

(No. 150.)

1884.

PARLIAMENT OF TASMANIA.

HOBART TRAMWAY COMPANY BILL:

REPORT OF SELECT COMMITTEE, WITH MINUTES OF PROCEEDINGS AND EVIDENCE.

Brought up by Mr. Dobson, and ordered by the House to be printed, September 25, 1884



SELECT COMMITTEE appointed on Friday, 1st August, to consider a Bill to authorise the Hobart Tramway Company, Limited, to construct, maintain, and work Tramways in the City of Hobart and the Suburbs thereof.

MEMBERS OF THE COMMITTEE.

MR. CROWTHER. MR. BELBIN. MR. BURGESS. MR. PILLINGER. MR. LUCAS. MR. GUESDON. MR. DOBSON. (Mover.)

DAYS OF MEETING.

Thursday, 18th September. Friday, 19th September. Thursday, 25th September.

WITNESSES EXAMINED.

Mr. C. W. S. James. Mr. C. H. Grant, Manager Tasmanian Main Line Railway. Mr. A. G. Webster.

MINUTES OF PROCEEDINGS.

THURSDAY, SEPTEMBER 18, 1884.

The Committee met at 11 A.M.

Present-Mr. Dobson (Mover), Mr. Pillinger, Mr. Burgess, and Mr. Belbin.

1. Mr. Dobson was appointed Chairman.

2. The Draft Bill, the Certificate of Incorporation of the Company, and the plans of the proposed Tramway, were laid on the Table.

3. Mr. C. W. S. James, Engineer to the Company, and Mr. C. H. Grant, Manager of the Tasmanian Main Line Railway, were introduced, with Counsel, Mr. Henry Dobson.

4. Counsel addressed Committee in support of Bill.

5. Mr. C. W. S. James and Mr. C. H. Grant having been examined, withdrew.

6. Committee adjourned till Friday at 2.30 o'clock.

FRIDAY, SEPTEMBER 19, 1884.

The Committee met at 2.30 P.M.

Present-Mr. Pillinger, Mr. Belbin, Mr. Treasurer, Mr. Lucas, Mr. Dobson (Mover).

1. The Minutes of last meeting were read and confirmed.

2. Mr. A. G. Webster was introduced, with Counsel, Mr. H. Dobson.

3. Mr. A. G. Webster having been further examined, withdrew.

 Mr. Henry Dobson laid upon the Table a letter from the Town Clerk stating that a "Committee of the whole Council recommend that the City Council co-operate with the Hobart Tramway Company in getting a Bill passed in the next Session of Parliament authorising the construction and working of Tramways in this city and its suburbs."
 Mr. C. H. Grant was recalled, and having been further examined, withdrew with his Counsel, Mr. H. Dobson.

The Draft Bill was considered and agreed to, with the exception of the Second Schedule, which was postponed.
 The Committee adjourned at 3.40 P.M. till Thursday, the 25th September, at 2.30 P.M.

The Committee met at 2.30 P.M.

Present-Mr. Pillinger, Mr. Crowther, Mr. Lucas, Mr. Dobson (Chairman).

1. The Minutes of the last meeting were read and confirmed.

2. Schedule 2 agreed to.

3. The Committee deliberated.

4. The Draft Report was drawn up and adopted.

5. The Committee adjourned sine die.

REPORT.

YOUR Committee, having taken evidence in support of the allegations contained in the Preamble of the Bill, have the honor to report that the said Preamble has been proved to their satisfaction.

Your Committee, having agreed that the Preamble should stand part of the Bill, then entered upon the consideration of the several Clauses and Schedules of the Bill, and approved of the same.

Your Committee accordingly recommend the Bill to the favourable consideration of Your Honorable House.

Committee Room, 25th September.

ALFRED DOBSON, Chairman.

While approving, upon the whole, of Section 23, as to the motive power to be used by the Hobart Tramway Company, I am of opinion that steam power should not be used in crowded thoroughfares.

EDWARD L. CROWTHER.

EVIDENCE.

THURSDAY, SEPTEMBER 18, 1884.

MR. C. W. S. JAMES called in and examined.

By Mr. H. Dobson.—My name is Charles Wordsworth Scantlebury James, and I am acting Engineer of the Hobart Tramway Company and Engineer to the Hobart Corporation.

