of two or three feet, while the growing crops on the common are practically ruined. Nearly the whole of Mr Hugh Colley's farm at Jamberoo was a flood plain.

* * *

A few comparisons in rainfall: Bega 181 points, Bowral 1025, Eden 332, Inverell 25, Katoomba 1297, Molong 3, Moss Vale 1243, Newcastle 231, Nowra 2150, Wollongong 1412, Robertson 2600. (100 points equals 1 inch)

1 Market garden of Thomas Dion.
2 The racecourse was situated just south of WIN Stadium today.
3 The rain was recorded between Friday 8-7-1904 to Tuesday 12-7-1904.
4 The hospital was Albert Memorial Hospital.

SYDNEY AND ILLAWARRA RAILWAY

Searching for the origins of the Illawarra Railway, Frank Osborne worked back as far as this anonymous letter to the Illawarra Mercury, published in the issue dated Friday, July 25, 1873. In this letter, ALPHA deplores what he calls a total absence of a spirit of enterprise among the inhabitants of Illawarra. In his own pessimistic manner he challenges the Illawarra community not only to press for improvements to the coal port but also to renew their interest in the railway project that was mooted in this district some time ago. To further his aim, he is not backward in stirring up the old jealousy between Wollongong and Newcastle, dating back to Shoobert in 1828 and Westmacott in 1836 when each was prevented by the Australian Agricultural Company from mining coal at Bulli.

Obviously there had been some earlier discussion of the railway proposal, but this seems a good place to begin, albeit 15 years before the railway became a reality. We therefore reprint this letter in full:

Sir,-- Wollongong has been appropriately designated "Sleepy Hollow." I allude to the want of public spirit and commercial enterprise evinced by the inhabitants of this town and district. Every year passing events tend to convince any observant onlooker that whatever steps in advance may be taken by other parts of New South Wales, the district of Illawarra has made up its mind to "stick to the old thing." We have heard much for some time past about the rapid strides now being made by this colony in the way of progress, but when we look around us we cannot fail to at once distinguish that Illawarra does not contribute one iota towards the present
increased national prosperity of the country. We appear in this district to have adopted to the letter (here the scratched film is illegible for a couple of lines) We commenced with ........... From that we went to couch grass and butter, and now we may say we are in the era of Parramatta grass and butter. It now remains for us to reach the climax of our local greatness during the thistle-cum-cotton-and-burr period, which has already dawned and is fast approaching in all the fulness of reality. Then – which at furtherest will be only a few years hence – Illawarra shall have become what her inhabitants all along have been endeavoring to make her – a worthless waste.

The fault does not lie with the soil of the district, its mineral resources, its climate, or its geographical position. In all these respects the district of Illawarra is unsurpassed in New South Wales; nay, in Australia. Indeed it may be said without contradiction, that with respect to the natural advantages alluded to, the district of Illawarra is unequalled throughout the whole of the Australian group. Such being the fact, it becomes clear that upon the shoulders of the inhabitants of the district rests the blame for our sluggish movements, and I might say stagnant position in the commercial commotion going on within the colony. Whatever steps the inhabitants of other parts of the country may be taking to improve their condition, the people of Illawarra take things as they come, and as it is written that “Nero fiddled while Rome was burning,” so may it be said that Illawarra slumbers while every other part of the country is waking up to new life, and pressing onward in the march of progress. All that we see or hear concerning public movements that should be made for the advancement of the district are newspaper articles and paragraphs that appear from time to time, and that have as much effect upon the inhabitants of Illawarra as so many drops of water would have upon a duck’s back.

It was only the other day that I noticed, while reading the ‘Herald,’ that the port of Newcastle had actually proved too small for the shipping crowding into it for coal. Of course, the Newcastle people were fully alive to this happy state of affairs, and they immediately made a move in the matter, and appointed a deputation to wait upon the Government to urge the providing of further harbor accommodation and additional facilities for shipping coal. The deputation so appointed lost no time in waiting upon the Government, and no doubt the desired and preferred results will follow in due time. In addition to taking the steps referred to, our northern neighbors are now commencing to think of having a railway line constructed between Newcastle and the north side of Sydney harbor, so as to enable them to run coal from the pit mouths into the holds of the largest ships that may lie at any time within Port Jackson. If Newcastle carries out the latter project, it will do more towards establishing its greatness as a coal producing district than all the steam
cranes and shipping facilities that now exist there or that may be provided in the future of that port.

Notwithstanding all that is being done North, South and West throughout the colony in the way of advancement in social and commercial respects, Wollongong and Illawarra, as a whole, remain passive and unmoved. No public efforts are being made by the inhabitants to obtain an enlargement of the harbor, or for the purpose of having the present basin better arranged and supplied with more suitable provisions for shipping coal. If the member for the district moves in the matter, and succeeds in obtaining anything for the benefit of the port, well and good. If not, let the thing go on as usual, as the inhabitants by their apathetic attitude appear to care not one straw whether the harbor be further improved or whether it be filled up again, not by vessels, but by mud, sand or any other material that mother earth or father Neptune may put in the way. The people of Newcastle are, very properly and very reasonably, quite alarmed by the fact that their harbor cannot accommodate all the vessels that wish to visit that port for coal. The people of Illawarra, however, are no way disturbed in their turpitude by the certain knowledge that scores of vessels pass their port every month for coal, in consequence of the want of sufficient shipping accommodation at Wollongong harbor. Reckoning the distance between Wollongong and Newcastle at 100 miles, vessels passing here from the south to that port to obtain cargoes of coal, have to make 200 miles extra sailing in the trip. Such would not be a necessity if they could lie, load and leave under favourable circumstances, with cargoes of the same mineral of equal if not of superior quality.

Then again there is the railway project that was mooted in this district some time ago. This matter could have been carried out with ease if the inhabitants of the district had a spark of enterprise or public spirit within them, and there is not the shadow of a doubt about such an undertaking proving a success in every respect if completed. Not only would it be a good investment for the capital required for its construction, but it would benefit the district a hundred fold by adding to our population and enhancing the value of property in town and country throughout the district. So far as I am aware, the thing has been allowed to die in the bud, and the only liberal, or may I say any offers to start the movement, were made by Sydney gentlemen; Illawarra in this instance, as she is wont, turned a deaf ear to the best project ever mooted to advance her interests, and make her what nature designed her to be – the garden and chief mineral store-house of New South Wales.

Within six months after the opening of a railway between this district and Sydney, the change for the better that would take place throughout Wollongong and Illawarra would surpass the expectations of the most sanguine about the matter. Although I make this statement as neither a prophet nor the son of one,
I am convinced that none but a blockhead could think of questioning my reasoning or expectation with regard to the matter in question. If, however, we eventually have a railway between the district and Sydney, it will have to be commenced, continued and completed by men and money from other parts of the country. If left to the Illawarra people to do, and that no change for the better takes place in their composition, I believe the ‘crack of doom’ will be heard ere the shrill whistle of a locomotive ever resounds upon a railway line between this district and the metropolis. This chronic apathy and incapacity to which I allude is confined to no particular section of the community. It pervades the ranks of landowners and tenants, of business men, and men of means. The deposits in our Branch Savings Bank equal those of almost any other town within the colony, but when I say this I say all. Our want in the respect of which I allude is not so much a scarcity of money as a total absence of a spirit of enterprise among the inhabitants of Illawarra.

SYDNEY AND ILLAWARRA RAILWAY, PART 2

JAMES MANNING

First let us introduce Mr. James Manning, using a condensed entry in the Australian Dictionary of Biography, 1851-1890, page 206:

James Manning was born in England in 1814, studied for four years at an Agricultural College in Germany, and arrived at Sydney in 1834.

