

ANNUAL
PROGRESS REPORT
OF
PUBLIC WORKS IN PUNJAB,
FOR THE YEAR
1884-85.

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PROGRESS REPORT
OF
PUBLIC WORKS IN PUNJAB,
FOR THE YEAR ENDING 1864-65.

MILITARY.

FORTIFICATIONS.

Fortifications.

Very little progress has been made in construction of the glacis around the palace at *Delhi*, remarked upon in last report. The work is delayed pending removal of the dāk bungalow and diversion of the Grand Trunk road. The walls of the palace have been partially repaired; the stone cupolas and exterior face-work injured during the seige of 1857 have been restored; the rubble-work in escarp of ditch and interior walls of batteries, has been pointed up. The brick-work on the interior face of the walls has been largely renewed, and about one-fourth of the surface replastered. The rubbish accumulated in the banquetts and refuge chambers has been cleared away.

The fortifications around the arsenal at *Ferozepore* have been completed, with exception of a little metal consolidation to 1 of the ramps. Drainage of the arsenal has been improved, and metal approaches and interior lines of communication completed. The re-entering angles of the earthen parapets having been much damaged by the rains, have been revetted with pucca masonry.

Five new stone platforms have been constructed for the guns of the saluting battery in the fort of *Lahore*.

The damages done to the fort at *Hoti Mardan*, in the heavy floods of July 1863, have been repaired.

The fort of *Kohat* has been desiladed from the neighbouring heights. The whole of the lower fort has been raised, and the east and west faces provided with traverses.

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Fortifications.

A new post of pucca masonry has been commenced and nearly completed at the entrance of the pass leading to Peshawur.

Dera Ismael Khan.

The out-posts at Tak and Koorum have been completed, and two new Military posts have been built at Mangee and Loonee, on the *Dera Ismael Khan* frontier.

Rajapore.

The new out-post at *Drigree* has been commenced, and the Cavalry lines are half built.

Cantonments.

Delhi.

CANTONMENTS.

A 5 feet culvert, 220 feet long, forming part of the palace esplanade drainage system, has been completed near the south-west angle of the palace of *Delhi*. The west side of the Faiz bazar, and the whole of the Elgin road, have been remetalled, and an extensive sanitary clearance near the Negumbode gate has been carried out. The Khias Maidan has been enclosed. Half the channel for bringing Canal water into Duryagunge has been constructed, and two out of the three tanks sanctioned have been completed.

Umballa.

A well has been sunk and completed on the left bank of the Tangree river at *Umballa*, for an additional supply of water for the European troops; gratings have been placed around some of the wells in cantonment for protection against accident.

Dugshai.

An old road near the officers' lines at *Dugshai* has been cleared and opened out.

Kussowlic.

1155 Running feet of railings have been erected for protection of roads at *Kussowlic*. The masonry of eight new tanks for supply of water has been completed.

Subathoo.

Road near burial ground at *Subathoo* has been constructed. Seven tanks for supply of water are in progress.

Jullundur.

Further progress has been made in the drainage works in the bazar at *Jullundur*, as bazar funds, from which the cost is met, have become available. Improvements have

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been effected in the drainage of the cantonment by clearance of a main outlet and of two main drains.

Cantonments.

Ferozepore.

A band-stand with surrounding wall and ornamental entrance pillars, and additional tanks for supply of water for watering roads, have been constructed at *Ferozepore*, and a swampy portion of the mall has been drained and metalled; all from cantonment funds.

Lahore.

Bazar limits at *Meean Meer* have been defined by pucca pillars, and drainage in the Artillery lines improved.

Rawulpiindee.

Metalling of a section (1333 yards) of cantonment road at *Rawulpiindee* has been commenced. A foundation of bricks has been laid, and kunkur for the upper layer is being collected.

Sydun Bowlee.

Six wells are being sunk with the view of ascertaining whether sufficient water is obtainable at the proposed new cantonment at *Sydun Bowlee*, Cis-Indus territory.

Peshawur.

The cantonment roads at *Peshawur* have been metalled during the year, at a cost of Rs. 7,611, from the 1 per cent. income tax allotment, and of Rs. 3,163, from Imperial funds. Four drain bridges have been built south and east of the Native Cavalry lines. Excavations in front of the left European Infantry lines have been filled up from the debris of some old brick kilns. Syces' huts in the Artillery lines have been removed, as a sanitary measure. Trees have been planted about the jheel near cantonments, and watercourses made in all parts of the plantation.

Mooltan.

The improvement of the Suddoosam Cut, a part of the drainage scheme for the cantonment of *Mooltan*, has been completed; three water carts for the roads have been made up, and a fourth is in progress, from funds allotted from the 1 per cent. income tax.

ACCOMMODATION FOR TROOPS.

Accommodation for Troops.

Delhi.

The lower storeys of the two new barracks at *Delhi*, and the upper storeys of two others commenced in 1861, together with the Native Infantry barrack, all of which were alluded

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Accommodation for
Troops.

to in the last report, have been completed. And extensive alterations have been made in the lower-storeys of barracks Nos. 9 and 10, which were those formerly built.

Flat mud roofs have been substituted for the tiled roofs of all the Native Infantry barracks.

Alterations and improvements have been carried out in Hindoo Rao's house, which was purchased last year for the accommodation of the European soldiers.

Progress has been made in the re-roofing of the old magazine and college buildings, and those near the Cashmere gate, which were occupied by European troops, and which had been reported unsafe.

Some improvements have been effected in the Dewan-i-Am in the palace.

All the punkahs hung on Grant's system have been replaced by others on the old principle.

Umblota

Progress has been made in the re-roofing and remodeling of the barracks occupied by European troops at Umblota. One barrack was nearly completed at the close of the year. It is expected that three will be completed by the middle of July, in the present year.

Two sets of workshops for the Artillery, and one for the European Cavalry, have been completed with forge, shoeing-shed, store-rooms, &c.

More vermin boilers have been provided for the European Artillery, Cavalry, and Infantry.

Wash-house with passage for the Artillery hospital have been commenced, and were expected to be completed by end of May, and a funnel has been provided for admission of fresh air in the European Infantry hospital.

Dagshai

A large number of petty works have been executed. The rebuilding of the hospital at Dagshai has been completed; and the floors of the cook-houses have been flagged. The roofs of all the old barracks have been relaid with tarred cloth; and air tubes have been given for ventilating the cellars of the whole.

Seven additional bath-rooms have been constructed, under operation of Government of India's Circular No. 52, dated 26th July 1901.

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Accommodation for
Troops.

A cottage and out-houses have been built for the gardener in the soldiers' garden.

Extensive repairs have been carried out.

Ten additional bath-rooms have been built at Kussoolic. Kussoolic.

The additions to the Sergeant Major's bungalow have been completed.

A cottage has been built in the soldiers' garden.

The two new barracks at Subathoo, reported to be in progress last year, are being roofed, and are drawing to completion. Subathoo.

The out-offices of Medical subordinates' quarters have been completed.

Five's court and skittle alley have been built, five additional bath-rooms have been provided, and the ventilation of three barracks improved.

A gun-shed has been commenced at Simla, and is nearly completed. Simla.

Flat mud roofs have been given to the European Infantry barracks at Jullundur, in lieu of the temporary sirkee roofs. Jullundur.

A lightning conductor has been given to the Infantry small arm magazine completed last year.

The latrines of the European troops have been modified in accordance with last standard plan.

Doors and windows have been made up for half of the proposed new Infantry barracks; about 50 lakhs of bricks have been burnt, and wood is being collected.

The two double-storeyed barracks at Dhurmsalla, reported to be in progress last year, have been completed, with out-offices, except the finishing off of barrack No. 1, and clearance of site. Dhurmsalla.

A small arm magazine is in progress.

A wash-house has been constructed for No. 4 Infantry barrack in fort Govindghur at Unrisaur, and floors of large pucca bricks have been completed in the Artillery barrack. Unrisaur.

The female hospital in the cantonment has been completed.

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Accommodation for
Troops.

Quarters for married men in an iron-frame barrack built during the year, but subsequently destroyed by fire. Its restoration will not be necessary owing to the removal of the troops. Lightning conductors have been given to the regimental magazine.

Ferozepore.

The second set of officers' quarters commenced last year have been completed, together with out-offices and well.

Additional bath-rooms of a temporary nature have been provided for the European troops.

A godown in the arsenal has been converted into a guard-room for the native guard, for whom 12 sentry-boxes have also been constructed.

Lahore.

The Artillery barrack in the fort of *Lahore* has been provided with a Goodwyn tile roof, and the upper rooms of the Dewan-i-Am have been fitted up for a dining hall for the soldiers.

Sixteen urinaries have been built for the European Infantry and Artillery at *Meean Meer*. Four additional bath-rooms have been added to the wash-houses. The gunshed for the heavy battery is ready for roofing. There have been extensive renewals of floors in the barracks in the European Infantry and Artillery lines, and also extensive repairs to verandahs and steps. The Infantry magazine has been provided with lightning conductors.

Sealkote.

A privy and urinary have been built for barrack No. 75, at *Sealkote*. Pucca brick floors in the five married barracks, and in the quarter guard, Infantry lines, have been renewed. Harness-rooms have been altered, and ventilation of Military prison improved.

Rawulpindee.

Some further progress has been made in the out-houses for the hospital right European Infantry lines at *Rawulpindee*, but they have been delayed for want of materials. A canteen for the same regiment has been completed, and one for the Artillery about half built. Two powder magazines for each of the two Infantry regiments have been built, and provided with lightning conductors. The cook-room for the Artillery married barrack has been completed. The floors

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Accommodation for
Troops.

of the two Artillery barracks, which have hitherto been kutchas, have been flagged. Three Artillery harness-rooms have been commenced and completed, except part of the roofs and the floors. The foundations of three more have been dug. The privies have been altered to the standard pattern. A new rifle range has been constructed for the regiment occupying the left Infantry lines.

A room for soldiers for social worship has been built from public and private funds; but it has not been floored, funds for this not being available.

The privies at *Murree* have been altered to the standard plan. The end-room of one of the barracks has been enlarged and altered to suit it for a Sergeants' mess.

The station of *Nundkote*, on the Rawulpindee and *Nundkote* Murree road, about 14 miles from the sanatorium, was formed during the year, giving accommodation for one hundred families and 50 single men, sent from the Peshawur valley. There are two hospitals and quarters for four officers; a small quarter guard, a school-room, and canteen. An old building in the abandoned village was converted into a canteen, and the rest of the accommodation consists of huts with flat mud roofs, planked walls and floors.

The barracks to complete the accommodation for the Goorkhas at *Abbottabad*, together with the female hospital, reported to be in progress last year, are completed; and two of the barracks previously completed have been re-roofed.

Verandahs have been added to the barracks in No. 1 Native Infantry lines.

New lines are in progress for the Peshawur Mountain Train Battery to be in future stationed at *Abbottabad*. One, and half of a second barrack completed during the year, and the foundations of the others are ready.

Additional quarters have been commenced for the officers stationed at *Muridan*.

Two barracks, three Staff Sergeants' bungalows, with out-offices, seven saddle-rooms, a beer godown, seven wash-houses, 12 urinaries, a cook-house, and dry-store go-

Accommodation for Troops.

down were built, and the gable-walls of eight old barracks were renewed to complete the accommodation required for the 7th Hussars, and the whole of the barracks, officers' quarters, and hospitals were floored with tiles. The roofs of the barracks were damaged by the heavy rains of last February, and had to be renewed. Deodar posts had also to be substituted for the kutchu masonry pillars in the old barracks, and pucca pillars for those in the new buildings, owing to damage done during the rains; this work is now in progress. The old hospital has been converted into officers' quarters, and an ante-room has been added.

Attock.

A tank has been completed for the fire-engine at *Attock*.

Nowshera.

The slate flooring of barracks at *Nowshera*, in progress last year, has been completed, except that of one room, which is used as a workshop. The canteen has also been floored. The regimental magazine, also commenced last year, is completed, except inside plastering and covering to ventilator.

No. 2 married barrack, which was partly destroyed by fire in February 1864, has been completely restored. A cook-house has been built for the married quarters.

Peshawar.

Two barracks in the right European Infantry lines at *Peshawar*, which were left in an unfinished state, have now been roofed and occupied, but the floors have not been completed owing to scarcity of tiles. A commencement had also been made on barracks Nos. 19 and 20, left in a similarly unfinished state, but work was stopped with reference to the orders for reducing and concentrating the cantonment.

The removal of wood from flues, and the alteration to fire-places, which were in progress last year, are completed. Also the three cook-rooms in the Artillery lines. A cook-house, commenced some years ago, in the left European Infantry lines, has been completed and made over to the Military authorities.

Six double wash-houses have been completed for the right European Infantry lines, and four are nearly complete for the left Infantry lines. And additional bath-rooms have been added to the whole, except to four in the right European Infantry lines.

Fire-places have been constructed in all the hospitals *Accommodation for Troops.* for native troops.

It has been found necessary to strengthen the roof of the Artillery gun-shed; the roof has been dismantled, and work is in progress.

A regimental magazine has been built for the 13th Native Cavalry, and store-room enlarged. The cook-rooms of staff bungalows in three other native lines have also been converted into magazines.

A new congee-house for native prisoners has been built *Bunnoo.* at *Bunnoo*, consisting of four solitary cells and a guard-room. A new building for a Pneumonia ward has been erected in the fort ravelin. New lines for mules and their drivers, classics, and married establishment attached to the regiments in the fort, are being built outside, and are nearly finished.

The new half-company barrack in *fort Akalgurh* is *Dera Ismael Khan.* now completed with all the subsidiary buildings, except the wash-house. Officers' quarters have been commenced, and are about three-fourths completed. A guard-room has been built for the Native Artillery.

The new lines for Native Infantry at *Dera Gaze Khan*, *Dera Gaze Khan.* commenced last year, have been completed with the exception of four barracks, on which some further work remains to be done. Ground has been cleared for a second set of lines, and foundations commenced.

The second wing of the European Infantry hospital at *Mooltan.* *Mooltan* has been completed, together with out-offices. An orderly-room and regimental store-room for European Infantry have been completed, and quarter guard commenced, of which the masonry is completed, and the roof is in progress. A single ball court, blacksmith's forge and shoeing-shed have been completed for the Artillery. Temporary verandahs have been given to the domes in the fort.

A new hospital for Native Cavalry is in progress; masonry complete and roofing in hand. A quarter guard for Native Infantry has been commenced, and masonry is nearly completed.

<i>Ordnance.</i>	ORDNANCE.
Delhi.	An office with packing-room attached has been erected in the new depot at <i>Delhi</i> .
Ferozepore.	An armourer's drying-room has been provided in the arsenal workshop at <i>Ferozepore</i> . The doors in the laboratory have been provided with brass fittings, and those in the gun-sheds with drop bolts.
Unrishtur.	The magazine in <i>fort Govindghur</i> has been provided with lightning conductors.
Peshawur.	A line of new godowns has been built in the fort of <i>Peshawur</i> , three old buildings have been removed, and a carpenter's and blacksmith's workshops have been erected.
Dera Ismael Khan.	The magazine in the fort of <i>Akalpurh</i> has been provided with wooden racks for stacking the powder.

<i>Commissariat.</i>	COMMISSARIAT.
Delhi.	Beer godown has been completed at <i>Delhi</i> , and a large chamber in the adjacent main gate has been fitted up as a dry-goods store.
Umballa.	A bungalow has been purchased for the Commissariat Cattle Sergeant at <i>Umballa</i> .
Kussowlic.	The old hospital at <i>Kussowlic</i> has been re-roofed and converted into Commissariat and Barrack Master's godowns.
Kalka.	No. 3 malt liquor godown at <i>Kalka</i> has been re-roofed.
Dhurm-salla.	A dry-store room, and dry-goods godown have been built for the European detachment at <i>Dhurm-salla</i> .
Sealkote.	Additions and alterations have been made to Commissariat and Warrant officer's quarters at <i>Sealkote</i> .
Campbellpur.	Commissariat Warrant officer's bungalow has been commenced at <i>Campbellpur</i> ; masonry completed.

II.—CIVIL WORKS.

BUILDINGS.

Buildings.

The tehsceel-thana at <i>Noh</i> , in Goorgaon district, noticed in last report, was completed; and a similar building at <i>Pulicat</i> , in the same district, was in progress.	<i>Noh</i> . <i>Pulicat</i> .
Materials were collected for a tehsceel-thana at <i>Peeplee</i> , in Sirsa district; and a tehsceel-thana at <i>Jugadree</i> , in the Umballa district, was well advanced at the close of the year.	<i>Peeplee</i> . <i>Jugadree</i> .
The combined tehsceel and thana buildings at <i>Zuffarwal</i> , in Sealkote district, and at <i>Kussoor</i> and <i>Choonian</i> , in Lahore district, were completed.	<i>Zuffarwal</i> . <i>Kussoor</i> . <i>Choonian</i> .
A tehsceel was completed at <i>Khooshah</i> , in Shahpore district; and the building formerly used as a zillah school, at <i>Shahpore</i> , was converted into a tehsceel.	<i>Khooshah</i> . <i>Shahpore</i> .
Materials were collected, and progress made, in tehsceel buildings at <i>Alecpore</i> , in Mozuffurgurh district.	<i>Alecpore</i> .
A pucca tehsceel was built at <i>Mecanwallce</i> , in Bunnoo district, and a combined tehsceel-thana at <i>Bakkur</i> , in Dera Ismael Khan district; and at <i>Jampur</i> , in Dera Gaze Khan district, a combined tehsceel-thana was completed except the roof.	<i>Mecanwallce</i> . <i>Bakkur</i> . <i>Jampur</i> .
The Native Extra Assistant Commissioner's rooms in the Deputy Commissioner's rooms, <i>Lahore</i> , converted into Paper Currency office, and godowns fitted up for Native Assistant Commissioner's office.	<i>Lahore</i> .
A new fortified tehsceel at <i>Munserah</i> , in the Huzara Division, has been commenced, and is nearly completed; and a new thana at <i>Kirplain</i> has been nearly completed during the year.	<i>Huzara</i> .
A treasury was nearly completed at <i>Rajanpore</i> , in Dera Gaze Khan district; and additions, to accommodate the treasury establishments, were made to the kutchery at <i>Dera Gaze Khan</i> .	<i>Rajanpore</i> . <i>Dera Gaze Khan</i> .
A new tehsceel has been erected at <i>Kohat</i> . A new Post-office has also been completed.	<i>Kohat</i> .

Buildings.
Hoshiarpore.

A suddur distillery was constructed at *Hoshiarpore*; and the distilleries in Mooltan district were completed.

Murree.

The superstructure of a suddur distillery at *Murree* was completed; and a guard-house for the treasury at the same place was nearly completed.

Salt Range.

Two Assistant Patrols' bungalows have been nearly completed; also the masonry superstructure of a shed for merchants at *Kheerra*.

Delhi.

Rapid progress has been made in the new Institute building at *Delhi*; the work done this year has, however, comprised much of the more tedious and difficult portions. The external plastering of the two wings and upper storey of the main portion, and the internal plastering of one wing, and the main double-storeyed portion having been completed, with their flooring, doors, windows, fittings, and the vaulting of the museum of 30 feet span. The Corinthian cornice of the main building, and the roofing of the Durbar Hall corridors have been completed. The houses in front of the Chandnee Chowk have been cleared away. It will probably be necessary to add upper storeys to both wings of this building to provide the required accommodation for the Educational Department.

Umritsur.

The block of city buildings, comprising museum, town-hall, school, &c., at *Umritsur*, is well advanced, and good progress has been made in the erection of the clock tower. An ornamental balustrade from the entrance of the Rambagh to the central building in the garden has been constructed. The three last works are from Local funds.

Lahore.

Main rooms of Public Works Secretariat, and of Controller's office, *Lahore*, raised and re-roofed, and accommodation provided for Chief Engineer of Irrigation Works.

Improvements have been effected in the Lunatic Asylum building, *Lahore*; hospital, dispensary, Civil Surgeon's room, and quarters for Native Doctor, have been provided. A house for the Superintendent of the Asylum has been nearly completed. The marble Baradurree in the fort, which had bulged considerably, has been restored.

Buildings.

The monument to the memory of the late General Nicholson, now in progress at *Margulla*, in the 3rd Division Lahore and Peshawur road, has been completed to a height of 30 feet; works for a water supply in connection with the monument are also in progress, the water being brought a distance of 2 miles for the convenience of travellers.

Margulla.

On the *Beas*, 18 boats have been decked, and completed with masts for the telegraph crossing; 20 boats have been repaired, and eight boats have been brought from Ferozepore, all of which were to have been ready and in position during the month of May.

BEAS RIVER.
Telegraph Crossing.

A new kutchery for the Assistant Commissioner at *Hazara* *Hurreepore*, *Hazara*, has been commenced, and nearly half completed. A well at *Hurreepore* has been completed, and another is in progress at *Huttar*.

Additions are being made to the Commissioner's kutchery at *Dera Ismael Khan*.

Dera Ismael Khan.

A kutchery at the out-post of *Rewarce*, in the Goorgaon district, was in progress.

Rewarce.

A kutchery at *Montgomery*, the new suddur station of the Googaira district, was about half finished, and partially roofed.

Montgomery.

Additions and alterations were made to the Commissioner's and to the Suddur district kutcheries at *Rawulpindee*.

Rawulpindee.

Sun-dials were put up at the *Kurnal* kutchery, and at all the tehsseels of this district.

Kurnal.

Contributions from the Local funds were made to the museum and public reading-room at *Lahore*; and the Exhibition building was repaired and partially fitted up as a central museum. Furniture was purchased for the museum at *Mooltan*.

Lahore.

Mooltan.

Wards were constructed for the dispensary at *Pulwul*, in Goorgaon district, and out-offices were added to the *Rewarce* dispensary in this district, and to the *Bheewance* dispensary in *Hissar* district. The *Fazilke* dispensary, in *Sirsa* district, was completed. A residence at the *Sealkote*

Pulwul.

Bheewance.

Fazilke.

Sealkote.

CIVIL WORKS, BUILDINGS.

<i>Buildings.</i>	
Goojranwala.	dispensary, for the Sub-Assistant Surgeon, was half finished.
Montgomery.	An operating room was added to the <i>Goojranwala</i> dispensary. A new dispensary was in progress at <i>Montgomery</i> . Accommodation was constructed for female patients in the dispensaries at <i>Rawalpindce</i> and <i>Dera Gaze Khan</i> ; and, at the dispensary at <i>Dera Ismael Khan</i> , a range of wards for the use of respectable natives and their families was constructed, and has been much appreciated. The accommodation for females in the <i>Abbottabad</i> dispensary, in Huzara, was undergoing improvement at the close of the year.
Rawalpindce.	Branch dispensaries were constructed at <i>Dingah</i> , in Goojrat district, and at <i>Elora</i> , in Shahpore district. Out-offices were made for the dispensary at <i>Pind Dadun Khan</i> , in Jhelum district.
Dera Gaze Khan.	
Dera Ismael Khan.	
Abbottabad.	
Dingah.	
Elora.	
Pind Dadun Khan.	
Jhelum.	
Delhi.	Much attention was given to the preservation of antiquities near <i>Delhi</i> ; the restoration of Hoomaioon's tomb was completed, and the gateways and broken wall repaired; the Kootub gardens were cleared, and fallen pillars and blocks of stone removed from the paths; Adam Khan's tomb and other tombs were repaired; and paths were made in various directions around the Kootub, to facilitate access to the most important objects of antiquarian interest. The search in the mounds in Lusufzye, in Peshawur district, was continued; and a valuable collection of friezes, carved capitals and statues, of delicate and skilful workmanship, and supposed to be of the period of Hindoo rule in that tract, have been forwarded to the Lahore museum.
Lusufzye.	
Peshawur.	
Lahore.	Compensation was paid for old buildings removed near the hospital at <i>Delhi</i> , to open out the approach to the Institute; and for clearances required at the same station for the Railway.
Murree.	A new Post-office has been commenced at <i>Murree</i> , of which the superstructure was raised about 5 feet.
Lahore.	A pucca flat-roofed verandah constructed to south side of Post-office building, and steps built to give access to the roof; shed for carriages in the compound enlarged.
Shahpore.	A Post-office was erected at <i>Shahpore</i> , and also one in the butchery compound at <i>Braunoo</i> .
Braunoo.	

The walls of New Roman Catholic chapel at *Delhi* have been carried up to wall-plate. Doors and windows are made. Roof and floor are in progress.

Buildings.
Delhi.

The cemetery in the old cantonments has been put into thorough order, the grave-stones taken up, and relaid in concrete and masonry.

Iron frame-work has been supplied to the stained glass windows of St. Paul's church at *Umballa*. Servants' houses have been erected in the compound. A pucca wall has been erected around three sides of the cemetery.

Umballa.

Some further progress has been made in the church tower at *Kussowlie*, which will be completed this year. Enclosure walls to the Protestant and Roman Catholic burial grounds have been completed.