The object of the proposed Hobart Tramways is to connect the City of Hobart with the suburban districts with

Ine object of the proposed robart framways is to connect the City of Probart with the subtroat districts with suitable tramways, which will ensure cheap and regular communication for combined passenger and goods traffic. It is proposed, in the first instance, to lay down a 3ft. 6in. line of tramway, corresponding to the gauge of existing and proposed main lines of railway, along the full length of Macquarie-street, about 2 miles 5 furlongs, commencing at and forming a junction with the Tasmanian Main Line Railway at the corner of Park-street and Macquarie-street and terminating at the Cascade Brewery, and also to, around, and along the various wharves and initia.

Macquarte-street and terminating at the Cascade Drewery, and also to, around, and along the various what is and jetties. When the successful working of this pioneer line has been proved, branch tramways will be carried to New Town and Sandy Bay; if required hereafter, to Battery Point. In America tramways are profitably worked in cities with a population of from 10,000 to 15,000 people, and are used by all classes of society, and are considered necessary public institutions. The traffic along any thoroughfare before the construction of a tramway has been proved to offer no criterion of the vastly increased traffic that always follows upon the supply of this popular accommodation, which also greatly enhances the value of adjacent property and induces extending building operations, thereby increasing the residential capacity of the district and creating new sources of traffic.

enhances the value of adjacent property and induces extending building operations, thereby increasing the residential capacity of the district and creating new sources of traffic. The following plans indicate the proposed routes and method of construction :--No. 1 Sheet is a locality plan of the City of Hobart and suburbs, showing the three proposed tramway routes; viz.--Main Line Railway Terminus to Cascades Brewery along Macquarie-street, and to, around, and along the various wharves and jetties; Main Line Railway Terminus to New Town; Branch Line to Sandy Bay. No. 2 Sheet indicates an enlarged general plan, showing proposed Western Main Line of Tramway to Cascades Brewery, cemmencing at junction with a siding on Main Line Railway Terminus at corner of Park-street and Macquarie-street, thence along the full length of Macquarie-street to the Cascades Brewery proposed terminus, being a distance of about 2 miles 5 furlongs. A distorted longitudinal section accompanies the above plan, showing the existing gradients along the entire route.

A distorted longitudinal section accompanies the above plan, showing the existing gradients along the entire route. No. 3 Sheet indicates an enlarged general plan and distorted longitudinal section, showing proposed Northern Main Line of Tramway to New Town, commencing at junction with Main Line Railway Terminus at corner of Park-street and Macquaric-street, thence along Park-street, along Liverpool-street, Elizabeth-street, New Town Road, to a point known as "Cooley's," being a distance of about 3 miles 3 furlongs. No. 4 Sheet indicates an enlarged general plan and distorted longitudinal section showing proposed Southern Branch Line of Tramway to Sandy Bay, commencing at junction with Western Main Line to Cascades, corner of Murray-street and Macquarie-street, along Murray-street, Davey-street, Harrington-street, thence along proposed

new street into Montpelier Crescent, along Montpelier Road, through Sandy Bay, to a point on the Kingston Road known as "Lipscombe's."

Sheets Nos. 5 and 6 indicate an enlarged plan showing average and minimum widths of streets. The average width of streets for Main Western Line to Cascades, and Northern Main Line to New Town, is

about one chain.

about one chain. One plan indicates the single line of tramway in centre of street, with turnout or siding at passing-place where required, which gives 214 feet of a road each side of tram line. Diagrams of tram-cars and private vehicles show that two tram-cars and three vehicles, or one tram-car and four vehicles, can pass each other with ample clearance. This allows vehicles to stop in front of houses or shops on both sides of the street, permitting other vehicles being driven between the former and the tramway line without being interfered with by the tram-cars. The alternative plan indicates the turnout or double line in centre of street; that is to say, the single line being out of the centre of street, which gives 25 feet 9 inches on one side, and 16 feet 9 inches on the other side for road. The alternative allows vehicles to stop in front of houses or shops on both sides of street, and also allows other vehicles being driven between the former and the tramway line without being interfered with by tram-cars, but on one side only.

one side only. The diagrams of tram-cars and private vehicles show that two tram-cars and two vehicles, or one tram-car and three vehicles, can pass each other with ample clearance. The former, therefore, gives more accommodation for traffic.

