(1) பக்கங்களின் எண்ணிக்கை 12

(2) புதுக்கித் திருப்பிய நாள் 5-90

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	168 ம.	அச்சகம் பல்வகை
நாள் :	24.1.1893 ~~198~~.	

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

ஆவண, கா-1—18,000—15-6-87.

1/168

Note on the Powayan Steam Tramway, Shahjahanpur District, North-Western Provinces.

THE tramway, as at present laid, is 31 miles in length. It starts from the Shahjahanpur station on the Oudh and Rohilkhund Railway and runs in a north-easterly direction to the town of Powayan and thence to a spot called Khotar on the edge of the Sitapur forest.

Permanent way.—The gauge is 2′ 6″. The rails are flat bottomed steel rails, T in shape, weighing 25 lb. to the yard. They are laid on wooden sleepers spaced 2′ 9″ apart from centre to centre, and spiked with two spikes outside and one spike inside. The spikes are $\frac{7}{16}$″ square section.

The sleepers are of jaman and sâl, measuring 8″ × 4″ × 4′. No metal is used. The sleepers are well banked up with earth. Openings are left between the sleepers at intervals to allow of drainage.

Alignment and position of the rails.—The tramway follows the general line of the road. The rails are laid alongside of the metalled surface, the centre of the tramway being kept at a minimum distance of eight feet from the edge of the metal. Where culverts are crossed the tramway is allowed to run over those which have a minimum width between parapets of 25 feet. In such cases there must be a minimum distance of 5′ 6″ between the centre of the tramway and the parapet wall. This rule applies to all fixed objects by which the tramway passes. Where the width between parapets is less than 25 feet, or where the approaches to the culvert happen to be of a somewhat steep gradient, or if the culvert is a small one of, say, from 2′ to 3′ span, the rails are carried outside the parapet. In this case light masonry face walls are built in continuation of the culvert piers or abutments and the rails are laid on some form of girder, light or heavy as the case may require. Where the span is only 2′ or 3′ plain timbers are used.

The tramway crosses four large streams. Over two of these, *viz.*, the Khanaut and Gumti rivers, special bridges were designed and erected at the cost of the Local Government. The Khanaut bridge in the 6th mile from Shahjahanpur is a plate girder bridge 10 spans of 30 feet, the girders carried on brick piers founded on wells.

The Gumti bridge in the 25th mile is a lattice girder bridge, five spans of 50 feet, with brick piers also founded on wells.

Both these bridges were specially designed to carry the tramway rolling stock, and to take both road and tramway traffic. The tramway is laid down the centre of each bridge; double rails are used, sunk in the metal so as to be flush with the road travelling surface. The original orders of Government specified regular grooved rails for all crossings of bridges, culverts, or roads; but the strict specification has now been modified, and two ordinary rails are used placed close together, thus T T.

The approaches to both these bridges are in embankment, 30 feet wide at top. The tramway runs along the edge of the bank until about 50 yards from the bridge abutments, when it curves into the centre of the bridge. The embankments are fenced on both sides with strong wooden railings for a distance of between 200 yards and 300 yards, and in order to prevent carts being on the embankment at the same time as a tram train, gates are placed at each end of the fencing and a special space is provided near each gate for carts to draw up in. On approaching all such bridges the engine driver whistles and comes to a stop until the man in charge of the gates gives him permission to go on: the train then proceeds slowly across the bridge.

In the 24th mile the tramway crosses the river Bhynsi. The existing road bridge, five spans of 17′ 6″, did not allow of the rails being laid between the parapets. The rails have therefore been laid on special plate girders resting on piers built up outside the face wall of the bridge and resting on the well foundations which support the cut-waters of the bridge.

In the 20th mile the road makes a very awkward and sharp S curve, in order to cross a moderate sized tributary of the Bhynsi river. The road bridge is a single arched skew bridge of 40 feet span, built of brick: the approaches are embanked with steep gradient. The tramway was allowed to use this bridge for a few months. The heavy gradients of the approaches and the sudden change of curve in the centre of the bridge caused very great wear and tear to both the permanent way and rolling stock of the line, and in addition shook the bridge so much as to threaten its stability. Over this river, therefore,

the Company has now constructed a special bridge of its own. The rails are carried on plate girders, two spans of 20 feet clear, resting on a brick masonry well pier and abutments.

