitable number of buoys and ring-bolts, and for keeping in good repair the turnpike road from its western termination to Lewisburg, for the space of three years; and that I would attend at Lewisburg on the 15th of the same month, for the purpose of receiving proposals for keeping in good repair for three years, the turnpike road from that place to Covington, its eastern termination.

The meetings at the places appointed were well attended, and a fair competition produced. Two plans were submitted; the one on the plan of the former bridge at that place, which was destroyed by fire, and the other, a straight, open-top bridge, supported by six stone piers. Most of the propositions were for building on the original plan, and they varied from \$11,000 to \$15,750. Only one proposition was submitted for building an open-top bridge, and that was made by Messrs. Shields and Blair, at the sum of \$6,467. I concluded to accept the latter proposition, believing that by so doing, I should best "combine economy with public utility." In coming to this determination, I am aware that I stand opposed to many respectable gentlemen of that country, for whose opinions I entertain the highest respect. Their objections seem to be founded on a belief, that so many piers placed transversely in the stream, will obstruct the passage of drift and floating timbers, and thereby endanger the safety of the bridge. To this objection, urged with much apparent plausibility, I gave due consideration; but was finally brought to the conclusion, that the dangers that seem to be apprehended will be productive of no public injury, and will never result in the anticipated disaster. There will be an open space between the pillars of upwards of sixty feet. The piers are built on a solid rock foundation, and

with stone of the best quality, and of uncommon length and breadth. The space between the piers will be amply sufficient to let the drift pass, and the falls, a short distance above the bridge, will prevent the drift from coming to the bridge in a compact body; and if it should be the case, the current in the river will be sufficiently strong to force the drift between the pillars. There are many other considerations that might be urged in favour of the plan adopted. Bridges built upon the plan of the one destroyed by fire, to become valuable, must be executed with more skill than falls to the lot of most of the workmen of our country. Moore, the former contractor for the bridges at Gauley and Greenbrier, was possessed of uncommon skill, and executed his work with great fidelity. An effort was made to procure his services, but without success: And if his services could have been procured, I should have doubted much the propriety of placing at that place another covered bridge; for, there is at that place a conflict of interest between the bridges and ferries, which would always render a bridge, composed of much combustible matter, unsafe. These, with other considerations, and the great difference in price, brought me to the determination before mentioned. The contractors entered into bond with ample security, in which they covenanted to complete the bridge on or before the 15th day of November last. In this they have failed. At the period aforesaid, I visited that place and inspected the works. They then had two piers above the water, but not complete, and materials nearly sufficient to complete the work, and may finish it in the course of next summer. Major John Staples, my Engineer, has been regular in his attendance, watching over the execution of the work, and what has been done appears to be executed in a strong, workman-like manner, possessing great strength and durability.

There were various propositions for placing in the Kanawha river, a suitable number of buoys and ring bolts. Samuel Hannah was the lowest bidder, and became the contractor at \$2 for each ring-bolt, and at \$3 50 for each buoy. When I was on the Kanawha river in November last, he had placed thirty-two buoys and twenty-five ring-bolts in the river, under the directions of Major Staples, and was prepared to put in the balance, but a rise of the water and the coldness of the weather will delay its completion until next summer. I settled with him for all that had been placed in the river, amounting to \$162, and paid him by a draft on the Second Auditor.

There were a number of proposals handed in, for keeping in repair the turnpike road from its western termination to Lewisburg: They varied from \$1,000 to \$1,500 per annum. Francis Carrol was the lowest bidder. He has considerable experience in work of that kind, and is a faithful contractor. The contract was given to him; whereupon, he entered into bond with good security, with suitable conditions and specifications.

The repairs of the other sections of the road from Lewisburg to Covington, were let at Lewisburg on the 15th day of May. There were numerous proposals put in, varying from \$600 to \$313 17. James Knox was the lowest bidder and became the contractor for the last mentioned sum; whereupon he entered into bond with sufficient security, conditioned as the law directs.

The bonds taken, in pursuance of the contracts aforesaid, are all filed in the Second Auditor's office, and are believed to contain conditions and specifications sufficient to protect the public interest.

On the completion of the mountain section of the canal, I embraced the first opportunity of reducing the contingent expenses on this line of improvement as far as was practicable, by discharging such of the Engineers as were not wanting. On the 8th day of February last, I settled with Francis F. Purcell, one of the Engineers; ascertained the balance due to him, which was paid by a draft on the Second Auditor, and discontinued his services.

On the 23d of the same month, I came to a settlement with Col. William Paxton, who had been acting as Engineer; ascertained the balance due him; paid him by a draft on the Second Auditor, and discontinued his services.

On the 5th day of April, I discontinued the services of Maj. James C. Warren, who had been acting as Engineer on the western end of the line, at a salary of \$1000 per annum; came to a settlement with him, and paid the balance due him by a draft on the Second Auditor.

I continued Maj. Staples as Engineer, at a reduction of salary from 12 to \$800, and he is the only officer of that description on this line of improvement under my direction.

In my former report, I mentioned that \$5000 found to be due Messrs. Jordan and Irvine, under their contract on the mountain section of the canal, had been withheld until they should make sufficiently tight a part of their line of the improvement. The hard weather in the winter delayed the completion of this work, until some time in the month of March, when the collection of tolls commenced. The payment of this sum was retained until the month of May, when it was considered that their works had assumed a reasonable degree of tightness, and was then paid by a draft on the Second Auditor.

On the completion of the canal at the mountain section, I apprehended that parts of the work would give way, and that it would be important to have at command some hands that could repair the breaches before they would become extensive, and when not engaged in repairing breaches, they might be advantageously employed in strengthening parts of the canal that might require it. This idea I suggested to the President and Directors of the James River Company. They took the subject under their consideration, and hired six negro men, and employed an overseer and sent them up. They have been found very useful in the course of the year. Several small breaches have made their appearance, but by having hands at command, they have been speedily stopped without interrupting the navigation. The most material defects in these works have been found in that part which lies in the county of Bedford, and which was contracted for by Messrs. Lyman and Sanford Brown: their embankments have given way in several places, and when exposed to inspection, the puddle appears to be too thin, and the embankment made principally of sand; but the most material deception is found in their locks. Early this spring their lower cut stone locks and the double wooden lock communicating with the river gave way, and leaked so badly that they could not be used. A considerable portion of

the stone in the facing of the cut stone lock, was found too soft to resist the frosts of winter; and instead of being bedded in Roman cement six inches, they were only pointed, and the backing behind the cut stone wall was filled with sand instead of grout, which was washed out as soon as the water got to it. These locks were propped up, so that they could be used whilst preparations were making for re-building them. The wooden lock, if possible, was more faithfully made: the lining was so badly put on, that it leaked in every part; the filling between the rough stone wall and the chamber of the lock, being composed of sand, was soon washed out and the backing wall much injured: this was also propped, so that it could be used by ascending boats. The appearance of these locks was good when the work was received. The cut stone lock drew a compliment from men possessing more skill than I can boast of. As to the wooden lock, I doubted much, and refused to receive it until the Engineers who superintended the work granted their certificate, that in their opinion it ought to be received: that certificate will be found in the office of the Second Auditor attached to the account settled with the Browns. If the Messrs. Browns could be reached, the Commonwealth would have a well-founded claim against them, for considerable damages, for the frauds practised in the execution of their contract. When the defect in this work was discovered, I communicated with the President and Directors of the James River Company as to the best and most economical way for making the repairs, and they concurred with me in the opinion, that it would be best to employ the hands then on the canal, in part, hire some additional labourers by the day or month, and employ a suitable number of stone-cutters and lock-builders to carry on the work: this was accordingly done; good stone, in sufficient quantity was procured to re-place all that was defective; lime and Roman cement was obtained, and the lock taken down and re-built, and is now believed to be the best lock on this line. The wooden lock was taken down in part, additional supporting timbers put in, the backing walls re-built, and the whole chamber lined with another coat of plank: this has rendered this lock useful and as likely to be permanent as any other wooden lock. The whole cost of both locks may be set down at about \$2000. Had this work been put out by contract, it would have cost at least double that sum. In making the repairs in the way above mentioned, considerable trouble has been imposed on the public agents, but the public interest has no doubt been advanced by it.

