Public Works (1897) Department.

G.O., No. 27042

DATED 29 septr 1897

[Despatch Abstract.]

Rate list, Class H. "Station Materials and Fencing" for 1898. & Circular from the Director General of Railways forwarding the — Comm^d to Offices of the P.W.D.

1
1897

[P.W. 25.
5,000—30-11-96.]

Indexed.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Public Works (1897) Department.

CURRENT No. 8945

B

From The Director General of Railways.

Order No. 2704 W 29.9.97.

Communicated to Offices Victn P.O. dated

Cir: No. 7

Cy

Copies. 10.9.97.

Dated 14.8.97

Received 6.9.97

Enclosures 1

Spare copies .

SUBJECT.

Rate List, class F. "Station Materials and Fencing" for 1896.

T. X.

Ch. 9. for 2. with 1 spare for each Div. asking for a printed copy of list

Supt Survey / II III IV. III Calc of ——— list

C.A. of Govt. ✓

Engr-in-Chief to 55 spare pages and list

Engr Perm Way to Perambulator Clerk

Engr Bridges to Storekeeper Jhansi

(C.A. Sanction to amount and spare copies)

19/10/97

[P. W. 20. 1,000—22-4-97.]

Dl. J. 1654 R13/9

BACK PAPERS.

No.	Date.
2516 W	28-8-96

FURTHER PAPERS.

No.	Date.

[*For General Distribution.*]

Circular No. 7.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

TO

THE MANAGER, NORTH WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, KOTRI-ROHRI RAILWAY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY.
THE ENGINEER-IN-CHIEF, BEZWADA-MADRAS RAILWAY.
THE ENGINEER-IN-CHIEF, RAE BARELI-BENARES RAILWAY.
THE ENGINEER-IN-CHIEF, GODAVERY BRIDGE WORKS.
THE ENGINEER-IN-CHIEF, HURDWAR-DEHRA RAILWAY SURVEY.
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class F. "Station Materials and Fencing" for 1896.

Simla, the 14th August 1897.

SIR,

I have the honour to forward herewith, for information and guidance, a printed statement showing the actual English rates, *free on board* in England, for F. Class State railway stores, *viz.*, "Station Materials and Fencing," contracted for by the Stores Department of the India Office during the year 1896.

2. A statement showing the average rates per ton for entire sea-freight on Station Materials, &c., sent out from England to the several ports in India during 1896, is prefixed to the Rate List for information.

In order to arrive at the total cost of the articles landed in India, an insurance charge of one-half* per cent. on the *free on board* cost *plus* entire sea-freight, should be added in addition to other incidental charges and exchange, which latter should be calculated at the official rate for the year.

I have the honour to be,

SIR,

Your most obedient servant,

T. GRACEY, Col., R.E.,
Director General of Railways.

Documents accompanying.

1. Statement showing the average rates per ton for entire sea-freight on Class F. stores imported from England to the several ports during 1896.

2. Rate List, Class F.—"Station materials and Fencing" for 1896.

* For State Railway Stores and stores for Irrigation Works only classed as Imperial. Stores for Provincial and Local funds and for railways constructed by Native States are charged one per cent. as heretofore.

The Secretaries to the Governments of Madras, Bombay, Bengal, the North Western Provinces and Oudh, the Punjab and Burma, Public Works Department.
The Secretaries to the Chief Commissioners of the Central Provinces, Burma and Assam, Public Works Department.
The Secretaries to the Residents at Hyderabad and in Mysore, Public Works Department.
The Secretaries to the Agent to the Governor General, Rajputana and Central India and Baluchistan, Public Works Department.
The Superintendent of Port Blair and Chief Commissioner, Andaman and Nicobar Islands.
The Director General of Telegraphs.
The Director General of Military Works.
The Chief Engineer, Kashmir.
The Accountant General, Bengal.
The Consulting Engineers for Railways, Madras, and Bombay.
The Consulting Engineers to the Government of India for Railways, Calcutta, Lucknow, Assam and Burma.

Copy forwarded to the Local Governments and Administrations and to the Officers noted in the margin for information, with the intimation that all Railway Administrations have been supplied with copies direct.

Col., R.E.,
Director General of Railways.

To

THE Secretary to the Government of Madras,
Public Works Department.

G. C. Press, Simla.—No. 321 P. W. D.—23-8-97.—50.

Enclosure to Director General of Railways' Circular No. 7 of 1897.

RATE LIST.

CLASS F.

STATION MATERIALS AND FENCING

FOR 1896.

G. C. Press, Simla.—No. 321 P. W. D.—28-8-97.—50.

Enclosure to Director General of Railways' Circular No. 7 of 1897.

Statement showing the average rates per ton for entire sea-freight on Class F. Stores, Station Materials and Fencing," sent out from England to the several Ports in India during 1896.

Articles.	Kurrachee.	Bombay.	Cocanada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Clocks	0 17 6	.....	.....	.....	.....	Where rates for sea-freight are not shown, it should be understood that the articles specified were not imported during the year.
Cranes, water-pillar, long neck, complete ...	1 5 0	.....	1 13 9	1 10 0	1 10 0	
Fencing, wire; materials for—	1 5 0	.....	1 10 0	0 17 0	1 2 6	
Piping, iron, wrought and connections ...	.....	.....	.....	0 17 6	1 3 9	
Roofing iron	1 2 6	.....	.....	.....	.....	
Safes	.....	.....	.....	.....	1 5 0	
Signals	.....	.....	.....	.....	1 5 0	
Tanks	.....	.....	.....	.....	1 2 6	
Turntables, engine	1 15 0	.....	2 5 0	1 7 6	.....	
Weigh-bridges	.....	.....	1 5 0	.....	.....	
Weighing-machines	.....	.....	.....	1 10 0	1 5 0	

CLASS OF STORES F.—STATION MATERIALS AND FENCING.

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
57/103 4-4-96		English, round face, 6″ diameter, non-striking, lever escapement with metal case bronzed.	1	15	0	Each.	North-Western.	
64/392 25-11-96		8 day, bracket, double faced, with single movement and heavy pendulum complete, diameter of dial 24″, for first class station.	31	7	0	„	Eastern Bengal.	
64/414 30-11-96		8 day, station, 24 hours dials, with seconds pendulums, in long teak cases, I. S. R. pattern.	9	0	0	„	Bezwada-Madras.	
64/414 30-11-96		Time piece, 8-day, for 2nd and 3rd class stations ...	4	2	6	„	Ditto.	
		Spare parts of :—						
65/5 2-12-96	Clocks ...	Winding wire for Benson's platform clocks, in 7 feet lengths	2	0	0	100 pieces	East Coast.	
65/77 11-12-96		Winding wire for Gillett's platform clocks 7′ 6″ lengths ...	0	0	8	Piece.	Ditto.	
65/5 2-12-96		Pendulum springs for Benson's platform clocks ...	0	1	3	Doz.	Ditto.	
65/77 11-12-96		Pendulum springs for Gillett's platform clocks ...	0	0	3	Each.	Ditto.	