Kussowlie.

The church in the fort of *Kangra* has been completed.

Kangra.

Wells have been sunk in the burial grounds in *Jullundur* cantonments, and gates to the cemeteries provided.

Jullundur.

Furniture has been provided for the Roman Catholic chapel at *Umrilsur*. The burial ground has been enlarged, and a new approach made.

Umrilsur.

The new church at *Madhopore* has been completed.

Madhopore.

The burial grounds at *Mecan Meer* have been enlarged, and approaches made to them.

Mecan Meer.

Walls have been erected around the graves of the soldiers who fell at *Chillianwalla*, and trees have been planted about them.

Chillianwalla.

A new gallery for affording additional accommodation in the church at *Rawalpindce* has been commenced.

Rawalpindce.

The gallery in the church at *Murree* has been enlarged, and two porches have been erected at the church doors. A new grave-yard, to be in terraces, has been commenced; one terrace is complete, a second nearly so, and a third is in progress.

Murree.

The walls of the new church at *Attock* have been raised to a height of 10 feet. Progress has been slow owing to the scarcity of materials.

Attock.

CIVIL WORKS, BUILDINGS.

Buildings.

Nowshera.

The cemetery has been enlarged, and the whole has been surrounded by a pucca wall.

The temporary church at *Nowshera* is completed, with the exception of a few of the internal fittings.

A new pucca wall around the old disused cemetery is in progress, and will soon be completed.

Peshawar.

A terrace floor has been given to Christ Church, *Peshawar*, and the compound has been raised and metalled with broken bricks. The Roman Catholic chapel has been enlarged, raised and re-roofed. Surrounding walls of pucca masonry are being given to the cemeteries in the right and left European Infantry lines, and the old disused cemetery beyond the fort. The two former are completed except pointing and plastering. The foundations and plinths of the walls round the latter are finished.

Shahpore.

A small church is in progress at *Shahpore*. The masonry is done, and main roof tiled. The entire structure to be ready in June. A new Post-office is also being built, and is nearly completed.

Mooltan.

The small church in the Civil lines, *Mooltan*, has been completed. Pathway and aqueduct for cemetery have been constructed.

Rajapore.

The superstructure of a small church at *Rajapore* has been built to a height of 5 feet.

Montgomery.

The foundation stone of a church at *Montgomery* was laid by the late Lieutenant Governor on the 12th November 1864, and the structure was progressing rapidly.

Muzaffurgurh.

Improvements were made to the grounds about the churches at *Muzaffurgurh* and at *Murree*; a wall was built round the church at *Shahpore*; and out-offices were erected for several churches.

Murree.

Shahpore.

Kurnal.

The old extensive burial ground at *Kurnal*, which had been overgrown with grass and tangled weeds, was cleared out, and the monuments were repaired.

European grave-yards at encamping grounds continued to receive attention, and also the cemeteries at *Mooltan*, *Ferozeshah*, *Gojrat* and *Chillianwalla*.

CIVIL WORKS, BUILDINGS.

Buildings.

Kussowlie.

Verandah has been given to the student's house of the female normal school at *Kussowlie*, and out-houses erected.

Sunawur.

A reservoir has been constructed for storing drinking water for the Asylum at *Sunawur*. Out-offices have been built, and a new floor has been given to the boys' barrack.

Lahore.

Range of buildings in the *Huzoree* bagh, *Lahore*, fitted up for temporary normal school, and accommodation for the students. The foundation and plinth of a new verandah round office of Director of Public Instruction commenced. Part of the site of proposed new Government college cleared, and materials collected; additions and improvements effected to the temporary Medical school building. The Female Educational Committee room in the city has been altered and improved, at a cost of Rs. 4,932, of which Rs. 2,100 were defrayed from Municipal, and the rest of Imperial funds.

Gojrat.

A normal school in progress at *Gojrat* has been suspended, with reference to the possible change of site of the station, by the construction of a light Railway to Pind Dadun Khan.

Rewaree.

A zillah school at *Rewaree*, and a suddur town school at *Goorgaon*, were approaching completion.

Goorgaon.

Bhewance.

A new zillah school was constructed at *Bhewance* in *Hissar* district.

Sirsa.

Additions were made to the school buildings at *Hansee* in *Hissar* district, at *Sirsa* and *Fazilke* in *Sirsa* district, to four schools in the *Umballa* district, to the schools at *Oona* in *Hoshiarpore* district, at *Gojranwalla*, at *Gojrat*, and at *Dera Gazee Khan*.

Gojranwalla.

Gojrat.

Dera Gazee Khan.

Goordaspore.

A town school was constructed at *Deenanuggur* in *Goordaspore* district, and four others in this district were in progress. Town schools were erected at *Kuhror* in the *Mooltan* district, at *Cooleana* in the *Gojrat* district, and at *Meunee* in *Shahpore* district.

Gojrat.

Shahpore.

Umritsar.

Three branch schools were constructed in *Umritsar*, in connection with the large zillah school completed in preceding year.

Building.
Mooltan.

Progress was made in erecting a residence at the *Mool-tan* zillah school for the head master.

Seventy-one village schools were built or were in progress.

Police stations were constructed at *Mehroollee* in Delhi, at *Dhonj* in Goorgaon district, at *Mungulkuss* in Lahore district, at *Killa Deedar Sing* in Goojranwalla district, at *Punjkoos* in Mooltan district, at *Jeelpore* in Mozuffurgurh district, at *Pind Sultanne* in Rawulpindee district, at *Meenue*, *Godul* and *Kot Monum* in Shalipore district, at *Siraba* and *Tungee* in Peshawur district, at *Moch* in Bunnoo, and at *Grang (Julloocallee)* and *Paharpore* in Dera Ismael Khan district.

Similar buildings were in progress at *Belaspore* in Umballa, at *Gurdeewala* in Hoshiarpore, at *Kangra*, at *Sutra* in Sealkote, at *Hafizabad* in Goojranwalla, at *Lalecan* in Jhung, at *Jullabee* in Mozuffurgurh, at *Hussun Abdul* in Rawulpindee, at *Dingah* and *Kharacwala* in Goojrat, at *Moosa Kheyl* in Bunnoo, and (the *Suddur Kotwalce*) at Dera Ismael Khan.

A Police hospital was completed at *Rohtak*; materials were collected for barracks for the Police reserve at *Umballa*; a building at *Sidhwan*, in Loodiana district, was converted into a Police rest-house; progress was made in the construction of Police lines at *Jullundur*, and about two-thirds of the work completed, and in providing Police rest-houses at 8 places in the Hoshiarpore district; Police kutchery and office accommodation was constructed at *Kangra*, and was in progress at *Goordaspore*; section-houses for city Police were in progress at *Unrisur*; Police office and lines were nearly completed at *Sealkote*; a Police office was in progress at *Goojranwalla*, Police office and lines at *Montgomery*, and Police kutchery at *Jhung*; a Police office was erected at *Goojrat*, a rest-house at *Jehangeera* in Peshawur district, and two Police lock-ups in Dera Ismael Khan district.

To some of the Police rest-houses furniture was supplied; the ventilation of lock-ups was improved, and separate accommodation for females was constructed.

At *Shaucallee*, in the Dera Gazee Khan district, a post was constructed for the frontier militia, and a well at *Dilber*,

Buildings.

half the cost of each work being defrayed by the Muzaree chief.

A sessions circuit-house and lock-up were nearly completed at *Montgomery*. A magisterial lock-up near the kutchery at *Rawulpindee* was nearly complete, and accommodation at kuterries for prisoners under trial was supplied in a few other districts. Sheds for suitors at some of the district and sessions' courts were constructed or were in progress; and the improvements in the arrangements for internal accommodation in several of the courts were carried on.

Barracks for the city Police are being erected from Municipal funds; four barracks are completed. A lock-up for European prisoners has been built.

At *Bunnoo*, a room for the Police office has been added on to the kutchery.

Cells for Europeans and Natives have been added to the guard-room of the kutchery at *Murree*.

Iron-barred doors to solitary cells and to barracks of the *Sirsa* jail, and additions to accommodation in the jail, were nearly completed. Additions were in progress to the work-sheds and cells in the *Umballa* jail; to the accommodation in the *Loodiana* jail, consisting of new magisterial and sessions lock-ups, wards for boys and for Civil prisoners, and solitary cells; alterations to the jail work-sheds at *Jullundur*; additions and alterations to the jail wards at *Mooltan*; and accommodation for Civil prisoners in the *Peshawur* jail. An enclosure wall was constructed round the jail at *Sealkote*. Separate lock-ups were made in the *Ferozepore* jail for lunatics, boys, women, and Civil prisoners, and two barracks were constructed for the Police guard. Arrangements were made, and money advanced, for materials for a new jail at *Montgomery*.

CIVIL WORKS, AGRICULTURAL.

Barce Doub Canal.

AGRICULTURAL.

The principal work done on this canal during the year was the construction of rajbahuas or main distributing channels. These are now approaching completion on the open portions of the canal.

Rajbahuas,
1st Division.

The tail of the Sirkecan rajbaha was completed during the year, and an additional head begun, which is about half completed. The chowkies on the Tulwundee and Sirkecan rajbahuas are approaching completion, the superstructure is finished, but, owing to want of timber, they could not be roofed in.

The remodelling of the Huslee channel, from its head to its first junction with the main canal at Sulampore, to adapt it for navigation, is now rapidly progressing; up to within a few weeks of the close of the year, the work was retarded from various causes. The lining out proved unusually tedious owing to the masses of jungle and trees on the bank. The greater number of the laborers employed on it were transferred to the Canal repairs and clearance during the closure in January, and in the following month constant interruptions were caused by the flooded state of the channel, owing to heavy rain.

From the 10th March, the work was pushed on; but it was found impossible to complete it within the year. Rapid No. 1 is finished, Nos. 2, 3, 4, 5 and 6, are nearly so, and about two-thirds of the channel excavation is ready.

The excavation of the Majheeta rajbaha, 25 miles in length, has been completed. Of the masonry works, 27 out of an aggregate of 31 are finished.

The Shalimar rajbaha has been bridged throughout. The Chevinda feeder was projected and completed in six months. Two chowkies on the Majheeta rajbaha, and two on the Yaggi feeder, completed.

The total length of completed rajbaha in this division up to close of 1863-64, was

During the year,	155
...	...
...	...
...	...
Total up to date,	216

2nd Division.

CIVIL WORKS, AGRICULTURAL.

AGRICULTURAL.

Barce Doub Canal.
4th Division.

The Raiwind rajbaha, 20.05 miles in length, was completed and opened out during the year. The Basurky rajbaha is progressing rapidly. About three-fourths is finished, and it is intended to open a portion of it as far as the Vaigul escape, for the next rubbee. The excavation of the channel of the Nag rajbaha is approaching completion; about half the materials for the masonry works have been collected. The line will, it is expected, be finished, as far as the present estimate provides for, in September next. The total length of rajbaha now open in this division is 224 miles. Three rajbaha chowkies were completed during the year, and a fourth is approaching completion. The Thummuu rajbaha has been lined out, and is being levelled for working sections.

Miscellaneous
Works.

The Kohallie lock, in the 2nd Division, was completed, with the exception of the woodwork. Some work was also done in the locks at Aliwal and Rancewallee.

The year was not marked by the occurrence of any very heavy floods, but a succession of light freshets deposited silt so largely in front of the regulating head, that the canal was closed for clearance on the 2nd August. The demand for water in the lower portions of the canal, owing to the scantiness of the rain-fall, was however so pressing, that only a partial clearance could be effected before the water was re-admitted on the 23rd August.

In September, the river subsided so rapidly that the supply was only kept up by carrying the bunds across the main stream, and by the 3rd October, the entire volume of the Ravee was turned into the canal.

Some of the deposit in the main supply channel was removed, and a spur constructed to divert the current from the saw mill regulator, which was seriously threatened last year.

The masonry works in the 1st Division are generally in good order, as well as the channel for the first 15 miles, but both banks and bed in the lower portion, where the soil is sandy, give constant trouble.

The bunds at Dhangoo, which were much injured by last year's floods, were thoroughly repaired before the rains.

CIVIL WORKS, AGRICULTURAL.

AGRICULTURAL
By the Local Canal

In the 2d Division (the Lahore branch), the bed of the first 4 miles was channelled out to a considerable extent. To prevent further erosion, the bed was staked across at intervals. Owing to a deficiency of supply in this branch, it became necessary to resort to the expedient of temporary weirs along a portion of the line, to keep the surface level of the water at the height required for irrigation. The silt clearance of the rajbuhas has been heavy. The masonry works on both canal and rajbuhas have stood remarkably well.

In the 1th Division, the canal bed in the first 2 miles was staked across at intervals to stop the erosion. Here also weirs across the channel were necessary to keep up the supply. The repairs to the rajbuhas were heavy, owing to their as yet imperfectly consolidated state.

The projects for supplementing the canal supply of water from the Beas, and remodelling the present line where erosion takes place from excessive velocity of current, are well advanced, and will, it is expected, be shortly ready for submission, along with rough estimates of cost.

Sutlej and Chenab
Inundation Canals.
Upper Sohag.

About 2 miles of the upper Sohag, which were remaining from last year, have been completed, and of the continuation to the Para nullah, the whole of the main channel, 29.11 miles in length, has been finished, and embankments made, of which 12 miles have been excavated during the current year. The Bupperwal rajbuhas, 7 miles in length, has also been completed. A channel 800 feet in length was made near Kullair to cut off one of the most tortuous loops of the Sohag.

Kutora.

The work on this canal consisted chiefly in connecting portions of the canal completed in previous years; about 10 miles of canal were cleared and finished.

Khanwah.

The Khanwah Canal and its rajbuhas were thoroughly cleared of silt. The banks of a portion of the main channel, and of the north rajbuhas, were raised and strengthened.

Eleven masonry outlets were built during the year, completing the number of the third set sanctioned.

CIVIL WORKS, AGRICULTURAL.

AGRICULTURAL.

The first 7 miles of the Sohag Canal were cleared from silt, and the revetment at mouth renewed.

A bridge over the Bhawulwah Canal, on the Mooltan and Bhawulpore road, and one over the Wulli Mahomed Canal, were commenced during the year. The former will be completed in June, and the latter by the end of the year. These bridges are executed from Local funds.

The usual silt clearance of all the canals was completed by the time the rivers had risen sufficiently high to supply them.

Lower Sutlej and
Chenab Canals.

Owing to the encroachments of the river last year, a considerable portion of the head of this canal was cut away, and the channel so silted up, that, in August last, the Lugari chief excavated a temporary mouth; but this failing to give the required supply, a second new head was excavated, at a cost of Rs. 4,008. The length of channel is 3893 feet, width 35 feet, and average depth 9.39 feet.

Indus Canals.
Manka.

A portion of the head of this canal, also, was cut away, and the channel so much silted up that it failed just when water was most wanted. A new head has been excavated, length 7040 feet, width 25 feet, and an average depth of 7.25 feet, cost Rs. 3,968.

Shoria.

The annual silt clearance of the Indus Canals, in the Dera Gaze Khan district, was effected almost entirely by free labor, at a cost of Rs. 77,197; the cost of clearance is increasing steadily year by year. The increase in 1864-65 is attributable in a great measure to the rise of labor from 2 annas and 6 pie to 3 annas per 100 cubic feet; and to the unusual accumulation of silt at the heads of some of the larger canals. The Dhoondie Canal, and the tail of the Manka Canal, were cleared out on the old system, half the cost being defrayed by Government, and the other moiety by the zemindars.

Annual silt clear-
ances.

The new channel between Indree and Boodha Khera has been completed. No. 1 rapid is complete, with the exception of some piling at the tail. The lower portion of the floor was laid with great difficulty, owing to the constant

Western Jumna
Canal.
New channel.

AGRICULTURAL.

ingress of water. Of No. 2 rapid, the whole of the block foundations are sunk to the full depth; the pier and abutments of the bridge built up, as well as a portion of the revetment on each side. Bunds have been made round the site of No. 3 rapid, and a drainage channel excavated; but, owing to the great quantity of water, nothing further has been done. Two small drain bridges have been built; bricks have been collected at the sites of some of the inlets, and a few neemchucks made.

Head-works.

The crib revetment at the Tajawalla head was commenced in May, and finished in July 1864; it was completely successful in preventing any further erosion of the bank of the escape.

Delhi Canal.
Drainage—Chota
Thana jheel.

A large area of land between a "cut-off" lately made, and an old loop of the canal here, has long been known as one of the worst swamps on the Delhi Canal.

With the view of silting it up, the whole stream of the canal was this year turned into it, and rows of stakes driven across at intervals to serve as silt traps.

The result so far has been most satisfactory.

About one-third of the whole swamp has been silted up. A small portion was brought under cultivation during the last rubbee, which it is expected will be considerably increased in the ensuing khurreef.

Kowallie Drain.

Has been thoroughly cleared out, and the jheels, which last year were covered with two and three feet of water, owing to obstructions in the drain channel, have been completely dry, and have borne luxuriant wheat crops.

Bowallah Escape.

The new cut from the Grand Trunk road to the Jumra has greatly relieved the drainage of the Khadir lands. The foundations of the Boorarie bridge have been commenced, but the interruptions from passage of escape water have been so constant that little progress has been made.

Jooah Jheel.

Advantage was taken of the canal being closed in May to cut off a loop opposite the Jooah chowkie, with the view of diminishing the percolation into the large jheel. This has proved very successful.

AGRICULTURAL.

Right and Left Raj-
buhias.

Brick making has been commenced for both these rajbuhias; but the actual construction has been stopped pending the preparation of a general scheme for remodelling the canal.

TANKS.

Delhi and Gurgaon
Irrigation Works
Nur-ul-har jheel
escape drain.

Of the escape, 15 miles from the tail upwards have been cleared out, and of the embanked portion beyond the village of Bussye nearly 12 miles have been re-made.

Bunds.

Most of the bunds have been repaired and cleared of jungle during the year.

Drainage.

About 7 miles in length of the Kotillah jheel catch-water embankment have been repaired, and the escape drain partially cleared of silt.

About 6 miles of the drainage cut from the Chundancee jheel have been cleared, and the banks repaired.

Kanawan Channab.

The drainage works for the Kanawan jheel were carried on at intervals during the year, but their progress was very much retarded by the heavy rains of February.

Irrigation in the
Rechna Doab.

In last year's progress report it was stated that surveys were in progress with a view to projects for irrigation in the part of the country between the Chenab and the Ravee.

In October last, Mr. T. Login, the officer employed on this duty, submitted a report with estimates on the utilization of the flood water of the Aik nullah, and other projects; but, owing to the want of sufficient information as to the levels of the country, no definite conclusion could be arrived at. He was therefore directed to take a further series of levels, and submit projects, with sketch estimates for utilization of the Aik flood water, and an inundation canal from the Chenab. His reports, &c., were completed at the close of the year, and will shortly be taken into consideration.

DAMS.
Mooltan Bunds.

The occurrence of a heavy flood on the night of the 3rd August 1864, which, breaching the banks of the Dourana Lungana Canal, inundated the Civil lines and neighbourhood of the fort of Mooltan, and seriously threatened the cantonment, has rendered necessary the construction of an embankment of sufficient strength to resist future inundations. A proposal has been made for embanking the left bank of the

CIVIL WORKS, AGRICULTURAL.

AGRICULTURAL.

river, where the overflows occur, for a considerable distance, and a series of surveys for fixing the site of the embankment have just been completed. The project will shortly be ready for submission; but as this embankment could not have been completed in time for next rains, it was proposed to widen the channel of the Dourana Lungana Canal sufficiently to allow of its acting as an escape, at the same time strengthening its right bank to serve as an embankment. This proposal was sanctioned, and the work is now complete, with the exception of a small portion of the clearance at the head where it is in high ground.

Bund at Shah Jumal.

The Shah Jumal bund, reported complete last year, was breached for a considerable length by the floods of the succeeding rainy season, owing to irregular settlement. It has been raised and strengthened, work was commenced in April last, and about two-thirds completed by the close of the month. It will be finished before the rains. The inundations of last rains nearly breached this bund again. A supplementary bund was added 14,611 feet in length, of an average height of 7 feet, with a top width of 6 feet.

Improvements were made to the Queen's garden at Delhi, and iron gates supplied.

The formation was commenced of a plantation of useful timber trees on some alluvial land formed in the Beas, below Nowsheera, in the Hoshiarpore district.

The restoration of the Rambagh, as a public garden and pleasure ground, made considerable progress.

Extensive improvements were made to the bridges, drains and grounds of the Lawrence Hall garden, to the Exhibition and station ornamental gardens, and to the new city gardens, at Lahore.

New gardens were established at Rohtak, Loodiana and Montgomery.

Several wells and a tank were constructed for the improvement of forests and arboriculture in the Moollan, Jhung and Mozuffargurh districts.

CIVIL WORKS, AGRICULTURAL.

AGRICULTURAL.

Bridges were constructed across irrigation streams, and syphon drains across district roads for irrigation purposes.

The additions and improvements to the Rukh Topee at Rawalpindce, which continues to be a favorite resort, particularly of the European soldiery, were completed.

The peach gardens, east of the Kohat road, near the city of Peshawur, were opened out at some expense for roads and culverts.

New plantations and nurseries were established, particularly with a view to forming fuel preserves for the Railway; and 8,88,071 trees were planted out, in avenues or groves, along the road sides, at encamping grounds and elsewhere, partly with the aid of the zemindars.

COMMUNICATIONS.

COMMUNICATIONS.

The Delhi and Bahadurgurh road has been partially metalled. Some progress was made in the improvement of the Delhi and Goorgaon road, but the work was stopped for want of funds.

The work in the 7th Division Grand Trunk road, between Delhi and Umballa, was confined to collection of metal for a new layer, and to consolidation, where urgently needed. The road side slopes have been improved.

Further progress has been made in the construction of the bridges on the Grand Trunk road near Umballa.

On the Ghuggur bridge, commenced in November 1861, 3} piers have been built during the year, three bays of flooring put, four wing-walls built up about 15 feet high, two abutments raised about 10 feet, 92 wells sunk to the required depth, and six arches turned; one pier and four arches remain to be built. Some damage was done, and delay caused by the unusual floods during the year. The bridge is expected to be completed in November next.

On the Markunda bridge, commenced June 1863, the well foundations have been completed during the year, except

COMMUNICATIONS.

those of the second line of curtain wells on the down stream side, where they have not been thought necessary. All the flooring was finished with their imposts completed. One abutment arch and five of the main arches are in progress. Seventeen arches remain to complete this bridge. The whole of the centres have been made up, and the bridge is expected to be completed by the close of this year. Work has been retarded by the difficulty of obtaining labor and materials.

Mootasootee Bridge.

The piers of the *Mootasootee bridge*, commenced in July 1863, have been brought up to the springing of the arches, and the five flood arches on each side have been turned. The centres of the three main arches have been built. The bridge is expected to be completed before the close of the year.

Tangree Bridge.

The excavation of the *Tangree bridge* foundations, commenced October 1861, have been carried down to level of flooring. The upper line of curtain wells has been put in, and the wells filled with concrete. The cutting intended to divert the Oomla into the Tangree river has been two-thirds completed.

Umballa to Kalka.

On the branch road from *Umballa to Kalka*, 16½ miles of stone metal have been carted, broken, and consolidated. Sufficient for 5½ miles has been carted, broken, and stacked on road side. Earthen sides have been raised. The gradients at Lahori and Rudpore ghats have been altered. The paved causeways across the Jujroo and Sookna nullahs have been extended.

Umballa to Lahore.

In the 8th Division Grand Trunk road, from *Umballa to Lahore*, 79 milestones have been erected. Two road chowkies have been commenced, and the plantation of trees between the Sutlej and Beas rivers extended.

Loodiana via Ferozepore to Lahore.

On the western line of the Grand Trunk road, from *Loodiana to Lahore*, the works have been confined to repairs, which have also been given to the embanked crossing over a portion of the bed of the Sutlej near Ferozepore.

Lahore.

On the Trunk road between *Lahore and the Ravee river*, a large pucca bridge of 120 feet waterway has been completed.

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Trunk Road
Lahore to Peshawar.

In the 1st Division *Lahore and Peshawar road*, extending from the Ravee to the Jhelum river, a distance of 100 miles, 14 miles of the 1st layer of metal, and 31 miles of the 2nd, have been widened during the year from 12 to 16 feet, and 13 miles of a second layer, 12 feet has been consolidated. About 1500 running feet have been executed in the enlargement of metal gaps. 300 Running feet of railings along high embankments have been executed. 160,000 Cubic feet of earth excavated for the foundations of water-wing of the Bhimber nullah bridge of 160 feet waterway. Metalled approaches to boat bridges, and causeways over unbridged nullahs, have been maintained.