The canal and locks are all now in good repair, and are becoming more and more permanent; but it will still be necessary to keep a few hands ready to repair breaches that may happen, and when not engaged in repairing breaches, they may be usefully employed in walling and strengthening the works.

The house for the residence of the receiver of tolls, and one for a gate-keeper, have been finished and paid for, and one more house for the residence of a gate-keeper is wanting. On this line of improvement there are thirteen gates of all descriptions; five of which are put under the direction of one of the gate-keepers, who is required to furnish, at his own expense, a hand to assist him. The other gate-keeper attends four gates, and is likewise required to furnish a hand: the other four gates are within view of the toll-house, and are put under the direction of the receiver of tolls, who is required to furnish two hands. The first appointment to these offices was made, and the salaries fixed, by the President and Directors of the James River Company; the gate-keepers at \$350 per annum, and the receiver of tolls at one thousand dollars per annum. By the act of the 8th of March, it was made my duty to appoint suitable persons to fill these offices. The present incumbents having discharged their duty with fidelity, I have continued them with some reduction of salary; the upper lock-keeper at a salary of \$300, the lower lock-keeper at a salary of \$275, and the receiver of tolls at a salary of \$900, and each of them is still required to furnish the usual number of hands.

The annexed statement, marked A. shews the amount of tolls received on the mountain section of the canal, the towing path and bridge, from the 1st of March to the 15th of November, 1827, together with an estimate of the expenses incurred within the same period of time, distinguishing those that are permanent from those that are contingent. From this expose, there will be found nothing that is flattering; and by some it may be considered as a solemn admonition to the State, to proceed no farther in the prosecution of public improvements which are found to be so unproductive. This mode of reasoning may have its weight with some, but I trust there are but few who are disposed to act upon this limited and contracted view of the subject. James river may be properly regarded as the main artery of the State, and consequently whatever affects it either injuriously or beneficially, affects in the same manner the State itself. The improvements which have been made are isolated, and in their present disunited state, accomplish but little. It is true, that the canal at the mountain has overcome one of the greatest and most dangerous obstacles in the navigation of that river; but it is equally true, that there are difficulties both above and below that point, which are in themselves sufficient to destroy the useful purposes which that beautiful river was designed to answer. This river, from the city of Richmond, extending to the west, waters the finest part of the United States; throughout its extensive course, the soil is good, the climate temperate, and the waters inferior to none in the world. These are nature's bounteous gifts; but to make them extensively beneficial and useful, and productive of the great blessings which they were designed to bestow, the united exertions of the State are necessary. Individual means cannot accomplish a work of this magnitude, but the State would find no difficulty in its accomplishment. It is true, that the improvements that have been made on the river, have cost a large sum of money; have drawn no additional trade to the river, and have, consequently, been unproductive in the way of revenue. But it should be borne in mind, that when this improvement was commenced, we were greatly wanting in experience on the subject; we were unacquainted with the prices and value of that kind of work, nor had we skill or experience to guide us in the best practicable mode of improvement. From what has been done, much information and experience have been derived, which will be found useful in the farther improvement of this and other water courses in our State. And I believe I should hazard nothing in saying, that the same kind of work could now be better done for one-third less than we have paid for it. It is not my province, nor can I pretend to have the ability, to direct the Legislature of my State, as to the kind of improvement that would be best.

Were I to express an opinion on this important subject, it would be, that a mixed improvement would be best; in some places, short canals; in others, dams, and in others, sluices would be found to answer. In making these improvements, regard should be had to a more perfect state of improvement, should the interest and wants of the country require it. I can have no hesitation in saying, that something should be immediately done, and that the whole energies of the State should be directed to its speedy accomplishment. At present, the State of Virginia is retrograding rapidly, and has been so for the last seven years. Other States have far outstripped her in public improvements, and are now reaping the rich harvests from those improvements; and, unless the Legislature will interpose, by its energy and wisdom, to arrest this downward march, Virginia, whose resources are ample, and whose natural advantages are incalculable, will be thrown into the back-ground, and, indeed, be parcelled out to our sister States; for, already has an incorporated company in the town of Baltimore, made application, by way of rail roads, for one-third of the commerce of the State, which has been granted to them in part: and such are the difficulties experienced by our brethren in the western parts of the State, in reaching our sea-ports, and such has been the tardiness with which the Legislature has moved on this subject, that many of them are prepared to accept this deleterious draught, in order to obtain an outlet and market for their surplus produce, the profits of which will centre in a sister State. If we have not the means by which we can accomplish this object now, permit me to ask, when we shall be in a better condition? Is there any thing which we can rationally anticipate, that will render us more able at a future day? Are we not daily losing our physical strength and wealth, while our sister States are becoming more opulent and strong? If this be true, and if the means to stop this downward course be within our reach, we shall be inexcusable if we do not use them. I am persuaded that a short examination will satisfy the most incredulous, that the State has at command, resources more than sufficient to answer the purpose. At this time the fund for internal improvement holds stock to an amount exceeding one and an half million of dollars, consisting mostly of bank stock. At present, this stock does not yield more than 5 per cent. per annum, and if the banks were required, at this time, to redeem their stock, they would fall short at least 25 per cent. Yet, notwithstanding, this stock brings its par value. Then, let the government dispose of this stock, and invest the proceeds in the improvement of the road and river, and substitute the income arising from the improvement, for the income arising from the stock. I have no doubt, but in a few years, this would be found to be a more profitable investment than the present; and, in this way, both principal and income would be made to advance the great object for which the fund was created. If this plan should be objectionable, the State can obtain on loan, money to any amount, redeemable at pleasure, and the improvements can be made to pay the interest.

I may be told, that the improvements do not pay the interest upon the money expended. In the present state of the improvement, a large portion of the country sends its produce to market by land, and other parts that have neither navigation nor roads send none. But, if the river was made conveniently navigable for boats at all seasons of the year, the town of Covington would become a place of extensive deposit. The rich counties of Monroe, Greenbrier, Bath and others, would crowd the canal with their produce; the fertile and productive vallies of New river and Greenbrier, would send hemp, flour and tobacco in abundance; whereas at present they send nothing to market except in waggons, and the expenses of such a mode of transportation leave so little for profit, that there is nothing to stimulate the husbandman to industry. In addition to this, there are six Iron Works on the waters of James river, which will produce upwards of five thousand tons of metal per annum; all of which would contribute to the revenue, provided you furnish them with navigation.

If the navigation were made good the whole distance, the tolls might be increased, and all the lands within the influence of the trade would be increased in value, and might be re-assessed, and in this way the government might acquire ample means, and while it would extract the means, it would make the country rich and happy. The improvement of the river would furnish numerous valuable sites for water-works, which would in a short time contribute much towards the improvement of the country; for, I think it may be safely asserted, that the time has arrived when we should husband well our own resources, and depend as little as possible upon supplies from abroad. The commercial regulations of all Europe are such, that we can find there a market, for but a small portion of our surplus produce, and that at reduced prices: this being the case, we cannot purchase our supplies from them, and the same remark will apply with equal force to our sister States.

Under these circumstances, a due regard for our own interest, points out the necessity of becoming our own manufacturers, and by a suitable division of labour, create a market at home which we cannot find abroad. This course judiciously pursued, will in time make us a prosperous, rich and happy people. I hope the time is not distant, when we shall see our water courses improved, and the banks of our canals and rivers lined with manufacturing establishments, and those rivers and canals proudly floating their fabrics to market.