Along with his two elder brothers, Edye and William, the three became part of a large pastoral syndicate called the Twofold Bay Pastoral Association in the Eden-Monaro district of NSW. Attempting to forestall the Robertson Land Act, the syndicate was dissolved with James retaining ownership of Wolumla, Towamba and eventually Kameruka. Finally the Land Acts, combined with floods and disease, broke up the huge holdings, so James and his brother William began again at Wanagabra, 2,000 acres near Bega in 1864. Always an innovator, in 1870 James spent some time in Queensland where he and Thomas Mort were experimenting with methods of freezing and preserving meat. From 1871, he lived in Sydney, leaving his son Albert in charge at Wanagabra and also Black Flat in the Bombala district.
In 1873 James Manning joined the Royal Society of New South Wales, to which he delivered the following paper on August 6th of that year. The paper was printed in full in the ‘Herald’ the following day, and also in the ‘Illawarra Mercury’ on Tuesday, August 12, 1873. Our copy is from the ‘Mercury’:

SYDNEY AND ILLAWARRA RAILWAY

At a numerously attended meeting of the Royal Society of New South Wales, held at Sydney, on Wednesday evening last (the Rev. W. B. Clarke M. A. in the chair), Mr James Manning read an able paper prepared by him, “On Coal and Coal Ports.” After referring to the coal measures of the northern districts and alluding to the present and probable shipping facilities at the port of Newcastle, Mr Manning passed on to notice our Southern Coal fields, and in the course of his remarks strongly advocated the construction of a line of railway between Sydney Harbor and the district of Illawarra. The paper was published in full in the Herald, from which we extract the following:--

Further south, and below Sydney, we come to the north easterly dip and outcrop of the great coal basin at Coalcliff, Bulli and Wollongong. The illimitable supplies of coal immediately at those places and at the seaside, can only be used by the adoption of steam colliers and small vessels plying to and from Sydney or Melbourne. Such shipping appliances from that direction can never do more than make a small impression on the future demands from all parts of the world.

Still farther south we find the last southern remains of our grand coal measures; where insignificant seams of coal and oil shales crop out in the Ulladulla country and at the head of the Clyde River. The oil shales on the Clyde, being the oldest and last evidence of the “wedging” or “pinching out,” of the great palaeozoic formation, which, being seen here for the last time, seems to point to this position as the last resting place, south, of the true coal measures.

South of where the coal terminates, and along the remainder of our coast to our boundary at Cape Howe, a distance of 100 miles, there is no evidence of the existence of any old carboniferous formation; because below Bateman’s Bay and the Clyde River we come to the Moruya granite, which continues to the parallel of Montague Island and the “Dromedary,” where passers by may observe the termination of the granite; as the northern half of that little island — of some four miles in circumference--- is composed of granite, whilst its southern half is composed of basaltic rocks.

Having dealt generally with the coal measures along our coast, I have yet to impress on you some remarks upon the all important consideration of Port Jackson, as being the means at command for increasing our coal export to a practically unlimited extent.
The anonymous writer in the *Sydney Morning Herald*, with his nom de plume of "Veritas," has made the strong assertion in italics that Newcastle is the only legitimate coal port in the southern hemisphere. These are the words:” Newcastle physically is so situated that it can fear no other rival (unless Port Stephens) and that it is fallacious and the height of absurdity to imagine that a Government would be so short-sighted and narrow-minded as to try and cripple the only legitimate coal port in the southern hemisphere.”

To these expressions of “Veritas” I beg to take exception, and I fear not to throw down the gauntlet before him, and boldly assert it as my opinion that nature points out that the central and incomparably superior harbor of Port Jackson must soon be at the head and front of our foreign coal shipping operations, and for the following reasons:---

Firstly. By consequence of large increase in steam colliers, and perhaps of West Hartley centreboard vessels acting as tenders and coal feeders to the large ships in Port Jackson.

Secondly. By consequence of necessary railway modifications which must soon take place to facilitate the vast increasing traffic on the Bathurst and Goulburn lines, which will thus open an easy doorway for the admission of that enterprise that will lead to the transport of considerable quantities of coal from the western and south western portions of our coal basins---from Bowenfels and Wallerawang to the west, and from Nattai and Sutton Forest to the south west.

Thirdly and chiefly; by a new source of supply---namely direct and cheap acquisition of coal from the back of the Bulli country, under thirty-five miles in a straight line, from Sydney south, over a road that can be made accessible by means of a double line of broad gauge railway along the Illawarra coast road, thence by the “Bottle Forest” country, on to or over a dam at George’s River; or even by a railway pontoon or other bridge over the same place and water, and thence straight on to the nearest deep water in Port Jackson, crossing the Great South Western Railway, over the deep cutting between Newtown and Petersham to staiths on North Balmain, near Elliott’s Chemical Works directly opposite Cockatoo Island, in the expansive and deep waters of that part of the Parramatta River which is immediately between, and close to the two large dry docks and the great engineering and shipbuilding establishments.

By this route, from the first available coal taken at the dip, some two or three miles inland from the sea, and probably not more than 200 feet of sinking, the coal can be brought by easy gradients to three and five fathoms of water by a total distance not exceeding 40 miles.

Such being the case, the haulage at even a half-penny per ton per mile, as the proved working cost of colliery railways, including wear and tear of rails, would
make only 1s 6d per ton. Thus under these circumstances it might not be unreasonable to expect that from five thousand to ten thousand tons a day could arrive daily from that quarter alone, for the supply of some of the foreign ships that would come with confidence to our great coal country, when we can give quickest possible dispatch from either Newcastle or Sydney.

Apropos to the dam at George’s River above noticed, I am quite aware of the objections that will be raised respecting its formation, as being, in my opinion, the best means of making a highway for the transit of the southern coal to Sydney.

It is not the province of this paper to touch on the subject of any water-supply scheme in this direction, unless it be to show briefly that the creation of an immense dam at George’s River should be no stumbling block to the coal enterprise; and therefore, I think it necessary to say here that I could show good cause why such a dam might be made effective in every way, and to yield, of itself, a compensating interest on whatever capital it might cost, if it was undertaken by a public company, under liberal concessions from the government.

Entirely in view of this southern coal enterprise, I believe that the dam might be made highly remunerative in the mode suggested by me in a letter I addressed to the public prints some months ago, even if it were only to give the motary power I pointed out as being available thereby.

For further substantiation of this assertion I would refer this society to a recent number of “Dingler’s Polytechnical Journal,” published this year in Augsburg, which came under my notice only a week or two ago, and which I now lay on the table. The article is written by the celebrated German engineer, G. Deiabar, now of St Gallen, and contains a description of the grand waterworks at Freibourg, in Switzerland, as conceived and carried out by the genius of Herr Ritter, an engineer of that town.

On the expenditure of 2,000,000 francs, of privately subscribed capital, this most able man succeeded in just completing (within just four years) works that must be among the greatest wonders of the age. By a dam of 64,000 cubic metres, equal to 82,450 cubic yards, made across the River Saane, which flows through a deep gorge and costing 340,000 francs—equal to £13,600—for the embankment alone, that is built of cement and pebbles. By this means and by the further aid of hydraulic turbines, he has obtained motary action up to the extent of 2800 to 4000 horse-power.

[The Editor feels he must intervene at this point to save the reader from digesting a long discourse that has already proved to be flawed. Note the words through a deep gorge and try to relate these to a dam over the lower reaches of George’s River! All this from a man who less than a fortnight later, rode from Sydney to Wollongong to plan a route for his railway with the aid of an aneroid which he used to measure all the heights above sea level. Had he bothered to ride the course of the George’s River with his aneroid, he would
the impractability of his suggestion. The transcript will continue after the omission of this section of the paper.] Mr. Manning resumes:

To be continued.

...oo0...

NEW EXHIBITION. NEW EXHIBITION. NEW EXHIBITION

Shopkeepers and Businesses
of 20th Century Wollongong
between 1920 and 1960.
(owned operated)

Our new exhibition was officially opened on Friday 30th April by our Patron Alex Darling Councillor and Lord Mayor of the City of Wollongong.

The exhibition, which took nearly two years to put together, covers a number of businesses which operated, and some still do, in Crown Street during 1920s and 1960s. The exhibition consists of short histories, photographs, etc. of various businesses including items. Visitors from Wollongong, especially, can enjoy the exhibition by indulging in some nostalgia reminiscing how things were during those years.