In the 2nd Division, from Jhelum to Rawulpindee; 63 miles, the whole of the 1st coat of metal has been completed to within 1½ miles. Of the 2nd layer a little over 3½ miles remain to be done. About 38½ miles required a 3rd layer, the whole of which has been completed. The side slopes of cuttings and embankments have been improved; 51 miles of railings have been completed. A branch road from the Trunk road to the Post-office at Jhelum has been constructed and metalled with one layer. A second layer of metal remains to be consolidated.

The masonry bridge of 10 spans 40 feet each has been delayed by rains and floods, but the superstructure has been completed up to springing of arches.

Dheena Bridge.

The large bridge over the *Sohan* river near Rawulpindee, 15 spans of 63 feet each, has also been much delayed; nearly half of the foundations of the structure are in. Superstructure of one abutment and five piers nearly up to springs of arches.

Sohan Bridge.

The bridge over the *Bakralla* nullah has been opened. Approaches to boat bridges and metalled crossings have been maintained.

Bakralla Bridge.

In the third Division, Rawulpindee to Peshawar, 95 miles, the whole of the stone metal has been completed. In the Cis-Indus portion, a small portion of slate shingle remains to be given; and in the Trans-Indus Sub-division, the 3rd coat of slate shingle remains to complete the work.

CIVIL WORKS, COMMUNICATIONS.

COMMUNICATIONS.

Four metalled gaps have been completed. Side slopes have been improved. The railings to high embankments have all been completed, but tarring remains to be done in the Attock Sub-division. The east and west approaches to the Indus ferry at Attock have been improved. A new wall has been built at Julalla bay near Attock, where the ferry boats are moored.

Plantations throughout the entire length of road have been attended to.

Hill Roads Division.

On the road from *Kalka* to *Simla*, 1200 running feet over the Tunnel hill near Dugshai, and in all, 11 miles have been opened out to the full width of 24 feet. A serai for travellers has been erected at Simla from Local funds for accommodation of travellers.

Beyond *Simla*, 26 miles of additional new road has been constructed, giving a completed roadway up to one mile beyond Pangti, and 151 miles from Simla. A new staging bungalow has also been built at Pangti. The most part of the country between Hindostan and Chinese Tartary, along this route, has now been opened out, and the Executive Engineer reports that the difficulties of such cliffs as those at Wangtoo, Kushti, Maizong and Rogi, could scarcely be surpassed in any region. "The old paths and staircases over the tops of these cliffs were fitted only for sheep and goat traffic, and were dangerous even for those animals. Across this tract, a good mule road has now been opened." The road beyond Pangti, though excessively bad and steep, is still practicable for ponies and yaks for about 5 or 6 months of the year. These improvements have already caused a slight increase in the traffic along this line. By judicious management the Executive Engineer rendered the work attractive to the men of the Hill States whose services were formerly obtained with difficulty for this description of labor, so that scarcity of men, which had hitherto been the serious difficulty, was not experienced in carrying on the works during the past season.

The Wangtoo bridge was completed and opened to traffic in May 1864. It is the only bridge in Kunawur that crosses

CIVIL WORKS, COMMUNICATIONS.

COMMUNICATIONS.

the Sutlej, and the convenience it affords is highly valued by the traders using the road.

The branch line from Dukooah, the termination of the *Jullundur and Hoshiarpore road*, to Khyroola on the Grand Trunk road, has been metalled, and a metalled crossing on the bed of the Nusralla stream, *Jullundur and Hoshiarpore road*, has been completed, all from Local funds.

A portion of new road from Chaitroo, on the *Jullundur and Dhurmsala road* to Holta, has been staked out.

A laminated arch bridge of 75 feet span, over the Guj river, on the *Umritsur and Dhurmsala road*, has been completed.

Most of the culverts on the *Umritsur and Pathankote road*, 68½ miles long, have been completed; the foundation of a bridge over the Chukkee nullah; nearly the whole of the metalling is completed.

Materials have been collected for metalling a portion of the *Rawalpindce and Murree road* in the plains. Additional railings have been given in dangerous places in the hilly portions from Barakao upwards, and improvements of the gradient in that portion of the line have been effected. The road from the Brewery to Sunnybank, near Murree, a distance of 4 miles, has been widened from 12 to 15 feet. A bad slip had however taken place in the winter. Railings remain to be put up along this portion.

A new road 6 feet wide branches off to Nundkote, from the 27th mile.

A branch road from the Trunk Road at *Holjeshoh* to *Campbellpore* has been completed.

The navigation of the Indus from *Attock* to *Koshyalgarh* has been improved by the blasting of rocks that formed obstructions in the river, and tow-paths along the banks have been formed, involving also a considerable amount of blasting work.

Five miles of the sandy portions of the *Attock and Makhud road* have been metalled; the steamer ghat on the

COMMUNICATIONS.

Rawalpindce to
Kooshyalgurh.

Huzara.

Indus has been improved; all the serais and godowns have been finished, and wells and tanks have been excavated.

About 19 miles of the road between *Tuenat* and *Tutchejung* completed, and bridges are in progress.

In the *Huzara* district, the road to *Umb* on the Indus, the *Hurreepore* and *Torbeyla* road, and the *Khanpore* road, have been improved and opened out for the passage of guns and wheel traffic. Eight miles of a new road from *Murree* to *Muksood* have been opened out, and a road from *Darbund* to *Kirplain* has been marked out and made passable for mules. The road from *Murree* to *Kohulla* on the *Jhelum*, towards *Cashmere*, has been completed, and the bridge over the *Kunnar Khas nullah* has been completed. Two new bridges on the *Kala serai* and *Gurhi* road have been constructed, a third is in progress, and materials have been collected for a fourth bridge.

Eight miles of the road between *Murree* and *Abbottabad* were opened out to 12 feet during the hot season by the working party of European soldiers employed on the *Murree* side of the *Muchpoorie* range, where huts for 600 men were also provided. A bridge has also been about half completed over the river *Dhor*, where it crosses this road on the *Abbottabad* side of the range.

The road from *Peshawur* to the district fort at *Shubkuddur* has been improved. Two miles have been raised, the surface of the remaining portion levelled, and 20 drain bridges have been constructed.

The surface of the road from *Peshawur* to *fort Michnee* has also been levelled, and ten drain bridges built.

The road from *Kohat* to *Kooshyalgurh* has been improved, steep gradients have been reduced, and drain bridges have been built. The *Plenan Algud nullah*, that crosses this road, is being bridged.

The *Kohat* and *Hungoo* road has also been improved and partially bridged, and has been connected with the *Peshawur* road by a branch road one mile long.

The *Kohat* and *Bunnoo* road has been improved, and three bridges and two culverts have been built. Milestones

Peshawur Valley.

Kohat Division.

COMMUNICATIONS.

have been put up from *Bunnoo* to *Peyzooa*; and a bungalow and tank for travellers have been completed at *Ghaznee Kheil*.

In the *Salt range*, 92 miles of road and 22 miles of Salt Range. pathways have been opened out.

The improvement of the road from *Kurnal* towards the *Begee ghat* on the *Jumna* was carried on, the road raised half a foot throughout, and a large bridge constructed; and two miles were constructed of an improved road from *Kurnal* to *Kythul* via *Neesung* and *Poondree*.

Improvements were made to the main *Delhi* and *Sirsa* road, in the *Hissar* and *Rohtuck* districts.

Masonry bridges were constructed on district roads in *Kurnal*, *Rohtuk*, *Loodiana* and *Mozuffurgurh* districts.

Paved water crossings and wooden bridges were constructed on the *Umballa* and *Jugadree* road.

The widening and bridging of the road from *Hoshyarpore* to *Oontu*, along which a considerable traffic passes, was taken in hand and nearly completed.

A new road was constructed in *Kooloo*, near the *Thibet* frontier; and the *Poonkhud* or ravine, between *Byjnath* and *Holta*, was bridged.

Progress was made in carrying out the system of improved town and village cross roads of *Umrilsar* district; one particularly useful line was formed from *Turntarun* to *Jundeala*, and thence to *Bhyrowal*; and the road to *Hurgovindpore* was partially bridged.

The *Raneepokur* and *Shahpore* road, in *Goordaspore* district, was improved by the Canal Department; and five bridges were renewed on the road from *Goordaspore* to *Trimmoo ghat*, leading to *Sealkote*, and three miles of the road were raised above the level of the swamps.

In *Sealkote* district, 69 miles of improved town and village cross roads were constructed; the road to *Koolowal* ferry, and four other district roads, were raised; and thirteen bridges were constructed on several roads. A masonry bund

Kurnal.

Delhi to Sirsa.

Umballa to Ja-
galoreHoshyarpore to
Oontu

Kooloo.

Umrilsar

Goordaspore.

Sealkote.

COMMUNICATIONS.

was constructed on the Pusroor and Duska road, which was previously almost impassable at times in the rainy season; the zemindars contributed half the cost.

Lahore.

An unmetalled Railway feeder from Choonean to Chunga Munga, in *Lahore* district, was completed; and the metalling of the Railway feeder from Kusoor to Raewind, and the construction along it of encamping grounds, supply houses and wells, were nearly completed.

Ferozepore.

A metalled road from the Mooltance gate of *Ferozepore* city towards Gundoo ghat on the Grand Trunk road, was completed; and the metalling of the road from the Ferozepore jail to the Grand Trunk road was renewed, to restore the direct communication between the city and the Trunk road on that side. The Bandawala nulla, where it crosses the road from Ferozepore to Golam Hussunwalla, was bridged.

Goojranwalla.

Bridges and passable gaps were constructed on district roads of *Goojranwalla*, and other improvements effected.

A survey was commenced by the Department Public Works, with a view to improving the communication between the capital and the Derajat.

Mooltan.

The earthwork of a metalled road from the Heerun gate of the city of Mooltan to the Railway station, was completed, and a large bridge was in construction; progress was made in three other roads at *Mooltan*, required as Railway feeders; and a metalled road was constructed along the face of the Railway station plot. Three unmetalled district roads, from Mylsee to Kubeerwalla, from Rawun to Tatapore, and from Khanawala to Kubeerwalla, were completed.

In the *Mooltan* district, bridges were constructed over the Bhawalwah and Mobarickpore Canals; on the road to Bhawulpore, a masonry bridge to replace a wooden one, at Dairawala, on the Wullee Mahomed Canal, and 51 bridges and culverts on the road from Soojabad to Julalpoore; and seven other bridges on the Bhawulpore and Dooniapore roads, were in progress.

Googaira.

Eighty-three miles of unmetalled Railway feeders were opened out in the *Googaira* district.

COMMUNICATIONS.

The road to Mooltan in the *Jhung* district, as far as to Laterece, was bridged; the road from Megheana to Pucka Marce, leading to Lahore, and also four Police roads, aggregating 110 miles, were completed; and the Jhung and Wuzcerabad road was partially raised and bridged.

Further progress was made in metalling a portion, and grassing another, of the southern frontier road of the province, passing through *Mozuffargurh* district.

At *Rawalpindce*, an unmetalled road, with revetments and bridges, was constructed, to facilitate access to the station from the water mills on the Loh. At the junction, outside the station of Rawalpindce, of the Dadhoombow and Chountra road, by which fuel, &c., are brought to the station from the Jhelum district, two large masonry bridges were about half completed.

At *Murree*, the road connecting the south-western portion of the station with the high road to Rawalpindce, by way of the Lawrence Asylum, was nearly completed by the Public Works Department.

A metalled road from the *Goojrat* kutchery to the encamping ground was completed. In the same district, the raising of the road from Nowshera, opposite Koolwah ghat, via Julalpoore and Goojrat towards Pind Dahan Khan, was about half finished, and metalled gaps, protected by masonry retaining walls, were constructed; by this route, the products of the Jullundar Doab are conveyed, to be exchanged for salt. An additional arch was constructed to the Shah Dowla bridge, at Goojrat; and a lattice bridge over the Doowara nullah, near Julalpoore, on the road to Goojrat, was nearly completed.

In *Jhelum* district, a metalled road was constructed from the station to the Tallianwala garden, on the high road to Cashmere via Meerpoore; and also three unmetalled district roads, viz., from Tullagur to Lawa and Myal, to open out the Sukesur valley, and partly for Police purposes, —from Doomun to Darapoor, chiefly for the convenience of the Cabul kafilas, by opening out a direct communication

CIVIL WORKS, COMMUNICATIONS.

COMMUNICATIONS.

between Chukkowal and Kohat,—and from Guttalean to Dooleal, which connects them with the Grand Trunk road at Deena, and is important for the traffic between Cashmere and British territory.

Shahpore.

The alteration of direction of thirty miles of the high road to the Derajat, passing through the *Shahpore* district, was completed, and a nullah on the road was bridged; good water can now be obtained at every five miles on the road. Three unmetalled roads, in furtherance of the scheme for extending and improving the communications in the salt range, were constructed—from Jaba to Oochalee, from Koond and Chamal to Nowshera; and laden camels and light-wheeled vehicles can now go from the plains to the most important villages in the salt hills. Two unmetalled roads were made, for Police purposes, from Salim to Bhera, and from Mitta Tewana to Noorpore in the Thull. The high road passing through the *Shahpore* district towards Jhang was raised and bridged; the road from Khooshab towards Pind Dadun Khan, was bridged; and some minor roads were improved.

Peshawar.

At *Peshawar*, the road from the Cabul gate of the city to the Grand Trunk road, and another leading to the junction of the Kohat road, were metalled. In the district, an unmetalled road was made from Murdan to Loondkhore; bridges were constructed on the road from Murdan to Nowshera, and a bridge on the Canal at Rushkeen.

In the *Bunnoo* district, a portion of the road to Lukker was raised, and two masonry bridges were completed on the road, which is now bridged throughout; and a few other bridges were constructed.

Bunnoo.

Dera Gaze Khan to Mithunkote.

Further progress was made in the construction of bridges and syphon drains on the road from *Dera Gaze Khan* to *Mithunkote*, and six bridges were completed.

Lahore to Multan.

Upwards of 18,000 miles of district roads were repaired where most necessary; and the main road from *Lahore* to *Mooltan* was grassed as usual. Now that the Railway is open, this road will cease to be a Trunk road, and will be maintained as a first class district road.

CIVIL WORKS, COMMUNICATIONS.

The Imperial ferries, 13 in number, and 370 minor ferries, were maintained as usual, including the several boat bridges—the approaches to the Imperial ferries being generally metalled, and to some of the minor ferries constructed of fascines. In several cases, new approaches had to be constructed, owing to changes in the action of the rivers.

New bridge boats and new ferry boats were built or in progress; of these, three at *Attock* are of an improved pattern for crossing horses and wheeled carriages.

A new improved railing was made for the roadway of the Wuzerabad boat bridge; at *Jhelum*, a g'down was built for the bridge stores.

Platforms were constructed at some of the minor ferries, to facilitate the crossing of cattle.

Owing to the unusually heavy rain in the winter, and to extraordinary floods of the rivers, several of the boat-bridges were carried away—the bridge at Wuzerabad three times. Traffic of any kind was, however, little interrupted. In consequence of the damages, extensive repairs and renewals have become necessary; and, owing to the difficulty of securing hired boats at all times, new boats are being built at several of the bridges at the expense of the Local funds.

The staging bungalows under the Postal Department were transferred to the Civil authorities at the beginning of the year under report; and considerable improvements were effected in them, in some cases, new furniture, in others, new crockery and other requisites, being supplied.

New cart enclosures, to preserve draught cattle from theft, were constructed at Kurnal and Panipat. A building at Goorgaon was converted into a staging bungalow, and the serai at that station was completed. A serai was built at Barwaen, in Hoshiarpore district, and two others, at Boolowal and Gurdeewala, were completed. A serai at B. J. on the Umritsur and Sealkote road, was nearly completed. At Meean Meer, a staging bungalow was purchased and furnished, and opened during the winter. At *Attock*, a new

CIVIL WORKS, COMMUNICATIONS.

COMMUNICATIONS.

modation for European travellers was constructed in serais in the Sealkote and Goojranwalla districts. A serai at Mokutsur, in Ferozepore district, was completed; and two new serais were constructed, at Dhurmikote, on the road to Ludhiana, and at Moolanwala, on the road to Jullundur. A serai at Muteetall, in Mooltan district, was improved and one at Chuhlyuk, in the suburbs of Mooltan, was improved for the use of the Cabul and Khorasan merchants, to whom it has proved a great convenience. At Montgomery, a new serai was near completion, and another at Oukara, on the Railway line, in the same district, was in progress. In Jhung district, a serai was in construction at Chah Bareree, on the high road to Dera Ismael Khan. A new staging bungalow was commenced at Mozuffurgurh. A small staging bungalow was built at Deival, on the road to Cashmere; and extensive improvements were made to the old serais at Hussun Abdul, on the Grand Trunk road, and Kalaserai, at the junction of the Huzara road with the Grand Trunk road, in Rawulpindee district. In Goojrat district, a new serai at Phalian was nearly completed. A permanent supply house was erected at the Jhelum encamping ground, to replace the former mud building, and containing accommodation over the entrance for a revenue official whose presence is constantly required when troops are marching. Three permanent serais (one, of stone) were built in the Shahpore district, at Badshapore, Kutta and Hudalee, on the road, respectively, to Goojrat, Rawulpindee and Dera Ismail Khan; and a travellers' bungalow was erected at Suketur. A rest-house was constructed at Muttunnee in Peshawur district. A new staging bungalow and a new serai, at Kalabagh on the Indus, and a rest-house at Ahmudzye, in Bunnoo district, were completed, and a new serai at Nikkee was nearly complete. Additions were made to the Yaruk staging bungalow in Dera Ismail Khan district, and a new staging bungalow at Huttala was not quite complete.

New encamping grounds were established where necessary. In Peshawur district, boundary pillars were constructed to demarcate sites selected as camps for European troops during epidemic cholera.

CIVIL WORKS, COMMUNICATIONS.

COMMUNICATIONS.

Several tanks and wells for travellers were constructed, or were in progress, in Rohtuk, Umritsur, Mooltan, Rawulpindee, Bunnoo, Dera Ismail Khan and Dera Ghazee Khan districts; and milestones and signposts were erected in the Kurnal, Jhung and Dera Ismail Khan districts.

The existing serais and encamping grounds received due attention; the watering troughs at some of the encamping grounds were improved; and the supply arrangements were properly regulated.

Besides the works mentioned above, 98 works of various kinds, chiefly wells and rest-houses, for the convenience of travellers, were constructed by private persons at an expense of about Rs. 70,000.

MISCELLANEOUS PUBLIC IMPROVEMENTS.

Mis. Pub. Imps.

Some progress has been made in metalling streets and altering side drains in the city of Umritsur. The whole work, which will be done from Local funds, is estimated at Rs. 95,000. The Khazanah gate of the city has been reconstructed. The improvement of the internal drainage, estimated at 11½ lakhs, has been commenced. The external drainage, estimated at Rs. 45,000, has been completed.

Two large spurs made of trees fastened to moonj ropes, and secured with anchors, were constructed in June, about 12 miles above Lahore, to check the encroachments of the river Ravee in the direction of the station. They were washed away in the rains, but the current had been checked and diverted to the opposite bank, along which it still flows. A new cut to the Ravee has been formed for the relief of the Lahore nullah, the banks of which, where a new bridge had been constructed, were threatened by the volume of water thrown into it, rendering necessary the formation of spurs to protect the new bridge. The measures taken were successful.

Lahore.

The Indus spur works for the protection of Dera Ismael Khan have been kept in repair; two new bunds have been made, and several old ones raised.

Dera Ismael Khan.

MISCELLANEOUS PUBLIC IMPROVEMENTS.

Mis. Pub. Imprts.
Salt Range.

Galleries have been driven into the salt mines to a length of 1197 running feet. Tunnels and roads have been constructed in the coal mines; and 38,000 maunds of coal excavated.

Mooltan.

One new city gate has been constructed at *Mooltan* from Municipal funds, and a second is in progress. Hollows in the city are being filled up.

A small expenditure was incurred in an experiment to open up a timber trade by the *Koorrum* river in *Bunneo* district, which is spoken of favorably, and in searching coal-seams. Some lignite tested in the steamers was considered very good, but was found in too small quantities to be useful.

Progress was made in constructing a town-hall at *Rewaree* in *Goorgaon* district. A new town-hall was erected at *Bhewance* in *Hissar* district. At *Rohituk*, the Delhi gate of the town was rebuilt, and a town-hall erected over it; the town wall was extensively repaired. Accommodation for the Municipal Police was constructed at *Bahadoorgurh* in *Rohituk*, and over the *Bahadoora* gate of *Sirsa*. The wall with 4 gates round the bazar at *Khurreal*, in *Sirsa*, was completed. The improvement of the *Loharee* gate of the city of *Lahore* was completed. The improvement of the *Sealkote* gateway of *Gojranwalla* was commenced, and a new gate was supplied to *Ramnuggur*. Renewals were effected to the walls of *Mooltan*, extensively damaged by flood in August 1861; and, of the improvement of four city gates, with accommodation for the Police, the *Heeran* gate was completed, and another was in progress. The rebuilding of the town wall of *Jhung* was completed, and a new gate was built. A wall with a masonry gateway was constructed round *Khooshab*, and a wall with two gateways was in progress round *Salcewal*, in *Shahpore* district. Town-halls were constructed at *Muggeana* in *Jhung*, and at *Meance* in *Shahpore*.

More than forty public necessities were constructed, at *Kurnal*, *Panceput*, *Kythul*, *Berce*, *Bhewance*, *Loodiana*, *Jugraon*, *Hoshiarpore*, *Mooltan*, *Rawulpindee*, *Julalpoore*, *Bhera* and *Meance*.

The old native cemeteries at *Mooltan* and *Muggeana* were enclosed, and new sites were taken up for native cemeteries at *Peshawur*, for sanitary reasons.

The inundation bunds at *Muggeana* and at *Jhelum* were completed, and that at *Pind Dadun Khan* was extended and strengthened.

At *Goorgaon*, extensive improvements, involving change of site of Civil station, bazar, &c., were still in progress. At *Rewaree*, the tradespeople, at their own cost, improved the appearance of the principal bazar and two other bazars, by constructing new shop-fronts. At *Loodiana*, also, the citizens helped to embellish the town, by substituting neat masonry verandahs, in uniform style, and ornamented according to individual tastes, for mat sunshades, along the sides of the bazar, nearly a mile in length. At *Ferozepore*, a spacious *mindee* has been constructed, with tenements two and three-storeyed high, built on an uniform principle on raised basements. Improvements were made to the bazar of *Hafizabad*, in *Gojranwalla*. The *Muggeana* bazar, in *Jhung*, was drained, and a new bazar completed. A market place was constructed at *Khyrpore*, in *Mozuffurgurh*. A fine bazar is being built at *Khooshab*; and a handsome *gunj* has been built by the principal traders of *Meance*. Improvements were made to the shop-fronts in the main bazar of *Dera Ismael Khan*, in which the Local funds aided the townspeople; and to the shop fronts of *Dajul* and *Jampore*, in *Dera Gaze Khan* district, in which also the Local funds aided.

New metalled station roads were constructed at *Kurnal*, *Loodiana*, *Umritsur*, *Sealkote*, *Lahore*, *Mooltan*, *Mozuffurgurh*, *Rawulpindee*, *Jhelum*, *Shahpore* and *Dera Gaze Khan*. The station roads at the sanitarium of *Murree* and *Sheikhabooddeen* were extended and improved. At *Lahore*, extensive improvements were made to the road to the cantonment of *Meean Meer*, unsightly spots on the sides being cleared, levelled and planted.

Streets of the towns of *Poondree*, *Peloa*, *Rewaree*, *Bhewance*, *Hansee*, *Rohituk*, *Sirsa*, *Loodiana*, *Jugraon*,

Mis. Pub. Imprts.

Mooltan.

Peshawur.

Jhelum.

Pind Dadun Khan.

Goorgaon.

Loodiana.

Ferozepore.

Gojranwalla.
Jhung

Mozuffurgurh.

Dera Ismael Khan.

Dera Gaze Khan.

MISCELLANEOUS PUBLIC IMPROVEMENTS.

Misc. Pub. Improvts.

Machewara, Jullandar, Bangah, Hoshiarpore, Narpore in Kangra district, Sealkote, Zailurwal, Ferozepore, Goojranwalla, Jhang, Gojrat, Pind Dadun Khan, and of four towns in the Shahpore district, were newly paved or metalled. Circular roads were constructed, or in progress, round Bhewanee, Umritsur, Sahcewal and Bhera.

The towns of Rewaree, Bhewanee, the main street in Rohtuk, the towns of Fazilke and Dera Ismael Khan, were supplied with new lanterns and lamp posts, and additional lanterns were supplied to Muggeana.