The Company has also in the section near the forests constructed several small bridges for drainage purposes. These are, as a rule, under 12 feet span and are of four old 64lb. flat bottomed railway rails, carried on brick piers 8' long by 2' 6" thick.

After leaving Powayan in the 17th mile the road ceases to be metalled and the line runs on the side of the kacha road. It is not so strictly bound down by road traffic considerations here, and its alignment runs very nearly straight for several miles. So long as a minimum space of 25 feet is left for bullock carts, the tramway is allowed to select its own alignment. The road is, however, generally so wide and straight that the minimum interval is seldom reached.

Rolling Stock.—The rolling stock as supplied by Messrs. Fowler & Co. of Leeds has not been entirely satisfactory. The vertical spiral springs, which carry the body of the wagons, have, as a rule, been too weak for their work, and a large number of them have broken down leaving the body of the carriage to rest directly on the axles. The upright standards of the covered open 3rd class carriages were not designed strong enough: hence the momentum of the roof and of the cross benches has in many cases broken the standards after a few weeks' running.

The rolling stock consists of—

3 tank locomotives, by Fowler & Co., Limited, of Leeds, 8 inches diameter cylinder 12" stroke, working pressure 140lb., gauge 2' 6," capable of drawing 50 tons on the level at 12 miles per hour. Extreme width of engine 7' 9": weight about 10 tons.

1 first class passenger carriage, to seat 8 persons.

2 second class passenger carriages, each to seat 24 persons.

8 third class passenger carriages, each to seat 20 persons.

The carriages are provided with steps and are entered from the road, no platforms being required. The third class carriages are open, with closed ends. The roofs are double, of wood and corrugated iron, with a 2½" air space between. Seats are longitudinal, except those at each end of the carriage, which run cross-ways. Canvas blinds are provided at the sides to give protection from sun or rain.

2 brake vans, each 3½ tons.

4 3½-tons covered goods wagons.

5 7-tons 8-wheeled bogie wagons.

13 3½-tons 4-wheeled ballast wagons.

3 3½-tons 4-wheeled engine tenders (converted wagons).

15 3½-tons 4-wheeled wood framed fuel wagons.

Fuel. The fuel used is wood, supplemented with 5 per cent. of rubble coal in damp weather.

There are six stations in the 31 miles of tramway, approximately about 6 miles apart

Stations. *viz.*, Shahjahanpur, Sindhauli, Kuankuan, Powayan, Ghatya Ghát, and Khotar. At each station there is a siding for passing, and watering arrangements. At the terminal station of Khotar there is, in addition, a turntable and quarters for the tramway servants there. Except at Khotar, there are no station buildings of any sort. At Shahjahanpur there is a yard with offices, and a workshop for repairs and other light work. The tram trains stop at each station, but passengers can enter the train between stations by signalling to the driver.

For passengers.—The rates hitherto in force have been as follows: the fares for upper class, 2 annas 9 pies for the journey from Shahjahanpur

Rates. to the first station, *viz.*, Sindhauli, and 1 anna 3 pies additional for each station beyond; for lower class the rates are 1 anna 6 pies Shahjahanpur to Sindhauli, and 3 pies additional for each station beyond.

For intermediate journeys, the rates vary from 1 anna 3 pies to 2 annas 9 pies for upper class between two consecutive stations according to the cost of the section: for lower class from 3 pies to 1 anna 6 pies.

Passengers entering a train between two stations pay the full fare for that section.

2/169

Colored rolls of tickets are issued to the guard in charge, printed with consecutive numbers and counterfoils:—

Red rolls are	... 3 pie tickets.
Blue „	... 1 anna „
Yellow „	... 2 annas 6 pie tickets.
White „	... 4 anna tickets.

For goods.—In future the maximum rate per maund per mile is to be 1 pie; the minimum rate ½ pie.