It is intended to run this exhibition for some time, probably until the end of the year. Do come along and support your Illawarra Museum.

The opening times of the Museum are printed at the bottom of this page.

J H

MUSEUM OPENING HOURS

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday</td>
<td>12.00 noon - 3.00pm</td>
</tr>
<tr>
<td>Saturday &amp; Sunday</td>
<td>1.00pm - 4.00pm</td>
</tr>
<tr>
<td>Public Holidays</td>
<td>1.00pm - 4.00pm</td>
</tr>
<tr>
<td>Closed Good Friday</td>
<td>1.00pm - 4.00pm</td>
</tr>
<tr>
<td>and Christmas Day</td>
<td></td>
</tr>
<tr>
<td>Schools and groups</td>
<td>by appointment. Contact</td>
</tr>
</tbody>
</table>
SYDNEY AND ILLAWARRA RAILWAY, PART 2 cont’d

And now I take this opportunity of venturing to give the following suggestions to business men, and to house and property holders of every class in and about Sydney—namely, that they should constitute themselves into a society that might go forth according to Herr Ritter (after the Freibourg manner) as the “Societe Generale Australienne des Eaux, Charbons, et Irrigation,” and that such society should send him an invitation, under very liberal arrangements, to visit this place for the purpose of inspecting our natural resources, and to advise with such society as to the best method of utilizing Port Jackson in connection with our coal fields south and north of Sydney; how to act for our future and permanent water supply and how to dispose of and utilize our valuable sewage.

I have digressed considerably from our coal and coal port subjects for the express purpose of showing how, by the development of somewhat parallel resources at our command (less the superior advantage enjoyed by Freibourg of a permanent alpine stream) we can make a self-supporting, though expensive railway bridge across George’s River whereby to connect the southern coal fields with Port Jackson.

In our case, and in order to bring about such results we should seek to raise a head of water inside the dam not exceeding four feet above highest spring tide—and this important action being made a success of—we could obtain quite as much or more water-power at George’s River for nine months of the year, in mode I have before stated, as they now enjoy at Freibourg. Our power would thus have to be applied by all the waters being brought to fall over a graduated rocky weir, to give direct action on under-shot water wheels, in the manner as is done at Geneva—where shafting applied to one single large water-wheel, driven by the Rhone, gives enough power to pumps to raise water above the highest levels of and for the supply of all Geneva.

Many will exclaim against the magnitude of, and the risk of failure of making such dam (as I propose) tight enough to obtain only four feet head of water. But what is it after all? The affair would not exceed 850,000 cubic yards of stone and clay work—and should be viewed in the light of a national undertaking that would be worth all risk of failure of making it watertight—when this would be, under the worst circumstances, a certain resultant benefit to Sydney of securing a direct railway communication with our Southern coal fields, and with all the Illawarra lands.

But admitting the success of such undertaking being made watertight, and the inner waters being rendered fresh—then the beneficial consequences would be beyond price. Motary power could be obtained to a very large extent as long as
there was inflow from those tributaries of George’s River, which drain such an enormous extent of country; and Sydney might have a never failing supply of water, at a cost that would be less than nil, if the existing water reserves were sold for that necessary extension of the city that would be required on the establishment of a railway line, and a great coal trade &c, with Illawarra.

And now, finally, and in anticipation of Sydney’s future greatness, I venture to suggest that twenty years more may not pass away before it will be found necessary to meet the immensely increasing Hunter and northern trade (quite irrespectively of the coal trade at Newcastle), by connecting the Great Northern Railway line from Maitland with Sydney, by another line that will intersect rich coal fields, will cross the Hawkesbury by a tubular, a suspension or a high level bridge, and arrive by easy gradients at the North Shore opposite Cockatoo Island and north Balmain.

Sydney would thus have another prominent source for increasing the future export of coal when it may be required, and thus complete her ability of shipping best house coal from the north, best steaming coal from the south, excellent and condensed steaming coal from Bowenfels, bright house and gas coal from Wallerawang, and the finest oil shales in the world from the west.

But even without this ultimate connection of Port Jackson with the northern “outcrop” of our immense coal basin, it would follow that if the easy approach to the Southern coal field by rail to Sydney be brought about, we should render such great support to a large foreign and home trade, and to ships coming with cargoes or in ballast, that, so far from our prominent coal ports---Sydney, Newcastle and Port Stephens---becoming injuriously “rivals” we should then jointly, and in all probability, barely keep pace with the increased demand for foreign ships, for our large iron and smelting operations, and for the manufacturing demands which would arise in the neighbourhood of George’s River, Cook’s River, Newtown, Botany, and the general suburbs of Sydney.

Such conditions being brought about, I would ask, finally---would not the realization of these proposals cause Sydney to become incomparably the greatest emporium of the Southern Hemisphere?

Professor Smith pointed out that the stream at George’s River was not analagous to that of Freibourg, inasmuch as it did not flow at a continuous volume. The project, however, of bringing the railway across the river appeared very feasible; but would it not be better to make Botany Bay the shipping port for the coal of the Illawarra district, thereby saving the very great expense of bringing the line through to Sydney?

Mr. Manning replied that vessels coming to Sydney with cargo required return loading, and if they had to load in ballast to go a distance of twelve miles, the expense would be great and the insurance charges would also be considerable.
On the motion of Mr. Hale, seconded by the Rev. Dr. Lang, the thanks of the meeting were given to Mr. Manning for his interesting paper.

***********************

SYDNEY AND ILLAWARRA RAILWAY, PART 3

“Mercury” Editorial, Tuesday August 12, 1873

The “Mercury” did not respond immediately to ALPHA’s letter, but waited until the release of James Manning’s address to the Royal Society of New South Wales. This was delivered to the Society on 6th August and published in the “Herald” next day. A copy from the “Herald” was included in the same issue as this Editorial, indicating that the “Mercury” was now entering the lists in favour of a railway to Sydney:

That a line of railway will eventually be constructed between the district of Illawarra and the metropolis of this colony, very few persons will doubt. How soon or how late such great and grand, though in many respects simple undertaking may become an accomplished fact remains for the parties immediately concerned to determine. This matter has been prominently before the inhabitants of Illawarra for some time past, but as yet nothing of a tangible nature has been done towards launching the speculation for the construction of such railway fairly before the public.

The project has been discussed privately and in print, but no combined efforts have been made to give the movement a practical form. No committee has been constituted to thoroughly initiate the matter, and not a shilling of capital has been subscribed for the purpose of having a survey made of the intended line by a competent authority. Of all others, the inhabitants of this district should seek to advance the movement referred to, but up to the present they have not looked upon it with a sufficient degree of interest or favor to induce them to unloose their purse strings to assist in the way of progress. The matter once mooted, however, has not been lost sight of by the public. The importance that would be attached to a line of railway between the coal bearing and fertile district of Illawarra, and the great city and matchless harbor of Port Jackson, is too plainly apparent to any observant mind to allow the project to be easily cast aside or lost sight of. Shrewd and far-seeing individuals in Sydney and elsewhere have had their attention directed towards the proposed undertaking. Such men have realized at once the force of the arguments urged in support of the movement, and perceive the rich field for enterprise thus intended to be opened up in the colony, and at the very outskirts,
it may be said, of the metropolis. That being the case the casual interest that has already been awakened in the matter will continue to deepen and spread in the minds of business men and capitalists, until the work projected shall become an accomplished fact. The project presents so very few obstacles on the one hand, and so many tempting inducements on the other, that it will be certain to be taken up in earnest at no distant day. The public mind having once grasped the idea of the feasibility of constructing a line of railway from Sydney to the coal producing district of Illawarra, and of the great results that would certainly follow such a consummation, the thing will operate like a spark of fire falling in the midst of inflammable material, which is certain to burst forth eventually into flames of irrepressible force, however feeble the ignition in the first instance. The construction of a line of railway connecting this district with the metropolis will be but a matter of time, and there is at present no telling how speedily its commencement and completion may be effected. Circumstances induce us to anticipate such work will not remain undone far in the future.