In the few remarks which I have ventured to make in relation to the improvement of James river, I may have exposed myself to the charge of being sectional in my views and feelings. But, I disclaim being actuated by any such views or feelings, and shall rejoice at seeing all of our rivers improved. But, as James river has been improved in parts, and considerable sums have been expended on isolated improvements, which cannot be extensively useful to the trade of the river, or productive in the way of tolls, until the whole is improved, it becomes the true interest of the State that this improvement should be completed as soon as possible; and if the united energies of the State were directed to this object, two years would be sufficient for its completion.

THE KANAWHA TURNPIKE ROAD.

The annexed statement marked B., shews the amount of tolls collected from the 15th day of November, 1826, to the 15th day of November, 1827; also, an account of the contingent expenses, and the expenses of repairs for the same period of time, as fixed by the new contract.

The regular collection of tolls on this road continues to be interrupted, owing in part to the County Court of Greenbrier continuing open parts of the old State road, where it approaches near the turnpike. Two of the toll-gates have been removed in the course of the last summer. The one which was formerly situated at James Kendall's, has been removed to John A. Reid's, at the foot of the Alleghany, and said Reid appointed the receiver of tolls: the other, which was formerly situated at Metzaker's, has been removed to Overton Garland's, at the Dog-wood gap, and said Garland appointed receiver of tolls. Both these gate-keepers have given bonds with good security, as the law directs; and the situations in both cases are regarded as more favourable for the collection of tolls.

The collection of tolls at the Gauley bridge or ferry, has to some extent, been defeated by the establishment of a ferry across New river, about one mile east of the mouth of Gauley; by crossing there, the traveller saves the toll on one section of the road which he has used. To remedy this, the toll-gate which is now at the mouth of Gauley, should be removed about two or three miles to the east, to the point of Gauley mountain; and there, the same rate of tolls should be demanded that are now collected at Gauley; and the bridge and ferry at that place made free. In order to accomplish this object, Legislative aid is necessary; it is also desirable, that the tariff of tolls on the road and bridges, should be revised and made more explicit; and should say, whether persons riding in stages, carriages, or waggons and carts, are exempt from the payment of *tolls or not*. Much inconvenience is experienced by the poorer class of people in going to and from mills. Would it not be advisable to exempt from the payment of tolls, all persons going to, and returning from mills? With a view to these objects, I have annexed a skeleton of a bill marked C., which will be subject to such alterations as the Legislature may think proper to make.

There are three framed bridges over Dunlap's creek, built on the arch and ring post plan: the workmanship of all of them has been most shamefully executed. One of them was taken down and re-built by my predecessor, but they are all now going fast to ruin: the arches have all given way and the roof of one fallen off. In order to stop this rapid approach to ruin, I have entered into a contract with James Knox, to place under the centre of each of these bridges, a stone pier of suitable dimensions. The contract will be found in the office of the Second Auditor. Charles Callahan was the contractor for building the lower bridge on Dunlap's creek, which had been settled and paid for: he had also a subsequent contract for covering a bridge, which remained to be settled; in this settlement I made several deductions on account of defective work in his first contract, which reduced the balance due him to \$62 50, which was paid by a draft on the Second Auditor; and it may become questionable whether the Commonwealth should not proceed against these contractors for damages. This road is in excellent repair and is admired and praised by every man who travels it, and is becoming daily more and more useful, and wants nothing but an extension on the west to the Ohio, and on the east to the city of Richmond, to make it the most public road in the State; and it is hoped that the time has arrived when the Legislature will think it expedient to complete this important line of improvement. As soon as this line of improvement shall be completed, all the travelling between the east and west must take that direction. The distance will be shortened to most parts of the western country, something like one hundred miles, and this would be a better road than any leading from the east to the west, the Cumberland road not excepted; and those who travel by way of steam boats and stages, would leave the Ohio, where this road would strike, and would take the stage on to Richmond, where they would again meet with a steam boat conveyance: this would bring the steam boat conveyance between the east and west nearer together than at any other point, and would ensure it a preference. The political advantages that would result from this free and convenient intercourse between the east and west will not be inconsiderable, and will add additional force to the propriety of perfecting this scheme. As to the pecuniary advantages, I beg leave to say, that I have no doubt if this road is completed, but what the income in the way of tolls, would more than pay the legal interest on the cost; that it would impart an additional value to all the lands near the road; that it would ensure a good market for all the surplus produce within many miles of the road, and would lead to the settlement of extensive districts of country, that are now unpeopled and unproductive. It would be instrumental in bringing thousands of persons from the shores of the Mississippi, to spend their summers at the watering places in the western parts of the State, and in that way raise a market for a large portion of the produce of that country. The present time is favorable to the prosecution of a work of this kind—provisions and labour are cheap, and the work can be executed on terms advantageous to the State. Delays on this subject are attended with most fatal consequences; for while we are hesitating and deliberating, other States and bodies corporate are acting, and that in such a way as to draw on intercourse, population and wealth into other States, and when they shall have accomplished this object, it will require no ordinary effort on our part to produce a re-action favorable to the interest of our own State; and in this way the future growth and prosperity of the State may be effectually retarded. This is a time of momentous and awful responsibility; but confident as I am, of the wisdom and patriotism of the Legislature, I am sure it will be met as becomes statesmen to meet it, who look beyond the immediate and temporary consequences of their measures; who look to the great and lasting interests of the State in years to come. The propriety of this measure must be ad-

mitted by all, and the only enquiry that remains to be answered, is, have we the means? And upon this branch of the subject I think there can be no doubt. I think I may safely say, that two hundred thousand dollars of Bank Stock belonging to the fund for Internal Improvement or the Literary Fund, might be put into the market and sold, for a sum sufficient to accomplish this valuable purpose, and the income arising from the road will be more productive to either of the funds, than that amount of Bank Stock ever has been. If this mode of raising money should be objected to, there can be no difficulty in the State's borrowing the money redeemable at pleasure, and the income arising from the road would be more than adequate to meet the interest of the debt thus created; and if a further sum should be wanted, all the lands within five miles of the road will be increased in value; they might be re-assessed and a reasonable percentage imposed upon the increased value, to go in aid of the road fund. The people will approve of such a plan and applaud the wisdom of the Legislature that sanctions it; for, while you impose upon them, a small burden, you furnish them with means and facilities of paying a large one. The next enquiry to be made, is as to the direction that should be given to this improvement if made, and upon this much will depend. This road, if made, should be regarded as a State road, passing nearly through the centre of the State from east to west, and opening a communication between the Metropolis of this and the western States. Such a road should be exclusively the property of the State, and should pass as near upon a direct line as suitable ground will permit, allowing only a small departure from the direct line in order to pass by court-houses and commercial towns; but, even this should not be indulged in extensively. This road, if made in a direct line, will shorten the distance between the city of Richmond and the Ohio, about one hundred miles. This saving in distance would give it a decided preference over all other roads leading in that direction, and nothing should be done in any way calculated to destroy that preference; and a departure from the direct line would produce that effect by increasing the distance, and augmenting the expenses of travelling through the State. As to the western end of the road commencing at the western end of the turnpike, there can be but little difference of opinion as to its location. It should pass by the salt works and through Charleston, and cross the river at that place, or pass some miles below the mouth of Elk river, and then cross Kanawha: in making this end of the road no serious difficulties will be found to exist—the country being generally favorable to the construction of roads. The most expensive part of the work will be bridges across ravines over which the road must pass; but the country abounds in fine stone for building abutments or culverts.