Whilst for passengers the maximum and minimum rates will be—

		Rs. a. p.
Upper class,	Maximum ...	... 0 1 6 per mile.
	Minimum ...	... 0 0 9 „
Intermediate class,	Maximum ...	... 0 0 6 „
	Minimum ...	... 0 0 3 „
Lower class,	Maximum ...	... 0 0 3 „
	Minimum ...	... 0 0 1½ „

There are no large towns on the line of the tramway; yet the traffic on it has from the first been considerable. The people have taken to the tram trains in a wonderful manner, and the train is often completely filled on arrival at Shahjahanpur. During the first year that the line was worked only one train was run each way. There are now two trains in each direction during the day and they are well filled. The goods traffic is chiefly in wood for fuel. The present terminus at Khotar is on the edge of a large forest grant belonging to Carew and Co. of the Rosa Sugar Factory near Shahjahanpur. This Company have from the first been the chief promoters of the line. The tramway has also had the carriage of a large supply of block kankar for the Oudh and Rohilkhand Railway. The goods traffic has steadily grown in extent, and additional wagons are now required to meet the increased demands.

Traffic.

The rate at which the trains ordinarily run is about 8 to 10 miles an hour. The line has now been open for about 1½ years, and during that time there have been no serious accidents of any sort. No person has been hurt, and the only troubles that have arisen have been those caused by wagons becoming derailed. The line is entirely unfenced except through the village now at a moderate pace, with a man in front holding a red flag. The which this arrangement caused them, and the fencing has been removed. The first fenced all through the village, but the inhabitants complained of the inconvenience at the embanked approaches to certain bridges. At one part of the road the line passes through the centre of a populous village, for a distance of nearly half a mile. It was at people are, however, so used to the passing trains that there would seem to be but little danger of an accident if the man with the flag were discontinued.

At present trains only run between sunrise and sunset. Towards sunset, however, lights are carried on the engine and brake-van, as the afternoon train often does not arrive at Shahjahanpur until darkness has set in.

There is a regular code of traffic rules for the engine driver and guard, similar to that in force on the regular railway lines. No regular signals are employed at present, nor do any seem needed.

The line has cost from first to last about Rs. 4,64,520.* There have, however, been exceptional reasons which have caused the expenses to be higher than the estimate or than they should properly have been. The chief of them was the difficulty that the Company had in furnishing at once the full amount of funds necessary for purchasing and laying the whole 31 miles of the line. This hindered the laying of the rails and also caused an increase in the cost of the last portion laid, rates for steel rails and all sorts of iron work having gone up during the delay. On the other hand, the Company has been spared expenditure in several important items, notably that of sleepers, which they have obtained at a cheap rate from Messrs. Carew and Co. The supply of rolling stock is not yet fully complete, or sufficient to take the development of traffic which may reasonably be expected. Taking the line all round, it may be safely said that a 2' 6" gauge tramway can be laid complete with rolling stock and all necessary station appliances for £1,000 per mile.

*Cost.

	Rs.
Materials from England ...	3,06,668
Locally purchased wood sleepers.	80,000
Buildings, &c.,	77,852
Total ...	4,64,520

Procedure.—On the Local Government deciding to allow a tramway to be constructed, the Government of India is addressed † asking that permission may be accorded to the preparation and publishing of the necessary order (a copy of the order as finally prepared by the Local Government of the North-Western Provinces accompanies). This, after approval by the Government of India, is published tentatively in their Local Gazette, and the submission of objections is invited within a certain time. Thereafter the order is definitely published and the Company is authorized to begin work.

† *Vide* Tramways Act.

The tramway is *not* a railway and does *not* come under the control or inspection of the Consulting Engineer's Department. All inspections are made by an officer (usually the Superintending Engineer of the Circle) deputed by the Local Government.

On the line being constructed it is inspected by a deputed officer of the Local Government, and if all arrangements are correct, it is allowed to commence running.

In regard to the running of the open line certain sets of rules are prescribed by the Tramway Act, sec. 24 (1),(2), Act which, it is necessary, should be drawn out and sanctioned by three different authorities, *viz.*—

(i) Those by the Local Government;

(ii) Ditto Local authority, *i. e.*, the Magistrate;

(iii) Ditto Promoters or Managers of the line.