A new tank at Fazilke, and drains and reservoirs on the side of a street in *Sirsa*, were nearly completed. Two tanks at Rahoon and Awur, in *Jullandar* district, were completed and improved. The canal at Dhurmsala was completed as far as it is at present contemplated to carry it, and is said to afford an abundant supply of water, and to be a work of great public convenience. The *Lahore* city rajbaha was repaired, and the women's baths in the city gardens were enclosed. Improvements were made to tanks in *Goojranwalla*. Several wells were constructed at Montgomery. Further progress was made in the tank at Muggeana, and one side was completed. A canal, for supplying water to the Civil station of *Shahpore*, was completed, except a few small works which will be finished in the current year, and is regarded as a great convenience. A new masonry tank at Sahcewal was about half constructed, and a masonry landing place was built for the Shahpore suddur bazar tank. The canal to supply fresh drinking water to *Pind Dadun Khan* was widened and improved. Two wells at Abbottabad and Hurreepore, in *Hazara* district, which, in that lilly tract, are necessarily costly works, were completed.

The drainage of the Civil station of *Delhi*, near the Koodrea garden, by constructing a masonry channel along the course of the Koodrea nullah, to improve the fall and exclude the land-springs from its bed, was commenced. Old stagnant pools near the station and city of *Kurnal* were filled up or drained, and the station was cleared of jungle

and rubbish. The sewerage of *Hissar*, Bhewanee, and Hansee was improved, and sixty fifth pits were constructed. New saucer drains, with drainbridges, were constructed in *Rohtuk*, Gohana and Jhujjur. Several hollows were filled, streets made level, and drains and drainbridges made, in *Sirsa* and Fazilke. The drainage of the Civil station of *Umballa*, from the jail, was completed with the aid of convict labor. The sewerage of *Loodiana*, Jugraon, Khanna and Rackote was extended. Large swamps in the city of *Umritsur*, containing 9,97,424 cubic feet of earthwork, were filled, the reclaimed ground being utilized for building sites; and a drainage outlet constructed from the Chaonee Nihungan. A general scheme for draining the city of *Umritsur*, and the city ditch, is under the consideration of the local authorities. The drainage of the station of Anarkullee, and at three gates of the city of *Lahore*, was improved. New masonry drains were constructed in the town of Ferozepore. The sewerage of *Goojranwalla* and Wuzcerabad was improved. Some hollows near the fort walls of *Moollan* were filled. Various minor improvements were effected at *Mozuffurgurh*. Drainbridges were constructed on station roads at *Raicolpindce*. Hollows were filled, and drains and drainbridges constructed at and about *Pind Dadun Khan*, and the ramparts of the old fort were levelled. Six drains were made in Bhera, and potteries and tanneries removed to a distance from the town; and a sewer was made to carry into the Jhelum river water that used to stagnate round the town of Sahcewal. The drainage of the main bazar of *Dera Ismael Khan* was completed, and new drainbridges were built in and about the town. An improved scheme of sewerage in *Dera Gaze Khan* was still in progress, 9,000 lineal feet of drains having been completed in the year.

Arrangements were made to prevent heaps of manure from lying exposed near large towns, particularly those in the immediate neighbourhood of European stations, and are said to have been carried out without difficulty or objection on the part of the agriculturists.

Grants were made from the income tax allotment for Miscellaneous Improvements to roads, road-side trees, drains, &c.,

Misc. Pub. Improvts.

Hissar.

Rohtuk.

Sirsa.

Umballa.

Loodiana.

Umritsur.

Lahore.

Goojranwalla.

Moollan.

Mozuffurgurh.

Raicolpindce.

Pind Dadun Khan.

Dera Ismael Khan.

Dera Gaze Khan.

Sirsa.
Jullandar.

Lahore.

Goojranwalla.

Shahpore.

Pind Dadun Khan.
Hazara.

Delhi.

Kurnal.

MISCELLANEOUS PUBLIC IMPROVEMENTS.

Mr. P. N. Latta.

in the principal Military cantonments, including those of the Punjab Irregular Force; but, owing to some delay in the receipt of specific proposals, the works were not all completed. A grant from the same source was made for Local Improvements at Simla.

Workshops at Madhopore.

The left wing of the office west range has been built up during the year to a height of 7 feet above the ground level, and the foundations of the right wing bastion completed.

The excavation for the turbine shaft was carried down to the full depth, 10 feet in length, of the masonry tunnel below, completed, and a considerable proportion of the masonry of the shaft.

The latter will, it is expected, be built up sufficiently high before the rains to secure it from all risk of injury from drainage water.

Considerable delay in the execution of all the work connected with the turbine has been caused by the non-receipt of the drawings of the machinery till a month ago.

Part of the machinery has been removed to the saw-mill buildings, to be worked by the mill-wheel until the turbine is ready.

A great variety of work, both public and private, has been turned out during the year. Among the rest, two large iron ferry boats for the Beas river.

The foundry was completed in November last; but, owing to difficulties in the supply of charcoal, did not fairly commence work till the close of December. The great want now is a supply of good moulders. Every effort to procure them from other quarters has hitherto failed. Boys are under training, who will doubtless prove efficient workmen in time.

About 223 maunds of castings were turned out, principally for the Punjab Railway. So far this foundry has been very successful, owing in great measure to the exertions of the Executive officer, Mr. Watson, and its future prospects are undoubtedly very promising.

Saw Mills.

The saw mills at Madhopore were re-transferred from the Forest Department to the Workshops in November last. Owing to deficiency in the supply of timber brought down by the Ravce during last rains, they were only worked for 105 days; 44,310 superficial feet of timber were sawn during the year.

RAILWAYS.

RAILWAYS.

Length of line opened for public traffic.

At the date of last year's report only two sections of this Railway were open; the Lahore and Umritsur, of 32 miles, and the Mooltan and Sher Shah, of 11½ miles, in all 43½ miles; an extension of 1½ miles was afterwards laid down over the low land to allow trains to run up to the landing place for the steamers on the Chenab during the dry season. From the beginning of the year, therefore, traffic was carried over 45 miles in all until the 21st April, when the remaining unopened section of 209 miles, between Lahore and Mooltan, was finally opened to the public; and thus, for the last seven days of the official year, the entire line, now 253 miles in actual length, was used by traffic trains.

The final opening of a Railway is in any country the most notable event to record in a report of Railway progress. It may then be briefly stated that the opening of this, the first constructed in the Punjab, has afforded the utmost satisfaction, not only (as it was justly merited) to the whole body of the Railway Company's Staff, whose operations to attain this long desired consummation have been during the past four years most conspicuous, and their labors unceasing through all seasons of the year, and to the people of these provinces (who from the very first have greatly appreciated Railway travelling); but also to both the Local and Supreme Governments.

General satisfaction in the Punjab on the opening of the entire Railway

The traffic on the sections above specified will now be best described with separate notice, up to the 21st April; from which date the traffic returns have been made out, for the entire line, as opened throughout.

LAHORE AND UMRITSUR SECTION.

(From 1st May 1864 to 23rd April 1865.)

Coaching Traffic.

This consisted of two trains each way daily on week days, and one train each day in the afternoon of sundays, with a limited number of special trains. Train service.

Ordinary trains ran 42,196 miles, special trains 4,112, total 46,908 miles, being an advance of 627 miles over last year's mileage. Train mileage.

RAILWAYS.

Passenger traffic.

The number of passengers carried were as follows; 1st Class 1,130; 2nd Class 9,331; 3rd Class 379,221; or a total of 392,955; showing an increase of 122 first, and 338 second class, but a decrease in the third class of 5,710 as compared with last year; that is, if we reckon as for a complete half-year; but it was incomplete by six days (last year being a leap year), and the traffic on this section for the last seven days of the official year being included in the returns for the entire line, as hereafter detailed. But it must be admitted there was a decided falling off of the 3rd class traffic on this section.

Diminution in number of 3rd class passengers accounted for.

This is accounted for by the great amount of sickness, chiefly small pox, which prevailed in the cities of Lahore and Umritsur during November and subsequent cold weather months, affecting to a great extent the special traffic during native festivals as well as the ordinary daily traffic; the number carried during November and December alone being 4,000 less than the average of the previous four months, and, as a natural consequence, the commerce of the district was generally affected.

Receipts from Coaching traffic.

These, from the cause assigned, are less than last year's by Rs. 8,132-14-6, the fares and charges for luggage, parcels, horses, carriages, &c., remaining the same as detailed in last report.

New 3rd class station opened at Kharsa.

At the 21th mile a road-side station has been, at a small expense, constructed, with the sanction of Government, for the use of the villages near Kharsa, and dividing the distance of 16 miles run half way between Attaree and Umritsur. It was opened on 1st March, and the receipts have been very favorable.

Another to be shortly opened at Jullaha.

At the 10th mile a similar station will be shortly constructed, to facilitate the traffic of the villages between Meean Meer and Attaree.

Goods Traffic.

Goods conveyed on Lahore and Umritsur section.

Under this head, there have been carried on this section, 319,011 maunds of goods, equal to 18,537 tons, showing an increase of 396,210 maunds, or 11,150 tons, over the returns of the past year, and of 106,096 maunds, or 11,500 tons over

RAILWAYS.

those of the previous year; the rates for goods were the same as those of last year, but the goods were conveyed in the passenger trains, and not in distinct goods trains.

MOOLTAN AND SHER SHAH SECTION.

(From 1st May 1861, to 23rd April 1863.)

The train mileage was 9,119 miles for ordinary, and 1,057 for special trains, (chiefly with Railway materials) or in all 13,206 miles. Total passengers carried, 17,711, viz., 1st Class 513; 2nd Class 1226; 3rd Class 15,915; and receipts from same, Rs. 3,909-10; also for parcels, luggage, horses, &c., Rs. 93-2-6, total Rs. 4,002-12-6, showing a decrease from last year's returns of about Rs. 400.

Coaching traffic, with train mileage and receipts.

There were carried 500,021 maunds, equal to nearly 18,000 tons (chiefly Railway materials), for which Rs. 21,739-6-2, were the receipts.

Goods traffic on Sher Shah section.

The increase of the receipts for both goods and passengers on this section over last year's came to Rs. 5,700.

Increase of total receipts over last year's.

The fares and goods rates were the same, and there was only one ordinary train each way daily; but frequent special trains to meet steamers and bring up Railway material were run.

Train service.

ENTIRE LINE OF 253 MILES FROM UMRTSUR TO SHER SHAH.

(From 21th to 30th April 1863, inclusive.)

The passenger traffic was as follows; 1st Class 119; 2nd Class 517; 3rd Class 12,368; total 13,034, equal to 1862 per diem; and the receipts were Rs. 8,539-12-6; and for parcels, horses, carriages, luggage, &c., Rs. 671-3-6; total Rs. 9,211; to this add for goods, &c., (37,053 maunds) Rs. 2,581-1-0, and the Grand Total of receipts came to Rs. 11,792-1-0.

Seven days' traffic on entire line opened.

The returns, however, of the week specified cannot be taken as at all approximating to what may be expected, as soon as it is generally known throughout all districts, that the entire line from Umritsur to Mooltan and Sher Shah is opened for traffic. It may here be mentioned that the subsequent returns of several weeks of the current official year are most

But a large increasing traffic is expected during the forthcoming year.

RAILWAYS.

satisfactory, as affording indication of a large increase of traffic, as well as the need of running special trains for goods conveyance, instead of, as hitherto, carrying goods in the passenger trains.

Passenger fares on the line as now opened.

The passenger fares hitherto established for the peculiar local traffic between Lahore and Umritsur, have not been changed. On the opening of the entire line between Lahore and Mooltan, the rates and fares have been, for the present, fixed with the sanction of Government, as below:—

Lahore to Mooltan, 208 miles.

1st Class,	@ 15 pic per mile,	Rs. 16 1 0
2nd "	@ 9 " " "	" 9 12 0
3rd "	@ 3 " " "	" 3 1 0

But the special rates, considered best for the local traffic on the Lahore and Umritsur section, remain for the 32 miles, as follows:—

Passenger Fares.

1st Class,	@ 12 pic per mile,	Rs. 2 0 0
2nd "	@ 7½ " " "	" 1 1 0
3rd "	@ 2½ " " "	" 0 6 0

Goods rates on ditto.

The rates for goods for the entire line have been temporarily fixed as follows:—

Goods Rates.

1st Class,	@ 4 pic per maund per mile.
2nd "	@ ½ " " " "
3rd "	@ ¾ " " " "
4th "	@ 1 " " " "

and rates have been also fixed for parcels, horses, carriages, dogs, season tickets, return tickets, treasure, special trains, telegraph messages, insurance, wharfage charges, special goods, timber, &c., &c.

Through booking arrangements between Umritsur or Lahore and Kurachee.

By arrangements concluded between the Traffic Managers of the Sindh and Punjab Railways, and the Superintendent of the Indus Flotilla, passengers and goods can now be booked through between Umritsur and Kurachee; and to obviate the complaints and annoyance frequent on most

RAILWAYS.

lines in India, with regard to the weighing and charges for luggage, to such through passengers by the Punjab Railway, a small charge is added to the cost of an ordinary 1st Class through ticket, which clears 5 maunds of luggage, and to a 2nd Class ticket to clear 2½ maunds, while the same allowance has been agreed to by the Managers of the other companies.

As the iron wire fencing of the line is not entirely erected, the trains are unavoidably run through during the day time only; one from each end, occupying from 12 to 14 hours, on account of the permanent way in some portions not being completely ballasted or boxed up; but the trains stop at each of the eleven intermediate stations between Lahore and Mooltan, and change engines, guards, &c., at the half-way refreshment station of "Montgomery," at the 104th mile, where all trains stop for refreshment. The telegraph is in full working order throughout, with an office at each station.

Train service on line at present.

No accidents from fires in the trains occurred during the year. A watchman, going to sleep between the rails, was killed by a train on 29th November. A driver injured a 2nd class carriage at Sher Shah ghat by shunting his train into it; and was fined 100 rupees for his carelessness. A special train sent out from Mooltan, with a body of Police, on the night of 13th July, to stop an affray between workmen on the unopened line, ran into two waggons left on the line; and the engine, tender, 2nd class carriage, and break-van, were thrown off the line and much damaged, but no lives were lost nor any one injured.

Accidents, fires, &c., in the trains on opened and unopened lines.

For the half-year ending June 1864, the profits of receipts over working expenses were Rs. 44,361, the former being 38.35 per cent., and the latter 61.65 per cent. of the gross earnings. For the similar period of 1863, the profits were Rs. 32,740, and the per-centages 40.53 and 59.47. Again, for the half-year ending 31st December 1864, the profits came to Rs. 16,060 only, and the two per-centages to 16.16 and 83.84.

Revenue and working expenses on the two sections first opened.

Hence, while the returns, &c., of the half-year ending 30th June 1864, were more favorable than in any previous period, those for the subsequent half-year showed a falling off

Profits not favorable during the half-year ending 31st December 1864, as in previous periods.

of traffic, and a considerable decrease of revenue and increase of working charges, even greater than the unfavorable returns of the similar period ending 31st December 1863, shown in last year's report. The Lahore Exhibition, it is true, brought an accession of traffic in the early part of the half-year ending June 1864; but the falling off in the next period is doubtless to be ascribed to the epidemic that prevailed at Lahore and Umritsur, as already referred to in this report. Besides, the maintenance of the whole 45 miles had become a charge against revenue, and the cost of working establishments was quite out of proportion to the small mileage open.

Total amount repaid by Company out of the profits to Govt. to liquidate interest advanced.

The total amount of profits, repaid to Government as a set-off against the guaranteed interest, was at date of last report Rs. 78,156; since then, by paying over the profits of revenue for the half-year ending 30th June 1864, Rs. 44,361, and those of the subsequent half-year, Rs. 16,060; the aggregated amount altogether repaid has now reached to Rs. 1,38,580.

Engineering works and buildings completed during the year at the Lahore station.

The central passenger station was so far completed as to be first used for traffic purposes on the 21st April last, when the line to Mooltan was opened to the public, the goods station, hitherto used for both passenger and goods traffic, being then given over for its proper use; and a large proportion of the fittings to the Agent's and Chief Engineer's offices, and to the rooms and offices appropriated in the Traffic Department for the accommodation of the public, and use of the Traffic Manager, Station Master, &c. &c., carried out. The intermediate series of arches for carrying the iron roofing over the platforms and rail-tracks, also brickwork in all the towers, bastions, and building generally, have been finished; and the only work remaining to complete is the erection of the iron roof to cover in the open part, the materials for which, although shipped from England early in this present year, have not as yet reached Lahore.

The locomotive lifting shop, covering the intervening space between the temporary repairing engine shed and the general workshops, has been roofed over, and engine pits put in; a saw mill completed, and in full working order; and several latrines and buildings for sanitary purposes erected

Do. do.

in the station yard; open wharf at goods shed extended; and iron wire fencing of part of station yard erected.

A Railway Institute, with reading, library, and coffee rooms, and swimming bath attached, was opened in June for the use of all members of the Railway Staff and European Mechanics of all departments, at a monthly subscription of one rupee each, for the objects stated in last year's report, and with most satisfactory results as regards the general health, recreation, and good conduct of those for whose use chiefly it was erected.

Institute.

At Umritsur the passenger station is being roofed over partly with slates from Dalhousie; but the iron roof to cover the platform and rail-tracks has not yet arrived; the goods station is therefore still in use for passenger as well as goods traffic and trains; the open wharf beyond the latter, and the carriage dock, are completed; running engine shed, and fuel store shed are finished; the approaches to the passenger station are still in progress, owing to the hollow ground and excavations between Station and Trunk road requiring much earth filling, the earth being brought in daily by trains several miles.

Works at Umritsur station, completed or in progress.

The additional accommodation and arrangements deemed by the Government and Railway authorities to be required, both for the public, and working the traffic, to be given to the bungalows on the line first used for residence by the Engineers during its construction; but afterwards converted into intermediate stations, have been rapidly advanced since the cold season, and, with few exceptions, will be completed during the present hot season. These will then comprise at each station a ladies' room and passengers' retiring rooms, telegraph clerk's room and office, a small booking office, &c., in addition to the Station Master's accommodation. Latrines for the use of native passengers are also in hand at all stations, in rear of platforms, and conservancy establishments sanctioned. But the tanks, wells, engine pits, platforms with waiting sheds, &c., &c., have been all completed and in use since the line was opened throughout in April, and

Do. do. at the intermediate stations on line between Lahore and Mooltan.

RAILWAYS.

Works at the engine reversing or half-way station of Montgomery.

nearly the whole of the gate-keepers' huts built, and gates fixed.

At the Montgomery (formerly called Sahceewal) station at the 101th mile, all through trains stop, and a change of engine takes place. Here the passenger station has been finished, with its platforms, refreshment, waiting, and retiring rooms, also Station Master's, telegraph, booking, and other traffic offices; also the running engine shed, and a house for drivers and guards, are nearly completed. The watering arrangements here are temporary only; but shortly a force pump, to be received from Roorkee, will be fixed, and turned by bullock-power, to fill the large tank constructed over one end of the running engine shed. A fuel platform and shed have yet to be completed.

Do. do. at Mooltan station.

The goods station finished and furnished with turntables, lines of rail, outer goods platform, and made over to the Traffic Department; but it is not used for passenger traffic also, as at first intended, the temporary station, erected when the Sher Shah section was opened in 1863, being for the present used for the through trains traffic. No permanent terminal passenger station has been commenced, as it is not as yet known if the Military cantonment of Mooltan will be moved from its present locality, to avoid the risk of inundation, to higher ground some four or five miles up the line of Railway. Two permanent blocks of European workmen's houses have been finished, and are now occupied. Also the fuel store shed. Tank and watering arrangements, 40 feet turntable, and sidings to ditto, and running engine sheds, were completed before the line was opened; also gate-keepers' and pointmen's huts built, and platform and distance signals have been since fixed.

Do. do. at intermediate stations on Lahore and Umritsur section.

The lengthening of the platforms at Meean Meer and Attaree stations is completed; a siding and turntable at the former, and small out-offices, and an engine pit at the latter, and an additional water-crane for the up line; at each a telegraph clerk's house is being erected, and latrines and other sanitary works constructed. The fencing of the section is set up, all but in a few miles where a canal rajbaha acts as a fence sufficiently near the line.

RAILWAYS.

New station opened in this section

A small road-side stopping station, with a platform and ticket clerk's hut on same, with the sanction of Government was opened in March, at the 24th mile from Lahore near the village of Khasa, and all trains now stop at it for the convenience of the villagers of that part. The platform, &c., cost about Rs. 550 only; and the monthly establishments Rs. 55, while the receipts promise to be profitable to the revenue.

On the 30th April 1864, there remained 77 miles of main line to link in before an engine could be run through the 208 miles between Lahore and Mooltan; 9 miles of this quantity were laid by the 30th June; but between that date and the end of the half-year, no less than 68 miles were laid; or, at a rate of more than 11 miles per month, including those of the hot and rainy seasons. The last rail was linked in on the 19th December, and the first train ran through on the 23rd idem, conveying the late Agent, Mr. Stevens, then very ill, on his way to England, but who died at Kurrachee on the 28th January.

Platelaying work done during the year.

The rapid and excellent progress thus made elicited the special commendation of the Local and Supreme Governments, for all concerned in the work, as every rail and other material had to be conveyed by train from Mooltan up to the platelaying gangs.

Commendation of Government.

The completion of the line, so linked in, has been since carried on, and is still in progress, with the ballasting and boxing up yet required; but the line was made sufficiently ready for public traffic trains in 3 months, and afterwards opened to the public on the 24th April.

Platelaying works still in progress towards completion.

About 75 miles of the entire line are now laid with the pot sleepers, and in the sandy tract of country in the Mooltan district, where they appear to answer very well. But to prevent the whirling clouds of light sand from rising, and causing great annoyance to both passengers and drivers, and rapid deterioration of the rolling stock, the Chief Engineer is spreading a coating of brick, or pottery-ballast, broken small, over the embankments, and this plan in the miles already laid has proved successful.

Graves' pot sleepers.

The permanent way materials delivered during the year by the contractors were as follows:—

Permanent way materials

RAILWAYS.

Reviews

Rails 37,507, chairs 126,528, fish plates 75,225, bolts and nuts 221,298, spikes 422,729, keys 10,411, Greaves' pot sleepers 57,516, tie rods for ditto 62,610, gibs and cotters for ditto, 216 cases.

• Would sleepers.

The wood sleepers delivered during the year were—
received from contractors, 16,195, from the Company's timber
depôt at Wuzcerabad, 9,261, and from their depôts at Lahore
and Shaderah, 606, total 26,062.

Timber depots.

These were transferred to the Delhi Railway account from 1st June 1864, and all sleepers, &c., turned out, sent to that line until the first January 1865, from which date Messrs. Brassey & Co., the new contractors for the Delhi line, have taken over the whole from the Railway Company, and will work the depôts on their own account.

Cost of work, &c.,
in Engineering De-
partment.

The cost for the year has been as follows : from works, exclusive of materials from England, Rs. 10,18,161-2-5, cost of establishments and contingent expenses, Rs. 1,53,951-15-7.

Locomotive and
Carriage Depart.
ments

The following table shows the quantity of engines and other rolling stock at the end of April 1861; that turned out of the shops during the year; and total available at end of April 1865; probable out-turn during the current official year; number of engines and tenders delivered up to date; and number yet to be received up from Kurrachee:—

Return of Engines and Rolling Stock on the Punjab Railway.

[illegible]

Railways.

Arrangements to complete full requirements, and probable date of completion.

The contractors, Messrs. Ritchie, Stewart & Co., of Bombay, have delivered 950 tons of teak; and the remaining iron-work in store is being worked out; also 250 sets of waggon iron-work have been ordered from England; and 50 sets of the same kind are due from the Sindh Railway Company to repay a loan. Stock for the iron-work in hand will be completed about September 1866.

Present state of
rolling stock.

The covered waggons are being increased weekly, as most suitable for the traffic, and less liable to accident from fire. The double-storeyed 3rd class carriages are 12 in number, and preferred by the natives on the Umritsur line. They will be increased to twenty. The locomotive that was taking out the special train from Mooltan by night with a force of Police to quell an affray of workmen constructing the line in July 1861, and was thrown off the line by running into two trucks, loaded with bricks, and much injured, has not yet been repaired for want of room in the shops, filled with engines in course of erection; but all other stock is in good condition.

Drivers.—Locomotive establishments; number and changes, &c.

Two new men have come out ; but of the former drivers, one gone to England on sick leave, one returned from ditto, and one sent home on expiry of term. Firemen are all engaged in this country, but some may turn out to be good drivers. Native mechanics are becoming rapidly skilled in the different shops. An European smith, time-expired, has gone to England, and three new fitters come out. Three Eurasian apprentices are employed, and promise to make good journeymen in a few years' time. An European painter, absolutely needed—after several years' experience of native painters—is coming out ; but with the exception of drivers, the establishment is sufficiently large to do the work for the present and next year.

The number of subordinate Europeans and Eurasians has been 14 during the year, and but one death amongst them, whilst their conduct is well spoken of; during the year only three fines for inebriety having been imposed. The Mechanic's Institute is pointed to as having induced steady habits.

RAILWAYS.