As to the eastern end of the road commencing at Covington, there will be found to be a conflict of interest; by some it will be contended, that the road should pursue the valley of Jackson river to the mouth of the Cow-pasture, and then leave the river, and cross the north mountain at Black's gap, and by others, that the road should continue down the river in a direction for Lynchburg. In the view that I have taken of the country between Covington and Lexington in Rockbridge, I am inclined to think that the road should not touch the river after it leaves Covington, but should take the south side of the mountain until it reaches Miller's Gap, and from that to Lexington, which will be found to be from 35 to 40 miles. This is the best gap to cross the North mountain at, and the road being once made on the side of the mountain, would be permanent. But, if the road goes down the river, the river must be frequently crossed, and that with expensive bridges; the road will be frequently inundated and destroyed, and in many places the rocks make down so close to the river, that to pass them will be attended with great difficulty and expense, and in pursuing this route the distance will be increased. These observations are made, without the more accurate information to be derived from the aid of levelling or measuring instruments. At Lexington, the route which I propose, would cross the main valley road; and from that to Richmond, in a direct line, does not exceed one hundred miles. The Blue Ridge will present no serious obstacles to the road, in crossing it; and from thence to James river, though the country is hilly, a good road may without difficulty be obtained. James river should be crossed at the Swift Islands, where there is a fine situation for a bridge: from thence to New Canton, the country is favorable to the construction of a good road, and at a small expense: from New Canton to Richmond, by the way of Cartersville, the country will admit of the construction of a most excellent road. This will be the shortest route, and I think most useful to individuals, and beneficial to the State, and can be constructed at the least expense. I am aware, that efforts will be made to turn this road to Staunton and to Lynchburg. As to Staunton, that route will increase the distance at least fifty miles. From that place to Scottsville, on James river, there is a turnpike road already, and if a communication with this road is wished, that object will be effected by an extension of the Staunton turnpike six miles on the South of James river, where it will intersect the State road, and give an opportunity to persons of selecting the road they may wish to travel. As to Lynchburg, the same objection will arise, namely, an increase of distance: it will be fully as much increased as on the Staunton route. From Lexington to Lynchburg, the distance is supposed to be about forty miles, and it is proposed to bring this road over a hilly country, from Lexington to the upper end of the mountain section of the James River canal. Through this country, a good road may be had; and it is proposed to widen the towing path on this section of the canal, so as to make it a suitable road for waggons and other carriages, not less than eighteen feet wide. Many who have decided in favour of this measure, have not, I presume, reckoned the cost attending its execution. The proposed plan, as I understand it, is to place in the canal a perpendicular stone wall, the whole length of the canal, which may be estimated at seven and one fourth miles: this wall must commence at or below the bottom of the canal, and to sustain the embankment that is intended to be placed behind, it will require to be made not less than four feet wide at bottom, battered to two feet at top, and may be estimated at eight feet high. The space between the wall and towing-path, must be filled with earth or gravel, so as to give eight feet additional width at top, and the towing-path will then require a substantial hand-rail on each side, in order to make it safe for carriages and horses.

The aggregate cost of converting the towing-path into a travelling road, 7½ miles, may be estimated as follows:

36,688 perches of stone wall, (under the canal contract \$1 25 per perch was paid for this kind of wall,) it may be put down at \$1 per perch,	\$ 36,688 00
44,854 cubic yards of filling behind the stone wall, to widen the towing path; the canal price was 20 cents; it may be put down at 15 cents,	6,728 10
30,480 yards hand-railing, at 15 cents per yard,	4,572 00
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Probable cost of making road 7½ miles,	\$ 47,988 10

The remainder of the distance from the canal to Lynchburg, may be estimated at the ordinary expense of making roads through mountainous and hilly countries. But, as there is a company incorporated for making this road, it might be left for the present in the hands of that company, and they will no doubt make the road, if the trade and intercourse between these two places will warrant the expenditure.

If this road is made, the whole line should be in the hands of the State, and should be placed on the most eligible ground, and made as direct as possible: if that should be done, the towns and country will soon accommodate themselves to the road, and make as many lateral communications into it, as their interest and wants may require; and in a few years we shall witness the gratifying spectacle of seeing this road lined with towns and buildings, from the Metropolis of the east, to the shores of the Ohio in the west.

If the Legislature should determine not to extend this line of improvement on State account, a part of it can be let out to individuals, who will commence on the western end of the present Turnpike, and make the road by sections, under the direction of your commissioner, upon your granting them the privilege of putting up a toll-gate, and collecting the same rate of tolls there, that are collected at the gates upon the turnpike road. The paper marked D. hereto annexed, contains the proposition of A. Stockton, to make the first section of the road, and I do not doubt, but several other sections could be made in the same way, if the Legislature will grant the privilege. I should regret and feel mortified to see the State of Virginia reduced to this humiliating spectacle. But, if the Legislature have come to the determination not to extend the patronage of the government to the improvement of the country, I trust they will so declare it, and permit individuals to go on and do what they can. These improvements are demanded by so many considerations of public and private interest, that they will be acceptable to the country through which they will pass, on any terms they can get them.

KANAWHA RIVER.

On the 24th of October, 1823, William Epley and William Morrison entered into a contract for the improvement of this river from its confluence with the Ohio, to the mouth of Slaughter's creek. In the specifications which form the basis of the contract, it is stated that "sluices are to be made in all the shallow places and shoals, three feet three inches deep, in parts at lowest water mark. The standard of lowest water mark is to be established by Hugh P. Taylor, the Engineer of the Kanawha Road and River, or his successor in office, with the aid of a levelling instrument, having a reference to the notes of the levelling and survey of said river, by the late Thomas Moore, Esq. of Virginia, and his assistants in 1819, and to the standard of low water established at Elk and Tyler's shoals, and at the mouth of Cole river, by said Taylor, Engineer, in October, 1823.

"All these improvements are to be completed within four years from this date, and sooner if conveniently possible.

"These improvements are to be made in all respects according to law. The contract and the law are to be solely construed in all cases by the said Commissioner and Engineer, or by either in the other's absence.

"The whole of the work to be done in the most permanent workman-like manner, to be judged as aforesaid.

"And for and in consideration thereof, the said Commissioner hereby binds himself as such, and his legal successor for the time being, on behalf, and in the name of the James River Company, to pay unto the said Epley and Morrison, the gross sum of forty-one thousand one hundred and thirty-two dollars, to be paid in the following manner:

To be paid in advance on entering into bond,	\$ 4,000
When the 79th, 78th, 77th and 76th miles shall have been completed and received, there shall be paid	4,200
When the 75th, 74th and 73d shall be completed,	3,500
	<hr/>
	7,700
When the 72d and 71st miles shall be completed,	4,000
When the 62d mile, including Red House shoals, shall be completed,	10,000
When the 56th and 55th shall be completed,	1,400
When the 52d mile shall be completed,	4,000
When the 46th, 45th, 44th and 43d miles shall be completed,	2,800
When the 40th mile shall be completed,	2,500
When the 39th and 38th miles shall be completed,	2,000
When the 27th and 24th miles shall be completed,	2,732

\$ 41,132"

	Brought forward,	\$ 41,132 00
<i>Payments, viz:</i>		
Advanced,	-	4,000 00
Paid in November, 1824, for 79th, 78th, 77th and 76th miles,	-	3,570 00
Paid in October and December, 1825, for 75th, 74th and 73d miles,	-	2,975 00
Paid in February, 1826, for 72d and 71st miles,	-	3,400 00
Paid in October, 1826, for 62d, 56th, 55th, 53d and 52d miles,	-	13,090 00
Paid in August, 1827, for 46th, 45th, 44th and 43d miles,	-	2,380 00
Paid in November, 1827, for 40th, 39th, 38th, 27th and 24th miles,	-	5,548 20
		<hr/>
		84,963 20
	Retained for the completion of the contract,	<hr/>
		\$ 6,168 80

About the aforesaid time, David Smiley made a similar contract, to improve the upper part of the river, from Slaughter's creek to the Falls of the Great Kanawha; that contract was in part abandoned, in pursuance of an act of Assembly, and an extension of the turnpike road substituted for the intended improvement on the river. The part of Smiley's contract that remained, amounted to

\$ 6,017 15

<i>Payments:</i>		
Paid on 21st and 20th miles,	-	900 00
Paid on 19th mile,	-	700 00
Paid on 16th mile,	-	1,500 00
		<hr/>
		3,100 00
	Off 15 per cent.	-
		465 00
		<hr/>
		2,635 00
Paid in advance upon the contract,	-	1,500 00
Paid November, 1827,	-	979 58
		<hr/>
		5,114 58

Retained for the completion of the contract,

\$ 902 57

David Smiley had also a contract for the improvement of Elk shoals, which has been settled and paid for.