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
58/189 9-5-96	Cranes, water	8″ pillar complete with piping and connections	33	10	6	Each.	Oudh and Rohilkhand.	
64/243 12-11-96		8″ ditto ditto	42	11	7	„	Eastern Bengal.	
61/287 24-8-96		6″ ditto ditto	23	15	0	„	Mandalay-Kunlon.	
61/287 24-8-96		8″ without pipes or bends	29	15	0	„	Bezwada Madras.	
63/317 29-10-96		8″ swan neck with side valves and cast iron piping, &c., &c., complete.	39	15	0	„	Rae-Bareli-Benares.	
65/218 24-12-96	Drums ...	Wrought iron, cylindrical, with Hobbs lock and duplicate keys. Int. diar. high to hold— 1′ 3″ 1′ 6″ 10·5 gallons	0	19	9	Each	Bezwada-Madras.	
		2′ 0″ 2′ 8″ 50 „	2	2	0	„		
64/264 13-11-96	Fencing wire	Bases, cast iron	3	12	6	Ton	Kotri-Rohri.	
56/218 13-3-96		Bolts, eye, straining, galvanized with nuts and washers ...	18	5	0	„	Burma.	
62/65 3-9-96		Bolts, eye, straining, galvanized, with nuts and washers ...	19	0	0	Ton	North Western.	
64/263 13-11-96		Bolts, eye, straining, galvanized, with 2 nuts and 1 washer to each.	19	0	0	„	Rae-Bareli-Benares.	
56/301 20-3-96		Posts, wrought iron, intermediate	6	5	0	„	Burma.	
63/140 16-10-96		„ „	6	7	6	„	Eastern Bengal.	
62/90 4-9-96		„ „	6	5	0	„	North-Western.	
64/265 13-11-96		„ „	6	7	6	„	Kotri-Rohri.	
62/90 4-9-96	Fencing wire —*contd.*	Posts, wrought iron, stiffening	7	6	0	„	North Western.	
63/140 16-10-96		„ „ „	7	10	0	„	Eastern Bengal.	
64/265 13-11-96		„ „ „	7	10	0	„	Kotri-Rohri.	
64/264 13-11-96		Posts, cast iron, straining, to strain in one direction ...	4	5	0	„	Kotri-Rohri.	
		Posts, cast iron, straining, for corners, to strain at right angles	4	15	0	„	Ditto.	
		Cast iron washers for corner post	8	0	0	„	Ditto.	
56/301 20-3-96		Wedges, wrought iron	13	17	6	„	Burma.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
64/265 13-11-96	Fencing wire —*concld.*	Wedges, wrought iron	14	0	0	Ton	Kotri-Rohri.	
56/163 12-3-96		Wire, 7 strand, galvanized, No. 4, in coils of 450 yards ...	10	11	6	"	Burma.	
64/298 16-11-96		Wire, 7 strand, galvanized, No. 4, in coils of 450 yards ...	12	10	0	"	Rae-Bareli-Benares.	
62/91 4-9-96		Wire, 7 strand, galvanized, No. 4, in coils of 450 yards ...	11	0	0	"	North Western.	
61/420 31-8-96	Fountains ...	Pillar, and watering standpost combined, complete with sluice valves and all connections including packing.	13	3	10	Each	Bezwada-Madras ...	With screwed ends and sockets for pillar fountain to stand 25 feet water pressure.
		Pipes and connections for :—						
		Pipes, wrought iron, black, 3″ bore and No. 5 B. W. G. thick, in lengths of 12 feet.	0	1	1	Foot		
		Pipes, with one end screwed and the other end flanged, with wrought iron flange, and one separate screwed socket for each length.	0	1	4¼	"		
		Bends, quarter, 3″ bore, 6″ radius, to suit pipes, with one socket to each.	0	0	6½	"		
54/18 3-1-96	Paling ...	*Steel, unclimable 5 feet high as per details below :—*						
		Angles, horizontal, 2″ × 2″ × ¼″ iron, in lengths of 19′ 6″ punched for rivets for poles at 6″ intervals.	7	12	6	Ton.	North-Western ...	Cost of 1 mile of paling £370-1-8.
		Pales, vertical, section 3¼″ × 16½ w g. steel, 5 feet high, punched for attachment to horizontal angles.	11	17	6	"		
		Rivets, steel, ⅝″ × ¼″ for joining verticals to horizontals, with bonnet heads.	28	10	0	"		
		Rivets, steel, 2¼″ × ⅝″ for joining horizontals to rails ...	27	10	0	"		
	Pipes, cast iron	Flanged at both ends—						
64/243 12-11-96		12″ bore in lengths of 9 feet	6	16	6	Ton.	Eastern Bengal.	
63/55 6-10-96		9″ „ „ of 9 „	6	5	0	"	Bezwada-Madras.	
		9″ „ „ of 4 feet 3 inches	10	5	0	"		
		9″ „ „ of 4 „	10	5	0	"		
64/243 12-11-96		8″ „ „ of 6 „	9	0	0	"	Eastern Bengal.	
		Socked jointed at one end and flanged at the other—						
63/55 6-10-96		9″ bore in lengths of 9 feet	6	5	0	"	Bezwada-Madras.	
64/243 12-11-96		8″ „ „ of 6 „	9	0	0	"	Eastern Bengal.	
		Spigot jointed at one end and flanged at the other—						
63/55 6-10-96		9″ bore in lengths of 9 feet	6	5	0	"	Bezwada-Madras.	
		Socket and spigot piping—						
		9″ bore in lengths of 9 feet	4	5	0	"		
		Socket and spigot jointed in lengths of 9 feet—						
63/55 6-10-96		9″ main	8	5	0	"		
		3″ branch						
64/243 12-11-96		8″ bore	5	0	0	"	Eastern Bengal.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
64/243 12-11-96	Pipes, cast iron—*concld.*	*Connections for*— Bends, quadrant, flanged at each end :— 12″ bore	11	0	0	Ton.	Eastern Bengal.	
63/55 6-10-96		9″ bore 1′ 6″ radius	10	5	0	″	Bezwada-Madras.	
64/243 12-11-96		9″ ″ 1′ 6″ ″ diminishing to 8″ bore ...	10	5	0	″	Bezwada-Madras.	
		Bends, quadrant, socket and spigot jointed 8″ bore ...	9	0	0	″	Eastern Bengal.	
63/55 6-10-96		Tees flanged— 9″ bore, main and branch, 2′ 6″ long ...	10	5	0	″		
		8″ bore	9	0	0	″	Bezwada-Madras.	
64/243 12-11-96		Bolts and nuts, ⅞″ diameter, 4″ long, for bends and flanged pipes.	18	10	0	″	Bezwada-Madras.	
63/55 6-10-96		Bolts and nuts for flanged piping	20	0	0	″	Eastern Bengal.	
		Lewis bolts with nuts, ⅞″ diameter, for special quadrant bends	18	0	0	″	Bezwada-Madras.	
62/216 17-9-96	Pipes, wrought iron.	Galvanized. with screwed ends and a socket to each, in 12 feet lengths— ¾″	6	18	1	Lengths 100		
		1″	9	15	0	″	North-Western.	
			13	16	3	″		

62/216	17-9-96	Pipes, wrought iron—*contd.*	Galvanized with screwed ends and a socket to each in 12 feet lengths— $1\frac{1}{4}$″	18	10	6	Lengths. 100	North-Western.
			$1\frac{1}{2}$″	23	3	1	″	
			2″	31	10	9	″	
			$2\frac{1}{2}$″	48	15	0	″	
			3″	64	2	5	″	
56/384	27-3-96		Gas (black) with screwed end and a socket to each length— 1″	0	0	1·87	Foot.	Eastern Bengal.
			$1\frac{1}{2}$″	0	0	3·30	″	
			$1\frac{3}{4}$″	0	0	3·95	″	
			2″ } In lengths of 11, 12, 13 and 14 feet... ...	0	0	4·61	″	
			$2\frac{1}{4}$″	0	0	6·10	″	
			$2\frac{1}{2}$″	0	0	7·80	″	
			3″	0	0	9	″	
			3″	0	0	7½	″	
60/458	29-7-96		4″	0	0	10	″	
62/216	17-9-96		*Connections for* :— Bends, quarter, with socket to each, galvanized for : — ¾″	1	7	4	Per 100.	North-Western.
			1″	1	14	4	″	
			$1\frac{1}{4}$″	2	11	4	″	
			$1\frac{1}{2}$″	3	1	10	″	
			2″	5	16	10	″	
			$2\frac{1}{2}$″	13	15	0	″	
			3″	21	18	11	″	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Connections for—contd.						
63/85 8-10-96	Pipes, wrought iron—*contd.*	Bends, quarter, for gas pipes with a socket to each—						
		1″	0	0	3	Foot	Eastern Bengal.	
		1¼″	0	0	5·40	,,		
56/384 27-3-96		2″	0	0	10	,,		
		2¼″	0	1	3·21	,,		
		2½″	0	2	0	,,		
		3″	0	3	1½	,,		
57/74 2-4-96		Bends, quarter, galvanized, with a socket to each for water connections—						
		2¼″	0	2	6½	Each	Burma.	
		Elbows, round, for galvanized piping—						
62/216 17-9-96		1″	1	16	8	Per 100	North-Western.	
		1¼″	2	12	8	,,		
		1½″	3	8	8	,,		
		2″	5	5	4	,,		
		Elbows, round, to suit steam pipes—						
60/284 18-7-96		1½″	0	0	7½	Each	Warora Colliery.	
		2″	0	0	10¾	,,		
		3″	0	3	9½	,,		
62/216 17-9-96	Pipes, wrought iron—*concld.*	Tees for galvanized piping—						
		¼″	1	7	1	Per 100	North-Western.	
		1″	1	14	4	,,		
		1¼″	2	9	10	,,		
		1½″	1	8	8	,,		
		2″	1	3	0	,,		
		2½″	13	1	1	,,		
56/384 27-3-96		Tees for gas pipes with a socket to each—						
		2″	0	0	9	Foot	Eastern Bengal.	
		2¼″	0	1	2	,,		
		2½″	0	1	10½	,,		
		3″	0	3	2·60	,,		
63/85 8-10-96		Tee pieces for gas fittings—						
		1″	0	0	3	,,		
		1½″	0	0	6	,,		
57/74 2-4-96		Flanges, screwed galvanized, for wrought iron pipes and bends—						
		2¼″	0	1	4½	,,	Burma.	
60/122 6-7-96	Pipes, mild steel.	With screwed ends and socket to each length—						
		3″ bore in lengths, of 20 feet	0	0	11	Each.	North-Western.	
		Connections for above bends, with socket to each—						
		1/16″	0	7	7	,,		
		⅛″						
		¼″						