The interesting remarks made by Mr James Manning regarding the matter in question, are clear and positive evidence that the idea of forming a railway between Port Jackson and the coal seams in our mountains in this district is receiving considerable attention at the hands of individuals of no mean scientific attainments, as well as in the minds of the keen sighted business men of the metropolis. The statements to which we allude as having been made by Mr Manning, and which we commend to the careful perusal and consideration of the great majority of our readers will be found in another part of this issue. In addition to the fact that Mr Manning is a high authority on such matters, we find that his paper in this instance was read at a numerously attended meeting of the Royal Society of New South Wales, the Rev. W. B. Clarke presiding. Few better illustrations than this could be given of the attention which the subject matter of our remarks is now receiving among the leading men of Sydney. Seeing that scientific individuals and business men elsewhere are taking so deep an interest in the important undertaking proposed, let us hope and suggest that the inhabitants of Illawarra may bestir themselves to stimulate, support, and advance a movement so pregnant with incalculable advantages and prosperity to the district at large.

A railway line as suggested by Mr Manning would come only as far as the back of the Bulli range, thus to a very great extent accommodating and expediting the coal trade only. Of course the conveyance of coal would form by far the larger proportion of the traffic along the line, but it must be remembered that an increase of the coal trade would bring with it an increase in population, which means an enlargement of traffic in other respects. This feature of the case, as well as the importance of the general trade of the district, would make it most desirable
that the line of railway connecting our coal mines with the harbor of Port
district as far as the great and fertile flats of Shoalhaven. (Bold type inserted by our Editor.)
Mr Manning suggests that certain citizens of Sydney should form themselves
into an association for the purpose of endeavoring to get a celebrated and
successful engineer from the continent of Europe to visit this colony, and report
upon the main obstacle in the way of the construction of the proposed line of
railway between the metropolis and this district—namely the crossing of George’s
River. Mr Manning’s proposition in that respect is a most excellent and spirited
one, and is highly deserving of being warmly supported and speedily carried out to
a successful issue. In order to show their interest in the matter, and their due
appreciation of the vast importance of the work contemplated, the people of
Illawarra should form themselves into a branch association without delay, to
coop-erate with Sydney in endeavouring to give practical effect to Mr
Manning’s views in that respect. If the inhabitants of this district evinced the
interest in the matter that its importance demands, they would assist
materially in stimulating general action in the movement. (Bold type by our Editor)
The citizens of Sydney have an eye to the enterprise proving a good investment
for capital, and being at the same time the means of increasing the trade and
commercial importance of Port Jackson. The people of Illawarra should heartily
join hands with our metropolitan friends in so noble an undertaking that would
certainly result in speedily making the district one of the most populous and
flourishing parts in New South Wales. A railway between Sydney and Illawarra
would be calculated above all other means to advance the best interests of this
locality, and the effect of such a channel for traffic would be inconceivably
beneficial to the trade and welfare of Sydney. With such prospects in view, the
circumstances of the work proposed should not be far in the future.

“Mercury” Editorial, Friday August 15, 1873

Three days after its editorial of August 12, the Mercury published another
lengthy editorial, reinforcing its views about the need for an Illawarra railway. The
main gist of this letter is summarised below:
Stressing the importance of coal being readily available from Sydney “harbor,”
the editor mentioned the following advantages to ship owners:
Reduced cost by loading direct from “shoots.”
Remove cost of travelling to Newcastle and back for coal;
Remove cost of loading and unloading ballast for trip to Newcastle;
Lower insurance charges.
Faster turn-around of ships.
“All such delay and extra expense in connection with the great bulk of the coal trade in this side of the world would be done away with by running the coal direct from our mountains* to Sydney Harbor, where it would be emptied by shoots into the holds of ships requiring such loading”; and further:

“Of course an increase in shipping in connection with Sydney or any other port, means a corresponding increase in trade in nearly other respect.” And also:

“The present trade of Illawarra would doubtless be enlarged comparatively speaking a hundred fold by means of such a railway as that proposed.”

* Mention of “direct from our mountains” seems to indicate that the mindset is still towards Manning’s proposal for a railway to the back of the mountain.

In the same issue of the Mercury is a letter from James Manning in which he protests about being misquoted regarding costs, then proceeds to give a detailed costing on the basis of 5,000 tons of coal per day for 250 days of the year. He estimates that this would pay the interest on the outlay as well as providing “a handsome dividend of 20 per cent per annum.”

In response to Manning’s letter, a week later a letter from one who signed ENTERPRISE was published in the Mercury. “Enterprise” praised Manning for “bringing this important matter so ably before the public.” He also said: “It seems almost incredible that there should be an almost inexhaustible mine of wealth within 30 or 40 miles of south Sydney, in a straight line, without a railway to bring it to Port Jackson, although that railway would pay dividends---according to Mr Manning’s estimate---of at least 20 per cent per annum.........and these rich coal-fields, which would add immensely to the wealth of Sydney and Wollongong, are now comparatively useless.” And also: “If the Illawarra people and their members were to work as energetically as the Yassites and their member have done, there would soon be a railway between Sydney and Wollongong, for this expenditure would not only be immensely beneficial to the respective districts, but also a considerable source of profit to the general revenue.”(Illawarra Mercury, Tuesday August 22, 1873)

**Mercury Editorial, Tuesday August 26, 1873**

“The project of constructing a Metropolitan and Illawarra line of railway is gaining ground every day among those whom this important matter concerns. In our opinion, the time has arrived when some decided steps should be taken to concentrate the interest and influence that abounds throughout the community in favour of the grand national enterprise alluded to. We are confident that if a spirited effort were made in Illawarra to initiate the matter, success would speedily crown the movement.”
Letter to the Sydney Morning Herald, August 28, 1873, signed Y. Y.

Y. Y. agrees with OBSERVER about the advantages to be gained by making Sydney Harbour* into a shipping port for coal, “What more paying or beneficial to the colony than to foster the southern coal trade by making Port Jackson the shipping depot for large ships for the whole of that district, admitted to be the best in the colony for producing steam coals, which are known and appreciated all over the world.”

However he takes issue with Manning over the cost of his proposition. He makes reference to the difficulties caused by a recent five-week strike of Colliers at Newcastle and expresses the view that it would be good for New South Wales if the northern mines and miners were deprived of their monopoly of the coal export trade. He refers to the huge sums of money the Government has spent to improve the harbour at Newcastle. “Now, I think Sydney is entitled to the consideration of the Government towards the southern coal fields.”

Y. Y. supports the idea of the Bulli tunnel and makes a new suggestion that a spur line could be built from Campbelltown. As only a portion of this line would go through private lands the compensations would not be heavy; and, as it crosses no watercourses, and the country being easy all the distance, the cost of construction would be easy too.”

Y. Y. concludes with a set of figures just as Manning did, but in this case he estimates this line could be built for £100,000, compared to Manning’s estimate of £320,000 for his 40 miles of railway.

* The reader may have noticed variations in spelling. In the Herald the word “harbour” is always spelled in the conventional manner, whilst in the Mercury it is always given as “harbor” even when transcribing from the Herald.

OUR COAL AND COAL PORTS

Letter to the Herald from J. J. H., August 29, 1873

This correspondent takes issue with Y. Y. for summarily dismissing the George’s River railway via Bottle Forest and claiming that its cost would be fatal to it. He then goes on to support the idea of a dam at George’s River, but suggests that a better site for the dam could be found farther upstream near the junction with the Woronora river, from which “the proposed Illawarra Railway may be brought to the waters of port Jackson at a place called ‘Blackwall,’ where there are five to eight fathoms of water, close to a steep rocky shore, whence any number of the largest ships in the world could receive their coal direct into their coal bunks from the pit mouth at Bulli, or any other south coast coal mines, right down to the
Kiama seam of 26 feet thick.”