The rules, if properly drawn out under these heads, provide for the proper working of the tramway with due regard to the interests of the Public and of the Company owning the line.

R. R. PULFORD, *Lt.-Col., R. E.,*
Supdg. Engr., 1st Circle, Provincial Works,
N.-W. Provinces and Oudh.

The 29th November 1891.

Enclosure.

Copy of the "order" referred to.

3/168

Notificatian No. 1808 W.R., dated Allahabad, the 18th December 1889, by the Government of the North-Western Provinces and Oudh, Public Works Department.

It is hereby notified that an application has been made by the Powayan Steam Tramway Company, Limited, with the consent of the District Local Board of Shahjahanpur, and of the Cantonment Committee of Shahjahanpur, under section 4 of the Indian Tramways Act, 1886, for an order authorizing the construction of a tramway from Shahjahanpur Railway station on the Oudh and Rohilkhand Railway to Powayan, and a draft of a proposed order authorizing the construction of the said tramway having been published in the *North-Western Provinces and Oudh Government Gazette* under Notification No. 1443 W. R., dated Naini Tal, the 7th October 1889, and no objections or suggestions having been made with respect to the said draft, the following order is published for the information of all persons interested:—

ORDER.

Order made under section 6 of the Indian Tramways Act, 1886, by the Lieutenant-Governor of the North-Western Provinces and Chief Commissioner of Oudh, with the previous sanction of the Governor-General in Council, authorizing the Powayan Steam Tramway Company to construct a tramway in the Shahjahanpur district of the North-Western Provinces.

PRELIMINARY.

1. *Short title.*—This order may be cited as the Powayan Steam Tramway Company Order, 1889.

Interpretation clause.

2. The several words and expressions to which meanings are assigned by the Indian Tramways Act, 1886, have in this order the same respective meanings: provided that in this order the expression "the tramway" or "the undertaking" shall mean the tramway and works and undertaking by this order authorized.

Conditions applicable.

3. The tramway authorized by this order shall be constructed, maintained, and worked in accordance with the Indian Tramways Act, 1886, and subject to the provisions of this order.

PROMOTERS.

Promoters.

4. The Powayan Steam Tramway Company shall be the promoters for the purpose of this order, and are in this order referred to as "the promoters."

CONSTRUCTION OF TRAMWAY.

Description of tramway authorized.

5. The promoters may construct and maintain, subject to the provisions of this order, and in accordance with the plans and sections deposited for the purpose of this order, the tramway hereinafter described, will all proper rails, bearings, offices, station buildings, work, and conveniences connected therewith or for the purposes thereof, and may work and use the same. The tramway authorized by this order is a single line, with necessary passing places, to be laid on the provincial road for the Shahjahanpur railway station on the Oudh and Rohilkhand Railway to the town of Khotar, a distance of about 31 miles.

Promoters authorized to use road subject to limitation.

6. The promoters may use, for the construction of the tramway, but not for the purpose of any building or erection connected therewith, the portions of the provincial road, five and a half feet only in width, measured from the gutter, or where the road is in embankment, from the edge of such embankment on that side of the road which the local authority may approve; and, for the purpose of constructing passing places or of crossing bridges or culverts, may approach the centre of the road as far as shall in each instance be deemed necessary by the Government Engineer in executive charge of the road: provided that if any addition to, or alteration of, any bridge or culvert is, in the opinion of the said Engineer, rendered necessary by the tramway, the same shall be carried out by, and at the expense of, the promoters to the satisfaction of the Engineer aforesaid; and provided further that any modification found necessary in the course of construction may be carried out with the consent in writing first obtained of the local authority and the Engineer aforesaid.

Remainder of road to be left free.

7. The portion of the road which the promoters are not authorized by or under this order to use for the purpose of the tramway, shall be left free and unencumbered for ordinary traffic, and no obstruction whatever shall be placed thereon or caused thereto, without the previous written consent of the said Engineer.

8. The promoters may stack road metal and other materials for the construction or maintenance of the tramway within the road limits on the west side of the road; but the same shall be stacked in such a manner as not to impede or endanger the traffic on the said road, and the said limits on the west side of the road shall not be used by the Engineer aforesaid for the purpose of stacking Government materials.