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Connections for—contd.						
60/122 6-7-96 ...	Pipes, mild steel—*concld.*	Elbows, round	0	3	4	Each	North-Western.	
		Flanges, steel	0	4	3	"		
		Tee pieces	0	3	6	"		
		Sluice valves, 3″ flanged	1	8	0	"		
		Cast iron road boxes for sluice valves	0	3	6	"		
		Keys for sluice valves	0	0	7	"		
		Nipples for connection tee pieces and flanges	0	0	8½	"		
		Bolts and nuts, ⅝″ diameter, for flanges	0	0	1·15	"		
		Sockets, spare, for 3″ pipes	0	0	11	"		
56/450 31-3-96 ...	Presses, ticket dating.	Indenting, with type complete	2	12	0	Each.	Burma	Packing extra.
61/88 8-8-96 ...		Ditto ditto	2	12	0	"	Oudh and Rohilkhand ...	Ditto.
61/418 31-8-96 ...		Ditto ditto	2	12	0	"	North-Western.	
64/191 10-11-96 ...		Ditto ditto	1	16	0	"	East Coast	Ditto.
95/24 4-12-96 ...		Indenting, with type complete	2	12	0	Each.	Bezwada-Madras ...	Packing extra.
65/154 19-12-96 ...		Ditto ditto	2	12	0	"	Rai-Bareli-Benares ...	Ditto.
62/135 10-9-96 ...		Ribbon, dating, to print dates complete	2	2	0	"	Burma.	
59/80 10-6-96 ...	Presses, ticket dating—*concld*	Tape, black, 1¼″ wide for—	0	4	4	Pieces.	Oudh and Rohilkhand, North-Western.	
65/24 4-12-96 ...		Nippers ticket, ordinary, to cut a mark in the ticket for:— ...	0	2	6	"	Bezwada-Madras.	Ditto.
56/450 31-3-96 ...		Spare boxes of types for:—	0	17	6	"	Burma.	Ditto.
61/88 8-8-96 ...		Ditto	0	17	6	"	Oudh and Rohilkhand.	Ditto.
65/154 19-12-96 ...		Ditto	0	17	6	"	Rae-Bareli Benares.	
61/8 5-8-96 ...	Pumps ...	Hand, lift and force, 6″ diameter barrels, Holman's, mounted on a cast iron standard and fitted with a crank, connecting rod, crank shaft and fly wheel.	10	0	0	Each.	Mandalay-Kunlon.	
61/90 8-8-96 ...		Cylinder, double, hand power, with rams 3⅜″ diameter and 8″ stroke, with 50 feet of 2½″ galvanized lap welded, *w. i.* suction and delivery piping with *w. i.* galvanized flanges and strainer, 3 *w. i.* galvanized elbows and one cup with screw for shaping bucket leathers and all necessary galvanized bolts and nuts. Also 70 feet additional 2½″ galvanized suction and delivery piping.	30	10	0	"	Bezwada-Madras.	
		Cylinder, double, hand power, with rams 3½″ diameter and 8″ stroke.	26	10	0	"	Mandalay-Kunlon.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Spare parts for—						
61/90 — 8-8-96 ...	Pumps—*concld.*	700 ft. of additional 2¼″ galvanized section and delivery piping for 3⅝″ × 8″ pumps.	36	0	0	Each.	Bezwada-Madras.	
64/402 — 27-11-96 ...		Cylinder double, hand power, capable of delivering 1,000 gallons of water per hour.	26	0	0	„	East Coast.	
65/220 — 24-12-96 ...	Pumping Engine.	Water motor (engine and pump combined). To raise 1,080 gallons per hour to a height of 800 feet through 25,000 feet of 4″ pipe. Power water 3,720 gallons per hour, 13,000 feet of 4″ pipe. Height of source above pump 380 feet. Motor cylinder 8″ diameter with 12″ stroke.	116	0	0	Each.	Mushkaf-Bolan.	Double ram pump to raise part of its own supply.
59/36 — 3-6-96 ...	Roofing ...	Steel work for one engine shed 120 feet long by two spans of 45 feet clear width, including T. bar rafters, T. bar ventilator standards, T. bars at bearings, T. bar struts, Flat bars, Gusset and Bearing plates, angle bars in purlins, rivet heads and spare rivets, wind tie rods and bolts of sizes, holding down bolts, washer plates, for ditto, and service bolts, nuts and washers.	411	11	0	Total.	Kotri-Rohri.	
59/34 — 3-6-96 ...		Iron, galvanized, for one engine shed 120 feet long by two spans of 45 feet clear width comprising *w. i.* corrugated sheets, ridge plates, wind ties, valley gutters, clips, rivets and burrs.	342	3	10	„	Kotri-Rohri.	
		Cost of steel and ironwork for one roof of engine shed complete.	753	14	10	Roof.	.....	*Quantities in engine shed roof.* T. c. q. lbs. Steel work ... 37 16 3 14; Corrugated sheets &c. 25 18 0 0; Total ... 63 14 3 14
63/333 — 30-10-96 ...	Roofing—*concld.*	Steel work for one engine shed, 170 feet long and 45 feet clear width, including T. bar rafters, T. bar standards, T bars at bearings, T bar struts, Flat bars, Gusset and bearing plates, angle bars in purlins, angle bar connections for ditto, rivet heads and spare rivets, wind tie rods, wind tie bolts of sizes, holding down bolts, washer plates for ditto, service bolts, nuts and washers.	344	17	7	Total.	Rai-Bareli-Benares.	*Quantities in engine shed roof.* T. c. q. lbs. Steel work ... 25 10 3 21; Corrugated sheets 18 5 3 7; Total ... 43 16 3 0
64/334 — 19-11-96 ...		Iron galvanized for one engine shed 170 feet long by 45 feet clear width. comprising w. i. corrugated sheets, with ridge plates, wind ties, clips, rivets and burrs.	222	12	5	„	Rai-Bareli-Benares.	
		Cost of steel and ironwork for one roof of Engine shed complete	567	10	0	Roof.	Rai-Bareli-Benares.	
		Spare parts of—						
63/101 — 13-10-96 ...		Sheets, galvanized, corrugated, 20 B. W. G. 3″ corrugation, ¾″ deep—						
		8′ 0″ × 2′ 6″ centres of outer ridges ...	10	17	6	Ton.	Eastern Bengal.	
		9′ 0″ × 2′ 6″ ditto ditto ...	10	17	6	„	Eastern Bengal.	
		10′ 0″ × 2′ 6″ ditto ditto ...	11	17	6	„	Eastern Bengal.	
56/446 — 31-3-96 ...	Safes, cast iron	Fire proof, 24″ × 18″ × 18″	8	17	6	Each.	Burma.	
61/26 — 6-8-96 ...		Do. 24″ × 18″ × 18″	8	17	6	„	Mandalay-Kunlon.	
62/25 — 2-9-96 ...		Do. 24″ × 18″ × 18″	8	17	6	„	Burma.	
65/20 — 3-12-96 ...		Do. 24″ × 18″ × 18″	8	17	6	„	Burma.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
65/20 3-12-96	Safes, cast iron —*concld.*	Fire proof 30″ × 18″ × 18″	12	15	6	Each	Bezwada-Madras.	
62/25 2-9-96		Do. 36″ × 30″ × 24″	16	6	6	,,		
64/73 4-11-96	Signals. ...	List and Morse's patent, with latest improvements, *vide* Appendix A.	175	14	2	Per station	Bezwada-Madras, and Mandalay-Kunlon.	
64/385 12-11-96		Semaphore, distant, complete, with lamps and wrought iron lattice posts 30 ft. high from the ground line to the centre of the signal arm.	22	15	0	Each.	Mari-Attock.	
64/183 10-11-96		Distant complete, with levers, pulleys, stakes, lamp, strand wire, &c., &c. and wrought iron double lattice post, 20′ from ground to centre of signal arm.	22	19	6	,,	East Coast	
56/350 24-3-96		*Fittings for—* Distant, complete, (except lamps and wooden posts) but including strand wire, pulleys, stakes, crossing wheels, gas piping, &c., for changing direction of connections, &c., &c.	14	0	0	,,	Oudh and Rohilkhand.	
		Station, complete (except lamps and wooden posts) ...	5	5	4	,,		
		Station, complete with all fittings (except wooden posts) ...	7	10	0	,,		
61/424 31-8-96		Distant, complete, except wooden posts, but including lamps, strand wire, pulleys stakes, crossing wheels, gas piping, &c., for changing direction of connections, &c., &c.	14	15	0	,,	Burma.	
64/385 12-11-96		Semaphore, without lamps and posts, but including strand wire, pulleys, stakes crossing wheels, piping for changing direction of connection, &c., &c.	13	15	0	,,	Rae-Bareli-Benares.	
63/123 14-10-96	Signalling and interlocking apparatus	Messrs. Mackenzie and Holland's signalling and interlocking apparatus complete for a station No. 2, *vide* Appendix B.	81	10	...	Set.	Eastern Bengal.	
65/44 8-12-96		Messrs. Dutton & Co., signalling and interlocking apparatus complete for a simple passing station on a single line of railway, *vide* Appendix C.	115	2	4	,,	Oudh and Rohilkhand.	
65/228 29-12-96		Messrs. Saxby and Farmer's signalling and interlocking apparatus complete for Cawnpore station, *vide* Appendix D.	1,887	18	0	,,	Cawnpore Lucknow, Gogra Ghat connection.	
58/141 6-5-96		*Spare parts of—* Messrs. Saxby and Farmer's signalling and interlocking apparatus, *vide* Appendix E.	2,175	9	0	Total	North-Western.	
61/253 20-8-96	Tanks ...	Wrought iron for watering stations with cast iron connection pipes, etc. 8′ × 8′ × 4′	13	14	7	Each	Bezwada-Madras.	
61/253 20-8-96		4″ × 4″ × 4″	5	10	3	,,	Mandalay-Kunlon.	
		8′ × 8′ × 4″	13	9	1	,,		
63/163 19-10-96		8′ × 8′ × 4′	13	18	3	,,	Eastern Bengal.	
63/163 19-10-96		16′ × 12′ × 4′ deep, including 10 per cent. extra of rivets, without c. i. connection pipes.	32	0	0	,,		
64/206 10-11-96		Galvanized, for travelling water tanks with delivery cock ...	92	0	0	,,		
64/42 3-11-96		*Spare parts of—* 6′ lengths of pipe flanged at both ends	1	2	0	,,	Burma.	
		3′ lengths of flanged one end and spigot jointed at the other	0	12	3	,,		
		6′ lengths of pipe flanged at one end and socket jointed at the other.	1	4	9	,,		
		Quadrant bends with feet	0	16	6	,,		
		Tees with blank flanges	1	1	0	,,		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £.	s.	d.	Unit.	For what railway.	Remarks.
64/46 — 3-11-96	Traverser ...	Steam 26 feet long, to take a broad gauge engine weighing 50 tons.	760	0	0	Each	Eastern Bengal.	
60/472 — 30-7-96	Turn-tables, Engine.	Complete of the central balance description 50 feet, diameter 5′ 6″ gauge suitable for turning an engine and tender weighing 80 tons.	435	0	0	Each	Bezwada-Madras.	
62/140 — 10-9-96		Ditto ditto ditto ...	450	0	0	„	North-Western.	
63/130 — 14-10-96		Ditto ditto ditto ...	450	0	0	„	Rae-Bareli-Benares.	
64/227 — 18-11-96		Ditto ditto ditto ...	475	0	0	„	East Coast.	
60/474 — 30-7-96		Metre gauge 36 feet diameter of the central balance description, each suitable for turning an engine and tender weighing together 38 tons.	210	0	0	„	Mandalay-Kunlon.	
		Spare parts of—						
57/253 — 14-4-96		Rails, bridge, steel, 14′ 4″, 73 lbs. per yard	0	7	0	Cwt.	Burma.	
59/72 — 8-6-96	Tyres ...	India rubber, 11″ diameter with wrought iron rings for wheels of platform barrows.	0	15	7	Each	North-Western.	
61/419 — 31-8-96	Washing out apparatus.	For Locomotive boilers, complete with all fittings ...	11	0	0	Each	Mandalay-Kunlon.	
62/20 — 2-9-96	Water metre...	Kent's patent 6″ water metre	59	17	6	Total.	North-Western.	Including packing and dilivery F. O. B.
60/473 — 30-7-96	Weigh-bridges	With platform 18 feet long 5′ 6″ gauge adjusted to weigh by English and Indian standard up to 25 tons and 681 maunds.	125	0	0	„	Bezwada-Madras.	
64/335 — 19-11-96		Wagon, with platform 18 feet long, 6′ 6″ wide for 5′ 6″ gauge adjusted to weigh by English and Indian standards up to 30 tons and 817 maunds.	135	0	0	„	Rae Bareily-Benares.	
60/504 — 30-7-96	Weighing-machines.	Platform 30″ × 20″ with steel yard graduated for Burmese and English weights only, *viz.*, cwt. qrs. lbs. and viss; to weigh up to 10 cwts. and 308 viss.	9	10	0	Each	Mandalay-Kunlon.	
61/422 — 31-8-96		Ditto ditto ditto ...	9	10	0	„	Burma.	
61/68 — 7-8-96		Platform 36″ × 36″ on wheels to weigh up to 1 ton and 28 maunds with steel yards graduated for English and Indian weights.	14	0	0	„	Oudh and Rohilkhand.	
64/359 — 21-11-96		Ditto 36″ × 36″ ditto 1 ton 28 maunds	11	0	0	„	Rae Bareli Benares.	
64/359 — 21-11-96		Ditto 32″ × 32″ ditto 1 „ 28 „	11	0	0	„	Bezwada-Madras.	
		Ditto 33″ × 29″ ditto 1 „ 28 „	11	0	0	„	North-Western	* *The same also contract No. 64/359, dated 21st November 1896, for the Rae-Bareili-Benares railway.*
62/121 — 9-9-96		Ditto 30″ × 30″ ditto 10 cwt. 14 „	*9	0	0	„	North-Western	
		Ditto 24″ × 24″ ditto 5 „ 7 „	7	0	0	„	North-Western	
61/423 — 31-8-96		"Duckham's" patent, suspended and self-indicating, hydrostatic, to weigh up to 5 tons.	16	15	6	„	Burma.	