Experience in all parts of the world shows that tramways, except in very narrow streets, do not obstruct, but rather tend to regulate and give a direction to the ordinary street traffic. The minimum width of streets for Southern Branch Line to Sandy Bay is about 40 feet, which gives a width of

28 feet between kerbs.

One plan indicates the single line of tramway in centre of street, which allows 121 feet on each side for the way. Diagrams of tram-cars and private vehicles show that one tram-car and two vehicles can pass each other. The alternative plan indicates the single line of tramway on side of street, which allows 211 feet for the roadway, roadway.

and three feet clearance next kerb.

The diagram of tram-cars and private vehicles shows that one tram-car and two vehicles can pass each other with ample clearance. The latter gives the greatest accommodation for traffic. The extreme width from outside to outside of ordinary cabs is 5 feet 2 inches, of an omnibus 6 feet 8 inches, and

of ordinary carts 6 feet 6 inches. In the City of London it is found sufficient to make streets intended for two lines of vehicles 14 feet wide, but a width of 15 feet is preferred.

It is found that tramways of wide gauge can be satisfactorily worked for a single line in streets 23 to 24 feet wide.

In New York City four lines of tramway are laid down in streets only 20 feet wide. No. 7 sheet represents details of permanent way, half full size, cross section for motors ; also plan of rail joint. By this method it is proposed to remove the existing road material for a width of only 5 feet and a depth of 7 inches,

By this method it is proposed to remove the existing road material for a width of only 5 feet and a depth of 7 inches, and lay hardwood cross sleepers on which the rails are laid and secured ; a portion of the metal to be filled in to top of rails, so that rail level is flush with road metal. No. 8 sheet represents a cross section showing details of permanent way, half tull size, for horse traction. Also plan showing longitudinal sleeper joints. By this method it is proposed to remove the existing road material for a width of 5 feet and a depth of 16 inches at transverse sleeper-tie. The timber transverse ties are laid about 9 feet apart ; on these rest the longitudinal timber sleepers, on which the grooved rails are laid. These longitudinal sleepers are necessary in order to give sufficient depth for the stone paving. The space excavated is filled in with sand to give a bed for stone paving, which is laid flush with top of grooved rails. Comparing the two systems, it will be seen that the former construction for motors has the advantage of being extremely simple, efficient, and economical, and interferes least with the existing roads, and the maintenance of the roads is not affected in any way by the line of tramway. of tramway

The latter system requires much deeper excavation of the existing road material. Where horse traction is adopted, paving is an absolute necessity in consequence of the traffic being confined to the track between the rails, and the road surface soon destroyed; where paving is used the grooved rail is a necessity, as the paving must be

and the road surface soon destroyed; where paving is used the grooved rail is a necessity, as the paving must be laid close up to edge of rail. It is estimated that the friction of grooved rails on an average requires nearly one-third more power to draw the cars than along rails without a groove when the flanges of the wheels are free. The cost of the paving is usually about half the total cost of the tramway. As the paving requires to be con-

cars man along rans without a groove when the hanges of the wheels are free.
The cost of the paving is usually about half the total cost of the tramway. As the paving requires to be constantly lifted to keep an even surface the maintenance for this mode of construction is very heavy.
The continual trampling of horses between the rails tends to spread the track and to force the rails out of gauge. The advantages of adopting a uniform gauge of 3 ft. 6 in. cannot be over-estimated. In the first place this is the settled gauge of the future railway system of the Colony, and will admit of the tramway lines being used for the goods waggons of the Main Line Railway ; it takes up less space in the width of the streets; it enables sharp curves to be used where necessary; it is sufficient to meet all future requirements for the city and suburbs. Private vehicles, which vary from 5 ft. 2 in. to 6 ft. 8 in., cannot use the narrow track, and therefore avoid any risk of collision or cetting wheels wrenched. or getting wheels wrenched.