Use of road for stacking materials.

The promoters shall not, without the consent of the Collector in writing, cut down or lop any tree growing along or by the side of the road, except that in case of emergency the promoters may remove or lop the branches or any portion of a tree which projects or hangs in such a manner as to be a source of danger or impediment to the tramway traffic.

Lopping trees without permission or urgent necessity prohibited.

9. In the event of any necessity arising for carrying out in or on land occupied by the tramway any work connected with any sewer, drain, telegraph line, gas pipe, water pipe, or anything whatsoever, the Government of the North-Western Provinces, the local authority, the road authority, or any person or persons interested in the carrying out of such work or works, may, by notice in writing to the promoters, call upon the promoters to show cause why any portion of such tramway should not be closed for traffic to enable such work or works to be carried out in safety. After considering the necessity for closing such portion of the tramway as well as any objection or suggestions which may be made by the promoters, the Government of the North-Western Provinces, or such person or persons as the Government of the North-Western Provinces may appoint by general or special order for the purpose, may direct that the promoters shall close any portion of the tramway for such a period of time and under such other conditions as, in the circumstances of the case, may appear to be necessary, and may also direct that a temporary tramway in place of the portion removed shall be constructed and used, and may prescribe any conditions under which such temporary tramway shall be constructed and used. The promoters shall be bound to comply with such directions, and allow the work referred to therein to be carried out; provided that, unless otherwise directed, any portion of the tramway which it may be necessary to remove in order to the carrying out of such work, shall be removed and reinstated by, or at the expense of, the Government, the local authority, or the road authority, the person or persons, as the case may be, by whom the work is carried out.

Powers of Government to authorize interference with tramway in carrying out necessary works.

In the event of the promoters desiring that any drain, telegraph line, gas pipe, water pipe, or other thing whatsoever in or on the land occupied or to be occupied by the tramway should be interfered with, or that the position of any one of them should be altered, the promoters shall give notice in writing to the local authority and the road authority, and to any officer or any person in charge of or interested in the thing or things to be interfered with or altered, and shall also submit an application to the Government of the North Western Provinces, and after considering the application of the promoters, as well as any objections or suggestions that may be made with reference to such application, the Government of the North-Western Provinces, or such person or persons as the Government of the Western Provinces may appoint by general or special order for the purpose, may pass such order on the application as in the circumstances of the case may appear fit: provided that the promoters shall not in any case be entitled to require any interference with or alteration of any sewer or drain, or the position thereof.

Condition on which promoters allowed to interfere with structures in or on road.

10. The promoters may from time to time acquire such land, other than the portion of the provincial road which they are authorized by or under this order to use, as they require for the purposes of the undertaking by agreement made through and with the concurrence of the Collector; and all expenses incurred by the Collector in connection therewith shall be borne by the promoters. The promoters may from time to time, with the approval of the Collector, but not otherwise, sell or otherwise dispose of any such land which may not be necessary for such purposes; and they may construct on any such land or may take on lease any office, shed, station or other building for the purposes of the undertaking.

Acquisition of land required by promoters.

11. The tramway shall be commenced on or before the 1st January 1890, and shall be completed and opened for public traffic two years from the date of commencement: provided that the tramway or any portion of it shall not be opened for public traffic until an Engineer appointed in this behalf by the Local Government has inspected it and certified it to be fit for such traffic.

Dates for commencement, completion, and opening of tramway.

12. The tramway shall be constructed on a gauge of two feet six inches, and no carriage used on the tramway shall project outwards beyond the inside edge of the rail more than two feet and six inches on each side.

Limit of gauge and width of carriages.

4/168

13. The rails of the tramway shall, except as hereinafter specified, be flat bottom steel rails laid on sleepers and raised above the road. Provided that at such portion of the line passing through the cantonment of Shahjahanpur, or through villages, or over bridges as the road authorities may require, grooved rails shall be used, laid, and maintained flush with the road.

Description of rails to be used.

14. Subject to the approval of the Government of the North-Western Provinces, the promoters may, from time to time, hereafter make all such crossings, passing places, junctions, and other works in addition to those particularly specified in and authorized by this order as may from time to time be necessary or convenient to the efficient working of the tramway, or for providing access to any station, building, or work of the promoters.