Having flown that kite with much flourish, J. H. H. tries another one, proposing a line “through worthless sandy country” to Watson’s Bay where there is access to deep water from 6 to 14 fathoms. He ends by waxing lyrical about the great advantages this would bring to the residents of “beautiful Illawarra” but also to Port Jackson which will also “become not only the terminus of all Australian mail routes as now under discussion, but also the great emporium of all mercantile transactions throughout the southern hemisphere.”

Y. Y. draws another reply, this time from James Shoobert

Illawarra Mercury, September 2, 1873

Portions of Shoobert’s reply are given here:

“In the most considerate manner he (Y.Y.) suggests that the Bulli company might drive a tunnel through the mountain to connect their works with an economical railway which he proposes, and by this means be able to pay a good dividend, should their jetty be washed away. The Bulli Company have no fear of their jetty at present nor of their dividend. The jetty has stood six years, and as I was on it on Monday, I think, from a thorough examination of it (if my opinion is worth anything), it is likely to stand six years longer. If it be washed away, I suppose the company would re-erect it.”

Shoobert also attacks Y. Y.’s figures, claiming his railway would cost 4s 6d per ton, whereas “we could bring it up by water at 3s, leaving a good profit.”

Another reply to Y. Y., this time from OBSERVER

Published in Herald August 30, Mercury September 5, 1873

Whilst considering that Y. Y. “is evidently an earnest friend of the movement,” Observer thinks his proposition to connect Bulli with Campbelltown is rather crude and ill-considered; that his estimate of 10,000 tons per year is too low and that the south coast could produce ten times as much for centuries; that Mr Manning’s Bottle Forest route will help to develope [sic.] rich beds of iron ore in that locality; that Darling Harbor is not deep enough for a coal port for large ships; that English experience has proved that rail transport of coal is always cheaper than by ship and that Mr Shoobert will discover this before he is many years older.

Observer concludes by affirming his support for James Manning’s railway embankment. He predicts trains of 400 or 500 tons of coal reaching Sydney in five hours from Kiama and two hours from Bulli. Would ships then leave the colony in ballast, or be required to wait only twelve days for a cargo of coal? Your readers can form their own idea of the commerce of Sydney based on such a foundation.
Y. Y.’s Reply to Shoobert

*Illawarra Mercury*, Tuesday September 9, 1873

This letter is brief enough and sufficiently hard-hitting to be published in full:

Sir,---Kindly allow me space to reply to Captain Shoobert’s letter in your Friday’s issue. He says, “the Bulli Company has no fear of their jetty at present. It is therefore evident that they do not ignore the possibility of its ultimately meeting the fate of the former one. He also says, “if it is washed away I suppose the company would re-erect it.” This would occupy some months to do. In the meantime, would not the Company be in a fix with regard to their Government contracts? I saw in one of your issues the fact recorded of their having secured them for 1873-4.

Can the Company ship coal from their jetty in all weathers? Or is it not a fact that their steam colliers dare not go near it during heavy easterly gales, which sometimes prevail on this coast for days together. Can the company guard against shipwreck? Were they not crippled to a large extent in their “output” whilst the steamer Bulli was being built to replace the last one?

Regarding the shipping of coals, what can be done in a difficult and limited harbor like Newcastle can surely be done in a large and safe one like Sydney.

I am, Sir, &c.,

Y.Y.

Testimony of the Royal Navy Regarding Illawarra Coal

*Illawarra Mercury*, Tuesday September 9, 1873 (as above)

In the same issue as Y. Y.’s letter, the Mercury published seven testimonials to Illawarra coal from Royal Navy ships, some of which we print below:

**HMS Challenger**: Wollongong coal requires more draft and more time to get up steam, but burns with a bright red heat, making little soot and smoke, but about 5 per cent more ash than Newcastle Coal, a fine white ash easily shaken through the bars. It does not burn the bars, nor choke up the small Tubes as soon as Newcastle Coal. It is similar in nature and structure to Welsh coal.

**HMS Brisk**: The Illawarra coal appears decidedly to be the best suited for Boilers and small Tubes, although it makes a larger percentage of ash.

**HMS Charybdis**: Wollongong coal creates much less Smoke, Clinker, and Soot, and the same speed is obtained with a saving of ten per cent in the consumption.
As several of these letters were addressed to Thomas Hale, Esq., Osborne Wallsend Coal Company, Sydney, we may safely assume that they refer to Mount Keira coal.

James Manning amends his Railway Plan

Report published in *Illawarra Mercury* on Tuesday September 9, 1873.

At the next regular meeting of the Royal Society, Manning explains how a shortage of time in his address to that body [on August 6] prevented him from presenting a map of his plan to extend the railway to Kiama. We publish some significant excerpts:

“In a late visit that I made to Illawarra, I discovered how I could amend the plan at the Bulli and Wollongong end in such manner as to enable us to obtain the coal for quite eighteen pence per ton less than by sinking for it at the dip behind the Bulli Mountain, as I had proposed; that is to say, by taking the line to the east of the coal range, and by this means getting the coal by tunnels at the outcrop.”

The bulk of the report related to a visual inspection of the proposed route from the highest point in Sydney:

“On the acknowledged principle that ‘seeing is believing,’ I arranged for one of the officers of the Illawarra Steam Company’s vessels to go to the top of the tower of the new Town Hall (the ascent of which is as yet only by ladder) to report to me all he could see south from that point. He returned and stated that he had had a direct sight of the whole coast passing Botany Bay, Port Hacking, Coalcliff, Bulli, Mount Keira behind Wollongong, and all the way further south (twenty-five miles) to the high Saddle Back Range behind Kiama, in which I may mention there are enormous seams of excellent coal.” And later:

“From that elevated position this ship’s officer could also see the straight direction of the proposed railway from Wollongong, Bulli, Coalcliff, and along the leading and easy descent of the Bottle Forest and Port Hacking Creek range on to George’s River, and finally by its straight course direct on to the deep waters of North Balmain, opposite Cockatoo Island.

“After this unveiling, I ask shall we let these vast resources lie dormant? And shall we leave unopened to our Sydney population the delights they would derive from having access to Illawarra by one of the most picturesque and charming railway lines that the world could produce?”

Thus we see that Manning’s own thinking has come a long way in a month. His obvious enthusiasm must soon touch off some positive action.

To be continued.
after these items in an appropriate manner, on behalf of the community. Further information about items listed on these registers can be obtained from the officer or department responsible for heritage or asset management at a particular agency, or by contacting the NSW Heritage Office.

Continued on page 67

SYDNEY AND ILLAWARRA RAILWAY, PART 3 cont’d

Advertisement for Public Meeting in Wollongong
Advertisement in Illawarra Mercury, Friday September 5, 1873.

METROPOLITAN AND ILLAWARRA RAILWAY

The inhabitants of the district of Illawarra favourable to the formation of a Railway between Shoalhaven and the deep waters of the harbor of Port Jackson, to facilitate the shipment of coal and other produce from the district to foreign places, are requested to meet at the Queen’s Hotel, Market square, Wollongong, on TUESDAY, SEPTEMBER 16th at 8 p.m., to consider the best means for procuring the formation of such railway. His Worship the Mayor of Wollongong is invited to take the chair.

JOHN BIGGAR

Wollongong, September 4th, 1873

It transpired later that this advertisement was also placed in the Kiama and Shoalhaven papers.

ILLAWARRA MERCURY EDITORIAL
Friday September 12, 1873

A week after John Biggar’s advertisement, the Mercury published a lengthy editorial which states the case for public ownership of public utilities, obviously attempting to influence the populace to press for a Government-owned railway in preference to one owned by private enterprise. We quote sections of the Mercury’s argument:

“The principal object for which Governments are established and maintained is to enable individuals, through the Executive, to procure and maintain for themselves and fellow citizens those benefits and conveniences which are not
obtainable by individual action. Among great benefits of this nature, railroads are second to none in importance to the public welfare; and the majority of the Governments in Europe have seen the necessity of establishing such along every important route of communication throughout their territories. The Governments of all the Australian colonies have wisely followed the example of the old and experienced communities in Europe; the Government in each colony being the maker of all its railroads for opening up communications with important centres of trade; and for opening out vast areas of land to the settlement of population. We see no reason why the proposed Metropolitan and Illawarra Railway should not be constructed by the Government.”