Appendix A.

Specification for one Station for Signal fittings and connections required in addition to Interlocking Gear as supplied by Messrs Saxby and Farmer, Limited, on India Office Contract No. $\frac{64}{73}$, dated 4th November 1896.

Two double 12″ crossing wheels in cast iron frame with pins for leading off from Station levers.

Six yards of $\frac{1}{4}$″ straight link chain for ditto.

Four right and left hand adjusting screws with brass swivels and nuts for regulating length of wires.

Two sets of iron work complete with arms, spectacles, glazed, red and green lamps with kerosine oil burners and cisterns, ladders, rods, balance lever and weight casting and everything necessary for Distant signals 20 feet high, the posts of which will be made of wood in India.

Two sets of ironwork and fittings complete for 2 arm bracket signals 26 feet 6 inches to top arm, with arms, spectacles, glazed, red and green lamps with kerosine oil burners, cisterns, ladders hand rails and standards for lamp stage rods, joints, balance levers and balance weights and all fittings complete suitable for List and Morses' gear, the posts to be made of old rails in India, the fittings to be arranged suitable for fixing to the old rails.

Two right and left hand wire adjusting screws with brass swivels and nuts for regulating length of wire.

Eight Feet of $\frac{1}{4}$″ straight link chain.

Sixteen yards of rod connections for connecting lever to points and setting lever to locking slide.

Four 12″ side wheels in cast iron frames for working home signals.

Eight yards of $\frac{1}{4}$″ straight link chain for ditto.

2550 yards of wire connection consisting of best $\frac{7}{17}$″ galvanized steel strand wire, improved galvanized pulleys bolted to wrought iron galvanized channel iron stakes 4 feet long.

Specification for the Station.

One Patent Lever locking frame with 2 levers fitted with spring catches and all fittings complete for fixing in centre of station for working 4 Home signals two in each direction properly interlocked so that conflicting signals at opposite ends of stations cannot be given.

Two wrought iron scale beam levers 4 feet long fixed on one centre casting each with 2 shackles and 1, $1\frac{1}{4}$″ joins and pins and drilled with 10 holes for regulating stroke for enabling either of the 2 levers to work either of 2 signals.

Two sets of Patent gear with floating crank casting vertical and horizontal locking rods for interlocking signals and points to be fixed at the foot of the Home signals.