Promoters making crossings, &c., to comply with orders of Government.

15. When from accident or flood, by reason of the execution of any work affecting the surface or soil of the road along which the tramway is laid, it is, in the opinion of the Government of the North-Western Provinces, necessary or expedient temporarily to remove or discontinue the use of the tramway, or any part thereof, the promoters, subject to such conditions, and in accordance in all respects with such regulations as the Government of the North-Western Provinces may from time to time make, may construct and maintain, so long as occasion may require, a temporary tramway in lieu of the tramway or part of the tramway removed or discontinued.

Temporary tramways in place of portion interrupted.

Motive Power.

16. The carriages used on the tramway may be moved by steam power.

Steam power may be used.

The maximum speed shall not exceed 10 miles an hour, or such other speed as may from time to time be authorized by the Government of the North-Western Provinces, and no vehicles shall pass through any movable facing point at a speed exceeding five miles an hour.

Speed authorized.

Maintenance of Tramway.

17. The promoters shall at all times maintain and keep in good condition, repair, and addition to the satisfaction of the Government of the North-Western Provinces aforesaid, and so as not to be a danger or annoyance to the ordinary traffic, the rails and substructure of the tramway.

Promoters' liability to maintain and repair tramway.

18. The promoters shall maintain and keep in repair, to the satisfaction of the Government of the North-Western Provinces, so as not to interfere with the efficient drainage of the road, the portion of the provincial road extending from the drain or gutter or the edge of the embankment, as the case may be, on the west side of said road to a distance of 18 inches beyond the further rail. This portion of the road shall be ballasted by, and at the cost of, the promoters who shall also, at their own cost, alter the position or level of the tramway and of this portion of the road to suit future alterations in the road, and forthwith repair, make good, and reinstate, to the satisfaction of the Government Engineer aforesaid, any other portion of the road which shall at any time be in any way damaged by reason of any fault of the promoters or of any accident to or upon the tramway. The gutter or drain on the west side of the road, as the same at present exists or shall hereafter be constructed at the cost of Government, shall likewise be maintained in efficient order by and at the cost of the promoters.

And portion of road.

19. Any road metal or material excavated by the promoters from the provincial road in the construction or maintenance of the tramway, may be applied by them in or towards reinstating the said road or in or towards completing any work thereon required by this order.

Use by promoters of excavated material.

20. The carriages used on the tramway for the conveyance of passengers shall be so constructed as to afford shelter and protection from sun and rain, and separate accommodation shall be furnished for upper or first class passengers. The promoters shall adopt and apply such improvements in the tramway and in the carriages used thereon and in the fittings, appliances, and apparatus of such carriages as the Government of the North-Western Provinces may from time to time consider necessary or desirable for the safety or convenience of the public.

Structure of carriages and accommodation, &c., to be provided.

Traffic upon the Tramway.

21. The tramway may be used for the purpose of conveying passengers, passengers' luggage, animals, goods, fuel, minerals, and parcels.

Traffic promoters may carry.

22. The promoters shall be bound to carry passengers and any luggage not exceeding twenty seers, of eighty tolas each, in charge of any passengers requiring them to do so: provided that the following shall be considered dangerous goods within the meaning of section 16 of the Indian Tramways Act, 1886:—

Traffic promoters are bound to carry dangerous goods.

Carbolic acid.	Gun-cotton.
Fusil oil.	Gunpowder.
Kerosine oil.	Sulphate of indigo (concentrated).
Naphthalin.	Aquafortis.
Paraffin.	Bromine.
Petroleum and other hydrocarbon oils.	Chloride of sulphur.
Rangoon oil.	Chloroform.
Wood naphtha.	Fluoric acid.
Muriate of tin.	Glacial acetic acid.
Nitrate of iron.	Mineral acids, such as—
Perchloride of iron.	Muriatic acid.
Solution of ammonia.	Nitric acid.
Ammunition.	Sulphuric acid or oil of vitriol.
Amorphous phosphorus.	Gun-cotton powder.
Cartridges.	Lithofracteur.
Coloured fires.	Lucifer matches.
Congreve matches.	Mellinite.
Crackers.	Nitrated gun-cotton.
Combustibles.	Nitroglycerine and its compounds.
Cotton powder.	Phosphorus.
Chlorate mixture.	Percussion caps.
Detonators.	Schultze gunpowder.
Dynamite.	Tubes for firing explosives.
Firework composition.	Vesuvians.
Fireworks.	War rockects.
Fog signals.	Explosive chemicals.
Fuse.	All other explosives.