or getting wheels wrenched. As small engines are now everywhere employed for contractors' work, &c. passing frequently through streets and amongst horses, and as at railway stations locomotives are run daily within a few feet of horses and carriages, and as few or no accidents are known to result from these practices, it seems reasonable to conclude that horses in towns will not take much notice of the passage of motors. Objection has been taken to motors, in the City of Sydney for instance, but those in use there are nothing more than small railway locomotives. The modern tramway motors, as used everywhere on the Continent of Europe for similar tramways as proposed for Hobart and suburbs, are only from 4 to 6 tons weight, the working parts are concealed, and they can work with condensed steam, when required, in busy streets, and therefore are smokeless and noiseless. A whole train can be stopped in 8 yards travelling at the rate of 6 miles an hour on inclines of 1 in 25. It is preferable to use detached motors to pull ordinary cars rather than to attempt the combination of engine, boiler, and passenger-carriage into one machine. It is a foregone conclusion that horse-power must eventually be superseded by mechanical power on tramways.

It is a foregone conclusion that horse-power must eventually be superseded by mechanical power on tramways. Steam power as yet takes the lead, for whilst a steam motor moves one ton one mile by the consumption of 69 lbs. of coal, an engine with compressed air consumes 1³/₄ lbs. of coal for the same work, or more than 2¹/₂ times as much as the direct steam motor.

the direct steam motor. The greatest disadvantage of compressed air is the fact of the engine being compelled to return for each journey to the accumulator or pumping station. The cars, whether for motors or horses, would be constructed after the most approved and modern patterns now in use in Europe and America, short and light cars being considered the most suitable for Tasmanian requirements, with central buffers. It is not considered desirable to provide for passenger seating on the roof or top of the cars. Electro-motive power is still in its infancy, and too expensive to be dealt with. On the other hand, the cable system is far too elaborate and expensive to be considered for small towns.

As regards danger to foot-passengers, there can in no case be the same risk with tramway cars as with omnibusses, The foot-passenger has only to look out for a car along its own track, while he must be on the look out for omnibusses along every part of the streets which they traverse.

C. W. S. JAMES, Engineer. 7. 8. '84.

By Mr. H. Dobson.—I do not think there is much danger in these tramways, for the engine being concealed in the body of the car, and being smokeless and noiseless, is less calculated to alarm horses than the ordinary locomo-tive. As Engineer to the Corporation, I do not think there is any objection to these tramways; on the contrary, I advocate them, for they are the means of keeping the road in better order. The cost of metalling the streets would be also saved to the Corporation, for the company would necessarily keep a portion of the street in repair themselves.

. By Mr. Belbin.—It would make it very much more expensive to construct lines for horse power, that being at the rate of £3500 per mile, and the steam motor £1500 per mile; steam is also better for the road itself.

By Mr. H. Dobson.—I do not think it would be prudent to use horse-power at all; the many steep gradients. would tend to knock up the horses. Especially having regard to the carrying of heavy goods along the wharves and up to the Cascades, I consider steam a necessity. With reference to the advantage of steam over horse-power, I beg to make the following quotations from the published remarks on Tramways, by Mr. Ewing Matheson, Mem. Inst. C.E., London, 1878.

"The opposition (to tramways) came chiefly from the proprietors of omnibuses and from the owners of the property along the routes, who were led to believe that tramways would prove a nuisance; * * the owners of private carriages opposed on the supposition that the rails would injure their vehicles. Moreover, the space occupied by the line was spoken of as if it were to be permanently monopolised by the cars. At last, however, the public mind became so thoroughly convinced of the advantages of properly constructed tramways that, in spite of the most strenuous opposition both in and out of Parliament, the first metropolitan lines were sanctioned in 1869. * Concurrently with the construction of lines in London, tramways have been established in most of the larger English towns.

"When first commenced the works of a tramway are much sooner remunerative than are those of a railway, and there is not so much room for uncertainty in the amount of expenditure, either for works or for purchase of property.

"The advantages which a tramway offers to the public are, easier and more comfortable travelling, a more regular service, and lower fares than omnibuses afford; """ the real justification for such lines is that the accommodation they afford to the majority of the inhabitants far outweighs the inconvenience to the minority. "" "The use of a passenger line for supplementary work at night, such as conveying of road-mending material or town refuse, is an independent question, and one which concerns the municipal authorities rather than the proprietors

of the tramway.