RAILWAYS.		Miles run.		Total.
The average cost of working per mile for half-years ending 30th June 1861 and 31st December 1861, compared.		1st half-year, ...	...	36,136
		2nd half-year, ...	...	32,990
				Per Mile.
				As. Pic.
		Cost of working 1st half-year, ...	...	7 6-96
		2nd half-year, ...	...	7 1-55
				Per Mile.
				As. Pic.
		Cost of fuel 1st half-year, ...	...	2 10-64
		2nd half-year, ...	...	2 9-65
				Per Mile.
				Pic.
		Cost of oil, tallow, &c., 1st half-year, ...	...	3-88
		2nd half-year, ...	...	4-81

Remarks on fuel—
wood.

Do. — Coal.

The fuel used consists chiefly of *Kikur*, (*Acacia Arabica*), and *Jhand*. The wood of the *Palu* (*Salvadora Persica*) is also used to some extent.

The Coal Fuel.—This is the Salt Range coal; 2,250 maunds of coal were consumed during the half-year ending 31st December 1861, with passenger trains on the Umritsur line; but as it contains a large proportion of sulphur, it is objectionable to travellers; and as fewer sparks are emitted from it than wood, it will be better suited for goods trains. It was used with wood to promote better combustion, viz., one-third of wood to two-thirds of coal; but the Locomotive Superintendent, after experiment, considers that with three-fifths wood and two-fifths coal, the cost to the company will be better assimilated to the present price of wood-fuel. At present, owing to the distance and expense of transport to Lahore by camels and carts, its price is Rs. 117 per 100 maunds, wood-fuel being Rs. 21 per ditto. But the coal is to be in future sent by boat down the Jhelum to Mooltan, and used for working trains at that end; and the Railway Company has agreed to take it there at the rate of 100 maunds daily for one year, at a cost of about Rs. 72 per 100 maunds.

RAILWAYS.

The Agent, Mr. R. W. Stevens, when at Murree in September last, was seized by a paralytic attack, but after a partial recovery left Lahore for England on the 19th December, in the first train that could be run through to Mooltan, the last rail being linked in on the 13th idem. He died at Kurrachee on the 28th January; his loss being still deeply felt by the whole body of the Company's servants, the Local Government, and numerous friends in the Punjab.

His successor has not been as yet appointed; but the Company's Accountant at Lahore, Mr. Finch, was nominated by the Directors to the post of Acting Agent, when the late Agent's illness was announced to them, and has, since that date, in the opinion of the Local Government, conducted his arduous duties and official relations with the Government with ability and tact, and possesses an accurate knowledge of the business of the agency in all its branches.

An Inspector on his way home died at Kurrachee, and a driver at Umritsur. The Locomotive Foreman sent home on sick leave; also one driver, one platelayer, and the Superintendent of the Chief Engineer's office, and the chief architect and draftsman of the Company, Mr. G. Stone. A 3rd Class Engineer promoted to be 2nd; and one District and one 3rd Class Engineer transferred to the Delhi Railway. Of those who resigned the service, there were one Station Master, and one driver; the services of one Assistant Engineer were also dispensed with, one Inspector dismissed, one 2nd Class Engineer suspended but afterwards reinstated, and one driver returned from sick leave to England.

This event took place on the 19th October, when His Excellency the Viceroy, and the late Lieutenant Governor, with their respective staffs, the Railway authorities, chief officers of the Punjab Government, the Consulting Engineer for Railways, and a number of invited visitors and guests, proceeded by train to the first station out from Lahore, and there partook of an entertainment provided by the Company, to inaugurate the occasion. But through communication to Mooltan was not opened until the 19th December; the

RAILWAYS.

Agent's Depart-
ment.—Mr. Stevens' death.

The Accountant,
Mr. Finch, appointed by the Board Acting Agent, now in charge of the Agency.

Other changes in the Staff during the year.

Official opening of the Mooltan line.

RAILWAYS.

RAILWAYS.

sanction to open the line to the public was given on 13th April; and traffic trains first ran on 21th April, from Umritsur to Sher Shah.

Transport agency
at Kurrachee.

Of the 40 locomotives and tenders, sent out from England for this line, 39 have been safely delivered at Mooltan by the Indus Flotilla, the remaining locomotive, &c., now at Kurrachee, will be kept until the next low water season. The materials long in store at Kotree and Kurrachee have all been despatched, except some metal sleeper pots. The Indus Flotilla steamers have been largely and usefully employed, although at exorbitant rates charged for freight; still, without their aid, the line would not probably have been open at this date. The Oriental Inland Company's steamers were also used, but to a small extent; while the contractor, Mr. Coates, also brought up rails and metal pots by country boats.

Telegraph.

Between Umritsur and Sher Shah has been in constant working, and the extension of the wires from the Lahore station to the Civil station at Anarkullee, was opened early in the year; but the receipts from private sources were trifling, except during the erection of the new Government wire between Lahore and Mooltan, when all messages passed over the Railway wire, and increased the receipts largely.

Amount drawn
from Treasury.

For the Punjab Railway, during the year. This came to Rs. 23,53,219-10-7; but amount audited by Government and passed to the capital account, was Rs. 20,28,202-0-2, as detailed in the following table:—

RAILWAYS.

RAILWAYS.

PUNJAB RAILWAY.

Details of sanctioned Capital Expenditure during the official year 1864-65.

	Rs.	As.	P.
Agent's Department, ...	29,998	15	5
Engineer's Department, ...	1,55,175	7	6
Locomotive Department, ...	74,585	12	9
Transport Agent, ...	21,275	15	9
Passages, ...	6,919	8	...
Stores Department, ...	30,064	3	...
Traffic Department, ...	1,173	10	1
Telegraph Department, ...	16,715	2	7
Earthwork, ballast, fencing, level crossings, permanent way, temporary works, Sher Shah extension, &c., ...	2,19,926	7	5
Bridges and culverts, ...	8,555	3	9
Wells and bungalows, ...	81,965	6	11
Platelayers' bungalows, ...	2,522	1	5
Workmen's houses, ...	362	7	...
Lahore station, ...	91,205	11	...
Umritsur station, ...	33,492	11	11
Meean Meer station, Lahore and Mooltan line, ...	4,975	15	5
Meean Meer and Attarco stations, ...	40,198	15	2
Reversing station, ...	8,970	6	7
Timber depot, ...	38,104	13	6
Contractors' reserves, ...	20,000	...	...
Transport, Insurance, &c., ...	7,87,065	11	6
Purchase of tools and machinery, ...	2,100	...	...
Stores, ...	2,00,509	6	2
Sleepers, ...	1,14,289	15	1
Carriage and waggon stock, and Locomotive plant, ...	11,797	...	6
Customs duty, ...	4,498	12	4
Hospital and Medical establishment, ...	6,616	8	7
Printing Press, ...	323	1	9
Pointsmen's hut, ...	10	9	7
Tramway at Hurrappa, ...	6,138	4	4
Do. at Cheechawutnee, ...	356	11	2
Total Rs., ...	20,28,202	0	2
Total amount of expenditure on the Punjab Railway up to 30th April 1864, Rs.	93,15,771	11	0
Grand total expended up to 30th April 1864, Rs., ...	1,13,13,973	11	2

II.—DELHI RAILWAY.

It was stated in last year's report that Her Majesty's Secretary of State had been referred to regarding the acceptance of the tender for contract, sent in to the Company in London by Messrs. Brassey and Co., to construct the portion of this Railway between Umritsur and Umballa. Meanwhile, the two local contracts concluded in this country by the late Agent with Messrs. DeCortanze and Read, under Government sanction, and referred to in last report; the former having the earthwork, ballast, &c., of the 27 miles between Umritsur and the Beas, the latter the earthwork, ballast and brickwork in bridges, on the section, 58 miles

General arrangements for commencing and carrying out the works. Messrs. Brassey & Co.'s first contract. Tender referred to Secretary of State.

RAILWAYS.

long, up from Ghazecabad towards Saharunpore; were in full progress in the cold season, and a considerable amount of work has been completed by both. The Chief Engineer having also prepared and submitted the requisite plans and schedules of all the land required to be transferred for the whole line, the same has been transferred, and compensation for a great portion paid, by Government.

Nature of Messrs.
Brassey & Co's.
second tender.

But late in 1864, the Railway authorities and the Punjab Government learnt that, in lieu of the first tender, Messrs. Brassey and Co. had submitted a fresh tender, modified in many of its details, to construct the works of the whole line, about 304 miles in length, from Umritsur to Ghazecabad, the junction point with the East India Railway line; including the bridges over all the large rivers, all the stations on the line, as well as the terminal one required inside the city of Delhi; and also to supply all the station machinery, plant, and rolling stock, if required, the whole contract to be completed in five years, at a price of about £14,350 per mile.

Tender accepted,
and work at once ar-
ranged for by Mr.
Henfrey, one of the
firm.

This contract was accepted by the Board and Secretary of State, and the contractors at once sent out a large staff, and arranged to commence the works before the hot weather set in; Mr. Henfrey, one of the firm, coming out in the cold season to be their representative and agent, and to superintend the works, arrived at Lahore in February, and in March had commenced work; that done, or to be done, by Messrs. DeCortanze and Read, being, under a special clause in the contract, transferred to the new contractors. The extent and value of the works executed by these local contractors were then ascertained, and their accounts with the company closed.

Contractor's pre-
sent arrangements.

Messrs. Brassey and Co. have already distributed their staff along the line, carried out much earthwork, and entered on the building of bungalows, manufacture of bricks for the bridges, stations, &c.; while a large amount of permanent way materials, Greaves' pot sleepers, iron fencing, and bridge materials, has been shipped from England to both Calcutta and Kurrachee.

RAILWAYS.

Company's arrange-
ments.

The Chief Engineer has also appointed his engineering staff to supervise the contractor's operations, dividing the line into five districts with four Engineers on each, one Assistant Engineer being stationed at each of the large bridges; also Inspectors where required. Several of the Engineers have been transferred from the Punjab Railway, from which their services can be now spared.

Timber depôt and
sleepers.

The Punjab Railway timber depôt at Wuzcerabad was transferred to the Delhi Railway on the 1st June 1864, and the preparation of sleepers continued until January 1865, when its operations were brought to a close, and the depôt, with all the timber and sleepers collected there, and at other depôts on the line, as at Lahore, Umritsur, Phillour, Umballa, &c., taken over by Messrs. Brassey and Co.

Barnettizing ap-
paratus for sleepers.

The sets of apparatus and machinery, ordered by the Company from England for impregnating sleepers of "cheer" and other woods for this line, have been also made over to the contractors, and are now coming out. Half of the line will be, according to the contract, laid with Greaves' metal pot sleepers, and half with timber sleepers.

Plantations to sup-
ply fuel for this line
hereafter.

This important subject has engaged the attention of the Local Government for two or three years; but at the close of this year, proposals appearing to be matured, instructions have been issued to the Canal and Forest Departments to take the needful steps to sow and plant for a future supply in the most favorable localities; while between Loodianah and Umballa (where the country has but little natural supply), the Railway officers are charged with the duty of sowing and planting to form suitable plantations near to their line, which in six to ten years should produce a supply adequate for working that section of the Railway.

Amount drawn
from Treasury, and
expenditure audited
and passed to the
capital account.

During the year, this has amounted to Rs. 6,08,710-6-10, while the expenditure audited by Government and passed to the capital account, was Rs. 1,78,851-1-9, as detailed below—

RAILWAYS.

RAILWAYS.

	R.	A.	P.
Agent's Department	972	12	4
Engineer's Department	66,980	1	7
Survey expenses	1,16,075	11	5
Earthwork	1,27,308	8	1
Ballast	17,204	11	1
Purchase of stores	10,326	11	6
Sleepers	19,667	11	6
Passage expenses	3,256	10	8
Hospital and Medical charges	3,018	12	11
Timber depot	20,811	13	6
Level crossings	980		2
Bungalows	2,200		
Total R.	1,78,851	1	9

Deputy Consulting Engineer's duties and services while attached to the Delhi line

Major Warrant, Deputy Consulting Engineer to the Punjab Government, but for the present more especially appointed to the supervision of the works of the Delhi Railway, as well as to aid the Consulting Engineer in his general control on the part of Government over the Company's operations and expenditure, has of late done valuable service in this department, by his explorations of the country and forests of the lower ranges of hills, and by the several practical reports he has submitted on the important subject of the supply of timber and fuel for the use of this Railway, and which have, to a great extent, formed the basis on which the instructions of Government, lately issued, have been founded. But on all other matters relating to the works, contracts, proposals, and expenditure, for carrying out the construction of this Railway, the Consulting Engineer has found in him an able, zealous, and practical coadjutor, and has recommended him for such services to the favorable notice of Government.

NY 2742/65

...

...

Public Works 1865. Department.
FROM *For the Secretary*
No. 2742
THE SECY. TO GOVT. PUNJAB,
PUBLIC WORKS DEPARTMENT.

To

*The Secy to Govt of
Madras. P.W. Dept.*

B.L.
Dated Lahore, 13th September 1865.

Recd. 22
No. 2180

Forwards 1 copy of Annual Progress Report of Public Works in the Punjab, for the year 1864-65.

A. TAYLOR, Colonel, R. E.,
Offg. Secy. to Govt. Punjab,
Public Works Department.

For Mr. George
25th Sept 1865
(P.W. Dept.)

No. 7 of 1865.

MEMORANDUM.

Half-yearly Revenue Report ending 30th June 1864 is forwarded to the Secretary to Government, Railway Department.

A. DeLISLE, Lieut. Colonel, R.E.,

Officiating Consulting Engineer for Railways.

Office of Consulting Engineer for Railways,
Bombay, 10th April 1865.

REVENUE REPORT, 30th JUNE 1864.

OFFICE OF CONSULTING ENGINEER FOR RAILWAYS,
Bombay, 25th November 1864.

1. The Secretary to the Great Indian Peninsula Railway Company has submitted the Revenue Report for the half-year ending 30th June 1864.

2. The total expenditure of the Company on Capital account to the 30th June last was—

England.....	£3,994,825
India	7,116,963

Total.... £11,111,789

3. The length of line open at the commencement of the half-year under notice was 553.35 miles. No new portion has been opened, although 30 miles from Mulkapoor to Shegaum were ready for traffic before the monsoon. The Bhore Ghaut Incline, which was opened for goods traffic in November 1863 on the completion of the double line, was opened for passenger traffic on the 23rd of March in this half-year, and with two days' interruption was worked continuously up to the close of the half-year.

4. The gross Capital expended on open line, on which the dividend is now calculated, amounts to £6,668,034-4-8, or £12,050-6-0 per mile, which compared with the previous half-year shows an increase of £184,511-1-4. The length of line under construction is 559½ miles.

5. The gross Receipts in the corresponding half-years of 1863 and 1864 have been as follows:—

	First Half 1863.			First Half-year 1864.		
	No.	Rs.	a. p.	Nos.	Rs.	a. p.
Coaching.						
1st Class Passengers	13,187	34,161	2 1	18,981	50,725	6 2
2nd ditto	81,056	68,954	14 4	127,300	1,02,370	13 10
3rd ditto	1,464,727	6,28,821	5 1	1,656,783	8,04,613	10 8
Parcels and Luggage .....	.....	1,01,477	8 7	.....	1,37,432	2 9
Horses, Carriages, and Dogs .....	.....	26,158	12 9	.....	35,163	5 0
Palkies, Gharrics, &c. on Ghaut .....	.....	29,952	3 3	.....	25,671	3 4
Total Coaching .....	.....	8,92,525	14 5	.....	11,55,976	9 9
Goods.						
	Tons.			Tons.		
Cotton	30,215	6,96,878	2 5	38,319	11,75,690	6 7
Seeds	21,255	2,45,227	4 11	33,150	3,65,106	6 6
Firewood	28,418	56,725	9 7	9,226	20,939	2 5
Opium	2,154	70,782	1 11	1,297	46,472	13 10
Other Goods	90,137	9,90,875	3 11	95,678	9,13,395	14 0
Railway Material	39,310	1,70,816	7 8	56,309	2,41,450	4 3
Live Stock .....	.....	15,426	9 7	.....	22,518	14 9
Miscellaneous .....	.....	36,773	11 7	.....	49,677	5 11
Total Goods .....	.....	22,53,505	3 11	.....	29,55,281	4 3
Grand Total .....	.....	31,76,031	2 4	.....	41,11,257	14 0
Deduct Ghaut Charges .....	.....	6,19,519	1 7	.....	5,65,720	5 9
Net Railways Receipts .....	.....	25,56,472	0 9	.....	35,45,537	8 3

6. The following table contrasts the gross Mileage Receipts of this with previous corresponding half-years:—

Half-year ending 30th June.		1860.	1861.	1862.	1863.	1864.
Mean length open	Miles.	279	343	438	509	553.35
Gross Receipts per mile ..		Rs.	Rs.	Rs.	Rs.	Rs.
} Coaching		1,846	1,823	1,583	1,694	2,013
} Goods		2,119	2,421	2,579	3,322	4,356
} Ghaut		562	1,203	1,919	1,217	1,022
Total		4,547	5,447	6,081	6,233	7,421
Increase per-cent .....		.....	20	11	21	19

The comparison exhibits a most satisfactory result, the mileage receipts exceeding those of the corresponding half-year of 1863 by 19 per-cent. The receipts of 1861 were 20 per-cent greater than those of 1860, but the increase was principally due to the Ghaut receipts. It has been the custom heretofore to exclude the Ghaut

receipts in making this comparison before the Ghaut was open to traffic; this is necessary, as the mileage receipts on the Ghaut are altogether out of proportion to the rest of the line. The Bhore Ghaut was worked for three months in this half-year and for two in the corresponding half of 1863, and the mileage earnings of the former exceed those of the latter half-year 27 per-cent, or 7 per-cent more than in any previous half-year.

7. To ascertain the sources of this remarkable elasticity it is necessary to consider the traffic in detail.

PASSENGER TRAFFIC.

Half-year ending		No.	Receipts.	Mileage.	Per Mile.	
			Rs.		Nos.	Receipts.
1st Class.	30th June 1860	5,318	21,238	43	20	76
	" 1861	10,508	26,092	39	30	76
	" 1862	11,803	32,525	42	27	74
	" 1863	13,187	38,161	43	26	75
	" 1864	18,981	50,725	40	34	90
2nd Class.	" 1860	68,494	70,673	25	317	254
	" 1861	84,955	68,847	29	247	201
	" 1862	71,198	62,820	28	162	143
	" 1863	81,056	68,951	28	160	135
	" 1864	127,300	1,02,371	21	230	185
3rd Class.	" 1860	597,819	3,41,707	37	2,113	1,235
	" 1861	1,086,614	4,44,912	31	3,169	1,297
	" 1862	1,209,365	5,02,464	39	2,780	1,147
	" 1863	1,464,725	6,28,821	40	2,877	1,235
	" 1864	1,656,783	8,04,613	43	2,994	1,454

The mileage receipts from 1st, 2nd, and 3rd class passengers show an increase respectively of 20, 37, and 18 per-cent. The percentage receipts from the different classes were for 1st half-year of—

	1st Class.	2nd Class.	3rd Class.
1863	5	9	86
1864	5	11	84

The great increase in 2nd class traffic is no doubt due to the increased prosperity of the native population; and the same increase in the 1st class receipts will probably be found in the next half-year, as the number of 1st class passengers in the latter half of the year 1863 was 30 per-cent greater than in the first half.

8. Unfortunately there is no data available to show the proportion of earnings on the North-East and South-East divisions, but the receipts of the latter must be largely in excess. While the coaching receipts of the Concan have steadily increased, in the Deccan there has been little fluctuation. However this half-year shows an increase of 17 per-cent.

MILEAGE PASSENGER RECEIPTS.

	Concan.	Deccan.	North-East.
First half-year 1860			
" " 1861	3,517	1,019	1,840
" " 1862	3,250	1,141	1,824
" " 1863	3,310	975	1,584
" " 1864	3,922	1,052	1,696
	5,171	1,229	2,042

9. The average mileage travelled by 1st and 2nd class passengers has fallen, the former from 43 to 40, the latter from 28 to 24, whilst a corresponding rise from 40 to 43 appears in the average travelled by 3rd class. It would be interesting to ascertain the cause of this. The want of house-room in Bombay has driven a number of the middle class to reside at such places as Mahim, Bandora, and Tanna, travelling daily to and fro by rail to their occupation. The different works connected with the reclamations must also have affected the local Concan traffic, and the large numbers of 1st class passengers who visit Matheran during the hot season tend to reduce the mileage. The demand for labour in Bombay has attracted large numbers of labourers from long distances, who return again to their villages before the monsoon; and the prosperity of the country has enabled many to visit Bombay who previously could not afford even the low 3rd class fares. But it is to be expected that the average mileage of 3rd class passengers will increase regularly as the people learn the advantages of cheap and easy travelling. Little or nothing has yet been done to attract this class of passengers to the line; any outlay expended on shelter and comfort at the stations would be well repaid.

	No. of Up Trains.	Average No. of Vehicles.	Receipts per Train Mile.
First half-year 1863....	2,114	29.04	48.11
" " 1864....	2,297	23.93	49.0

Twenty-four vehicles is the maximum number allowed for passenger trains, and until a double line is constructed it will probably be necessary to run the maximum number. The increase in the train mileage receipts does not correspond with the mileage increase, and the rate is very low. This low rate is entirely due to the Deccan traffic, and every endeavour should be made to reduce the number of trains run and the number of vehicles, with due regard to the convenience of the public. Beyond Poona and Nassick only composite trains might be run with advantage.

TRAIN MILEAGE RECEIPTS.

	Concan.	Deccan.
1863.....	54.7	43.11
1864.....	66.3	38.2

11. Turning now to the Goods traffic it appears from tables F and I, attached, that the loads hauled over each mile of line in the corresponding half-years, and the receipts, were as follows:—

First Half-year.	1860.	1861.	1862.	1863.	1864.
	Tons.	Tons.	Tons.	Tons.	Tons.
Load hauled over each mile of line open....					
{ Goods Westward	6,817	11,625	13,639	14,535	19,334
{ Do. Eastward	16,294	31,325	31,884	28,321	33,876
{ Railway Material	7,524	3,406	4,901	5,206	4,793
Totals	30,665	46,356	50,424	48,062	57,003
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per Mile	2,107	3,273	4,000	4,459	5,272

This shows an increase in the work done of about 18 per-cent entirely due to public goods, whilst the increase in the receipts is rather more than 17 per-cent. The work may be compared more in detail from the following table:—

	Tons hauled over each Mile.	
	1863.	1864.
1st Class Goods	7,635	9,879
2nd " "	17,929	19,836
3rd " "	16,689	4,121
4th " "	173	17,877
5th " "	192	493
Special " "	18	.....
Total	42,856	52,209

The great difference of figures in the 3rd and 4th classes is due to the transfer of cotton from the former to the latter; but taking both together they stand thus:—

	1863.	1864.
3rd and 4th Classes..	16,862	22,001

12. The gross receipts (goods and passengers) last half-year amounted to Rs. 25,56,472, whereas this half they are Rs. 35,45,537; the report then exhibits an increase of revenue of nearly ten lakhs, or 40 per-cent over those of the last half-year, and the balance available for dividend ought to show a corresponding increase. In the half-year ending 30th June 1863 this balance gave a return of £2-14-7 per-cent on the Capital. In this half-year the return only amounts to £2-17-5, the cause of which result will be found in the largely increased expenditure—

Expenditure per-cent on gross Receipts.	30th June 1863.	1864.
	63.44	70.55

The large proportion which is due to compensation cannot account for this. In the corresponding half of 1863 this item amounted to 10·51 per-cent of the receipts.

13. The following table compares the different charges with those of previous half-years:—

Charges.	Percentage of Expenditure on Gross Receipts for Half-year ending 30th June.			
	1861.	1862.	1863.	1864.
Locomotive	39·21	29·29	23·85	30·27
Coaching	7·05	5·38	4·25	4·03
Merchandise	9·37	10·20	8·78	8·97
Maintenance	11·04	11·69	11·99	13·23
General	7·35	5·29	14·42	14·05

The comparison per mile of Railway open shows as follows:—

	1861.	1862.	1863.	1864.
	Rs.	Rs.	Rs.	Rs.
Locomotive	1,665	1,219	1,198	1,940
Coaching	299	223	213	258
Merchandise	397	424	441	574
Maintenance	466	487	607	648
General	312	220	724	900

Whence it appears that under every head the expenditure exceeds that of the three corresponding previous half-years, with the exception of Coaching, which was slightly greater in 1861; but the chief sources of the excess are seen to be the Locomotive, Maintenance, and General charges.

14. To trace the cause of this still further it is necessary to go more minutely into detail:—

LOCOMOTIVE CHARGES.