23. Except passengers, and such passengers' luggage as the promoters are, under the above provisions, bound to carry, the promoters may refuse to carry any goods, animals, minerals, or parcels whatsoever.

Traffic promoters may refuse to carry.

24. The promoters shall not, as between members of the public, make or give any undue or unreasonable preference or advantage to, or in favour of any particular person or Company or any particular description of traffic, or subject any particular person or Company to any undue or unreasonable prejudice or disadvantage. The Government of the North-Westen Provinces and Oudh shall have absolute power for the purposes of this section to decide whether any preference, advantage, prejudice, or disadvantage is undue or unreasonable.

Prohibiting undue preference.

25. Every driver of a train or engine on the tramway shall be provided, whilst on duty, with a special bell, whistle, or other apparatus to be sounded as a warning when necessary.

Warning signals to be provided.

26. Every carriage used on the tramway shall be constructed of a pattern approved by the Government of the North-Western Provinces, and so as to provide for the safety of passengers and for their safe entrance into, exit from, and accommodation in, such carriage and for their protection from the wheels.

Patterns of carriages to be approved by Government.

27. Every train when running on the tramway shall be provided with an efficient brake to be worked by the guard in charge of the train.

Brakes to be used.

28. The Collector may, whenever he thinks fit, prohibit the use on the tramway of any carriage which, in his opinion, is not safe for use thereon. Every such prohibition shall hold good until the same is either confirmed, set aside, or modified by the Government of the North-Western Provinces, and the promoters shall be bound by any order passed by the Government of the North-Western Provinces respecting any such carriage.

Collector may provisionally prohibit use of carriage.

Levy of Tolls.

29. The tolls authorized to be levied shall be paid to such person and at such places upon or near to the tramway and in such manner and under such regulations as the promoters may, by notice annexed to the list of tolls exhibited under sub-section (2) of section 15 of the Indian Tramways Act, 1886, with the previous sanction of the Government of the North-Western Provinces, appoint.

Tolls leviable by promoters.

Miscellaneous.

30. The promoters shall not transfer the undertaking or any part thereof by sale, mortgage, lease, exchange, or otherwise, except with previous sanction of, and on such conditions as may be approved by, the Government of the North-Western Provinces.

Restriction on alienation.

31. The promoters shall afford the Municipality of Shahjahanpur all reasonable facilities for the collection of octroi and other municipal taxes, if any, leviable on goods carried by the tramway.

Promoters to facilitate levy of municipal dues, &c.

32. The undertaking and all works, stocks, and appliances appertaining thereto shall at all times be open to the inspection and examination of any person or persons whom the Government of the North-Western Provinces may appoint for that purpose, and the promoters shall afford all reasonable facilities for the inspection or examination to the officer making it.

Liability of all works, &c., to inspection.

33. When, after inspection of the tramway or portion of the tramway or any rolling stock used thereon, the officer making the inspection under clause 32 reports to the Government of the North-Western Provinces that, in his opinion, the use of the tramway or portion thereof or of any specified rolling stock will be attended with danger to the public using it, the Government of the North-Western Provinces may direct that the tramway or portion thereof be closed for the public conveyance of passengers, or that the rolling stock so specified shall no longer be used, as the case may be.

Close of tramway and disuse of rolling stock by order of Government.

34. When the tramway or any portion of the tramway has been closed under clause 33, it shall not be re-opened for the public conveyance of passengers unless and until it has been inspected and its opening sanctioned in accordance with the provisions of section 12 of the Tramways Act, 1886.

Tramway not to be re-opened after such order till sanction obtained.