About the 1st of October last, I was notified by the contractors, Epley & Morrison and David Smiley, that they had completed their contracts, and were ready to deliver their works. I reached that country about the 1st of November; but, before I reached there, the water in the river had risen from the falls of rain in the month of October. But, previous to my arrival, Major John Staples, my Engineer, had examined the river, and was prepared to make to me the annexed report marked E., which I beg leave to refer to. I proceeded down the river as far as the mouth of Cole river, in company with Major Staples, with a view of examining the river and the bench marks spoken of in the aforesaid contract, and ascertaining, as far as was in my power, the effect the improvement had had on the navigation of that river. I found the country labouring under a considerable degree of excitement, produced by the apprehension that an immediate collection of tolls would take place on the trade of the river, and many were prepared to declare that the low water in the river the last summer was only ordinary low water, and they asserted in general that the navigation of the river was injured by the improvement; that the Commonwealth had failed to fulfil its contract; for, that the conditions on the part of the Commonwealth were conditions precedent, and should have been complied with before any tolls could of right have been demanded. And further, they allege that the tolls are too high for the sum expended, and if their collections were then enforced, they would endeavour to make it a judicial question. I conversed with several respectable and intelligent gentlemen of that country, who informed me that it was their intention to make an application to the Legislature for a reduction of the tolls, and wished the subject to go before that body free of prejudice; in short, they shewed me their memorial, as prepared by a committee of gentlemen in Charleston.

In the adjustment of this subject, several difficulties seem to present themselves; and first, as to the contractors.

In the survey made by Thomas Moore, Esq. in 1819, he only made one bench mark on the river, and that on the bank of the Ohio, at the mouth of the river; at that point, the water in the Kanawha is so much influenced by the state of the water in the Ohio, that nothing conclusive can be determined on as to the water in the Kanawha; in consequence of which I am disposed to put that bench mark out of the question. As to the bench mark at the mouth of Cole, Col. Thompson shewed me a mark on a tree, which he always understood was made by H. P. Taylor, Esq. at the time of making the aforesaid contracts. Upon trying that bench mark with the other bench marks that are stationary, there appears to be upwards of two feet difference; from which I conclude there was either a mistake, or the instrument was not good, and therefore should not be relied on. The bench mark at Tyler, being made on a rock at the water's edge, seems to be the only one that should have an influence on these contracts.

These bench marks were given to the contractors to govern them in the execution of the work undertaken by them, and it is presumed was then considered as ordinary low-water, and must settle the question as to them. As to David Smiley's contract, if 11 inches be added to the water found in his sluices, there will still be a deficiency of from 4 to 8 inches in depth; and as to Epley & Morrison's contract, if 11 inches be added to the water found in their sluices, there will still be a deficiency of about 6 inches in many places.

It will be seen from the report of Maj. Staples, that the greatest deficiency is in the work done in previous years, and which has been received and paid for, and may have filled up since that time. How far these contractors are bound to abide the last measurement, and to deepen the sluices that have been received and paid for, is a question which must be decided by a competent tribunal.

These contracts contain covenants that do not seem to harmonize. In one part reference is made to the survey made by Thomas Moore, Esq., by which it would seem, it was intended that the improvement should be made at the places and in the manner he recommended. From his notes it will be seen that he does not recommend any thing to be done below the 79th mile; but the contract contains a covenant, that the river from the mouth shall be improved according to law; that is, it shall be made navigable for boats drawing three feet three inches in low-water. With a view to obtain that object, considerable work has been done below the 79th mile, which is claimed by Epley & Morrison as extra work, for which they demand to be paid; an account for which is hereto annexed marked F. During a part of the last summer and autumn, the Kanawha river was uncommonly low, and if it is considered, that the law authorising the improvement contains a covenant on the part of the Commonwealth, that in the lowest water, sluices shall be made in all the shoals forty feet wide and three feet and three inches deep, this matter must remain open; for, low as the water was last summer, it may be still lower, and it is now exceedingly doubtful whether, in such a summer as the last, there could be a sufficiency of water commanded to fill sluices of these dimensions. This was found to be the case last summer in part of the river under Smiley's contract. To remedy this, would be attended with an expense greatly exceeding the value of the object to be attained; for, to accomplish it, the river would have to be reduced to an inclined plain.

It is presumed, the Legislature only intended to make the sluices so as to command the water in the river; and three feet three inches deep when there was a sufficiency of water for that purpose in the river.

I have no doubt, but that the low-water navigation of the river has been improved by the work done, and perhaps is nearly as good as it can be made by sluicing. It is complained of on the part of the people of that country, that the sluices have received an unfavorable direction. This may be the case in some instances, but those that are most complained of, are those that angle the stream, and it is said that when there is a small rise in the water, the boats are liable to be driven on the dams and wing-walls. This may be prevented by a moderate degree of exertion on the part of the waterman, and this objection will in a great measure be removed, as soon as there is a sufficient number of buoys and ring bolts placed on these embankments: this direction has been given to some of the sluices, with a view of checking the velocity of the current where the shoal is lengthy and the fall considerable, and thereby aid the up-stream navigation.

How far it may be expedient to reduce the rate of toll on salt, will be with the Legislature to decide. It is, however certain, the toll bears a heavy proportion to the value of the article, and some modification, reconciling, as far as possible, all these difficulties, would be desirable.

A settlement was made with Epley & Morrison, for the work contained in their contract, and all paid for by a draft on the Second Auditor, except 15 per cent. which has been retained for a full settlement, amounting to \$6,160.

A settlement was also made with David Smiley, for all the work contained in his contract, except 15 per cent. retained for the full settlement of the contract, amounting to \$902 57.

A statement of the above two accounts will be found in a preceding part of this report.

Upon a full consideration of this subject, as it related to the contractors, the navigation and the law, I determined to submit the whole subject to the Legislature. If an attempt had been made to collect the tolls, it would have been unavailing, and would have been opposed to public opinion; and the law is not sufficient to enforce it. To remedy this defect, I have annexed the skeleton of a bill marked G., which I beg leave, with all deference, to submit to the examination and revision of the Legislature.

Col. Philip R. Thompson was the contractor for the improvement of Tyler shoal; that was considered to have been completed in November, 1823, as appears from a receipt granted by Hugh P. Taylor, then acting as Engineer, a copy of which is hereto annexed, marked H. Upon examining that sluice last summer, it was found, in most respects, to be far short of the contract.

In September, 1824, Col. Anderson obtained from Col. Thompson, an obligation, saying, "And whereas, something more may appear necessary to be done to complete the sluices in the said shoals, and the said commissioner has not received them, I still consider the said contracts in full force, and binding on me to comply with its requisition."

"Signed, P. R. THOMPSON."

On mentioning to Col. Thompson the deficiency in this work, he shewed great solicitude to redeem all the obligations contained in his contract, and went to work again, and did considerable work, and still his work does not come up to his contract. But it is believed, that the work that he has done, exceeds the value of what he has received.

Annexed is a list of drafts drawn on the Second Auditor, and chargeable on the loan of \$40,000, which are contained in the paper marked I.

The annexed paper, marked J. contains an estimate of the probable sums necessary to complete the contracts now entered into, and the amount claimed on sundry accounts.

All of which is most respectfully submitted to the General Assembly.

DAVID S. GARLAND,

Commissioner on the Kanawha Road and Navigation.

ESTIMATE OF RECEIPTS

On the Mountain Section of the James River Canal, from March the 1st, 1827, to November

PERMANENT EXPENSES.