	Percentage of Gross Receipts.	
	1863.	1864.
Salaries, &c.	0·31	0·28
Wages	5·69	6·35
Coal, Coke, and Firewood	10·37	15·93
Oil, Tallow, and Waste	0·99	1·25
Repairs to Engines	3·38	3·28
Do. Carriages	3·11	3·18

An examination of the above items shows that Fuel is in excess, and it is necessary to look to the Engine mileage rate to decide how far this excess is justifiable—

Fuel per Engine mile in annas	Half-year ending 30th June.			
	1861.	1862.	1863.	1864.
	7·42	4·98	6·19	9·42

There is an increase of nearly 50 per-cent in 1863. The following causes would lead to an increase in the engine mileage rate:—

1st.—High prices of fuel.

2nd.—Additional cost of conveyance and injury to fuel as the line advances.

3rd.—Heavy work on the Ghaut.

The cost of Fuel per ton in the two half-years was—

	1863.	1864.
Concan	Rs. 19 13 8	Rs. 21 14 1
Deccan	„ 23 3 8	„ 31 14 9
Mean	„ 21 9 1	„ 27 13 6

the total increase being nearly 27 per-cent; but this seems entirely due to the Deccan, for which it is difficult to account, unless in the return for June 1863 it was not properly apportioned.

Consumption of Fuel per Engine Mile in lbs.

	1863.*	1864.
Concan	50·2	56·2
Deccan	34·3	41·3
Mean	42·3	46·2

This shows a large increase per engine mile; but the corresponding consumption for the latter half of last year was 53·2, and thus the cause must have originated at that time, and may be chiefly ascribed to the opening of the Bhor Ghaut aided in a slight degree by the extension of the line. The mileage on the Bhor Ghaut stands thus:—

Half-year ending 30th June 1864.

With Passenger trains	37,414
With Goods	63,237
Light	171

Total.....100,822

In the corresponding half-year of 1863 the length of Ghaut open was 2½ miles for 19 weeks and 7½ miles for 7 weeks, and the mileage as follows:—

With Passenger trains	5,962
With Goods	12,266
Light	224

Total.....18,452

15. The maintenance charge although increased is still moderate. The increase may be traced to the expenditure, per mile open, on rails, chairs, keys, and sleepers—

1861.....	Rs. 48 11 5
1862.....	„ 77 6 4
1863.....	„ 174 13 6
1864.....	„ 293 3 2

showing that the line is deteriorating, and requires more renewal of sleepers than in 1861, also the higher rate of wages which have now to be paid.

16. By far the largest item of the general expenditure is compensation, and the amount paid for this per mile open is enormous, and stands as follows:—

For the last four corresponding half-years.

1861.....	Rs. 69 15 11
1862.....	„ 19 13 2
1863.....	„ 527 9 0
1864.....	„ 664 3 5

17. The train mileage charge for Oil, Tallow, Waste, &c. has gradually decreased under the head Coaching Charges, but in the Locomotive charges it is larger than in any of the three previous years, as seen from the following table:—

Cost per Train Mile of Oil, Tallow, Waste, &c. for Half-years ending 30th June.

	1861.	1862.	1863.	1864.
Locomotive.....	0.70	0.63	0.6	0.73
Coaching.....	0.94	0.57	0.43	0.31

18. The Telegraph expenditure is by no means unsatisfactory, although it shows an increase on last half-year:—

	1861.		1862.		1863.		1864.	
	1	2	1	2	1	2	1	2
Telegraph percentage expenditure, less receipts.....	1.03	1.53	1.22	0.65	0.76	0.36	0.50	..

19. A satisfactory feature of Table C attached is found in the Traffic charges. The percentage they bear to the gross Receipts seems to be on the decrease.

Percentage of Traffic Charges to Gross Receipts.

	1860.		1861.		1862.		1863.		1864.	
	1	2	1	2	1	2	1	2	1	2
Goods.....	7.39	7.47	9.37	10.46	10.2	9.85	8.79	10.25	8.97	..
Coaching.....	6.66	7.23	7.03	7.15	5.38	5.74	4.25	4.65	4.03	..
Total.....	14.05	15.10	16.42	17.61	15.58	15.59	13.04	14.90	13.00	..

20. The expenditure per mile open due to salaries and wages has considerably increased, as shown in table C, and a still further increase may be expected in the next half-year on account of the general decrease in the value of coin; and for the same reason the tariff of rates should be raised in proper proportion, which might be done without giving the public any just cause of complaint; for at present they are extremely low, being only 1 anna, 6 pias, and 2 pias per mile for 1st, 2nd, and 3rd class respectively, and if raised 50 per-cent would still be moderate.

21. The following tabular statements are attached:—

- A. Half-yearly statement of Revenue Receipts and Expenditure.
- B. (1) Receipts and Expenditure during the half-year.
- B. (2) Do. do. Concan.
- B. (3) Do. do. Deccan.
- C. Comparision of Expenditure.
- D. (1) Classification of Passengers.
- D. (2) Do. do. Goods.
- D. (3) Do. do. Eastward and Westward.
- E. Statement of Rolling Stock.
- F. Comparative statement of Goods Traffic.
- G. Length of Line open, capital cost. Train mileage, &c.
- H. (1) Half-yearly statement of Traffic.
- H. (2) Memorandum of up and down Railway Materials.
- I. Return of Railway Materials.

R. A. SARGEANT, Lieut. R.E.,
Assistant Engineer Railway Department.

TABLE A.
GREAT INDIAN

Dr.

STATEMENT showing the RECEIPTS and EXPENDITURE upon REVENUE

	Half-Year ending 30th June 1864			Half-Year ending 30th June 1863		
	Amount.	Per Cent on Gross Receipts.		Amount.	Per Cent on Gross Receipts.	
	Rs. a. p.			Rs. a. p.		
LOCOMOTIVE CHARGES.						
Salaries of Superintendents, Clerks, and Office Expenses ..	10,090 13 11			8,315 1 3		
Wages of Engine Drivers, Firemen, Water-pumpers ..	2,32,230 12 4			1,49,416 2 0		
Coal, Coke, and Firewood ..	5,82,057 6 11			2,72,419 10 0		
Oil, Tallow, Waste, and Cleaning Materials ..	45,782 12 11			26,135 13 1		
Repairs of Engines, Wages, and Materials ..	1,19,804 8 6			88,787 11 0		
Repairs of Carriages and Trucks, Wages and Materials ..	1,16,267 12 5			61,789 8 5		
Less Engine hire charged to Traffic Department ..	11,06,234 3 0			6,26,893 13 9		
	33,067 2 0			16,822 0 0		
	10,73,167 1 0	30.27		6,10,071 13 9	23.86	
COACHING CHARGES.						
Wages of Clerks, Guards, Porters, Police, &c.	50,814 6 9			71,376 3 4		
Station expenses, including lights, &c.	15,311 11 6			6,329 11 10		
Oil, Tallow, Waste, and Cleaning Materials ..	18,204 4 11			19,803 6 10		
Printing, Stationery, and Advertising ..	8,070 9 2			5,537 13 5		
Engine-hire charged by Locomotive Department ..	10,558 7 7			5,710 2 10		
	1,42,993 11 1	4.03		1,08,757 6 3	4.25	
MERCHANDIZE CHARGES.						
Wages of Clerks, Guards, &c.	2,19,569 9 0			1,39,909 12 10		
Station expenses, including lights, &c.	34,298 4 2			39,649 5 3		
Oil, Tallow, Waste, and Cleaning Materials ..	22,302 1 7			20,751 11 2		
Printing, Stationery, and Advertising ..	18,899 3 5			14,558 12 0		
Engine-hire charged by Locomotive Department ..	22,508 10 5			11,111 13 2		
	3,17,867 12 7	8.97		2,24,981 6 5	8.60	
MAINTENANCE OF WAY AND BUILDINGS.						
Ballasting, Adjusting Rails, Points, Crossings, and Turn- tables ..	1,35,213 5 2			95,601 14 3		
Rails, Chairs, Keys, and Sleepers ..	1,62,163 4 7			84,999 10 1		
Repairs of Tunnels, Bridges, Fences, &c.	57,921 3 8			46,185 11 4		
Repairs of Stations and Approach Roads, &c.	48,481 3 8			26,768 13 10		
Engineers' Salaries, Overlookers, &c.	65,451 1 4			51,499 5 5		
	4,69,236 2 5	13.23		3,09,055 6 11	12.09	
GENERAL CHARGES.						
Salaries of General Manager, Clerks, and Office Expenses ..	46,787 2 3			30,052 0 4		
Audit and Storekeeper's Office Expenses ..	34,711 10 4			24,461 12 5		
Travelling Expenses ..	5,291 12 8			3,836 8 6		
Printing, Stationery, and Advertising ..	15,618 15 7			11,782 12 2		
Medical Allowance ..	2,506 15 8			1,480 2 1		
Law Charges ..	8,000 0 0			9,291 6 10		
Electric Telegraph, viz.—						
Expenses .. Rs. 39,263 9 10						
Less Receipts .. " 21,267 15 6						
	17,995 9 4			19,506 7 11		
	1,30,902 1 10	3.69		1,00,411 4 3	3.93	
	3,67,302 3 10			2,68,570 11 2		
	3,67,302 3 10	10.36		2,68,570 11 2	10.51	
	25,01,469 0 9	70.55		16,21,819 0 9	63.41	
	10,44,069 7 6	29.45		9,34,621 0 0	36.56	
	35,45,537 8 3	100.00		25,56,472 0 9	100.00	
COMPENSATION.						
Ascertained .. Rs. 1,84,802 3 10						
Estimated Amount of Liability for Cotton burnt .. " 1,82,500 0 0						
Balance ..						
Rupees.....						

PENINSULA RAILWAY.

for the Half-Year ending 30th June 1864 and 30th June 1863 respectively.

Cr.

	Half-Year ending 30th June 1864.			Half-Year ending 30th June 1863.		
	No.	Amount.		Amount.	No.	
		Rs. a. p.		Rs. a. p.		
COACHING TRAFFIC.						
Passengers—						
1st Class ..	18,961	50,725 6 2		38,161 2 1	13,187	
2nd do.	127,300	1,02,370 13 10		68,954 14 8	81,056	
3rd do.	1,656,783	8,01,613 10 8		6,28,821 5 1	1,462,727	
	1,803,064	9,57,709 14 8		7,35,937 5 10	1,558,970	
Parcels and Luggage ..	....	1,37,432 2 9		1,01,477 8 7		
Carriages, Horses, and Dogs ..	....	35,163 5 0		26,158 12 9		
		11,30,305 6 5		8,63,573 11 2		
MERCHANDIZE TRAFFIC.						
Goods .. Rs. 23,67,852 11 8						
Live Stock .. " 22,548 14 9						
	Tons 234,209	24,10,401 10 5		16,75,191 9 5	Tons 211,523	
		15,426 9 7		25,54,191 14 2		
MISCELLANEOUS RECEIPTS.						
Rent of Property ..	....	3,292 7 5		2,009 2 7		
Waggon Rent ..	....	1,034 0 0		271 0 0		
Interest ..	....	500 0 0		....		
	Rupees	35,45,537 8 3		25,56,472 0 9		

(Signed) G. A. BARNETT, Accountant.

TABLE B. (1)
RECEIPTS AND EXPENDITURE DURING THE HALF-YEAR ENDING 30TH JUNE 1864-COMPARED WITH
FORMER HALF-YEARS.
Concan and Deccan.

Half-Year Ending	Receipts per Mile open.		Expenditure per Mile open.				Receipts per Train Mile.				Expenditure per Train Mile.																			
	Length of Railway.		Goods.		Total.	Locomotive.	Traffic.	Maintenance.	General.	Total.	Passengers.	Goods.	Average.	Locomotive.	Traffic.		Maintenance.	General.	Total.	Fuel consumed.										
															Coaching.	Merchandise.				Coal and Coke.	Wood.	Oil.								
	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.				Rs.	Ra.	Rs.					
30th June 1859	2,475	2,491	4,966	963	426	426	221	2,030	62	673	14	3	210	3	6	511	3	29	28	9	5	12								
31st December 1859	2,743	2,121	4,864	1,029	582	253	216	2,112	78	648	11	62	1	13	2	3	1	4	3	2	26	11	33	8	6	1				
30th June 1860	2,160	2,741	4,901	1,136	603	255	195	2,189	56	3	62	9	39	9	13	10	3	4	0	3	1	2	5	26	29	10	6	8		
31st December 1860	1,979	2,062	4,061	1,227	546	339	243	2,357	52	6	65	8	58	6	17	6	3	11	3	11	4	11	3	7	31	0	30	9	8	3
30th June 1861	1,810	2,115	3,925	1,186	556	358	232	2,333	47	2	60	8	53	7	16	1	3	6	4	0	4	10	3	2	31	7	33	8	8	11
31st December 1861	1,771	1,706	3,477	4,072	527	335	237	2,171	62	3	41	4	51	11	16	0	3	9	4	1	5	0	3	7	32	5	32	10	7	4
30th June 1862	1,821	2,418	4,239	1,663	607	469	312	3,143	61	5	42	5	49	5	19	6	3	6	4	4	5	6	3	8	36	10	40	4	8	0
31st December 1862	1,645	1,443	3,091	1,238	546	422	217	2,423	53	2	48	6	50	11	20	4	3	8	5	4	6	11	3	7	39	10	33	5	6	10
30th June 1863	1,584	2,571	4,155	1,219	649	487	220	2,575	49	3	51	3	50	1	11	4	2	8	5	2	5	11	2	8	31	1	32	3	5	10
31st December 1863	1,632	1,946	3,578	953	561	462	240	2,216	48	8	63	4	53	4	14	10	3	2	5	7	2	3	9	34	6	32	9	6	2	
30th June 1864	1,696	3,321	5,017	1,198	655	607	726	3,184	48	11	70	4	61	5	14	6	2	7	5	5	7	5	8	10	38	11	41	3	6	6
31st December 1864	1,739	2,353	4,092	1,127	610	516	625	2,909	50	11	73	0	61	7	17	0	2	10	6	4	8	5	9	5	43	10	49	9	8	5
30th June 1865	2,042	4,356	6,398	1,939	833	848	900	4,521	49	0	64	4	58	6	17	9	2	4	5	3	7	1	8	3	41	4	47	3	9	7

TABLE B. (2)
CONCAN.

	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.	Ra.	Rs.
30th June 1858	8307	2,475	2,491	4,966	963	426	480	221	2,030	62	64	73	14	3	210	3	6	511	3	29	28	9	5	12
31st December 1858	8307	3,109	2,531	5,641	1,097	592	433	216	2,343	86	61	56	12	10	211	4	1	521	2	6	33	8	5	8
30th June 1859	8307	3,336	4,391	7,747	1,925	763	531	195	3,096	74	52	3	64	11	4	1	5	21	2	6	27	6	3	8
31st December 1859	8307	3,133	3,280	6,413	1,756	780	504	322	3,364	67	4	63	7	10	3	3	1	4	1	8	26	9	28	12
30th June 1860	9107	3,517	3,814	7,362	1,864	884	678	403	3,828	56	0	70	9	62	11	3	7	4	3	3	31	3	28	11
31st December 1860	9207	3,400	2,777	6,177	1,970	860	530	366	3,752	49	11	72	8	59	1	18	6	4	5	3	32	2	32	11
30th June 1861	11009	3,250	3,422	6,672	2,270	1,217	603	372	4,964	51	8	59	8	57	4	0	4	5	0	3	35	3	33	13
31st December 1861	11417	3,118	2,257	5,374	2,012	945	679	282	3,919	56	5	61	9	54	4	22	3	4	5	3	2	42	6	11
30th June 1862	11417	3,310	3,908	7,218	1,761	1,282	839	330	4,230	56	7	63	10	60	3	14	8	3	4	3	1	36	7	7
31st December 1862	11417	3,418	2,936	6,387	1,765	1,141	802	438	4,140	54	4	83	7	61	9	17	11	4	2	11	35	4	34	11
30th June 1863	11417	3,922	6,273	10,196	2,490	1,658	1,123	516	5,791	54	7	92	11	73	2	17	10	8	2	4	5	42	1	33
31st December 1863	11417	4,139	4,397	8,537	2,330	1,574	1,086	897	5,899	57	0	83	11	68	3	14	10	4	1	3	8	41	6	27
30th June 1864	11417	5,171	6,787	11,959	3,589	2,237	1,201	881	7,916	66	3	72	5	69	7	20	11	4	0	5	2	46	1	58

TABLE B. (3)
DECCAN.

	Rs.	Ra.	Rs.	Ra.	Rs.	Rs.	As	P	As	P	As	P	As	P	As	P	As	P	As	P	lbs.	As	P							
31st December 1858	470	2,062	1,353	3,415	904	562	216	1,681	62	3	41	11	52	3	13	10	3	5	5	2	3	4	25	9	34					
30th June 1859	106-0	1,160	1,361	2,521	727	470	196	1,431	35	6	64	2	46	10	13	5	3	1	5	7	0	3	7	26	7	30				
31st December 1859	123-0	1,161	1,232	2,392	851	380	219	1,911	36	9	69	11	48	17	4	4	0	3	1	5	7	0	3	7	26	7	30			
30th June 1860	187-0	1,019	1,267	2,286	853	396	202	1,610	37	3	50	1	43	16	3	3	7	4	0	3	4	3	11	33	4	33	6	9	2	
31st December 1860	203-0	1,036	1,221	2,260	666	365	247	1,649	38	0	31	9	46	13	7	3	7	3	10	5	0	3	8	29	6	29	6	7	0	
30th June 1861	231-0	1,141	1,938	3,079	1,136	448	404	2,273	45	1	34	1	43	16	2	2	11	5	0	6	5	4	0	32	4	37	2	7	3	
31st December 1861	280-11	1,050	1,111	2,161	911	363	317	1,801	49	8	41	2	44	11	18	11	5	0	6	5	4	0	32	4	37	2	7	3		
30th June 1862	323-6	975	2,109	3,073	1,029	425	363	1,791	41	0	45	5	43	11	14	8	2	1	4	0	5	2	6	28	5	30	3	6	5	
31st December 1862	350-71	1,010	1,623	2,663	688	373	351	1,588	43	9	55	8	50	2	13	0	2	6	4	0	5	3	4	30	6	31	3	6	3	
30th June 1863	391-8	1,032	2,467	3,524	823	365	457	2,432	43	11	59	8	53	11	12	7	2	1	3	6	6	11	12	0	37	5	34	3	6	3
31st December 1863	439-14	1,115	1,821	2,937	809	359	405	2,131	46	1	67	6	57	15	10	2	1	4	11	7	10	11	41	6	45	8	8	4	4	
30th June 1864	439-14	1,229	3,721	4,953	1,509	468	755	3,638	39	2	61	1	53	2	16	3	1	7	3	5	8	1	9	8	39	0	41	3	9	9

TABLE
COMPARISON OF EXPENDITURE

	Half-Year ending June 1860.						Half-Year ending June 1861.					
	Miles opened 278 08.						Miles opened 312 80.					
	Train Miles 329,174.			Engine Miles 301,412.			Train Miles 318,412.			Engine Miles 301,412.		
	Amount.	Percentage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.	Percentage of Receipts.	Amount.	Percentage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.	Percentage of Receipts.
LOCOMOTIVE CHARGES.												
Salaries of Superintendents, Clerks, and Office Expenses	10,039	8 9	0-91	35 15 9	0-41	0-48	9,735	4 5	0-94	35 15 9	0-41	0-48
Wages of Engine-Drivers, &c.	65,642	8 6	5-94	235 4 9	2-68	3 19	67,869	4 6	6-56	235 4 9	2-68	3 19
Coal, Coke, and Firewood	1,83,636	0 11	16-57	656 1 5	7-49	8-89	1,42,461	3 2	10-70	656 1 5	7-49	8-89
Oil, Tallow, Waste, &c.	10,538	5 5	0-95	37 12 5	0-43	0-51	12,694	15 11	1-22	37 12 5	0-43	0-51
Repairs of Engines, Wages, and Materials	29,221	3 8	2-64	101 11 11	1-19	1-44	38,988	7 6	3-79	101 11 11	1-19	1-44
Do. of Carriages, Trucks, Wages, &c.	32,321	0 3	2-98	116 9 2	1-32	1-59	47,357	11 2	4-50	116 9 2	1-32	1-59
Total....	3,30,998	11 6	29 91	1,186 7 5	13-52	16-08	3,19,106	14 8	30-71	1,186 7 5	13-52	16-08
COACHING CHARGES.												
Engine hire charged by Locomotive Department.	48,467	14 8	4-39	173 11 9	2-35	4-50	46,655	1 3	4-50	173 11 9	2-35	4-50
Wages of Clerks, Guards, &c.	4,696	8 4	0-12	16 13 4	0-22	0-23	6,646	8 10	0-14	16 13 4	0-22	0-23
Station Expenses, including Lights, &c.	13,493	3 5	1-22	48 5 10	0-65	1-42	14,852	12 8	1-42	48 5 10	0-65	1-42
Oil, Tallow, Waste, and Cleaning Materials	6,882	0 0	0-62	21 10 8	0-33	0-67	6,958	8 3	0-67	21 10 8	0-33	0-67
Printing, Stationery, and Advertising	73,540	1 3	6-65	263 9 7	3-55	7-25	75,112	15 0	7-25	263 9 7	3-55	7-25
Total....	73,540	1 3	6-65	263 9 7	3-55	7-25	75,112	15 0	7-25	263 9 7	3-55	7-25
MERCHANDIZE CHARGES.												
Engine hire charged by Locomotive Department.	59,020	3 4	5-31	211 8 11	2-86	5-18	53,597	13 5	5-18	211 8 11	2-86	5-18
Wages of Clerks, Guards, &c.	4,434	2 10	0-40	15 11 4	0-21	0-60	6,911	12 4	0-60	15 11 4	0-21	0-60
Station Expenses, including Lights	11,948	7 3	1-08	42 13 3	0-57	1-46	15,093	7 4	1-46	42 13 3	0-57	1-46
Oil, Tallow, Waste, and Cleaning Materials	6,218	10 8	0-56	22 4 7	0-30	1-57	6,170	3 0	1-57	22 4 7	0-30	1-57
Printing, Stationery, and Advertising	81,621	8 1	7-38	292 9 1	3-94	7-87	81,773	4 1	7-87	292 9 1	3-94	7-87
Total....	81,621	8 1	7-38	292 9 1	3-94	7-87	81,773	4 1	7-87	292 9 1	3-94	7-87
MAINTENANCE CHARGES.												
Ballasting, adjusting Rails, &c.	49,712	4 8	4-50	178 3 1	2-42	4-53	47,083	11 10	4-53	178 3 1	2-42	4-53
Rails, Chairs, Keys, and Sleepers	7,073	3 11	0-61	25 5 8	0-34	1-02	10,645	3 7	1-02	25 5 8	0-34	1-02
Repairs of Tunnels, Bridges, &c.	9,022	10 7	0-82	32 5 6	0-43	1-23	13,236	10 3	1-23	32 5 6	0-43	1-23
Do. of Stations and Approach Roads	8,984	6 7	0-81	32 3 3	0-43	0-72	7,447	11 2	0-72	32 3 3	0-43	0-72
Engineers' Salaries, Overlookers, &c.	25,133	5 7	2-27	90 1 5	1-22	2-05	21,234	2 8	2-05	90 1 5	1-22	2-05
Total....	99,925	15 4	9-01	358 2 11	4-81	9-59	99,647	7 6	9-59	358 2 11	4-81	9-59
GENERAL CHARGES.												
Traffic Managers' Salaries, Clerks, and Office Expenses	22,410	10 10	2-03	80 5 4	1-09	2-15	22,260	2 5	2-15	80 5 4	1-09	2-15
Secretary's Department, Salaries and Expenses	18,254	6 3	1-62	65 6 11	0-89	1-70	17,646	1 0	1-70	65 6 11	0-89	1-70
Travelling Expenses	2,767	14 9	0-25	9 11 9	0-13	0-22	2,378	15 0	0-22	9 11 9	0-13	0-22
Printing, Stationery, and Advertising	6,324	1 0	0-57	22 10 8	0-27	0-91	9,434	3 9	0-91	22 10 8	0-27	0-91
Medical Allowance	383	5 4	0-21	1 6 0	0-02	0-06	632	9 5	0-06	1 6 0	0-02	0-06
Law Charges	2,184	4 3	0-20	7 13 3	0-11	0-03	.....	.....	0-03	7 13 3	0-11	0-03
Rates and Taxes	462	14 8	0-01	1 10 6	0-03	0-03	.....	.....	0-03	1 10 6	0-03	0-03
Electric Telegraph Expenses, less Receipts	11,116	11 8	1-00	39 13 7	0-55	1-36	14,126	6 10	1-36	39 13 7	0-55	1-36
Compensation	810	12 0	0-07	2 14 6	0-01	0-38	3,960	7 7	0-38	2 14 6	0-01	0-38
Total....	61,715	0 9	5-85	231 15 6	3-13	6-78	70,458	14 0	6-78	231 15 6	3-13	6-78