“There are, in our opinion, most cogent reasons for the immediate construction of this line.”

“We hope that at the meeting of Tuesday next these facts will be kept in view, and that the meeting will determine to call the attention of Government to the injury (through loss of trade and commerce) our district suffers for want of railway communication with the metropolis, and urge the justice of providing for us facilities in this respect such as are enjoyed and possessed by other districts. The best reason that can be assigned for constructing the Metropolitan and Illawarra Railway is the great fact that it will pay. Then let the Government make it, for the public interests of the district and the colony.”

THE MEETING DAY ARRIVES

Illawarra Mercury, Tuesday September 16, 1873

Continuing its support for the Illawarra Railway, on the day of the advertised meeting the Mercury devoted its Editorial to the topic. Not only did it remind its readers of the importance of this meeting, but it also informed them of the latest development: an exploratory ride by James Manning and a companion, for the purpose of determining a suitable route for the proposed railway line. Having dispensed with the preliminaries, we now let the Mercury make its report:

“In order to carefully examine the intended course of such railway line from Sydney to this district, Mr Manning, accompanied by one or two other gentlemen, left the metropolis early last week. After pursuing their journey slowly but surely, they arrived at Bulli on Friday last, at which time Mr Manning wrote (from Floyd’s Hotel) to Mr John Biggar, of this town, as follows, regarding the
observations he had made in the course of his praiseworthy travels and efforts to satisfy himself regarding the nature of the country through which the proposed line of railway must pass. He says:---

Here I am (at Bulli) with my friend, and a guide from Stanwell Park. I have been viewing the mountain top from every direction from the Coal Cliff, looking over the frightful precipices and wondering how the ascent could be practicable. The railway line is tolerably clear to me from the front of this public-house. I see it distinctly before me or seem to do so, as far as the eye can make a preliminary survey. The surveyors should be set to work here to take sections of the range, passing above the Bulli coal pit, and running northwards to the top of the mountain somewhere to the right of the junction of the Appin and Bottle Forest roads, and which junction I make to be 1010 feet above the sea. [Manning carried an aneroid. Ed.] To the southward I see the declivity falls gently towards Wollongong, and would seem to be very promising. The line would have to keep above the road that comes down the mountain from Bottle Forest Junction, and keep in to the right along the side of the high cliffs for some distance until the rail came on to the ridge south of the coal pit, and then keep the ridge down towards Wollongong. Thus it seems to me that the long and gradual ascent could be made without any zigzag, and surmount the 1010 in a continuous line with very moderate gradients. But you must spend money on the preliminary survey of this part of the line, and you need scarcely do anything more, for I see that the depressions of 136 feet which I found about these stony places (on the table land) can be avoided by keeping nearer the edge of Port Hacking Creek, just above and clear of the gullies about there, and bringing the line out again on the capital Bottle Forest Road between the 15th and 16th mile pegs where I blazed a tree; which is at an elevation of 728 feet above the sea."

Manning then gives details of the terrain from the above point to George’s River, over which stretch he avers not a drain or culvert of any consequence would be required from the top of Bulli Mountain to George’s River.

But his mind is not yet closed on this route, as he ends by writing:

“I would have gone on to Wollongong from hence, but wish to go back under the mountain to Coal Cliff and Stanwell Park, so as to view that possible line of railroad, via Stanwell Park, and by tunnelling through the Bulgo range opposite Stanwell Park, and then by passing on by the best course, along the edge of Port Hacking Creek, on the west [?] side of Bottle Forest.”
Thus we see Manning's plans changing and developing all the time. Had he known it, he was now getting closer to the route finally chosen by the railway engineers. Much as we doubted his water cum power supply cum railway crossing of George's River, it must be admitted that he is now exhibiting an admirable degree of determination and flexibility.

METROPOLITAN AND ILLAWARRA RAILWAY

*Illawarra Mercury*, Friday, September 19, 1873

As the *Mercury* was only published twice weekly in those days, this was the first issue after the momentous public meeting on the evening of Tuesday 16th. This issue was full of information relating to the railway proposal:

1. An Editorial devoted to the meeting: *The most important movement ever set on foot;*
2. A lengthy detailed report on the public meeting;
3. Manning's full description of his exploration of the railway route, in the form of a letter to the *Herald on Tuesday 16th;*
4. And a *Herald* article entitled "Coal Mining at Bulli."

The Editorial

The Editorial expressed satisfaction that the district of Illawarra for a distance of fifty miles along the coast was represented, especially mentioning the interest from Kiama and Jamberoo, but lamenting the lack of input from Shellharbor. However, the Editor was pleased that the map on display at the meeting showed the proposed route marked as far as the Bomaderry Ferry.

Some concern was expressed about the nature of the committee elected at the meeting, as it represented different centres of population down the coast to Shoalhaven who would find it difficult to attend meetings. The *Mercury* favoured Mr. G. Hewlett's suggestion that there should be a number of local committees as well as a central committee.

The Editor's conclusion was that "the meeting had initiated the most important movement ever set on foot to address the material prosperity of Illawarra. It now remains for one and all in these parts to put their shoulders to the wheel, and push the matter to a speedy and successful issue,"
The Meeting Report

The hundreds of people present from widely distant parts of Illawarra almost packed the spacious assembly room of the Queen’s Hotel.

Apologising for the unavoidable absence of Mr Lahiff, Mayor of Wollongong, Mr Biggar nominated Mr W. Thompson, Mayor of Central Illawarra, to take the chair. Mr Biggar also read letters from Mr Robert Haworth, Mr N. Hindmarsh of Kiama and Mr John Stewart, M.P. for Kiama, the latter urging at some length that the line should be built by Government rather than by capitalists forming a company.

Mr Biggar then addressed the meeting at length, stressing the need for a railway to enable produce of the district to be carried to market, the enormous delays experienced by ships obtaining coal at Newcastle and what a boon it would be to the coal industry. He proposed that “the better course to adopt would be to have a private survey of the line made so that the people of the district might then go to the Government with a clear case, as to constructing the proposed railway.”

“Mr W.W. Jenkins, Esq., said that as Mr. James Manning was not an authority upon engineering matters, his statements regarding the practicability of forming a railway between Sydney and Illawarra could not be accepted as being reliable.”

After more preamble, Mr Biggar proposed the following motion:-

“That this meeting, believing that the agricultural interests and coal mining industry of the Illawarra district suffer great depression and injury, and that the development of these important pursuits is hindered and repressed for want of railway communication between Shoalhaven and the deep waters of Port Jackson, to facilitate the shipment of coal and other produce to foreign parts, is of the opinion that such railway should be made by Government, and pledges itself to use every legitimate effort to secure its speedy construction.”

Seconded by Mr Jenkins and supported by Charles Robertson and Henry Whitton, the motion was carried unanimously.

Mr. D. L. Dymock from Jamberoo then moved “that the Government be memorialised to undertake a survey of the proposed line of railway from Sydney Harbor to Shoalhaven.” This was carried unanimously.

Mr Dymock then moved “that subscriptions should be made to defray the expense of a private survey of the intended line,” but then changed his mind and substituted the following:-

“That Messrs. W. W. Jenkins, H. H. Osborne, A. Lysaght, D. L. Dymock, Dr. Lyons, J. Brown, (Dapto), P. Mackel, E. R. Evans, N. Hindmarsh, E. Graham, W. James (Shellharbor), R. Wilson, Henry Hicks, John Thomas,

Mr. Andrew Lysaght, J. P., seconded the resolution.

Despite Mr. George Hewlett's suggestion that a series of local committees should be formed, the resolution was finally carried in its original unwieldy form.