(Note.-The conveyance of road metal by the tramways would be a great saving in cost to the public.-C. W. S. J.)

The rapid increase in the number and extent of tramways since their first introduction, the difficulties presented. by steep gradients, and the large proportion which the cost of horsing bears to the total working expenses, have naturally suggested the use of steam or other mechanical means as a substitute for horses. * * * The nuisance of the smoke, the frightening of horses, and the supposed difficulty of controlling the engine, are the principal objections raised; but it has been so clearly shown that engines can be made which do not involve such risks and inconveniences, that in many towns in Europe and America steam cars are already (1877) at work, while in England and on the Continent the authorities are conducting or watching experiments with a view to the establishment of less stringent regulations. * * there is a common agreement among engineers and others able to judge, that the cost of haulage will be reduced at least one-third below that incurred for horse-cars. * Horses, although capable of sudden or exceptional exertion, are yet injured by the repeated heavy strains which starting a car or dragging it up a gradient involves; while a steam-engine can be so arranged us to give out at the will of the driver, according to the service demanded, and without injury to itself, an increase of force subject only to a proportional additional expenditure of fuel.

* * * Such permanent reduction in the cost of working must also eventually tend to a better and cheaper service, and tramways will thereby be rendered possible in towns where the gradients forbid the profitable working of horse-cars."

Mr. James withdrew.

Mr. C. H. GRANT called in and examined.

Mr. C. H. GRANT called in and examined. By Mr. H. Dobson.—My name is Charles Henry Grant, and I am a Civil Engineer. The use of tramways and tram-cars, although for many years past of general application in the United States of America, which is especially the home of railways and mechanical contrivances of every kind, has only within the last 15 years found favour in Great Britain, but is now adopted in and around most of its centres of population; and each year the system is vastly extended, and its conveniences increasingly felt. On the 30th June, 1883, there were 142 public tramways is England enrolled by the Board of Trade. In a short time each town containing an equal population with the City of Hobart will be supplied with an efficient tramway service. Most cities and towns on the Continent of Europe are similarly provided, while Brazil and the South American Republics have tramways of the first class, and of a highly remunerative character, in all the large towns. Australasia is certainly behind the age in this respect, but the experience of the cities of Sydney, Dunedin, and other places prove that a well-designed system of tramways is a most desirable public convenience. The city of Melbourne will shortly be furnished with a system of wire cable tramways, which is undoubtedly the best where a very large number of passengers require accommodation; but its great prime cost precludes that it should be proposed for Hobart. That there is a necessity for a tramway system in Hobart can hardly be questioned, when the wants of the city in a commercial sense are considered. No communication at present exists between the railway and wharves, and all the freight passing from the trains to the vessels has to be carted through the streets at a great loss of time and extra expense. At the present time the amount of freight carted from the wharves to the railway terminus largely

expense. At the present time the amount of freight carted from the wharves to the railway terminus largely exceeds a thousand tons per month, on the average of the present year, while the carriage of agricultural produce and other goods in the other direction is also very considerable. The Gas Company require to transport about 4000 tons of freight annually from the shipping to their yards, and the Cascade Brewery Company, Limited, will probably pass a much greater weight, drawing from and sending to both reilways and whereas

The Gas Company require to transport about 4000 tons of freight annually from the shipping to their yards, and the Cascade Brewery Company, Limited, will probably pass a much greater weight, drawing from and sending to both railways and wharves. The principal builders and manufacturers of various kinds along the lines of transway will find it greatly to their interest to use the tramway, and to lay branch sidings into their yards, as is done in all cases where a freight traffic is undertaken, and notably in the scaport towns of America. Universal experience has proved that both railways and transways do not merely extend existing traffic, but to a very great extent create an additional traffic of their own, the amount of which after a short time becomes limited rather by the facilities afforded than by the apparent requirements in the first instance. Transways necessarily very largely increase the value of landed and house property adjacent to the lines of route, since they become nodes not only of the commercial activity of a city, but also of the attendant population. The existing business along any line of route therefore affords no criterion by which to gauge the enlarged traffic that must assuredly follow the completion of a transway. It is not found practically that they offer an obstruction in the streets, but rather that the much greater capacity they offer for carrying renders unnecessary the use of so many other vehicles, and therefore at once cases the bart, the attractions of the charging sea baches at Sandy Bay, and of the picturesque scenery and invigorating air of Mount Wellington (both which are now practically inaccessible to the working classes and their families) would certainly induce a very large traffic additional on the regular residential traffic, and which would continue throughout the greater part of the year. It is now a very serious evil that residences can only be obtained with great difficulty and at excessive rents, but the conveniences of the tramways would open up a much greater