Two detachers for disengaging the wires of Distant signals so that a Distant cannot be worked until one or other of the Home signals has been lowered and when either Home signal is raised the Distant is put to danger, with engaging hooks, slides, guides, cast iron foundation, bolts, nuts and everything complete.

Two Lever frames each with 3 levers with spring catch and fittings complete for working points, Distant signal and for interlocking the Home signals with the points.

Two sets of patent Point locks each with 2 locks and 2 keys, 2 locking rods with boss end sockets, pins and cotters for connecting the points and to setting levers.

Four keys each to differ with special distinguishing heads for acting upon Point Locks.

Two wrought iron increase stroke levers fixed in cast iron centres with pins complete with holes for increasing stroke for working Distant signals.

Four wrought iron 9″ cranks for connecting the points and setting locking lever each with one screw joint and lock nut and 1· $1\frac{1}{4}$″ plain joint.

One Patent lock with goose neck rod with pins and keys for siding points, the keys of the loop point locks to pass, so that the siding points will be locked in proper position for passing trains when the Home signals are lowered.

Four right and left hand adjusting screws for regulating the length of point rods.

Two goose neck rods with boss end sockets, pins and cotters for detector locks for facing points.

One wrought iron Rocking shaft with 2 malleable cast iron arms with set screws, bearings bolts and joints complete.

Appendix B.

Detailed List of Quantities in Signalling and Interlocking Apparatus Station No. 2, as supplied by Mackenzie and Holland on India Office Contract No. $\frac{63}{123}$, dated 14th October 1896.

One Patent Interlocking apparatus (ground pattern) containing 4 working levers, including all necessary interlocking and other fittings complete.

Two sets of wrought iron work and fittings for double arm Bracket Signals, each with two arms, lamps, spectacles, Down Rods, Lever Plates, Brackets, etc.

Two double Woods patent Locks for Points.

Two special Woods patent Locks for Signals.

Eight hundred yards of galvanized steel signal strand wire (7 Strand) with 2″ galvanized side and crown pulleys and screws.

One 10″ pulley in cast iron frames

Two swivels in cast iron frames.

Two wrought iron 10″ × 15″ cranks.

Two wrought iron 10″ × 20″ cranks.

25 feet of galvanized signal chain.

Six wrought iron wire adjusting screws.

Two wrought iron Single Detectors.

Four wrought iron 1¼″ Extra Joints and Pins.

Twenty yards wrought iron 1¼″ point rod with couplings.

Roller boxes, etc., complete.

One wrought iron Tappet Bolt Lock.

Two wrought iron 1¼″ point adjusting screws.

Two wrought iron 1¼ swan necks.

Appendix C.

One set of signalling and interlocking apparatus for simple passing stations on a single line of Railway by Messrs. Dutton & Co., Worcester, as supplied on India Office Contract No. 65—44, dated 8th December 1896.

Description of Stores.	Quantity required.		Rate per Port of London. £	s.	d.
Iron signal, 20′ high, 2 arms	No.	2	...	...	
Pull over levers, pattern	„	6	...	...	
Wire pulleys and iron stakes	Yds.	534	...	...	
Do. on same do.	„	1,067	...	...	
Wheels	No.	12	...	...	
Chain	Ft.	60	...	...	
Wire adjusting screws and chains	No.	6	...	...	
Auto release detector lock, double	„	2	...	...	
Turn over lever for points	„	2	...	...	
Flat cranks, adjusting	„	2	...	...	
1¼″ joints	„	8	...	...	
1¼″ swan or goose necks	„	4	...	...	
1¼″ adjusting screws	„	4	...	...	
1¼″ point rodding and rollers	„	32	...	...	
Facing points lock bolt	„	2	...	...	
1″ rods	„	40	...	...	
Stay rods	„	4	...	...	
Balance boxes and cast iron brackets	„	4	...	...	
Cost of packing, drawings, etc.	...		...	...	
The lot ...	...		115	2	4

Rates not shown in contract.

Appendix D.

Signalling and Interlocking apparatus by Messrs. Saxby and Farmer, Canterbury Road, Kilburn, N. W., as supplied on India Office Contract No. 65—228, dated 29th December 1896.

Description of Stores.	Quantity required.		Rate per. Port of London. £	s.	d.
SCHEDULE.					
SIGNAL APPARATUS.					
Cabin A. including additions.					
Patent locking apparatus with 27 working levers ...	No.	1	4	10	0
Spare levers do. do.	„	4	4	10	0
Cast iron brackets for leading off timber	„	3	1	0	0
Fittings for signals, 1 arm 20 feet high, without posts ...	Sets	11	8	0	0
Fittings for signals, 2 arms Bracket signal 30 feet high, without posts	„	2	18	17	6
Fittings for signals, 3 arms Bracket signal 30 feet high, without posts	„	1	24	10	0
Sets slots (slots from Cabin B with discs in Cabin A working in connection with same	„	5	3	0	0
Discs for slots	No.	5	3	12	0
Ground disc working with points		Not	required.	...	...
Black's patent economical facing point locks with 21 feet bars					
1 detector to signals 2 & 3	No.	4	9	10	0
2 „ „ 4					
1 „ „ 7					
Patent signal detector with 2 slides	„	3	5	0	0
Do. do. 3 with slides	„	1	6	0	0
Points connections with Charrington's patent rollers ...	Yds.	820	0	3	0
Point adjusting screws	No.	5	0	9	0
Vertical cranks	„	4	0	18	0
Horizontal „	„	4	0	16	0
Adjusting „	„	5	1	0	0
Carried over ...	...		521	16	10

Appendix D—*contd.*

Description of Stores.	Quantity required.	Rate per. Port of London. £	s.	d.
Brought over ...	...	521	16	10
Vertical compensating levers, improved pattern ...	No. 5	1	15	0
Double joints, 1 only required	„ 1	0	7	0
Wire connections	Yds. 2700	0	0	4
Wheels for wire connections	No. 100	0	4	6
Wire adjusting screws	„ 46	0	3	6
„ regulators, 2 only required	„ 2	2	10	0
Hanging wheels do.	„ 2	0	7	6
Pedestal wheels 6″ do.	„ 2	0	4	0
Chain	Yds. 180	0	1	3
Cabin B. including additions.				
Locking apparatus with 37 working levers	No. 1	4	10	0
Spare levers	„ 3	4	10	0
C. I. bracket for leading off timber	„ 3	1	0	0
Fittings for signals 1 arm, 20 feet high, without posts ...	Sets 12	8	0	0
Fittings for 2 arms Bracket signal 30 feet high without posts	„ 3	18	7	6
Fittings for 3 arms Bracket signal 30 feet high without posts	No. 1	24	10	0
Discs for slot, (discs to work with points)	„ 5	3	12	0
Slots	Sets 5	3	0	0
Independent ground discs	„ 4	4	10	0
Black's patent economical facing points lock with 21 feet bars—				
2 detectors to signal 6				
2 „ „ 4 and 5	No. 10	9	10	0
2 „ „ 26 and 27				
2 „ „ 24				
2 „ „ 9				
Patent signal detector with 2 slides	„ 5	4	10	0
Carried over ...	...	1,267	12	10

Appendix D—*concld.*

Description of Stores.	Quantity required.	Rate per. Port of London. £	s.	d.
Brought over ...	...	1,267	12	10
Patent signal detector with 2 slides	No. 4	5	10	0
Do. do. do. 3 do.	„ 1	6	0	0
Point connections with Charrington's patent rollers *vide* diagram	Yds. 1,995	0	3	0
Point adjusting screws	No. 15	0	9	0
Vertical cranks	„ 10	0	18	0
Horizontal cranks	„ 19	0	15	0
Adjusting „	„ 15	1	0	0
Vertical compensating levers, improved pattern ...	„ 15	1	16	0
Double joints	„ 5	0	7	0
Wire connections	Yds. 10,040	0	0	4
Wheels for wire connections	No. 111	0	4	6
Wire adjusting screws	„ 48	0	3	6
Wire regulators, 3 only required	„ 3	2	10	0
Hanging wheels do.	„ 3	0	7	6
Pedestal wheels 6″ do.	„ 3	0	4	0
Chain	Yds. 194	0	1	3
Total ...	...	1,887	18	0

Appendix E.

One set of Signalling and Interlocking apparatus by Messrs. Saxby and Farmer, Canterbury Road, Kilburn, N. W., as supplied on India Office Contract No. 58—141, dated 16th May 1896.