Meanwhile, Mr Biggar had mentioned that "a survey had been made some years ago, of the course of a railway line from Wollongong to Albion Park, and that in the whole of that distance no cutting over 20 feet deep would have to be made." Mr P. Owen then advised that the papers connected with this survey were still in his possession and available for inspection.

After the business of the meeting had concluded, "members of the Committee who were then present assembled and moved Mr. John Brown, J.P., into the chair. The Committee then appointed Mr. John Biggar to act as Secretary pro. tem., and instructed him to call (by circular) a meeting of the Committee for Friday next, the 20th instant, at 9 p.m. to elect officers and transact other important business, such meeting to be held at the Queen's Hotel."

The remainder of the lengthy meeting report consisted of a detailed description of the map drawn by Mr. John Biggar, Jun., showing the proposed route from North Balmain at a point almost opposite Cockatoo Island to the Shoalhaven River near Bomaderry.

**Mr Manning's Horseback Survey**

Also in that same issue of the *Mercury* was a reprint of James Manning's letter to the *Herald* in which he have a lengthy report (about 45 column inches) of his travels over the proposed railway route. After he had written his letter from Bulli to Mr. Biggar, Manning had returned to Stanwell Park and made more calculations. As result of his inspection of this area, he puts forward an alternative to the ascent from Bulli, which would serve more coal country by ascending from the vicinity of Stanwell Park, this time without the necessity for tunnelling:-
"I am also satisfied that the features of the country will admit of such an easy gradient being made, that we may have it as light as 1 in 50, which is only 100 feet to the mile. This success would be attained by keeping about 200 feet above the sea all the way from Bulli, so as to escape the gullies and broken ground, and pass on by the flats below the high mountain cliffs which continue for several miles from Bulli; thus by keeping that level of 200 feet at least, the great Coal Cliff itself can be rounded by a natural basement existing on it at that elevation, but which would have to be relieved by cuttings.

"That would leave only 600 feet more to rise before the table top would be reached; and this elevation can, in my opinion, be commanded by making a winding circuit in serpentine form around and up two great spurs of the mountain, which, with the east and west bend of the Bulgo range at the back of Stanwell Park, terminate the northern boundary of the Illawarra country, where the northerly dip of the coal passes down under the sea level.

"At the same time that I advocate the adoption of this special line, I do not suppose that it should be even nominally adopted in preference to the one by the Bulli Pass without survey; but I do strenuously hope that a sufficient sum of money, say £2,000, be subscribed in Sydney and Illawarra in the relative proportions of £1,500 from the former and £500 from the latter, for the express purpose of carrying out effective preliminary surveys with accurate cross-sections of both these passes; and that priority in the surveys be given to those difficult engineering parts, before more of the money is spent on the rest of the simple surveys of the whole line."

Although appearing to keep his options open, Manning seems to be hoping that surveys of the Stanwell Park area will prove favourable, undoubtedly because he is aware that this route would provide the best outlet for the coal deposits, especially if the proposed route could pass below the tunnel entrances, thus providing easy access from the mines.

The remainder of his report is largely devoted to financial projections for the railway. He predicts a profit based on a theoretical output of only 200,000 tons of coal per year, "which is just a fifth part of what Newcastle is shipping so sluggishly."

Coal Mining at Bulli
This article by a Herald's Special Reporter, first published in the Sydney Morning Herald, was reprinted in the Illawarra Mercury on Friday, September 19, 1873, when the agitation for the railway was gaining its first momentum.
As it sets the scene for the local coal industry, we have yielded to the temptation to reprint the article in full. However, as this article makes use of some obvious reminiscences, the Society takes no responsibility for the accuracy of the dates quoted:

Eight miles north of Wollongong, by the main road through Fairy Meadow, Woonona and Bellambi, is situated the village of Bulli, close to the now justly celebrated colliery of the Bulli Mining Company, which lies to the west high above the road on one of the spurs of the Bulli Pass. In the village there is very little to attract the attention of the visitor; there are a few small stores, a public-house, and a number of small weather-board cottages. The place, however, if not attractive, has every appearance of bustling business about it, and the inhabitants seem active and prosperous. The Public school, which stands in a central position, is the largest structure of the place — a wooden building of good, lofty and neat design, with an interior well furnished. Mr C. H. Spier is the master, and the attendances may be stated as averaging about 70 — a very fair number when the number of schools around here are taken into consideration. The school land was the gift of the Bulli Company.

In the heart of the village may be seen the engine shed of the Bulli Company, inside it two neat tank engines, from the shop of Vale and Lucy; small but powerful locomotives, they have proved themselves capable of performing ably the haulage of the company. Taking a road to the right of the company’s line, over a shallow creek, by ascending the hill, a quarter of an hour’s walk will bring the mouth of the mine to view. And as a brief description is intended before entering into particulars, perhaps a few jottings, historical of the progress of coal mining in the south, since the year 1828 to the present time, may prove not too great an intrusion on the patience of the reader.

In the year 1828, from off a property of a person named Chippendale, Mr. James Shoobert, the present manager of the Bulli Mine, obtained a few bags of coal, which he brought to Sydney. At that time the coal trade of the colony was almost, if not entirely, monopolised by the A. A. Company. New ventures, and good ones, too, often prove miserably slow in development, and Mr. Shoobert found many obstacles, and little support extended towards the development of the new coal field.

The enterprise wavered and remained in a state of suspense until the year 1848, when Mr Shoobert opened the mine now known as the Mount Keira, at that time on his own property. From the Mount Keira seam the steamers plying between Wollongong and Sydney commenced to obtain their supplies; thus by a small beginning an important trade was opened. In 1854 a sample of the coal was sent to the Paris Exhibition, and received from the Commissioners a bronze medal.
Two years after that Mr Shoobert sold the property to the late Mr. Henry Osborne: it was then named the Osborne Wallsend Coal Mine.

In the year 1861 the Bulli Company was formed, and Mr Shoobert, who may be regarded as the father of the southern coal fields, became a shareholder. A railway was laid down and a jetty built, and in May, 1868 [?], the first cargo was shipped in the brigantine George; and in the same year the company ordered in England a screw steamer, the Woniora, which a short time after came out here in charge of Mr. Shoobert’s son.

About this time a misfortune befell the company --- a portion of the jetty was washed away by a heavy sea; the repairs cost about £2,000. In the year 1867, on the 21st of June, another mishap was recorded. A heavy storm visited the coast; and, by the sea, a portion of the jetty was again washed away, and with it, four of the workmen who were drowned. The company’s rolling-stock also suffered a serious diminution, for forty of the waggons were also carried off. [If one can believe this reporter’s figures, this happened before the jetty was built! Ed.]

It was then found necessary to construct a new jetty, on a different principle, and under the superintendence of Mr Shoobert the present one was constructed. The pier is about 650 feet in length, 18 feet in width, accommodating a double line of rails; the bays are 25 feet apart, running out to 21 feet at low water. The outer piles are 54 feet long, 2 feet 4 inches in diameter; each pile is pinioned to the rock by a 3½ inch bar of square iron passing through it 3 feet 6 inches, and the same distance into the solid rock of the bottom. For these piles turpentine was used, a timber which resists the cobra’s action.

At the end of the jetty are fixed two double shoots; the upper one, into which the waggons are shot, communicates with the lower, by this arrangement the fall of the coal to the vessel’s hold is lessened. At low tide the height from the jetty to the water is considerable (over 24 feet), and were it not for such careful appliances the coal would suffer damage by smashing in shipment.

The jetty, at the present time, appears a fine substantial structure, likely to stand against the heaviest coast weather for years to come: its stability has been tested by many heavy gales; no greater proof could be afforded of its skilful erection.

To be continued.
Unfortunatel y, Bulli, as a port, possesses but little natural protection; the pier runs out from the northern side of a point, in a north-easterly direction. To the east, at the end of this point, a line of rocks extend, which furnish shelter from southerly winds; but heavy breezes from the north or east send in a troublesome sea, and prevent vessels safely mooring at the pier. A breakwater has been in contemplation, its construction would be of great benefit to the port of Bulli, even apart from its coal mining interest.