35. When the Government of the North-Western Provinces has directed under clause 33 that any rolling stock shall not be used, the rolling stock shall not be used again, unless and until the officer named in clause 32 reports that it is fit for use, and the Government of the North-Western Provinces sanctions its use.

Rolling stock not to be used again after such order till sanction obtained.

36. In the event of any work required by the Indian Tramways Act, 1886, or by this order to be done by the promoters not being done by them, the Government of the North-Western Provinces may cause a notice to be served on the promoters requiring them within a reasonable period, to be prescribed in the said notice, to execute the said work; and if within the period so prescribed such requisition is not complied with the Government of the North-Western Provinces may cause such work to be done, and the cost thereof shall be recoverable from the promoters under section 36 of the said Act.

On promoters' default, works required by this Act may be executed by Government at cost of promoters.

37. If the promoters fail to observe any condition or direction contained in or made under this order, they shall for each such offence be liable to a penalty which may extend to two hundred rupees, and in the case of a continuing offence, to a further penalty, which may extend to fifty rupees, for each day after the first during which the offence continues. Every penalty recovered under this clause shall be applied as the Government of the North-Western Provinces from time to time directs.

Penalty for failure of promoters to comply with order.

Termination of Contract.

38. The Secretary of State shall have the right, after the tramway has been opened for 15 years and thereafter at terms of 7 years each, to terminate this contract and to take over the tramway with all its equipment, buildings, and property upon giving 12 months' previous notice in writing to the Company, and upon paying to the Company the value of the property as a dividend-earning investment at the date of giving such notice, together with an additional bonus of 20 per cent. over and above such value. The said value in case of dispute to be determined by arbitration under the clause in that behalf hereinafter contained.

Right of purchase reserved.

Arbitration.

39. If any dispute, question, or controversy shall at any time arise between the Secretary of State and the Company touching this contract, or any clause or thing herein contained, or the construction hereof or any matter connected with this contract or the operation of the same, or the rights, duties, or liabilities of either party in relation to the premises, then and in every such case the matter in difference, unless special provision shall have been made in this contract for the settlement of the matter so in difference,

shall be referred to two arbitrators or their umpire, pursuant to and so as with regard to the mode and consequence of the reference and in all other respects to conform to the provisions in that behalf contained in the Common Law Procedure Act, 1854, or any subsisting statutory modification thereof, and upon every such reference the arbitrators and umpire shall respectively have power to examine witnesses upon oath or affirmation and either to fix, settle, and determine the amount of costs of the reference and award respectively or incidental thereto to be paid by both parties or by either party, or to direct the same to be taxed either as between solicitor and client or otherwise, and to direct and award where and by and to whom such costs shall be paid, and every or any such reference may be made a rule of Her Majesty's High Court of Justice or of the High Court of Judicature at Allahabad on the application of the Secretary of State or of the Company, and either the Secretary of State or the Company may instruct Counsel to consent thereto for the other party.

By order of His Honor the Lieutenant-Governor of the North-Western Provinces and Chief Commissioner of Oudh.

J. P. STEEL, *Col., R.E.,*
Offg. Secy. to Govt., N.-W. P. and Oudh,
Public Works Department.

D4 E/ 63/53.

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No. 62 R. C. 6/168

All communications should be addressed to the Secretary.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction.

To The Secretary to the Government of Madras Public Works Department

Calcutta, the 17th January 1893.

Sir,

In compliance with the request contained in your letter No. 39 C. dated the 10th January 1893, I am directed to forward, herewith, five spare copies of Government of India, Public Works Department, Resolution No. 1275 R. C. of 21st November 1892 and of its enclosures, describing the Powayan Steam tramway and

giving

24-1-12

P. W. CURRENT No. 632

giving particulars regarding its construction and working.-

I have the honour to be,
Sir
Your most obedient Servant

J. B. Abbott M. Inst. C.E.
Under Secretary.

Documents accompanying:-
5 copies of Resolution referred to.
5 S.C
Encl 60 1 (Key C)
Recd: 23.1.93

No. 168 W dy 24 Jany 93
B
Recorded

No 39 C dy 26 Jan 93

24.1.93

K.S.
Note on the former
C. No.
26/1