To James Ware receiver of tolls, his salary and 2 hands, who attend as lock-keepers, from March 1, to November 15, 1827, at \$1000 per annum,	\$ 708 33	
To Thomas W. Glass and Roderick Waugh, lock-keepers, each of whom furnishes a hand, who acts as assistant lock-keepers, for services and hand-hire from March 1, to November 15, 1827, at \$350 per annum each,	495 88	
	<u>1,204 11</u>	

CONTINGENT EXPENSES, (*not likely to happen again.*)

To this sum, expended in taking down and re-building one of the cut-stone-locks, and repairing the wooden locks, which includes, wages to stone-cutters, lock-builders, masons and hand-hire, also waggonage and lime, and provisions for the hands thus employed, also provisions and clothing for the year, for the six hands hired by the James River Company,	1,906 21
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\$ 3,110 31

1827,—November 15.—To balance per contra,

1,306 64

AND DISBURSEMENTS,

15th, 1827: *Distinguishing those that are Permanent from those that are Contingent.*

1827,	May 15—By this sum received of James Ware, Collector of Tolls on the mountain section of the James river canal, from March 1, 1827, to this date, on boats descending,	-	\$439 17 7½	
	On boats ascending,	-	38 76 1½	
	On the towing-path,	-	7 77 7½	
	On the bridge,	-	15 31 2½	
	Balance due on return, March 1, 1827,	-	4 88 3	
				<u>505 91 2</u>
	August 15—By this sum received of ditto, from May 15, 1827, to August 15, 1827, on boats descending,	-	633 73 9	
	On boats ascending,	-	87 31 5	
	On the towing-path,	-	16 62 2	
	On the bridge,	-	20 12 5	
				<u>757 80 2</u>
	November 15—By this sum received of ditto, on boats descending, from August 15, to November 15, 1827,	-	357 43 1	
	On ascending boats,	-	135 46	
	On the towing-path,	-	21 12	
	On the bridge,	-	25 99 5	
				<u>540 00 6</u>
				<u>1,803 73</u>
	By this sum against this improvement, from March 1, to November 15, 1827,	-		<u>1,306 64</u>
				<u><u>3,110 37</u></u>

B.

Estimate of tolls collected on Kanawha Turnpike Road, between the 15th day of November, 1826, and the 15th day of November, 1827, with an estimate of the cost of repairs for the same period of time, as fixed by the contracts of May, 1827.

To keeping in repair the road from its western termination to Lewisburg, under a contract with Francis Carrol for three years, at \$1000 per annum,	-	-	1,000 00	
To keeping in repair the road from Lewisburg to Covington, under a contract with James Knox for three years, at \$313 17 per annum,	-	-	313 17	
To balance in favour of the road for one year,	-	-	-	1,313 17
				2,690 31½
				<u>\$4,003 48½</u>
1827—February 15—Received of James Kendall,	-	-	133 76	
Deduct 9 per cent. commission,	-	-	12 03	
			<u>121 73</u>	
Received of Joseph Airy,	-	-	141 95	
Deduct 9 per cent. commission,	-	-	12 77	
			<u>129 18</u>	
Received of Hugh M'Laughlin,	-	-	219 11½	
Deduct 7 per cent. commission,	-	-	15 83½	
			<u>203 78</u>	
Received of William G. Bates,	-	-	101 50	
Deduct 9 per cent. commission,	-	-	9 13	
			<u>92 37</u>	
Received of Philip Metzaker,	-	-	131 81½	
Deduct 9 per cent. commission,	-	-	11 86	
			<u>119 95½</u>	
Received of Miles Manser,	-	-	242 01	
Deduct one-third for boat and hands,	-	-	80 67	
			<u>161 34</u>	
				828 35½
May 15—Received of Miles Manser,	-	-	126 48	
Deduct one-third for boat and hands,	-	-	42 17	
			<u>84 31</u>	
Received of Philip Metzaker,	-	-	90 40½	
Deduct 9 per cent. commission,	-	-	8 13½	
			<u>82 27</u>	
Received of William G. Bates,	-	-	75 73½	
Deduct 9 per cent.	-	-	6 81½	
			<u>68 92</u>	
Received of Hugh M'Laughlin,	-	-	194 02	
Deduct 7 per cent.	-	-	13 58	
			<u>180 44</u>	
Received of Jos. Airy,	-	-	116 90	
Deduct 9 per cent. commission,	-	-	10 52	
			<u>106 38</u>	
Received of James Kendall,	-	-	85 47	
Deduct 9 per cent. commission,	-	-	7 69	
			<u>77 78</u>	
				600 10
Amount of receipts carried forward,	-	-	-	<u>\$1,428 45½</u>

		Amount of receipts brought forward,	-	\$1,428 45½
1827—August	15—Received of Philip Metzaker,	-	95 32	
	Add Blair & Shields' toll,	-	8 14	
			<u>103 46</u>	
	Deduct commission 9 per cent.	-	9 30	
	Blair & Shields' toll not to be paid, they being contractors,	-	8 14	
			<u>17 44</u>	86 02
	Received of Miles Manser,	-	167 42½	
	Off one third for hands and boat,	-	55 80½	
			<u>111 61½</u>	
	Received of William G. Bates,	-	70 75	
	Off 9 per cent. commission,	-	6 36	
			<u>64 39</u>	
	Received of Hugh M'Laughlin,	-	234 67	
	Off 9 per cent. commission,	-	16 42	
			<u>218 25</u>	
	Received of Joseph Airy,	-	244 62	
	Off 9 per cent. commission,	-	22 02	
			<u>222 60</u>	
	Received of John A. Reid,	-	139 42½	
	Off 9 per cent. commission,	-	12 54½	
			<u>126 88</u>	
			<u>829 75½</u>	
November 15—	Received of Miles Manser,	-	396 12	
	Off one-third for boat and hands,	-	132 04	
			<u>264 08</u>	
	Received of Overton Garland,	-	281 07	
	Off 9 per cent. commission,	-	23 31	
	Shields & Blair's tolls,	-	2 93½	
			<u>26 24½</u>	
			<u>254 82½</u>	
	Received of William G. Bates,	-	290 80½	
	Off 9 per cent. commission,	-	26 17½	
			<u>264 63</u>	
	Received of Hugh M'Laughlin,	-	428 05	
	Off 9 per cent. commission,	-	38 52	
			<u>389 53</u>	
	Received of Joseph Airy,	-	394 00	
	Off 9 per cent. commission,	-	35 46	
			<u>358 54</u>	
	Received of John A. Reid,	-	234 81½	
	Off 9 per cent. commission,	-	21 13½	
			<u>213 68</u>	
			<u>1,745 28½</u>	
			<u>\$4,003 48½</u>	

C.

Be it enacted by the General Assembly, That the following tolls shall be demanded and collected at the bridges or ferries across Gauley or Greenbrier river, on the Kanawha turnpike road, in lieu of the tolls heretofore imposed by law, to wit:

For every person on foot, in a carriage, or on horse-back,	-	-	-	6¼
For every riding-horse,	-	-	-	12½
For every four wheel riding-carriage drawn by four horses,	-	-	-	50
For every four wheel riding-carriage drawn by two horses,	-	-	-	37½
For every two wheel riding-carriage drawn by two horses,	-	-	-	37½
For every two wheel riding-carriage drawn by one horse,	-	-	-	25
For every carryall, on every animal drawing the same,	-	-	-	18¾
For every travelling stage, on every animal drawing the same,	-	-	-	12½
For every animal drawing in waggons, carts, &c.	-	-	-	18¾
For every horse, mare, mule or gelding, not rode,	-	-	-	6¼
For every score of cattle,	-	-	-	25
For every score of hogs or sheep,	-	-	-	6¼

And be it further enacted, That persons going to, and returning from mill, shall be exempt from the payment of tolls at the several toll-gates and bridges on the Kanawha turnpike road.

And be it further enacted, That the Commissioner on the Kanawha turnpike road shall be authorised to remove the gate or gates for the collection of tolls, from either of the bridges or ferries, to some suitable place not more than three miles distant from the bridge or ferry, and there demand and collect the same rate of tolls as was collected at the bridge or ferry: And during such removal the bridge or ferry shall be passed free of tolls.