C.
GREAT INDIAN PENINSULA RAILWAY.

December 1860.					Half-Year ending June 1861.										Half-Year ending 31st December 1861.									
opened 207-50.					Miles opened 312-80.										Miles opened 304-31.									
Engine Miles 387,637.					Train Miles 467,004.					Engine Miles 551,077.					Train Miles 385,339.					Engine Miles 467,338.				
Cost per Mile open.	Cost per Mile Engine	Cost per Mile Train.			Amount.	Percentage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.		Amount.	Percentage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.		Amount.	Percentage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.			
Rs. a. p.	As.	As.			Rs. a. p.		Rs. a. p.	As.	As.		Rs. a. p.		Rs. a. p.	As.	As.		Rs. a. p.		Rs. a. p.	As.	As.			
32 11 6	0-40	0-50			9,232 5 9	0-63	26 4 10	0-267	0-31		7,815 10 7	0-61	19 14 4	0-27	0-33		1,11,661 8 7	9-15	283 4 8	3-82	4-66			
224 1 5	2-81	3-40			1,10,502 8 10	7-50	322 4 9	3-002	3-78		1,11,661 8 7	9-15	283 4 8	3-82	4-66		1,81,757 15 3	11-89	460 15 2	6-22	7-60			
478 12 2	5-88	7-15			2,55,974 0 7	17-63	746 9 3	7-042	8-74		1,81,757 15 3	11-89	460 15 2	6-22	7-60		16,506 1 11	1-35	41 13 9	0-57	0-69			
42 10 7	0-52	0-65			20,519 1 8	1-45	61 3 0	0-593	0-70		16,506 1 11	1-35	41 13 9	0-57	0-69		67,935 11 8	5-56	172 4 7	3-325	2-81			
131 0 5	1-61	1-95			75,398 12 2	5-18	219 4 2	2-018	2-57		67,935 11 8	5-56	172 4 7	3-325	2-81		1,02,527 5 2	8-36	260 0 3	3-50	4-29			
159 2 5	1-95	2-38			99,228 14 2	6-80	289 6 0	2-876	3-39		1,02,527 5 2	8-36	260 0 3	3-50	4-29									
1,072 6 6	13 17	16-03			5,70,855 11 2	39-21	1,665 0 0	16-530	19-50		4,88,235 8 2	39-92	1,238 4 9	16-70	20-39									
156 12 8	2-31	2-31			54,912 0 10	3-77	160 2 5	1-88	1-88		62,537 4 2	5-11	159 3 8	2-62	2-62									
22 5 4	0-34	0-34			13,302 7 1	0-93	34 12 9	0-45	0-45		4,996 4 5	0-40	12 10 0	0-21	0-21									
49 14 8	0-74	0-74			27,713 5 8	1-50	80 13 3	0-91	0-91		13,759 6 0	1-12	34 7 3	0-57	0-57									
23 6 2	0-35	0-35			6,626 1 6	0-45	19 5 2	0-23	0-23		6,156 14 9	0-52	15 9 9	0-25	0-25									
232 6 10	3-77	3-77			1,02,533 15 1	7-05	299 1 9	3-50	3-50		87,499 13 4	7-15	221 11 8	3-65	3-65									
180 1 7	2-69	2-69			89,952 10 3	6-18	292 4 2	3-07	3-07		79,214 6 11	6-48	200 11 2	3-30	3-30									
23 3 4	0-31	0-31			10,296 11 7	0-75	30 2 6	0-34	0-34		25,215 0 0	2-06	61 0 4	1-05	1-05									
50 11 6	0-70	0-70			28,773 9 6	1-97	83 11 9	0-98	0-98		14,748 5 8	1-21	37 6 5	0-62	0-62									
20 11 9	0-31	0-31			7,382 13 11	0-50	21 8 6	0-26	0-26		8,688 12 1	0-71	22 0 7	0-36	0-36									
274 12 2	4-10	4-10			1,36,407 13 3	9-37	397 13 11	4-66	4-66		1,27,896 9 6	10-40	324 5 6	5-33	5-33									
158 3 9	2-36	2-36			78,334 4 11	5-30	226 7 6	2-69	2-69		71,653 7 4	5-87	182 3 7	2-99	2-99									
35 11 1	0-53	0-53			16,702 4 3	1-12	34 11 5	0-57	0-57		18,012 8 9	1-43	45 12 1	0-75	0-75									
44 7 9	0-60	0-60			12,141 9 10	0-84	35 8 6	0-42	0-42		20,300 11 8	1-65	51 7 9	0-84	0-84									
24 15 6	0-37	0-37			17,912 3 0	1-55	52 3 11	0-60	0-60		21,523 12 11	1-78	51 9 5	0-89	0-89									
71 5 9	1-08	1-08			35,618 1 8	2-34	103 14 2	1-21	1-21		34,532 9 6	2-62	87 9 3	1-45	1-45									
334 11 10	5-00	5-00			1,60,748 7 8	11-04	468 13 6	5-49	5-49		1,66,253 2 2	13-59	421 10 1	6-92	6-92									
74 12 11	1-15	1-15			21,197 3 1	1-61	70 9 2	0-82	0-82		27,975 7 4	2-28	70 15 1	1-16	1-16									
59 0 6	0-89	0-89			19,311 15 7	1-35	56 5 3	0-66	0-66		19,877 12 4	1-63	50 6 7	1-83	1-83									
7 15 11	0-12	0-12			3,196 2 4	0-22	9 5 2	0-13	0-13		2,773 7 3	0-23	7 0 8	0-12	0-12									
31 4 2	0-17	0-17			9,819 5 3	0-69	28 10 2	0-33	0-33		9,693 0 3	0-79	21 9 3	0-40	0-40									
2 3 4	0-05	0-05			503 5 4	0-03	1 7 6	0-02	0-02		1,000 11 11	0-09	2 11 0	0-03	0-03									
					1,918 11 1	0-13	5 9 7	0-09	0-09															
					1,709 4 0	0-12	4 15 9	0-06	0-06															
47 7 6	0-71	0-71			15,526 11 7	1-06	45 4 7	0-53	0-53		18,698 2 2	1-53	47 6 8	0-75	0-75									
13 4 11	0-19	0-19			30,855 6 8	2-12	89 15 11	1-32	1-32		5,347 11 8	1-44	13 8 11	0-23	0-23									
236 1 3	3-33	3-33			1,07,034 0 11	7-33	312 3 1	3-95	3-95		85,125 7 8	6-99	216 10 2	3-50	3-50									

TABLE
COMPARISON OF EXPENDITURE

	Half-Year ending June 1863.										Half-Year ending			
	Miles opened 477.81.										Miles			
	Train Miles 561,087.					Engine Miles 683,653.					Train Miles 477,820.			
	Amount.				Percentage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.	Amount.				Percentage of Receipts.	
Rs.	a.	p.			Rs.	s.	p.	As.	As.	Rs.	a.	p.		
LOCOMOTIVE CHARGES.														
Salaries of Superintendents, Clerks, and Office Expenses	8,249	7	3	0.45	18	13	6	0.19	0.23	8,449	15	8	0.51	
Wages of Engine-Drivers, &c.	1,40,035	10	2	8.31	319	13	9	3.29	3.85	1,09,100	14	1	6.53	
Coal, Coke, and Firewood	2,13,010	14	7	11.10	486	8	8	4.98	5.86	1,79,153	2	11	10.71	
Oil, Tallow, Waste, &c.	22,963	11	0	1.20	92	7	3	0.54	0.63	15,762	8	8	0.95	
Repairs of Engines, Wages, and Materials	74,477	0	8	4.08	170	1	10	1.74	2.06	64,309	3	3	3.64	
Do. of Carriages, Trucks, Wages, &c.	75,066	0	7	4.12	171	7	4	1.75	2.06	66,295	5	1	3.96	
Total	5,33,802	12	3	29.28	1,219	4	4	12.49	14.69	4,43,071	1	8	26.50	
COACHING CHARGES.														
Engine hire charged by Locomotive Department	65,613	7	1	3.60	149	13	9	.....	1.82	4,435	9	4	0.26	
Wages of Clerks, Guards, &c.	5,668	7	9	0.30	12	11	2	.....	0.15	66,041	4	0	3.95	
Station Expenses, including Lights, &c.	20,979	4	1	1.18	47	10	8	.....	0.57	6,707	13	7	0.34	
Oil, Tallow, Waste, and Cleaning Materials	5,816	8	1	0.32	13	4	6	.....	0.16	15,132	12	10	0.91	
Printing, Stationery, and Advertising	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,771	1	8	0.28	
Total	98,077	10	9	5.38	223	14	1	.....	2.70	96,089	11	5	5.74	
MERCHANDIZE CHARGES.														
Engine hire charged by Locomotive Department	1,20,336	2	10	6.61	274	13	1	.....	3.35	5,246	2	8	0.31	
Wages of Clerks, Guards, &c.	28,473	9	6	1.56	65	0	7	.....	.....	1,16,212	4	6	6.95	
Station Expenses, including Lights	21,316	15	11	1.17	48	12	1	.....	.....	19,422	9	5	1.16	
Oil, Tallow, Waste, and Cleaning Materials	15,789	0	7	0.86	36	1	0	.....	.....	15,366	12	8	0.92	
Printing, Stationery, and Advertising	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,432	15	10	0.51	
Total	1,85,945	12	10	10.20	424	10	9	.....	5.11	1,64,680	13	1	9.85	
MAINTENANCE CHARGES.														
Ballasting, adjusting Rails, &c.	90,241	9	4	4.95	206	3	5	.....	2.49	80,331	13	11	4.60	
Bails, Chairs, Keys, and Sleepers	33,884	10	7	1.81	77	6	4	.....	0.93	43,536	2	2	2.60	
Repairs of Tunnels, Bridges, &c.	17,099	11	7	0.94	39	0	11	.....	0.47	22,823	0	6	1.36	
Do. of Stations and Approach Roads	28,041	10	4	1.51	64	0	10	.....	0.77	22,502	8	9	1.35	
Engineers' Salaries, Overlookers, &c.	43,923	12	5	2.4	100	5	3	.....	1.21	45,621	4	11	2.72	
Total	2,13,231	6	3	11.69	487	0	5	.....	5.67	2,14,834	14	3	12.85	
GENERAL CHARGES.														
General Manager's Salaries, Clerks, and Office Expenses	26,876	14	1	1.48	61	6	2	.....	0.74	32,142	15	4	1.92	
Secretary's Department, Salaries and Expenses	22,461	7	11	1.23	51	4	11	.....	0.61	21,854	0	0	1.35	
Traveling Expenses	3,103	4	0	0.17	7	1	4	.....	0.08	3,820	7	10	0.24	
Printing, Stationery, and Advertising	8,699	13	7	0.47	19	13	11	.....	0.21	9,815	11	10	0.58	
Medical Allowance	871	4	0	0.04	1	15	9	.....	0.03	844	11	10	0.05	
Law Charges	3,896	12	8	0.21	8	14	5	.....	0.11	.....	.....	.....	.....	
Rates and Taxes	21,918	1	2	1.22	50	1	0	.....	1.61	14,305	5	3	0.85	
Electric Telegraph Expenses, less Receipts	8,679	11	7	0.47	19	13	2	.....	0.23	28,899	8	3	1.73	
Compensation	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Total	96,507	5	0	5.29	220	6	8	.....	2.65	1,11,621	12	4	6.65	

C.—(Continued.)

GREAT INDIAN PENINSULA RAILWAY.

December 1862. opened 464.88.			Half-Year ending June 1863.										Half-Year ending December 1863.									
Engine Miles 574,804.			Miles opened 520.02.										Miles opened 553.355.									
			Train Miles 667,142.				Engine Miles 684,743.						Train Miles 567,654.				Engine Miles 598,744.					
Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.	Amount.	Percentage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.	Amount.	Percentage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.	Amount.	Percentage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.					
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.					
18 2 10	0.26	0.28	8,091 13 11	0.51	15 14 4	0.19	0.19	9,509 7 11	0.42	17 3 0	0.25	0.26										
234 10 10	3.46	3.65	1,15,406 6 8	5.69	285 10 7	3.39	3.48	1,43,121 1 1	6.31	258 19 5	3.82	3.89										
385 6 2	5.67	5.99	2,65,138 11 2	10.37	520 14 1	6.19	6.36	3,01,215 11 0	13.29	544 5 6	8.05	8.20										
33 14 6	0.50	0.53	25,434 7 5	0.99	49 15 6	0.59	0.6	21,200 10 4	1.07	43 11 9	0.64	0.65										
138 5 4	2.04	2.15	86,403 2 11	3.38	169 12 0	2.02	2.07	78,433 10 8	3.45	171 11 11	2.10	2.14										
112 9 9	2.11	2.23	79,591 12 4	3.11	156 5 11	1.86	1.91	67,336 9 4	2.97	121 11 1	1.89	1.84										
553 1 7	11.04	14.83	6,10,071 6 5	23.85	1,198 8 5	14.25	14.63	6,23,819 2 4	27.51	1,127 5 8	16.66	16.98										
9 8 8	0.14	0.15	5,710 2 10	0.22	11 3 2	.....	0.14	7,707 8 3	0.31	13 14 10	.....	0.22										
142 0 11	2.09	2.20	71,376 3 4	2.79	140 3 6	.....	1.71	68,110 7 0	3.00	123 1 5	.....	1.85										
12 4 5	0.18	0.19	6,329 11 10	0.24	12 6 11	.....	0.15	6,900 1 2	0.30	12 7 6	.....	0.19										
32 8 10	0.48	0.51	19,803 6 10	0.77	38 14 5	.....	0.48	17,550 1 9	0.77	31 11 6	.....	0.46										
10 4 3	0.15	0.16	5,537 13 5	0.21	10 14 6	.....	0.13	5,081 4 3	0.21	9 2 11	.....	0.14										
206 11 1	3.04	3.21	1,08,757 6 3	4.23	213 10 6	.....	2.61	1,05,349 6 5	4.65	190 6 2	.....	2.86										
11 4 6	0.17	0.18	11,111 13 2	0.43	21 13 3	.....	0.27	10,203 3 9	0.45	18 7 1	.....	0.27										
249 15 8	3.68	3.89	1,38,909 12 10	5.43	272 14 3	.....	3.33	1,61,316 0 5	7.24	236 15 2	.....	4.46										
41 12 6	0.62	0.65	39,649 5 5	1.53	77 11 4	.....	0.95	24,181 7 6	1.25	50 14 10	.....	0.77										
33 1 10	0.49	0.51	20,751 11 2	0.81	40 12 3	.....	0.49	20,175 11 10	0.89	36 7 5	.....	0.56										
18 2 2	0.26	0.28	14,558 12 0	0.57	28 9 8	.....	0.31	9,577 0 5	0.42	17 4 11	.....	0.27										
351 4 8	5.22	5.51	2,24,981 6 5	8.79	441 15 9	.....	5.38	2,32,443 7 11	10.25	420 1 5	.....	6.33										
172 13 5	2.55	2.69	95,601 14 3	3.71	187 13 1	.....	2.29	95,421 1 10	4.20	172 7 1	.....	2.57										
93 11 4	1.38	1.40	48,999 10 1	3.40	174 13 6	.....	2.13	74,186 15 9	3.27	131 1 2	.....	2.06										
49 2 5	0.72	0.75	46,185 11 1	1.80	90 11 9	.....	1.11	51,856 11 0	2.42	99 2 2	.....	1.40										
48 6 6	0.71	0.73	26,768 13 10	1.04	52 9 5	.....	0.64	24,004 6 9	1.06	42 6 1	.....	0.65										
98 2 2	1.45	1.52	51,499 5 5	2.01	101 2 9	.....	1.24	53,653 4 10	2.37	96 15 5	.....	1.47										
462 3 10	6.81	7.18	3,09,055 6 11	11.95	607 2 6	.....	7.41	3,02,122 8 2	13.32	515 15 11	.....	8.21										
69 2 4	1.02	1.07	30,052 0 4	1.17	59 0 7	.....	0.72	30,598 13 0	1.35	55 4 9	.....	0.84										
47 0 2	0.69	0.73	21,161 12 5	0.96	44 0 11	.....	0.56	31,252 5 9	1.38	56 7 8	.....	0.85										
8 3 6	0.12	0.13	3,836 8 6	0.15	7 8 7	.....	0.09	4,113 5 6	0.18	7 7 0	.....	0.12										
21 1 10	0.31	0.33	11,782 12 3	0.46	23 2 4	.....	0.28	9,800 4 2	0.43	17 11 5	.....	0.25										
1 13 1	0.03	0.04	1,480 2 1	0.06	2 14 6	.....	0.03	2,917 19 2	0.15	5 4 4	.....	0.08										
.....	.....	.....	9,291 8 10	0.36	18 4 1	.....	0.23	329 5 1	0.01	0 9 6	.....	0.02										
30 12 3	0.45	0.48	19,506 7 11	0.76	38 5 2	.....	0.47	8,065 10 11	0.36	11 9 2	.....	0.22										
62 2 4	0.92	0.96	2,68,570 11 2	10.50	527 9 0	.....	6.44	2,58,520 13 7	11.42	467 14 8	.....	7.04										
240 3 6	3.51	3.71	3,68,981 15 5	11.42	724 13 2	.....	8.85	3,45,998 4 2	15.29	625 4 6	.....	9.42										

TABLE C.—(Continued.)

COMPARISON OF EXPENDITURE GREAT INDIAN PENINSULA RAILWAY.

	Half-Year ending June 1864.				
	Miles opened 553.35.				
	Train Miles 964,294.		Engine Miles 953,970.		
	Amount.	Per-centage of Receipts.	Cost per Mile open.	Cost per Mile Engine.	Cost per Mile Train.
	Rs. a. p.		Rs. a. p.	As.	As.
LOCOMOTIVE CHARGES.					
Salaries of Superintendents, Clerks, and Office Expenses	9,789 3 9	0.28	17 11 0	0.16	0.16
Wages of Engine-Drivers, &c.	2,23,289 0 4	6.35	407 4 8	3.67	3.72
Coal, Coke, and Firewood	5,61,658 12 10	15.93	1,021 1 3	9.19	9.23
Oil, Tallow, Waste, &c.	44,414 4 6	1.25	80 5 0	0.72	0.73
Repairs of Engines, Wages, and Materials	1,16,223 6 1	3.28	210 6 5	1.84	1.93
Do. of Carriages, Trucks, Wages, &c.	1,12,792 5 6	3.18	203 15 5	1.83	1.96
Total....	10,73,167 1 0	30.27	1,910 11 9	17.45	17.73
COACHING CHARGES.					
Engine hire charged by Locomotive Department.	10,554 7 7	0.29	19 1 5	0.17	0.17
Wages of Clerks, Guards, &c.	90,444 6 9	2.56	164 6 4	1.47	1.49
Station Expenses, including Lights, &c.	15,311 14 8	0.44	27 12 0	0.24	0.26
Oil, Tallow, Waste, and Cleaning Materials	18,208 4 11	0.51	32 12 0	0.30	0.31
Printing, Stationery, and Advertising	8,070 9 2	0.23	14 9 6	0.13	0.13
Total....	1,42,993 11 1	4.03	253 9 3	2.31	2.35
MERCHANDIZE CHARGES.					
Engine hire charged by Locomotive Department.	22,508 10 5	0.62	40 11 2	0.37	0.39
Wages of Clerks, Guards, &c.	2,19,869 9 0	6.22	397 9 6	3.54	3.63
Station Expenses, including Lights	31,288 4 2	0.97	62 0 0	0.55	0.57
Oil, Tallow, Waste, and Cleaning Materials	12,302 1 7	0.62	40 5 3	0.36	0.37
Printing, Stationery, and Advertising	18,899 3 5	0.54	31 2 9	0.30	0.30
Total....	3,17,867 12 7	8.97	574 12 10	5.16	5.25
MAINTENANCE CHARGES.					
Ballasting, adjusting Rails, &c.	1,35,213 5 2	3.80	244 8 1	2.20	2.25
Rails, Chairs, Keys, and Sleepers	1,62,163 4 7	4.57	293 3 2	2.61	2.67
Repairs of Tunnels, Bridges, &c.	57,921 3 8	1.65	101 11 9	0.94	0.95
Do. of Stations and Approach Roads	48,181 3 8	1.37	87 10 10	0.79	0.80
Engineers' Salaries, Overlookers, &c.	65,454 1 4	1.84	114 5 9	1.06	1.04
Total....	4,69,236 2 5	13.23	848 8 5	7.63	7.75
GENERAL CHARGES.					
Traffic Managers' Salaries, Clerks, and Office Expenses	46,787 2 3	1.32	81 9 8	0.76	0.74
Secretary's Department, Salaries and Expenses	31,711 10 4	0.94	62 15 3	0.56	0.54
Travelling Expenses	5,281 12 6	0.15	9 8 9	0.09	0.09
Printing, Stationery, and Advertising	15,618 15 7	0.45	28 13 10	0.25	0.25
Medical Allowance	2,506 15 8	0.07	4 11 5	0.04	0.04
Law Charges	8,060 0 0	0.23	14 7 7	0.13	0.13
Rates and Taxes	17,995 9 4	0.50	31 8 8	0.29	0.29
Electric Telegraph Expenses, less Receipts	3,67,302 3 10	10.35	661 3 5	5.98	6.07
Compensation					
Total....	4,98,294 5 8	14.05	900 14 7	8.10	8.23

TABLE D. (1)
CLASSIFICATION OF PASSENGERS.

Half-Year ending	1st Class.			2nd Class.			3rd Class.			4th Class.		
	Number.	Amount.	Average Distance.	Number.	Amount.	Average Distance.	Number.	Amount.	Average Distance.	Number.	Amount.	Average Distance.
		Rs.			Rs.			Rs.			Rs.	
30th June 1860	5,518	21,234	43	89,494	70,473	25	597,819	3,41,707	37	89,757	2,23,685	51
31st December 1860	9,613	24,121	39	94,567	66,601	22	499,999	2,68,070	24	731,457	2,76,158	32
30th June 1861	10,508	26,092	39	81,953	64,847	29	355,127	1,68,751	30	342,958	1,28,579	48
31st December 1861	10,611	26,484	39	76,681	63,319	27	287,308	3,44,490	39	...	...	...
30th June 1862	11,803	32,523	42	71,198	62,820	29	1,209,365	5,02,464	39	...	...	...
31st December 1862	13,011	37,118	41	76,378	71,231	30	1,249,689	5,35,464	39	...	...	...
30th June 1863	13,187	38,161	43	81,056	64,954	28	1,464,727	6,28,821	40	...	...	...
31st December 1863	17,110	52,013	46	120,309	85,754	23	1,569,460	6,66,776	40	...	...	...
30th June 1864	18,981	51,015	40	127,300	1,03,234	24	1,656,783	8,10,733	43	...	...	...

TABLE D. (2)
CLASSIFICATION OF GOODS.

Half-Year ending	Tons.		1st Class.		2nd Class.		3rd Class.		4th Class.		5th Class.	
	Weight.	Receipts.	Weight.	Receipts.	Weight.	Receipts.	Weight.	Receipts.	Weight.	Receipts.	Weight.	Receipts.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
30th June 1860	2,551	2,402	1,119,122	1,03,405	1,403,170	2,56,494	150,311	50,618	238,364	1,37,302	70,035	29,769
31st December 1860	1,689	2,033	653,867	61,638	1,311,414	2,80,268	213,904	68,592	51,051	25,684	81,271	34,866
30th June 1861	4,932	4,775	1,359,048	1,20,463	1,665,979	3,00,812	814,204	3,37,781	52,487	20,506	67,478	29,415
31st December 1861	3,188	4,270	1,142,930	90,614	1,546,325	2,61,750	385,610	1,54,912	28,294	9,806	58,287	26,764
30th June 1862	5,623	7,229	1,551,464	1,42,382	2,292,501	4,08,010	1,066,633	4,74,894	51,856	19,371	67,502	49,084
31st December 1862	2,187	3,038	1,461,057	1,67,295	1,731,327	3,83,939	496,189	2,28,412	34,284	15,989	91,291	71,017
30th June 1863	2,174	2,761	1,190,756	2,71,686	2,189,571	5,53,639	1,205,947	7,25,845	47,687	21,252	75,983	67,523
31st December 1863	13	30	2,324,402	2,32,423	2,083,931	5,46,734	651,107	3,56,490	70,831	52,321	49,016	45,682
30th June 1864	...	...	2,324,403	3,81,153	2,463,151	7,71,875	371,846	1,85,918	1,108,236	9,83,613	50,323	50,076

TABLE D. (3)
CLASSIFICATION OF GOODS—EASTWARD AND WESTWARD.