Description of Stores.	Quantity required.		Rate per each — Port of London. £	s.	d.
Signal apparatus interlocking (points and signals) Saxby and Farmer's spare parts of:—					
Cams, self acting, for signal posts, to lock arms at danger, or to throw to danger when wire breaks ...	No.	9	3	14	0
Clips and ½ crank for North Western Railway standard rails	„	100	0	7	10
Compensating levers, self acting (wire) to be fitted on posts intermediate from box to signal... ...	„	9	1	10	0
Connections, chain $\frac{3}{16}$″	Yds.	400	0	1	0
„ „ ¼″	„	400	0	1	3
Cranks W. I. adjusting side, horizontal	No.	200	1	0	0
Cranks and joints ordinary in sets, 9″	Sets	200	0	16	0
Gongs loud single stroke for block working cabins each with plungers complete (wires and batteries to be supplied in India)	No.	45	7	10	0
Lever frame interlocking with 10 levers and leading off gear within cabin complete...	„	1	45	0	0
Lever frame interlocking with 10 levers and leading off gear within cabin complete...	„	1	45	0	0
Lever frame interlocking with 11 levers and leading off gear within cabin complete...	„	1	49	10	0
Lever frame interlocking with 13 levers and leading off gear within cabin complete...	„	1	58	10	0
Point rod screwed and slotted 1½″ (in bundles of 6 rods 17 feet 92 lineal feet effective)	Yds.	5,000	0	2	0
Rollers travelling for 6 point rods	No.	100	0	9	6
Do. 4 „	„	210	0	7	8
Do. 3 „	„	100	0	6	9
Do. 2 „	„	500	0	5	0
Carried over ...	...		1,813	4	4

Appendix E.—*concld.*

Description of Stores.	Quantity required.		Rate per — Port of London. £	s.	d.
Brought forward ...	...		1,813	4	4
Screws adjusting right and left handed for ¾″ rod ...	No.	300	0	6	0
Screws adjusting right and left handed for 1⅛″ rod ...	„	200	0	8	6
Screws adjusting right and left handed for 1¼″ rod ...	„	100	0	9	0
Screws adjusting right and left handed for regulating wires improved type	„	100	0	5	0
Wire strand, galvanized, steel in coils, 1611 feet long ...	Coils	125	0	18	9
Total			2,175	9	0

7040

The Secretaries to the Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh and the Punjab, Public Works Department.
The Secretaries to the Chief Commissioners of the Central Provinces, Burma, and Assam, Public Works Department.
The Secretaries to the Residents at Hyderabad and in Mysore, Public Works Department.
The Secretaries to the Agent to the Governor General, Rajputana and Central India and Baluchistan, Public Works Department.
The Superintendent of Port Blair and Chief Commissioner, Andaman and Nicobar Islands.
The Director General of Telegraphs.
The Director General of Military Works.
The Chief Engineer, Kashmir.
The Accountant General, Bengal.
The Consulting Engineers for Railways, Madras and Bombay.
The Consulting Engineers to the Government of India for Railways, Calcutta, Lucknow, and Assam.

Copy forwarded to the Local Governments and Administrations and to the Officers noted in the margin for information, with the intimation that all Railway Administrations have been supplied with copies direct.

Colonel, R.E.,
Director General of Railways.

To

THE Secretary to the Govt. of Madras
Public Works Dept.

Upon copies will follow.

No. 2516W, dt 28th August 1896

Communicated
to Offices of the W.
Dept.

7/8/96

On
Supplement with 8 sheets of
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Govt. No. 2 dtt 3 Dec

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3/9/96

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Ans 309 9/10/8

[*General Distribution.*]

Circular No. 8.

FROM

THE DIRECTOR GENERAL OF RAILWAYS,

To

THE MANAGER, NORTH-WESTERN RAILWAY.
THE MANAGER, OUDH AND ROHILKHAND RAILWAY.
THE MANAGER, EASTERN BENGAL STATE RAILWAY.
THE MANAGER, EAST COAST RAILWAY.
THE ENGINEER-IN-CHIEF, KOTRI-ROHRI RAILWAY.
THE ENGINEER-IN-CHIEF, MARI-ATTOCK RAILWAY AND GRADIENT IMPROVEMENT WORKS, NORTH-WESTERN RAILWAY.
THE ENGINEER-IN-CHIEF, BEZWADA MADRAS RAILWAY.
THE ENGINEER-IN-CHIEF, MANDALAY-KUNLON RAILWAY.
THE ENGINEER-IN-CHIEF, RAE BARELI-BENARES RAILWAY.
~~THE ENGINEER-IN-CHIEF, ASSAM-BURMA CONNECTION RAILWAY SURVEY.~~
THE PORT STOREKEEPER, STATE RAILWAY DEPARTMENT, CALCUTTA.

Rate List, Class F. "Station Materials and Fencing" for 1895.

Simla, the 18th July 1896.

SIR,

I have the honour to forward herewith, for information and guidance a printed statement showing the actual English rates *free on board* in England for F. Class, State Railway Stores, *viz.*, "Station Materials and Fencing," contracted for by the Stores Department of the India Office during the year 1895.

2. A statement showing the average rates per ton for entire sea-freight, on Station Materials, &c., sent out from England to the several ports in India during 1894, is prefixed to the Rate list for information, figures for 1895 not being available.

In order to arrive at the total cost of the articles landed in India, an insurance charge of one-half* per cent. on the *free on board* cost *plus* entire sea-freight, should be added in addition to other incidental charges and exchange, which latter should be calculated at the official rate for the year.

I have the honour to be,

SIR,

Your most obedient servant,

T. GRACEY, Colonel, R. E.,

Director General of Railways.

Documents accompanying.

(1) Statement showing the average rates per ton for entire sea freight on class F. Stores imported from England to the several ports during 1894.

(2) Rate List, Class F.—"Station materials and Fencing" for 1895.

* *For State Railway Stores and stores for Irrigation Works only classed as Imperial. Stores for Provincial and Local funds and for railways constructed by Native States are charged one per cent. as heretofore.*

Enclosure to Director General of Railways' Circular No. 8 of 1896.

RATE LIST.

CLASS F.

STATION MATERIALS AND FENCING

FOR 1895.

G. C. Press, Simla.—No. 258 P. W. D.—7-8-96.—884.

Enclosure to Director General of Railways' Circular No. 8 of 1896.

Statement showing the average rates per ton for entire sea-freight on Class F. Stores, "Station materials and Fencing," sent out from England to the several ports in India, during 1894.

Articles.	Karachi.	Bombay.	Cocanada, or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	Where rates for sea-freight are not shown, it should be understood that the articles specified were not imported during the year.
Cranes, water-pillar, long neck, complete ...	...	1 1 3	...	1 0 0	...	
Fencing wire; materials for—	0 11 8	...	...	0 14 6	...	
Piping, iron, cast, and connections for— ...	...	...	...	...	...	
Ditto wrought ditto ...	0 18 9	0 13 9	0 19 0	...	1 2 6	
Pumps	...	0 9 6	0 15 0	...	1 10 0	
Roofing iron	...	...	...	...	...	
Signals	...	2 5 0	0 15 0	1 14 10	...	
Turntables, engine	...	...	...	...	...	
Weigh-bridges	0 6 9	...	0 13 9	...	...	
Weighing-machines	0 8 9	...	0 14 9	...	1 2 6	

CLASS OF STORES F.—STATION MATERIALS AND FENCING.

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
48/88 4-7-95	Clocks	Station, 24 hours dial with second, pendulum, in long teak cases.	9	0	0	Each	Cawnpore-Lucknow-Gogra.	
		Spare, parts—						
43/21 2-2-95		Escapement port, for time-piece	1	15	0	„	Eastern Bengal.	
		Pinion's for clock	0	0	10	„		
48/166 11-7-95	Cranes, water	6″ pillar, with pipes, &c., complete	23	17	6	Each	Cawnpore-Lucknow-Gogra.	
48/419 24-7-95		8″ pillar, complete, but without pipes, bends or T. pieces ...	30	0	0	„	Kotri-Rohri.	
52/101 7-11-95		8″ pillar, with pipes	37	10	0	„	East Coast.	
53/103 10-12-95		8″ pillar, with valves, to resist frost	33	0	0	Each	North Western.	
		Connections, special pipes—						
50/66 9-9-95		Quadrant, bends, 8″ bore, flanged, one flange to be suitable for fixing to crane.	11	0	0	Ton	Kotri-Rohri.	
		T pieces, 8″ bore, flanged, branch flange to be suitable for fixing to crane.						
		6 feet lengths of pipe, 8″ bore, socket jointed at one end and flanged at the other.						
		Blank flanges suitable for 8″ bore pipes						