And be it further enacted, That it shall be the duty of the Commissioner on the Kanawha road to establish one additional toll gate at some convenient place between John M'Clung's and the Dog-wood gap, and there demand and collect the same rates of tolls as are collected at the other gates on the said road.

And be it further enacted, That any person who shall be convicted of advising, pointing out, or directing persons ways by which they may avoid the gates established for the collection of tolls on the said road, shall forfeit and pay _____ dollars for every such offence, to be recovered before any justice of the peace having jurisdiction of the case, in the name of the President and Directors of the James River Company; one half to the benefit of the person who will prosecute for the same, and the other half to be paid to the Commissioner, and by him to be accounted for and paid over in the same way the tolls are paid.

D.

KANAWHA, 14th November, 1827.

SIR,

If the State of Virginia should not pass a law to extend the turnpike to the Ohio river, I am willing to take 15 miles, commencing at the present termination of the road, and extend on downwards; provided the State will permit me to erect a gate and charge the same tolls which they charge for an equal distance; the tolls to commence when the road is completed and received by the commissioner, equal to that portion belonging to the State, which will be in two years, or perhaps a less period. If the State should not extend the road, I have no hesitation in saying, that the whole of the western end could be let out on similar contracts.

A. STOCKTON.

COL. D. S. GARLAND.

E.

To David S. Garland, Esq. Commissioner
of the Kanawha Road and Navigation.

SIR,

The several contractors for the improvement of the navigation of Kanawha river, having reported to me that they had completed their several contracts, I sat out from the head of the said navigation on the 9th of October ult. and descending the river to its mouth, made a minute and careful examination of all the said improvements.

The river at that time (according to the best information I could obtain) was lower than it had been known for several previous years, and admitted by all, to be as low as it ever was known to be before. When the then state of the water was compared with the several bench marks referred to in the contracts, for the purpose of indicating that stage of low-water which was to govern them, it was found to be eleven perpendicular inches below that at the head of Tyler's shoals, and fourteen below that at the mouth of the river: that at Elk shoal had been removed by the improvement made there, and that at the mouth of Cole river, differing so very widely with Mr. H. P. Taylor's notes upon the subject, I concluded that either he or myself had made a mistake in taking the levels from it, or that the instrument with which they were taken (being a very imperfect one) could not be relied upon, and I have taken no notice of it. I noted the least depth of water in each of the several sluices as I measured them, and found it to be as follows: Richard's island, two feet; Morris's shoals, two feet; Windsor's bar, eighteen inches; Point-Creek shoal, under two feet; island shoal, less than two feet; Cabin-Creek shoal, twenty inches.

The foregoing sluices are all comprehended within David Smiley's contract, and are above the mouth of Slaughter's creek. Below the mouth of Slaughter's creek, Witcher's creek shoals, and Leonard Morris's shoal occur. They have been improved by Messrs. Epley & Morrison, and maintained a depth of not less than two and a half feet. Here the Salt Works commence, and the river, in its natural state, presents no obstruction to its navigation in a distance of ten miles, down to the mouth of Elk river. From the mouth of Elk, to the mouth of Cole river, the depth of the several sluices was tested by the passage of a flat bottomed boat 16 feet wide, drawing two feet of water. She touched in Elk shoal, passed Two Mile and Island shoals, without touching. At Tyler's shoals she rubbed considerably, and hung on some rocks immediately below the sluice. From thence to the mouth of Cole river, passing New Corner shoals and Peeled Maple bar, the water by measurement appeared to maintain a depth of two and a half feet. The boat nevertheless grounded; perhaps she had deviated from the channel; I had left her. At the mouth of Cole river, the boat was lightened to a draught of twenty-two inches; she rubbed considerably upon a bar immediately below the mouth of Cole. Johnson's shoals appeared to maintain a depth of two feet. The boat rubbed at Tacket's, and at Red-house shoals, and at several other places where no improvement had been made.

After passing Red house shoal in the boat, she stopped, and I proceeded on to the mouth of the river in a canoe which I had brought with me for the purpose; measuring the depth of water in the shoals with a staff as I passed them, under the guidance of William Morrison, one of the contractors, and found it to vary from twenty-seven to thirty inches.

All the improvements, from the mouth of Elk river downwards, are comprehended within Morrison and Epley's contract, except Elk and Tyler's shoals, which were contracted for by Col. Philip R. Thompson. The work done by Messrs. Epley and Morrison, during the present year, comprises Island shoals and Two Mile shoal, in the 40th and 39th miles, and Leonard Morris's shoal, in the 27th mile, and Witcher's, in the 24th mile.

It will be perceived, by a retrospective view of the foregoing measurements, that the sluices in these shoals maintain a greater depth of water than those made by them in previous years; and that, if the proper allowance be made for the depression of the water below the bench marks, referred to in their contract, as the standard of low water, they are of the depth required by the contract.

The work done by David Smiley, during the present year, is comprised in the completion of Childers' shoals, in the 11th mile, and Morris's shoals, in the 10th and 9th miles.

The same may be said of these operations, as has been above stated in relation to those of Morrison and Epley, except, perhaps, that the last mentioned sluices might not come quite up to the required depth; but they are wide, and of a strong current; and, at the time they were measured, contained all the water of the river, except some leakage through the wing-dams, which was unavoidable.

Whether the shallower sluices, which had been previously made, have filled up, or whether they were originally made no deeper, I cannot undertake to determine; they had, however, all been received and paid for in previous years, as the work progressed, with a reservation of 15 per cent. upon the amount of each section.

In relation to Col. Thompson's contract for the improvement of Elk and Tyler's shoals, it appears by a receipt of Mr. H. P. Taylor, dated on the 15th day of November, 1823, that, at that time, it was considered he had completed his contract; he has, nevertheless, done considerable work at Tyler's shoal, during the past season, and it is not yet in conformity with his contract; not being of the required width near its lower end, and, also, shallower there than the contract requires. It is, however, a sluice of about three-fourths of a mile in length, cut through a dry bank of gravel and stone, and forming a canal distinct from the river. If it were widened at its lower end, the accelerated velocity

of the water would diminish its depth there, and prove disadvantageous. Col. Thompson alleges, that he has expended upon these improvements a considerable sum of money over and above the amount which he has received for them, which I have not the least doubt of, as I consider his bargain to have been an exceedingly hard one.

After the experience of the past season, and my examination and observations upon the river at its lowest stage, considerable doubts have arisen in my mind as to the practicability of effecting a sluice navigation, to admit the passage of boats drawing three feet water, at all seasons of the year. At some of the shoals, where the velocity of the current is greatest, the whole water of the river, in very dry seasons, would not, in my opinion, fill a sluice of forty feet wide and three feet deep. It is, therefore, doubtful, whether any further operations in deepening the sluices, upon their present construction, would produce any considerable benefit. What has been done, has materially improved the navigation of the river in dry seasons, and at the lowest stages of the water; but some of the sluices have received an unfortunate direction, and are very crooked; and, at a medium state of the water, boats are drawn and grounded upon the embankments of gravel and stone, formed of the excavated materials of the sluices; and, under such circumstances, prove rather an obstruction to the navigation than otherwise. At high water, they are lost sight of entirely, and have no effect at all. I consider the plan adopted for the improvement of this river, a very unfortunate one, and that if locks and dams had been substituted for it, a perfect steam-boat navigation might have been obtained, at an expense, very little, if any thing exceeding fifty per cent. upon the amount which has been expended. And even now, if one or two dams were erected at the most precipitous falls, below the mouth of Elk river, the navigation would not only be greatly improved by them, but the collection of tolls would be facilitated, and the water power thus created, would produce, in rents, a sum equal to the interest upon their cost.

All of which is respectfully submitted, by

JOHN STAPLES,
Engineer, Kanawha Road and Navigation.

Kanawha County, 14th November, 1827.