Having jumped unconsciously from the village to the wharf, while on it perhaps it would be as well to give a few particulars of the shipping and how it is conducted. Two screw steamers trade regularly, both the property of the company—the Woniora and the Bulli. The former takes 250 tons, the latter 450 tons each trip. As the distance is short to Sydney, and the boats speedy, a trip each day could be managed; but at present the custom is to load one of them each day in regular turn. The coal is shipped generally at 100 tons per hour; 110 waggons, each capable of holding a little short of 4 tons, are used in the service. The locomotive works from the wharf to the incline, a distance of 1 mile; from foot of incline to top is 600 yards, the gradient 8½ inches in a yard; from the incline’s top to the mine is 400 yards; making the entire distance from mine to wharf about 1¾ mile. The waggons being heavy only one at a time is lowered down the steep by means of a drum and wire rope, the full one pulling up a return empty. Last half-year 32,693 tons of coal were shipped.

Some time back, the company’s manager, finding the watering of steamers in Sydney cost £150 per year, sent to England and obtained 1½ miles of 2½ inch galvanized piping, two drums were made up the mountain, a short distance from the mine, and from them the piping was led to a tank near the wharf. This tank holds 8,000 gallons; pipes lead from it to the end of the jetty, and when the boats come alongside two hoses are available to fill boilers and tanks on board. By this arrangement not only is a great saving effected in the matter of the original outlay, but the boilers are benefited, last longer, the fresh water proving less injurious to the iron than the salt, also capable of producing more steam with less fuel.

A short distance from the wharf, across the line, stands the weigh bridge shed and office, where Mr Artis, the wharf manager and shipper, is in attendance. Under him are six assistants for jetty work. The weigh bridge (by Pooley and son of Liverpool) is one of the finest ever imported. Over it the waggons are pulled and balanced by a moment’s stoppage. After the coals pass the weigher, they are
watered by means of a shower rose, the object being to prevent loss or inconvenience from dust.

The country from the jetty to the mine has a most charming appearance. South of the wharf the land is cleared and fenced; pretty cottage residences stand close to the point. On the way to the village along the line, on the left is passed the neat residence and garden of the general manager, Mr A. Ross. Proceeding on the way to the mine, up the mountain's side, the foliage is luxuriant and beautiful. Palms, fern trees, and sweetbriars grace the soil, with lofty cabbage trees and sassafras towering overhead. In the gorge, close to the mine's mouth, rises the grey smoke from the ignited slack heaps at the back of the rocky mountain's side, with limpid streams trickling down, all tending to add interest and beauty to the scene.

Around the works stand several cottages, the property of the company; they are rented for small sums to the workmen, who, as a rule, make excellent wages, and live in a most comfortable condition. For a hundred yards before reaching the mine's mouth on the mountain side by cuttings, two terraces are formed, the upper one leading from the tunnel is used for the skips which run along on numerous tram lines to the shoot, where, by a reversible table, the skip is capsized, and the coal gently run down the screens into the waggons on the lower terrace. These skips are supposed to produce on the average 11 cwt of screened coal; for the hewing of each one the miners receive 17½d. The stabling stands close to the screens; 13 horses are employed hauling out the coal from the mine. Of skips and small waggons there are 95 kept in constant use. Mr White is the underground manager. The mine employs 82 miners, 40 labourers, and 13 boys; the latter receive from 3s to 4s per day; Their ages range from 14 to 20.

The mine is entered by a fine wide clear tunnel, capable of accommodating two lines of rails, with room to spare. There is no inconvenience suffered by a visitor in walking beneath the mountain for about half a mile, for the passage is level and quite dry; in fact the mine, as the manager expresses it, is "dry as a bone." --- so free from damp that the passages or tunnels have to be watered, as streets are, to lay the grummy dust. The dip of the seam is 1 in 20 running fairly regular, with occasional rises and dips. In thickness it averages about 8 feet 6 inches. The interior management is evidently good, from the appearance of the different parts of the work; and the miners have little cause for complaint, for much is done by the company for their convenience. The seam is easily worked, and he should indeed be a sorry pickman that could not earn excellent wages at the present rates of payment. The land held by the company under the mine and works may be fairly stated at about 1000 acres.
Since June 1865 to June 1873 inclusive, the company have taken from the mine and shipped 377,146 tons. The Bulli coal is principally used by ocean steamers --- the Atrato, Somersetshire, Northumberland and Great Britain among the number. The quantities given will furnish an idea how great the trade has become. One firm in San Francisco, the Rolling Mill Company, consume 800 tons each month for smelting and blacksmithing purposes.

****************************

Shoobert replies to Y. Y., defending his Jetty
_Illawarra Mercury_, September 23, 1873

Reading this letter, one can almost imagine Shoobert’s pen gouging through his writing paper; indeed, the typographer had some difficulty in interpreting the writing. As it reveals some new information about the Bulli Coal Company and its jetty, the letter is published in full:

Sir,--- In your issue of 9th inst., you publish a letter signed Y. Y., commenting on a statement of mine in the ‘Herald’ that we had no fear of our jetty at present. He says, “It is therefore evident they do not ignore the possibility of its ultimately meeting the fate of the former one.” He might have said two, as we lost two before the present one was erected. If Y. Y. will sign his name to his letters, I shall not ignore the possibility of convincing him that he does not know what he is writing about. For Y. Y.’s information, I desire to say, when we lost our last jetty we had contracts requiring about 5000 tons per month, and we re-commenced shipping about six weeks after the loss, thereby showing that it did not require some months to erect a permanent jetty. I say permanent, because it has stood six years, and we have no fear of it now. Then again, I am sure Y. Y. will be glad to learn that we have no Government contracts. We have the Imperial Navy contract only, which we could supply without a jetty. To know this will no doubt relieve his anxiety on that head. He then asks, “Can the Company ship coals at their jetty in all weathers?” No; there are times at which the Co. cannot ship coals at their jetty. The greatest number of days lost in any one year from heavy weather has been 8 (eight.) He then says, “Is it not a fact that their steam colliers dare not go near it during heavy easterly gales, which sometimes prevail on this coast for days together?” He might put the same question with regard to every harbor on the coast; but it is not a fact that easterly gales prevail on the part of the coast alluded to. Kiama, Wollongong and Bulli are affected more by S. E. and strong westerly gales, after [often?] lasting three
or four days, then by easterly gales, which seldom blow home [long?] at those places. He then asks, "Can the Co. guard against shipwreck? Were they not crippled to a large extent in their output whilst the steamer Bulli was being rebuilt to replace the lost one?" If Y. Y. wishes to lead the public to believe that the Barwon was lost at Bulli—and I defy any sane man to read it in any other sense—then he is misleading them. When the Barwon was lost she was in the Adelaide trade, many hundreds of miles from Bulli. The Company’s steamers have always been able to leave Bulli when necessary for them to do so.

J. SHOOBERT,

Sept. 18th, 1873.

Manager.

In the same edition of the *Mercury* there also appeared another letter, this time from James Somerville of Kiama:

**Letter from James Somerville**

*Illawarra Mercury* September 23, 1873

In a nicely balanced letter, James Somerville makes the following points:

That he sees the Tuesday evening meeting as a turning point in the history of Illawarra.

Speaking of the rural depression that presently prevails, he writes: "I look upon the opening of a railway between Shoalhaven and Sydney as the only remedy for the district."

With regard to who should build the railway: "It seems reasonable to expect that the Government should undertake the work."

"The next step to be taken is to collect £500 to cover the expenses of a trial survey."

He calls on the landowners not to demand exorbitant prices for land that may be required, "seeing that the value of every remaining acre will be marvellously increased by the accommodation of the railway, which will, in fact, make Illawarra a suburb of Sydney.

JAMES SOMERVILLE

Kiama, Sept. 20, 1873.

Compiled by F Osborne