accommodation anorded by norse tranways." Some of the reasons why steam motors are preferable to horses for working trancars are hereunder given :--Speed.-In gradients such as obtain on the lines to the Cascades and New Town, the pace of horses is necessarily much reduced, so much so that those travelling at the rate of six miles per hour on the more level portions would barely run four on the steep gredients, but steam motors would keep a uniform speed and much reduce the time of the journey. The steam cars also start and pull up much more quickly, even in their own length at the greatest speed they are ever allowed to travel at and are generally so much more controllable that passeneers reduce the time of the journey. The steam cars also start and pull up much more quickly, even in their own length at the greatest speed they are ever allowed to travel at, and are generally so much more controllable that passengers can be taken up and set down with less loss of time. The speed is independent of the load, whereas with horses the loading heavily necessarily retards the speed. Several cars can be joined in a train drawn by one motor at the busy time for traffic; this will greatly reduce the loss of time experienced at the passing-places, which have to be provided in proportion to the number of single cars running. The cars can also be of much greater capacity without a sensibly greater cost for haulage. Steam motors are essentially necessary for goods traffic such as is proposed between the wharves and railway terminus, also to and from these centres of traffic and the various manufactories along the line of route. To drag heavily-loaded railway or other trucks, weighing from eight to 12 tons each, could only be done by attaching several horses and working them at very slow speed, say at 2½ miles per hour, whereas the steam motors would work at six to eight miles per hour with several cars attached. *Economy*.—One medium-sized motor will do the work of a great many horses, and if of medium size is estimated

to eight miles per hour with several cars attached. Economy.—One medium-sized motor will do the work of a great many horses, and if of medium size is estimated to be equal to 30 horses, for which one driver only is required, and the cars being larger less attendance is requisite as regards conductors. The liability to accident or mishap of any kind is less by reason of the power to stop the cars almost instantaneously, and the contingency of horses falling down or running away on descending grades is obviated. The cost of stabling and storage for fodder, with numerous and heavy attendant expenses, is mostly avoided. The working expenses of steam motors are now greatly reduced, so that they are worked at only two-pence halfpenny per mile run. The great inconvenience and loss arising from the difficulty of procuring horses suitable for tramway work, the renewal of which in some cases amounts to 30 per cent. per annum, and through an epidemic proving fatal to a large proportion thereof, as is frequently the case, with the proceedings rendered necessary to cure the evil,—the extra cost of buildings in stables, &c., including local rates, insurance, and repairs, with the larger attendance necessary,—form good reasons why steam should be preferred. Exact duplicate parts being provided for all motors, in the event of injury from mishap they can be very quickly put in order again. When using steam the ordinary construction of a railway can be adapted;—in fact ordinary railway rails are alone

De greatly increased through the wharves not being connected with the railway.
 During the last session of the Imperial Parliament those tramway schemes in which the intended motive power was steam were received with especial favour by the Legislature.
 On the 30th June, 1883, an official return of the Board of Trade, England, shows that an expenditure of £14,619,842 had then been appropriated for the construction of tramways. The number of passengers carried was 295,721,171 in the preceding twelve months. The gross traffic receipts amounted to £2,211,973, and the traffic expenses to £1,752,360.

I now quote an extract from the supplement to the Railway News of 12th January, 1884, being a copy from an official report to the Board of Trade :-

"Progress of Tramway Enterprise.