F.

THE JAMES RIVER COMPANY,

TO EPLEY & MORRISON.

1827—November 10—To the improving of the Thirteen Mile shoal of Kanawha river, which is below the 79th mile on said river,	1,150 00
To the improving of Pond Gut and Ten Mile shoal, which are also below the 79th mile, and not embraced in our contract, dated the 23d of October, 1823,	92 00
	<u>\$1,242 00</u>

EPLEY & MORRISON.

G.

Be it enacted by the General Assembly, That all that part of the Kanawha river, with all its shores, bays and inlets, lying and being between the north side of Elk river, and the south side of Slaughter's creek, at their confluence with the Kanawha, and passing in a direct line across said river at the aforesaid points, shall form one collection district, to be called the district of Charleston; an office for which shall be kept at Charleston, in said district.

All boats and river crafts calculated or intended to be used in the trade of said river, shall be reported at the office of the receiver of tolls within the said district, and there marked, numbered and registered in a book to be kept for that purpose.

All boats and river crafts as aforesaid, failing to comply with this regulation for the space of twenty-four hours, shall be subject to be seized and sold by the receiver of tolls for ready money, for the benefit of the James River Company; said receiver retaining ten per cent. from the said sale for his expense and trouble.

All boats registered or unregistered, departing from the said district, without having first filed with the receiver of tolls a manifesto of her cargo, made out on oath, if required, and without having paid the tolls as required by law, and received a clearance, shall be subject to be seized with her cargo, and sold for the benefit of the James River Company, by the receiver of tolls, he retaining ten per cent. for making such seizure and sale.

And it is further enacted, That if the owner or skipper of any boat shall fraudulently obtain a clearance by a false manifesto or representation, all the goods and effects on board said boat, subject to duty, and not entered, shall be seized and sold by the receiver of tolls in manner aforesaid.

And be it further enacted, That the said receiver of tolls shall be, and he is hereby authorised to board and enter all boats in the said river, within the limits heretofore designated, as forming the district of Charleston, for the purpose of examining the cargo; and all and every person and persons on board the said boat, refusing or neglecting to come to, when so required by the receiver of tolls, shall forfeit and pay twenty dollars each, to be recovered before any justice of the peace; and on failure to pay and satisfy the judgment when rendered, shall receive lashes on his or her bare back.

And be it further enacted, That any person or persons who shall ship off any article subject to the payment of tolls without having first entered and paid the tolls thereon, shall forfeit and pay three times the amount of tolls on the article so sent off, to be recovered before any justice of the peace in manner aforesaid.

And be it further enacted, That any person or persons resisting the officer in the exercise of any powers herein before given to him, shall be deemed guilty of a misdemeanor, and punished accordingly.

H.

Whereas, by a contract dated the 8th day of September, 1823, filed in the 2d Auditor's office of Virginia; between Philip R. Thompson and Hugh P. Taylor, said Thompson was to complete the improvement of the navigation of the Elk and Tyler shoals in Great Kanawha river, in the manner therein mentioned: And whereas, said Thompson hath completed all the said improvement at Tyler's shoals to my entire satisfaction, and as provided for by said contract:

Therefore I, as the Engineer of the Kanawha Road and River, on behalf, and in the name of the Commissioner of the Kanawha Road and Navigation, for the James River Company, and as provided for by said contract, do hereby accept and receive the whole of Tyler's shoals as being completed: And I, as aforesaid, do further agree, that said Thompson hath made an embankment two hundred feet long at the bend of the canal at Tyler's shoals; also, one hundred feet length of a wing-dam at the head of said canal; for which he is entitled to be paid as extra work, at the final settlement, according to the terms of said contract. Said Thompson being hereby released in full of all further work or responsibility whatever at Tyler's shoals, by virtue of said contract. Given under my hand, this 15th day of November, 1823. This being subject to the approbation of the said Kanawha Commissioner.

H. P. TAYLOR,
As aforesaid.

Teste,

J. A. LEWIS.

I.

A STATEMENT

Of Drafts drawn on the Second Auditor, and paid out of the loan of \$ 40,000.

<i>Date.</i>	<i>In whose favour.</i>	<i>Object of Expenditure.</i>	<i>Amount.</i>
1827—Feb. 8,	Francis F. Purcell, -	Balance due to him as Engineer, 286 63 Contingent charges, - 28 42	315 05
10,	L. & S. Brown, -	Damages awarded on canal, - -	100 00
23,	William Shields, -	Balance for bridge at canal, - -	3,041 12
	William Paxton, -	Balance due to him as Engineer, - -	147 94
21,	John O. Brian, -	Making road at canal, - -	43 62
March 5,	Francis Carrol, -	Repairs on the Kanawha road, - -	1,500 00
May	James C. Warren, -	Balance due to him as Engineer, 666 67 Deduct money in his hands, 127 45	539 21
18,	Jordan & Irvine, -	Balance due on the mountain section of canal,	5,000 00
19,	Shields & Blair, -	In part for Gauley bridge, - -	1,500 00
April 24,	Eddithy Clay, -	Damages awarded on canal, - -	30 00
June 27,	John Staples, -	As Engineer, one quarter's salary, - -	200 00
7,	Waugh & Nevill, -	Balance for house for gate-keeper, - -	190 00
Sept. 9,	Shields & Blair, -	In part for Gauley bridge, - -	1,500 00
Oct. 30,	William Hannah, -	Balance for toll-house, - -	905 26
Nov. 9,	Samuel Hannah, -	For ring bolts and buoys Kanawha river, - -	162 00
May 17,	Charles Callahan, -	Balance for putting roof on bridge, - -	62 50
Aug. 15,	Epley & Morrison, -	Improvement on Tyler and Johnson's shoals,	2,380 00
Sept. 13,	John Staples, -	One quarter's salary as Engineer, - -	200 00
Nov. 10,	Epley & Morrison, -	Contract on Kanawha river, - -	5,548 20
12,	David Smiley, -	ditto ditto - -	979 58
	James C. M'Farland, -	Iron for Gauley bridge, - -	161 34
Dec. 13,	John Staples, -	Balance quarter's salary as Engineer, - -	146 20
17,	Shields & Blair, -	In part for Gauley bridge, - -	600 00
			<u>\$25,252 00</u>

J.

A STATEMENT

Of Money wanted to complete existing Contracts, and to satisfy Miscellaneous Claims, if allowed.

<i>Name of Claimant.</i>	<i>Nature of Claim.</i>	<i>Amount.</i>
Shields & Blair, - -	Balance for Gauley bridge, when complete, -	2,867 00
	To pay for 1000 bushels lime used on bridge at Gauley,	250 00
Epley & Morrison, - -	Retained 15 per cent. on their contract, - -	6,168 80
Ditto Ditto, - -	Claim for extra work below the 79th mile, - -	1,242 00
David Smiley, - -	Retained 15 per cent. on his contract, - -	902 57
Henry Salley, Joseph Glasgow and George Kiger, - -	Damage for overflowing land, - - -	700 00
	Wanting to build at the canal, a house for a lock-keeper,	300 00
	Wanting a toll-house near the White Sulphur Springs,	200 00
		<u>\$ 12,630 37</u>

A STATEMENT

of money wanted to complete existing contracts, and to satisfy miscellaneous claims, if allowed

Amount.	Nature of Claims.	Name of Claimant.
2,287 00	Balance for 1000 bridges, when completed.	Smith & Platt
230 00	To pay for 1000 bridges time each on bridge at Glasgow.	J. J. & Morrison
8,155 00	Retained 12 per cent on their contract.	Smith - 12 1/2
1,242 00	Claim for extra work under the 10th mile.	David Bailey
892 57	Retained 12 per cent on the contract.	Henry Bailey, Joseph Glasgow and
100 00	Deduct for advertising and	Thomas Henry
200 00	To make up full amount, a house for a lock house.	
200 00	When a full house was the White Sulphur Springs.	
<u>212,030 00</u>		