Half-Year	Goods EASTWARD.				Goods WESTWARD.			
	Ordinary Traffic.		Railway Material.		Ordinary Traffic.		Railway Material.	
	Mds.	Total.	Mds.	Total.	Mds.	Total.	Mds.	Total.
30th June 1860	631,941	1,390,793	758,832	Nds.	1,559,290	Nds.	33,771	1,593,061
31st December 1860	561,313	1,174,057	612,711		1,130,818		11,812	1,112,630
30th June 1861	958,190	1,510,092	531,902		2,435,063		18,973	2,151,038
31st December 1861	1,008,613	1,809,267	800,421		1,317,031		8,621	2,355,673
30th June 1862	1,312,363	2,163,931	851,571		2,862,932		9,011	2,871,916
31st December 1862	1,039,562	2,259,399	1,219,837		1,511,158		25,778	1,566,936
30th June 1863	1,665,575	2,634,302	972,727		2,983,380		89,137	3,072,817
31st December 1863	1,210,214	2,453,633	1,113,115		2,071,620		11,500	2,115,130
30th June 1864	1,936,113	3,310,323	1,373,880		2,861,151		151,862	3,013,316

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TABLE E.
STATEMENT OF ROLLING STOCK FOR THE HALF-YEAR ENDING 30TH JUNE 1864.

	Locomotive Engines.	CARRIAGES.								WAGGONS.								TOTAL.	
		Saloon.	1st Class.	2nd Class.	3rd Class.	4th Class.	Composite.	Carriage Trucks.	Break Vans.	Horse Boxes.	High-sided.	Low-sided.	Covered.	Ammunition.	Sleep.	Rail of Timber.	Ballast.		Coke.
31st December 1863	96	1	32	41	167	14	17	26	140	38	358	1,752	292	3	70	172	141	10	3,274
30th June 1861	110	1	32	41	167	14	17	26	140	38	416	1,733	362	3	70	176	160	10	3,106
Increase....	14	..	..	..	..	..	..	..	..	..	58	..	70	..	..	4	19	..	132
Decrease....		..	..	..	..	..	..	..	..	..	..	*19	..	..	..	..	..	..	

* Converted into Ballast Waggon.

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COMPARATIVE STATEMENT OF PUBLIC GOODS TRAFFIC EASTWARD AND WESTWARD FROM 1860 TO 1864.

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TABLE

GREAT INDIAN

STATEMENT OF MILES OPEN AND COST THEREOF, AND COST OF ROLLING STOCK AND AVAILABLE FOR DIVIDEND AND PERCENTAGE ON CAPITAL, OF TRAINS RUN AND WOOD CONSUMED, HALF YEAR

Miles Open and Cost thereof, and Cost				
From	To	When Open.	Double or Single.	Length.
Bombay	Tanna	18th April 1853	Double	20 45 15
Mahim Road	Tanna	Ditto	Single	1 39 0
Tanna	Callian	1st May 1854	Double	12 45 55
Callian	Wassind	1st October 1855	Single	16 23 35
Callian	Campoolie	12th May 1856	Ditto	37 60 50
Wassind	Shawpoor	6th February 1860	Ditto	3 10 0
Shawpoor	Kussara	28th January 1861	Ditto	21 60 0
Khundalla	Lanowlee	14th June 1858	Single	114 13 85
Lanowlee	Poona	Ditto	Ditto	2 37 0
Poona	Decksal	15th December 1858	Ditto	39 34 0
Decksal	Barsee Road	21th October 1859	Ditto	64 20 0
Barsee Road	Mohol	2nd January 1860	Ditto	50 20 0
Mohol	Sholapoor	6th June 1860	Ditto	28 20 0
Egutpoora	Nassick	28th January 1861	Ditto	20 40 0
Nassick	Challisgaum	1st October 1861	Ditto	31 40 0
Challisgaum	Julgaum	6th October 1862	Ditto	87 0 6
Pudusdhuree	Khundalla	14th May 1863	Double	57 20 0
Julgaum	Mulikapoor	20th May 1863	Single	13 23 0
				45 0 0
				553 27 8

Receipts and Expenditure on Revenue Account, Balance

RECEIPTS.

	of Line open.	COACHING.		MERCHANDIZE.		Total.	Average per Week.
		No. of Passengers.	Amount.	Weight of Goods.	Amount.		
Concan	114-17	....	5,90,168 4 0	Tons.	7,74,892 13 5	13,65,361 1 5	52,513 14 5
Deccan.....	439-18	....	5,39,37 2 5	....	16,35,508 13 6	21,75,345 15 5	83,667 2 5
	553-35	1,803,064	11,30,305 6 5	234,209	21,10,401 10 5	35,10,707 0 10	1,36,181 0 8

EXPEN

	Mean Length of Line open.	Total.	Average per Week.	PER MILE OF LINE OPEN.					
				LOCOMOTIVE CHARGES.			Coaching Charges.	Merchandise Charges.	Maintenance Charges.
				Repairing Engine and Tenders.	Repairing Carriages and Trucks.	Running.			
Concan	114-17	9,03,728 15 11	31,758 12 11	55 5	6,666 7 6	2,268 12 11	490 12 11	1,516 2 8	1,203 14 4
Deccan	439-18	15,97,740 0 10	61,451 8 8	102 6 10	91 7 8	1,316 3 10	146 0 2	321 13 4	755 7 7
				216 8	2,210 1 10	1,512 12 5			
	553-35	25,01,469 0 9	96,210 5 5		1,939 6 5		558 6 5	571 7 1	817 15 10

G.

PENINSULA RAILWAY.

MACHINERY, OF RECEIPTS AND EXPENDITURE ON REVENUE ACCOUNT, BALANCE AVERAGE MILEAGE OF PASSENGERS, MILES RUN BY ENGINE, AND COAL, COKE, AND ENDING 30th JUNE 1864.

of Rolling Stock and Machinery.

Cost of Works and Materials, including proportion of preliminary Expenses and Establishment Charges		Cost of Rolling Stock and Machinery.		Cost of Works and Rolling Stock and Machinery.	
Total.	Per Mile.	Total.	Per Mile.	Total.	Per Mile.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1,226,503 5 7	10,742 15 7	391,537 19 10	3,429 9 7	1,618,041 5 5	14,172 4 2
4,352,474 1 4	9,978 15 4	667,518 17 11	1,519 19 4	5,049,992 19 3	11,458 13 9
5,608,977 6 11	10,136 8 0	1,059,056 17 9	1,913 18 0	6,668,034 4 8	12,050 6 0

available for Dividend and percentage on Capital.

PER MILE OF LINE OPEN.			PER TRAIN MILE.		
Coaching.	Goods.	Total.	Coaching.	Goods.	Total.
5,471 13 4	6,787 2 11	11,959 0 3	4 2 3	1 8 5	4 5 7
1,229 3 1	3,721 0 1	4,953 3 2	2 6 2	3 13 1	3 5 2
2,042 10 7	1,356 0 3	6,398 10 10	3 1 0	4 0 4	3 10 6

EXPENDITURE.

		PER TRAIN MILE.							
General Charges.	Total.	Loco Charges.	Coal Charges.	Mer. Charges.	Main Charges.	General Charges.	Total.	Per cent on Gross Receipts.	
881 2 5	7,015 10 31	4 11	0 4 0	0 9 0	0 7 0	0 5 2	2 14 1	....	
901 8 8	3,634 0 11	0 3	0 1 7	0 3 5	0 6 1	0 9 8	2 7 0	....	
501 5 6	4,520 9 11	1 9	0 2 4	0 5 2	0 7 9	0 8 2	2 9 4	70-55	

Balance available for Dividend Rs. 10,11,068-7-6, or at Exchange 1s. 10d. per rupee, £95,706-5-6.

Per cent. per Annum on Capital £2-17-5.

TABLE H. (1)

GREAT INDIAN PENINSULA RAILWAY.

STATEMENT OF TRAFFIC FOR THE HALF-YEAR ENDING
30TH JUNE 1864.

Open 553 Miles, 53 Stations.

	Rs.	a.	p.	Rs.	a.	p.
Passengers	9,57,709	14	8			
Parcels and Luggage (including Bhangy Parcels)	1,37,432	2	9			
Carriages, Horses, and Dogs	35,163	5	0			
Total	11,30,305	6	5			
Deduct Returned Fares						
Net Total—Coaching				11,30,305	6	5
Goods—Maunds 6,323,641-2	23,75,640	10	3			
Live Stock	22,548	14	9			
Special	1,932	10	6			
Rent and Demurrage	10,279	6	11			
Total	24,10,401	10	5			
Add Merchandize Traffic (not previously included)				24,10,401	10	5
Net Total—Goods						
Grand Total				35,40,707	0	10
Corresponding period of 1863—Open 509-02 Miles, mean length				25,54,191	14	2
Increase				9,86,515	2	8
Decrease						

	WEEKLY AVERAGE.		AVERAGE PER MILE OF LINE OPEN; MEAN LENGTH MILES 55.35		NO. OF MILES RUN BY TRAINS DURING THIS HALF-YEAR.		GROSS EARNING PER TRAIN PER MILE.	
	Rs.	a. p.	Rs.	a. p.			Rs.	a. p.
Net Total—Coaching	43,473	4 7	2,042	10 7	3,68,886		3	1 0
Net Total—Goods	92,707	12 1	4,356	0 5	5,99,408		4	0 4
Grand Total	1,36,181	0 8	6,398	10 10	9,68,294		3	10 6
Corresponding period of 1863—Open 509-02 Miles, mean length	98,238	2 5	5,017	13 9	6,67,142		3	13 3
Increase	37,942	14 3	1,380	13 1	3,01,152			
Decrease							0	2 9

CLASSIFICATION OF TRAFFIC.

PASSENGERS.

	SINGLE & DOUBLE, 1st Class.			SINGLE & DOUBLE, 2nd Class.			SINGLE, 3rd Class.			TOTAL.		
	No.	Amount.		No.	Amount.		No.	Amount.		No.	Amount.	
		Rs. a. p.			Rs. a. p.			Rs. a. p.			Rs. a. p.	
Booked at Stations	18,961	50,725 6 2	127,300	1,02,370	13 10	1,656,783	8,04,613	10 8	1,803,064	9,57,709	14 8	
Excess Fares		290 3 0			834 3 9			6,120 0 10			7,244 4 7	
Total	18,961	51,015 9 2	127,300	1,03,204	14 7	1,656,783	8,10,733	11 6	1,803,064	9,64,954	3 3	

GOODS.

	SPECIAL CLASS.		1st CLASS.		2nd CLASS.		3rd CLASS.	
	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.
	Mds. S.	Rs. a. p.	Mds. S.	Rs. a. p.	Mds. S.	Rs. a. p.	Mds. S.	Rs. a. p.
Ordinary } Up ..	..	..	441,250	10	33,067	1 2	1,235,691	0
Traffic } Down ..	..	..	729,303	2	2,02,103	11 11	864,933	24
Railway Materials ..	..	..	1,170,613	12	2,35,170	13 12	1,100,624	24
	..	..	1,157,430	27	1,48,981	2 7	364,526	17
Total	..	..	2,328,043	39	3,84,153	16 1	2,465,151	1

GOODS—continued.

	4th CLASS.		5th CLASS.		TOTAL.	
	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.
	Mds. S.	Rs. a. p.	Mds. S.	Rs. a. p.	Mds. S.	Rs. a. p.
Ordinary } Up	1,067,151	1	9,60,991	4 1	37,862	13
Traffic } Down	40,489	2	22,592	8 4	12,257	34
Railway Materials	1,107,640	3	9,83,583	12 5	50,120	27
	596	12	30	1 10	202	25
Total	1,108,236	15	9,83,613	14 3	50,323	12

PERCENTAGE OF RECEIPTS FROM

PASSENGERS' TRAFFIC.			GOODS' TRAFFIC.						
1st Class.	2nd Class.	3rd Class.	Special Class.	1st Class.	2nd Class.	3rd Class.	4th Class.	5th Class.	
5	11	84	..	2	27	2	66	3	Up
			..	30	44	22	3	1	Down ..
			..	11	32	9	46	2	Total ..
			..	62	38	..	..	..	Railway Materials.

AVERAGE MILEAGE OF

PASSENGERS.				GOODS.					
1st Class.	2nd Class.	3rd Class.	Special Class.	1st Class.	2nd Class.	3rd Class.	4th Class.	5th Class.	
40	24	43	..	126	141	167	241	147	Ordinary Traffic.
			..	64	121	35	9	6	Railway Materials.

TRAINS RUN.

	No. of Trains run during the Half-year.	No. of Vehicles moved by Trains.	Average No. of Vehicles composing each.	Average Mileage run by each.
Passengers	Up	2,297	108,131	81.67
	Down...	2,220		
Goods	Up	3,523	193,441	87.21
	Down ..	3,350		
Total	Up	5,820	301,572	85.01
	Down ..	5,570		
Grand Total		11,390	301,572	85.01

DETAIL SHOWING CHIEF ARTICLES OF MERCHANDIZE CONVEYED.

COTTON.		SEEDS.		FIREWOOD.		OPIMUM.		
Weight Mds. S.	Amount. Rs. a. p.	Weight. Mds. S.	Amount. Rs. a. p.	Weight. Mds. S.	Amount. Rs. a. p.	Weight. Mds. S.	Railway Charge. Rs. a. p.	Extra Charge. Rs. a. p.
1,035,43	4 11,75,690 6 7	895,051	6 3,85,106 6 6	249,115	0 20,939 2 5	35,009 30	37,045 1 10	9,427 12 0
46,472-13-10								

DIVISION OF COACHING AND MERCHANDIZE TRAFFIC BETWEEN CONCAN AND DECCAN.

	LOCAL TRAFFIC.				THROUGH TRAFFIC.			
	Concan.		Deccan.		Proportion due to Concan.		Proportion due to Deccan.	
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Passengers	3,37,009	8 9	3,06,371	12 1	1,76,632	5 10	1,37,696	4 0
Parcels and Luggage.....	19,684	10 5	21,396	11 1	40,364	10 8	55,986	2 7
Carriages, Horses, and Dogs.....	4,690	6 0	6,305	7 11	12,086	10 4	12,080	12 9
Total. { Coaching	3,61,384	9 2	3,34,073	15 1	2,29,083	10 10	2,05,763	3 4
{ Merchandize..	1,32,725	3 0	2,72,044	6 5	6,42,167	10 5	13,63,464	6 7
Grand Total.....	4,94,109	12 2	6,06,118	6 6	8,71,251	5 5	3,15,69,227	9 11

	TOTAL TRAFFIC.				GRAND TOTAL.	
	Concan.		Deccan.			
	Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
Passengers	5,13,641	14 7	4,44,068	0 1	9,57,709	14 8
Parcels and Luggage.....	60,049	5 1	77,382	13 8	1,37,432	2 9
Carriages, Horses, and Dogs	16,777	0 4	18,386	4 8	35,163	5 0
Total. { Coaching	5,90,468	4 0	5,39,837	2 5	11,30,305	6 5
{ Merchandize ..	7,74,892	13 5	16,35,509	13 0	24,10,401	10 5
Grand Total.....	13,65,361	1 5	21,75,345	15 5	35,40,707	0 10

Accountant's Office, Statistical Branch,
Bombay, 26th April 1864.

GEORGE A. BARNETT,
Accountant.

W. R. HOARE,
Secretary.

TABLE II. (2)

GREAT INDIAN PENINSULA RAILWAY.

STATEMENT of Up and Down Railway Materials Traffic for the Half-year ending 30th June 1864.

	SPECIAL CLASS.		1st CLASS.		2nd CLASS.		3rd CLASS.		4TH CLASS.		5TH CLASS.		TOTAL.	
	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.	Weight.	Amount.
Up.....	Md. S.	Rs. a. p.	Mds. S.	Rs. a. p.	Mds. R.	Rs. a. p.	Mds. S. No. a. p.	Mds. M.	Rs. a. p.	Mds. S.	Rs. a. p.	Mds. S.	Rs. a. p.	Rs. a. p.
	.....	.....	134,434 36	14,514 7 1	17,099 21	2,476 3 0	267 35 77 14	16 0 5 10 2	44 3 14 0 0	151,862 15	17,118 3 0			
Down .....	.....	.....	1,022,995 31 1,31,438 11 6		347,426 36 89,394 7 5	2,719 10 383 0 11	550 12 21 7 4	158 22 91 6 0	1,373,890 31	2,24,332 1 3				
Total....	.....	.....	1,157,430 27 1,48,983 2 7		364,856 17 91,870 10 5	2,987 5 460 15 4	596 12 30 1 10	202 25 105 6 0	1,525,743 6	2,41,450 4 3				

TABLE I.

TABLE

RETURN OF RAILWAY MATERIALS CONVEYED ALONG

HALF-YEAR	Length of Line open.	SPECIAL			1ST CLASS.			2ND CLASS.			3RD CLASS.		
		Tons.	Mileage.	Tons by Mileage.	Tons.	Mileage.	Tons multiplied by Mileage.	Tons.	Mileage.	Tons multiplied by Mileage.	Tons.	Mileage.	Tons multiplied by Mileage.
30th June 1860	279	..	..	..	13,311	71	945,091	15,992	72	1,151,424	41	41	1,681
31st December 1860 ..	297	..	..	..	11,457	57	653,049	11,637	52	605,124	31	16	496
1860	..	..	..	..	24,768	..	1,598,130	27,629	..	1,756,548	72	..	2,177
30th June 1861	343	..	..	..	14,136	54	763,344	6,957	53	403,506	44	23	1,012
31st December 1861 ..	394	..	..	..	14,693	44	646,492	15,211	67	1,019,137	18	65	1,170
1861	..	..	..	..	28,829	..	1,409,836	22,168	..	1,422,643	62	..	2,182
30th June 1862	439	..	..	..	10,745	68	730,728	21,075	67	1,412,025	48	77	3,690
31st December 1862 ..	465	..	104	..	25,015	79	1,976,185	21,072	124	2,612,928	36	192	6,902
1862	..	..	104	..	35,761	..	2,706,913	42,147	..	4,024,953	84	..	10,600
30th June 1863	509	..	150	..	22,303	83	1,851,149	16,825	47	790,775	189	34	6,392
31st December 1863 ..	553	..	..	..	32,507	52	1,690,463	21,315	55	1,173,975	30	24	720
1863	..	..	150	..	54,812	..	3,541,617	38,170	..	1,964,750	218	..	7,112
30th June 1864	553	..	..	..	42,853	64	2,743,552	13,501	121	1,633,621	111	35	3,884

I.

THE LINE FROM 1862 to 1864. (Nearly all Eastward).

4TH CLASS.			5TH CLASS.			TOTAL.			Receipts.	Number of Trains run Eastward.	Average Number of Vehicles in each Train.	Total Gross Train Mileage in Eastward Trains.	Mean weight in Tons passing over each Mile of Railway.	Average Load in each Train.	Average Load in each Vehicle.
Tons.	Mileage.	Tons multiplied by Mileage.	Tons.	Mileage.	Tons multiplied by Mileage.	Total No. of Tons hauled.		Total No. of Tons hauled one Mile.							
1	125	126	11	74	814	29,356	..	2,899,126	99,540	964	26.43	77,795	7,524	27	1.02
..	..	..	4	46	184	23,129	..	1,258,853	59,019	1,169	30.57	91,560	4,235	14	0.45
1	..	126	15	..	995	52,485	..	3,357,979	1,58,559	2,133	....	....	11,759	....	....
1	86	86	3	98	291	21,141	..	1,168,242	53,929	2,054	34.93	156,339	3,406	7	0.20
..	..	..	41	14	574	29,964	..	1,667,373	60,493	1,675	39.41	93,940	4,237	17	0.43
1	..	86	41	..	864	51,101	..	2,835,615	1,31,421	3,729	....	....	7,643	....	....
2	120	240	1	97	97	31,872	..	2,146,786	1,04,241	2,525	36.35	175,587	4,901	12	0.33
1	74	74	9	86	774	46,133	..	4,596,873	2,35,571	2,079	30.49	114,214	9,685	40	1.31
3	..	311	10	..	871	78,035	..	6,743,659	3,39,812	4,601	....	....	14,786	....	....
1	33	33	21	78	1,638	39,338	..	2,649,987	1,70,816	2,809	45.50	192,274	5,205	14	0.30
..	219	..	1	..	86	53,895	..	2,865,249	1,62,151	3,680	24.57	142,615	5,181	20	0.61
1	..	33	22	..	1,724	93,223	..	5,515,236	3,32,970	6,459	....	....	10,387	....	....
22	9	198	7	6	42	56,509	..	4,391,097	2,41,450	5,570	26.47	261,790	7,522	10	0.37

No. 2082 of 1865.

RAILWAY DEPARTMENT:
As Sept
 Bombay Castle, ~~5th August~~ 1865.

RESOLUTION.

The Coaching receipts for the half-year ending 30th June 1864	Rs.
appear to have been	11,55,976
For the half-year ending 30th June 1863	8,92,525
Increase	2,63,451
Goods receipts half-year ending 30th June 1864	29,55,281
Do. do. do. 30th June 1863	22,83,505
Increase	6,51,776
Deducting Ghaut charges, the net Railway receipts for the half-year ending 30th June 1864	35,45,537
Do. do. do. 30th June 1863	25,56,472
Increase	9,89,065

or nearly 40 per-cent.

At the end of the half-year ending 30th June 1864 there were 552½ miles open ;
 at the close of the corresponding half-year of 1863 there were 509 miles open.

In the half-year of 1864 the gross receipts per mile for Coaching and Goods were	7,421
For the half-year of 1863	6,233
Increase	1,188

This is very satisfactory as a general result. In the corresponding half of the year 1864 and 1865 the number of passengers were as follows:—

	1st Class.	2nd Class.	3rd Class.
1864	38,161	68,958	628,821
1865	50,725	102,371	804,613
Increase	12,564	33,413	175,792

The mileage numbers were—

	1.	2.	3.
1864....90.....	185.....	1,454	
1863....75.....	135.....	1,235	
Increase....15	50	219	

or at the rate of 20·37 and 18 per-cent respectively.

The average mileage travelled by passengers appears, however, to have fallen, the former from 43 to 40 and the latter 23 to 24, but the mileage of 3rd Class passengers has risen from 40 to 43.

As regards Goods the load hauled over each mile of the open line appears to have been—

	Tons.
On 1st half-year 1864.....	57,003
Do. do. 1863.....	48,062
Increase.....	8,941

and the receipts per mile—

1st half-year 1864.....	5,272
Do. do. 1863.....	4,488
Increase.....	784

These figures show that there was an increase of work done of about 18 per-cent, and of receipts of rather more than 17 per-cent.

Thus far the figures given are very satisfactory, and show that the Railway is rapidly increasing its usefulness to the country; but on further examination of these papers it appears that the net revenue has not increased in the same proportion that the gross earnings have done in the 1st half-year of 1863. The net balance gave a return of £2-14-7 per-cent on the capital in the half-year under review; the return amounted only to £2-17-5, the expenditure per-cent on gross receipts having been 70·55 against 63·44 during the corresponding half-year 1863.

The working expenses, haulage, &c. on the open line appear to have increased considerably in every item, but a detailed examination shows that the main increase is in the item of fuel, the cost of which has increased 50 per-cent.

This increase is ascribable to the following causes:—

1st.—High prices of fuel.

2nd.—Additional cost of conveyance, and injury to fuel or to line advances.

3rd.—Heavy work on the Ghaut.

But the consumption of fuel per Engine mile shows considerable increase, and as this increase appears to have manifested itself about the time that the Bhoire Ghaut was opened for traffic, no doubt a large proportion of the extra expenditure may be attributed to the heavy work on the Ghaut.

The item under general expenditure due to compensation is still extremely high, being considerably in excess of the same item for 1863.

The percentage of traffic charges to gross receipts appear to be steadily on the decrease.

These papers should be printed and distributed as usual. The attention of the Railway Company should be drawn to the large proportion of gross earnings absorbed by working and maintenance, and they should be urged to economise as much as possible their working charges.

The question of a maximum rate of tolls is now under the consideration of Government, and it is probable that some increase of rates can well be borne by the traffic, and when those increased rates are applied to the undoubtedly largely extended business of the Railway the results will no doubt be very favourable.

At present while the Company's charges remain stationary, their expenditure for materials and labour of all sorts has been largely on the increase, and taking these facts into consideration, this report is in the main very encouraging as to the future prospects of this great line.

Signed W. Stoddart
Colonel, R.E.,
Secretary to Government.

To the CONSULTING ENGINEER for RAILWAYS.

No. 2087 of 1865.

Railway Department.

Forwarded to the Secretary to the
Government of Madras for information

W. R. D. L.

Colonel P. R.

Actg. Secretary to Govt.

Bombay Castle
5 Sept. 1865,

1865 L. Dep. 100
Co - for September
No 3446

From the Ag. Secy
to Govt. Boundary.

Sept 10/65
No 41

No 2054

Furnishing copy of
the Revenue Report of the
Great Indian Peninsula
Railway Company for
the half year ended 30th
June 1864.

No 41
With an Order -

with 100
12.10.1865

Mr. 100

To Mr. Consulting Engineer
for Railways
with 100 enclosed
Sept 12 1865

W. B.