"Frogress of Hamway Encorption" "Indeed, until the rate of working on tramways, now averaging nearly 80 per cent., can by the use of economical motors, or in other directions, be considerably reduced, the shareholders, especially of those lines with heavy the full heavier of the many great advantages which tramways possess. That the economical motors, or in other directions, be considerably reduced, the shareholders, especially of those lines with heavy prior charges, cannot reap the full benefit of the many great advantages which tramways possess. That the Companies are alive to the importance of this reduction seems evident from the increase of the number of locomo-tives now running on the roads. Thus, whereas in 1878 there were only fourteen locomotives owned by the Companies, there were at the end of June last 117, which is 41 more than at the same date of 1882." I also give the names of some of the following Tramway Companies in England which use steam :---North Staf-fordshire, Leeds, Birmingham (central), Huddersfield, Gateshead, Nottingham, Bradford, Wigan, Manchester Bury and Oldham, South Staffordshire, Dewsbury and Batley, Croydon and Norwood (to replace horses), Hartlepool, Birmingham and Midland (35 miles).

By Mr. H. Dobson.—I think the tolls are a fair maximum, but in the case of passengers I think it might be reduced for long journeys; as to goods, the maximum of 1s. ought to be exclusive of terminal charges or otherwise the 1s. would be much too low. I am also of opinion that the rates in the schedule of the Bill should not refer to parcels.

By the Chairman.—There is certainly less danger of accidents happening under the proposed Bill than in Sydney, because the streets are wider, the traffic far less, and the Company would use noiseless motors. I place before the Committee drawings of the noiseless and smokeless motors which the Company propose to use.

Mr. Grant withdrew.

FRIDAY, SEPTEMBER 19, 1884.

MR. A. G. WEBSTER colled in and examined.

By Counsel.—My name is Alexander George Webster. I have been in business for 30 years in Hobart. I believe that the construction of tramways to the Cascades, Sandy Bay, and New Town would be a great public benefit, and that they would secure a considerable increase of passenger traffic. With such facility, probably

public bencht, and that they would secure a considerable increase of passenger traffic. With such facility, probably many persons would be induced to build residences out of town.
The connection of the tramway system with the railway terminus would be a very great advantage to many travellers by railway living at a distance, if their luggage could be conveyed with them.
Possibly branches to the Dunn-street, Argyle-street, and Elizabeth-street piers would at times be found useful to convey to and from the railway terminus cargo which is occasionally landed at Hobart intended for Launceston, by steamers from England, produce for direct shipment, and coal.
The idea of connecting the system with the principal business warehouses is, I think, a mistake. If it were attempted in my own case I do not see that it would be possible to avoid drawbacks which would be greater than the advantages.

the advantages.

I have seen the Sydney tramways, and, notwithstanding the inconveniences occasioned there to some extent by the constant passage of all tram-trains over a considerable distance of one narrow crowded street, am of opinion that these objections are far outweighed by the advantage to the public of such a frequent, cheap, and certain way of transit. As far as I have seen during several visits to Sydney, horses soon learn to take no notice of the steam motors

With our wider streets, lighter traffic, and earlier radiation of the proposed lines, as shown on the plans, I think the disadvantages would not be so obvious here as in Sydney. I did not witness any accidents caused by tramcars during my visit to Sydney. I heard that there were some, but the narrowness of the streets and the immense traffic in Sydney must be borne in mind as tending to cause accidents. In Hobart we should not be so liable to them.

MR. C. H. GRANT, Manager of the Tasmanian Main Line Railway, called in and further examined.

MR. C. H. GRANT, Manager of the Tasmanian Main Line Railway, called in and further examined. By Counsel—We would wish to amend the Second Schedule by adding to it the following words:—"For quantities weighing less than two tons a minimum charge of two shillings per consignment." We wish to be empowered to make this minimum charge of 2s. on any one consignment for quantities less than two tons, that we may have a range from nothing to two tons to establish a parcels delivery. The minimum charge in Victoria is 3s. This charge is made irrespective of distance. I consider this would be a fair minimum charge, and one that would enable the Company to establish a liberal and proper scale of charges for a parcels delivery. We wish also to amend the First Schedule in Sub-section No. 2, by inserting the words "or along a certain new street proposed to be constructed from Harrington-street to Montpelier Road, or through private property," after the word "street" in the third line. The reason for asking for this additional power is that the corner between Harrington-street and Montpelier Road is too sharp, and that Montpelier-street is too steep and narrow for carrying the tram-way round. way round.

Mr. Grant withdrew.

WILLIAM THOMAS STRUTT, GOVERNMENT PRINTER, TASMANIA.