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.		Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
			Spare parts of—						
42/254	30-1-95	Engines steam pumping.	Injectors, Gresham's patent—						
			4 M. M.	4	5	6	Each	Eastern Bengal.	
			3 M. M.	3	6	6	„		
48/53	2-7-95	Fencing, wire ...	Bases or socket, cast iron	3	3	6	Ton.	Burma.	
151/74	17-10-95		„ „ „ „	3	6	6	„	Eastern Bengal.	
48/62	3-7-95		Bolts, eye, straining, galvanized, with nuts and washers ...	16	10	0	„	Burma, and Cawnpore-Lucknow-Gogra.	
48/50	2-7-95		Post's, wrought iron, intermediate	4	12	6	„	Burma.	
51/173	17-10-95		„ „ „ „	6	2	6	„	Eastern Bengal.	
48/50	2-7-95		„ „ „ stiffening	5	12	6	„	Burma.	
51/173	17-10-95		„ „ „	7	3	6	„	Eastern Bengal.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.		Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
48/50	2-7-95	Fencing wire—*concld.*	Wedges, wrought iron	13	2	6	Ton	Burma.	
48/32	1-7-95		Wire strand, in 450 yards coils, galvanized, 7 strand, 14 S. W. G.	10	0	0	„	Cawnpore-Lucknow-Gogra and Burma.	
			„ „ „ 450 „ „ „ No. 8 ...	13	0	0	„	Oudh and Rohilkhand.	
49/402	31-8-95		„ „ in coils of 1 cwt. each, galvanised, No. 8 (7 strands of No. 17 S. W. G.)	12	16	0	„	Kotri-Rohri.	
51/228	24-10-95	...	„ „ „ Galvanized steel, in coils of 1,611 ft. long ...	19	18	6	„	North Western.	
50/66	9-9-95	Piping, cast iron	8″ bore, in 9 feet (effective) lengths, with socket and spigot	4	1	6	Ton	Kotri-Rohri.	
			10″ „ „ 9 „ lengths, effective, „ „ „ „ ...						
51/214	21-10-95	Pipes, wrought iron	Black, (for water) in straight lengths, screwed at both ends, with a socket to each length—						
			1″ bore	0	0	1·92	Foot	Eastern Bengal.	
			1½″ „ in lengths of 12·14 and 16 feet ...	0	0	3·38	„		
			2″ „	0	0	4·62	„		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Galvanized (for water) with screwed ends, and couplings and socket, to each end—						
		⅜″ }	0	8	6	100 ft.		
		½″ }	0	11	3	,,		
		⅝″ } In 10 feet lengths	0	15	1	,,		
48/133	6-7-95	¾″ }	0	15	1	,,		
	Pipes, wrought iron—*contd.*	1″ }	1	1	8	,,	Oudh and Rohilkhand.	
		1¼″ }	1	9	7	,,		
		1½″ } In 12 feet lengths	1	19	1	,,		
		2″ }	2	6	7	,,		
		2¼″ }	2	16	9	,,		
		¾″ }	0	15	1	,,		
		1″ }	1	1	8	,,		
		1¼″ }	1	9	7	,,		
48/484	29-7-95	1½″ } In 12 feet lengths	1	19	1	,,	North-Western.	
		2″ }	2	6	7	,,		
		3″ }	4	5	2	,,		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Galvanized, (for water) with screwed ends and couplings and socket to each end—*contd.*						
		1″ }	1	1	8	100 ft.		
		1¼″ }	1	9	7	,,		
		1½″ } In 13 feet lengths	1	19	1	,,		
		2″ }	2	6	7	,,	Oudh and Rohilkhand.	
		2¼″ }	2	16	9	,,		
		1″ }	1	1	8	,,		
48/133	6-7-95	1½″ } In 14 feet lengths	1	19	1	,,		
	Pipes, wrought iron—*contd.*	2¼″ }	2	16	9	,,		
		1″ }	1	1	8	,,		
		1¼″ }	1	19	1	,,		
		1½″ } In 15 feet lengths	1	19	1	,,	Oudh and Rohilkhand and Burma.	
		2″ }	2	6	7	,,		
		2¼″ }	2	16	9	,,		
		Gas, with screwed ends with a socket to each length—						
		¾″ } In 10 feet lengths	0	9	5	,,	Eastern Bengal.	
		1″ }	0	13	6	,,		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
48/133 6-7-95	Pipes, wrought iron—*contd.*	Galvanised, steam, 2½″ with socket to each length, in length of 15 feet.	3	6	6	100 ft.	Burma.	
47/49 8-6-95		Steam, 4″ screwed both ends, in lengths of 15 feet ...	1	1	0	Length	Umaria Colliery.	
		Connections for :—						
		Bends, quarter, with a socket—						
		⅜″ bore piping	0	1	11	Doz.		
		½″ „ „	0	2	2½	„		
		⅝″ „ „	0	3	0½	„		
		¾″ „ „	0	3	0½	„		
		1″ „ „	0	4	1½	„		
48/133 6-7-95		1¼″ „ „ For water pipes	0	5	9½	„	Oudh and Rohilkhand.	
		1½″ „ „	0	7	5¼	„		
		2″ „ „	0	14	0¼	„		
		2¼″ „ „	1	1	5½	„		
		2½″ „ „	1	13	0	„		
		2½″ „ „	1	13	2	„	Burma.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Connections for—contd.						
48/484 29-7-95	Pipes, wrought iron—*contd.*	¾″ pipes	0	3	7	Doz.	North Western.	
		1″ „	0	4	10½	„		
		1¼″ „ For water pipes ...	0	6	10	„		
		1½″ „	0	8	9½	„		
		2″ „	0	16	7	„		
47/49 8-6-95		for 4″ pipe	0	6	6	Each	Umaria Colliery.	
		„ 3″ „	0	3	2·42	„		
		„ 2″ „ For steam pipes ...	0	0	10·16	„		
		„ 1″ „	0	0	3	„		
48/133 6-7-95		Bends, right angle, for ¾″ gas pipe	0	2	2½	„	Eastern Bengal.	
		„ „ 1″ „	0	3	0	„		
51/61 4-10-95		Bolts and nuts, galvanized, with a washer to each ½″ diameter	0	0	2	lb.	Burma.	
		„ „ „ „ „ „ „ „ ⅜″ „ × 3″	0	2	9	Doz.	North Western.	
		„ „ „ „ „ „ „ „ 7/16″ „ × 3½″	0	3	9	„		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Connections for—contd.						
48/133 6-7-95	Pipes, wrought iron—*contd.*	Elbows, round, for ⅜″ bore piping	0	2	0	Doz.	Oudh and Rohilkhand.	
		,, ,, ½″ ,, ,,	0	2	3	,,		
		,, ,, ⅝″ ,, ,,	0	3	0	,,		
		,, ,, ¾″ ,, ,,	0	3	0	,,		
		,, ,, 1″ ,, ,,	0	4	0	,,		
		,, ,, 1¼″ ,, ,, } For water pipes ...	0	5	9	,,		
		,, ,, 1½″ ,, ,,	0	7	6	,,		
		,, ,, 2″ ,, ,,	0	11	6	,,		
48/133 6-7-95		,, ,, for 2¼″ bore piping } for water ...	0	19	6	,,		
		,, ,, 2½′ ,, ,,	1	10	0	,,		
47/49 8-6-95		Flanges, screwed, for 4″ pipe	0	2	6·60	Each	Umaria Colliery ...	*Faced but not drilled for bolts.*
		,, ,, ,, 4″ ,, } for steam pipes ...	0	2	6·36	,,		
		,, ,, ,, 3″ ,,	0	1	10·40	,,		
		,, ,, ,, 2″ ,,	0	0	8	,,		
48/133 6-7-95		,, ,, galvanized, for 2¼″ pipes, and drilled for bolts	0	15	9	Doz.	Burma.	
		,, ,, ,, ,, ,, ,, not ,, ,, ,,	0	14	7½	,,		
51/66 4-10-95		,, ,, ,, wrought iron, for ¼″ iron pipe ...	0	5	5	,,	North Western. ...	Including washers.
		,, ,, ,, ,, ,, ,, 1″ ,, ,, ...	0	7	3	,,		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Connections for—concld.						
47/49 8-6-95	Pipes, wrought iron—*contd.*	Reducing sockets—						
		4″ to 3″ } for steam pipes ...	0	1	9·33	Each.	Umaria Colliery.	
		3″ ,, 2″ ... }	0	1	0	,,		
		2″ to 1″	0	0	3	,,		
		1″ ,, ¾″	0	0	1·33	,,		
		T. pieces for 4″ pipe	0	6	0	,,		
		,, ,, 3″ ,, } for steam pipes ...	0	3	3·58	,,		
		,, ,, 2″ ,,	0	0	9	,,		
		,, ,, 1″ ,,	0	0	3	,,		
48/133 8-6-95		Tees for ⅜″ bore piping	0	3	0	Doz.	Oudh and Rohilkhand.	
		,, ¾″ ,, ,,	0	3	0	,,		
		,, 1″ ,, ,,	0	3	9	,,		
		,, 1½″ ,, ,, } For water	0	7	6	,,		
		,, 2″ ,, ,,	0	11	3	,,		
		,, 2¼″ ,, ,,	0	18	0	,,		
		,, 2½″ ,, ,,	1	8	6	,,		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
48/484 — 27-9-95	Pipes, wrought iron—*concld.*	Tees for ¾″ pipe	0	3	7	Doz.	North Western.	
		„ 1″ „	0	4	6	„		
		„ 1¼″ „ For water	0	6	3½	„		
		„ 1½″ „	0	9	0	„		
		„ 2″ „	0	13	6	„		
		Tees right angle, for ¾″ gas pipe	0	2	1	„	Eastern Bengal.	
48/133 — 5-7-95		„ „ 1″	0	2	7½	„		
49/167 — 14-8-95	Presses, dating	Indenting, including figures	2	17	0	Each	East Coast ...	Including packing.
49/165 — 14-8-95	Pumps, steam	With boiler complete on cast iron box section bed plate, for watering station.	311	0	4	Each	Eastern Bengal.	
49/151 — 13-8-95		"Worthington," non-compound, duplex class, mounted on a strong hollow cast-iron bed plate, having two high pressure steam cylinders 5¼″ diameter and two pumps of double action plunger type, capable of delivering 2,500 gallons of water per hour, 80 feet above source of supply at a piston speed of not more than 75 feet per minute, and a boiler pressure of 60 lbs. per square inch.	40	0	0	„	East Coast.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles	Details.	Rate—Free on Board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
45/3 — 2-4-95	Roofing iron, spare parts of—	Corrugated sheet, galvanized, wrought iron, 7′ × 2′ 8″ × 1½″ deep.	9	5	0	Ton		
		Corrugated sheet, galvanized, wrought iron, 6′ × 2′ 8″ × 1½″ deep.						
47/315 — 25-6-95		Corrugated sheet, galvanized, wrought iron, 7′ × 2′ 9″ × 1½″ deep.	9	17	6	„	North-Western.	
49/188 — 15-8-95		Corrugated sheet, galvanized, wrought iron, 7′ × 2′ 9″ × 1½″ deep. 20 S. W. G.	10	17	6	Ton		
		Corrugated sheet, galvanized, wrought iron, 8′ × 2′ 9″ × 1½″ deep. 20 S. W. G.						
45/3 — 2-4-95		Bolts, nuts and washers	37	10	0	„		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
49/188 15-8-95	Roofing iron, spare parts of —*concld.*	Bolts, nuts and washers	35	0	0	Ton	North Western.	
		Hook bolts, nuts and washers	23	15	0	„		
45/3 2-4-95		Rivets and burrs	30	0	0	„		
47/315 25-6-95		Ditto ⅝″ & ¾″ × ¼″ diameter						
49/188 15-8-95		Ditto ½″ × ¼″ diameter	19	15	0	„		
45/3 2-4-95		Wind ties 20′ 3″ × 1½″ × ¼″	11	0	0	„		
49/188 15-8-95		„ „ 20′ 3″ × 1½″ × ¼″	10	10	0	„		
47/202 20-6-95	Safes, cash ...	Iron 24″ × 18″ × 18″...	8	17	6	Each	Burma.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
48/363 22-7-95	Signals, Semaphore	Distant, complete, each, with lamp, strand wire, pulleys, stakes, crossing wheels, piping, &c., &c., and all fittings, except the wooden post (levers similar to Blood's patent).	11	14	6	Each	Cawnpore-Lucknow-Gogra.	
49/306 23-8-95		Distant, complete, each, with levers, pulleys, stakes, lamps, strand wire, &c., &c., and wrought iron, double lattice posts, 20 feet from ground to centre of signal arms.	22	19	6	„	East Coast.	
48/363 22-7-95		Station, complete, each, with lamps and all fittings, except the wooden posts.	8	1	0	Each	Cawnpore-Lucknow-Gogra.	
49/306 23-8-95		Station, complete, each, with lamp and wrought iron, double, lattice posts, 30 feet from ground to centre of signal arms.	16	14	0	„	East Coast.	
45/33 4-4-95		*Spare parts of*— Bloods' lever compensating apparatus with chains, weights, &c., complete.	3	0	0	„		
46/153 11-5-95		Chain, iron, galvanized	0	0	4½	Foot	Burma.	
		Pulleys, for staples, without centre bolts and brackets ...	0	0	1½	Each		
48/400 23-7-95		Pipes, iron, galvanized, plain, 10″ × 2″ inside diameter and No. 9 B. W. G. thick.	0	11	0	„		
		Wire, strand, galvanized, in coils of 1,611 feet long ...	18	6	3	Ton	North-Western.	
50/154 16-9-95	Tanks ...	Wrought iron, galvanized, both inside and out	5	10	0	Each	North Western.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Connections for :—						
50/66 — 9-9-95	Tanks—*concld.*	Special pipes, 6′ lengths, 10″ bore, flanged at both ends ...	11	0	0	Ton	Kotri-Rohri.	
		,, ,, 3′ ,, 10″ ,, flange and spigot ...	11	0	0	,,		
		,, ,, 6′ ,, 10″ ,, socket jointed at one end and flanged at the other.	11	0	0	,,		
		Quadrant bends, 10″ bore, flanged, special, with foot ...	11	0	0	,,		
		T pieces, flanged with through portion, 8″ bore, and branch, 10″ bore.	11	0	0	,,		
		Connecting bolts and nuts, ⅞″ diameter by 2¾″ long inside head and nut for special crane and tank pipes.	14	0	0	,,		
		Lewi's bolts, and nuts, with ⅞″ diameter, for special quadrant bends.	14	0	0	,,		
49/163 — 14-8-95	Turn-plates ...	Pit, cast iron	2	0	0	Each	Umaria Colliery.	
48/417 — 24-7-95	Turn-tables...	Engine, 50 feet diameter, 5′ 6″ gauge, of the central balance description, suitable for turning an engine and tender weighing, 80 tons.	410	0	0	Each	Kotri-Rohri.	
52/9 — 1-11-95		Ditto ditto ditto	429	0	0	,,	East Coast.	
51/23 — 24-10-95		Engine, 36 feet diameter, metre gauge, of the central balance description suitable for turning an engine and tender weighing, 38 tons.	200	0	0	,,	Eastern Bengal.	
45/191 — 19-4-95		*Spare parts of—* Rails, bridge, steel, 16′ 4″ long	5	12	6	Ton	Burma	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*concld.*

Contracted for in 1895.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
48/433 — 25-7-95	Washing-out apparatus.	Locomotive, with all fittings, &c., for locomotive boilers complete.	11	0	0	Set.	Kotri-Rohri.	
45/32 — 4-4-95	Weigh-bridges	Platform, 25 feet, Metre gauge, fitted with 50 lbs. steel rails to weigh up to 25 tons for bogie stock, graduated for English and Burmese weights.	170	0	0	Each	Burma.	
47/361 — 27-6-95		Platform, 25 feet long and 4′ 6″ wide, Metre gauge, for English and Indian weights to weigh up to 680¼ maunds, and 25 tons, fitted with 50lbs. steel rails for bogie stock.	170	0	0	,,	Cawnpore-Lucknow-Gogra	
45/80 — 8-4-95	Weighing-machines.	Platform, with steel yards graduated for English and Burmese weights only, *viz.*, cwt., qrs., lbs. and viss; to weigh up to one ton and 616 viss.	12	10	0	Each	Burma.	
46/365 — 24-5-95		Duckham's patent, suspended and self-indicating, hydrostatic, to weigh up to 10 tons.	22	6	6	,,		
48/418 — 24-7-95		Platform, with steel yards graduated for both Indian and English weights, to weigh up to 1 ton and 28 maunds.	11	10	0	,,	Kotri Rohri.	
49/271 — 23-8-95		Ditto ditto ditto	12	0	0	,,	East Coast.	
48/418 — 24-7-95		Platform, with steel yards graduated for both Indian and English weights, to weigh up to 10 cwts. and 14 maunds.	9	10	0	,,	Kotri-Rohri.	
49/271 — 23-8-95		Ditto ditto ditto	9	10	0	,,	East Coast.	

Enclosure to Director General of Railways' Circular No. 7 of 1897.

RATE LIST.

CLASS F.

STATION MATERIALS AND FENCING

FOR 1896.

G. C. Press, Simla.—No. 321 P. W. D.—9-9-97.—910.

Enclosure to Director General of Railways' Circular No. 7 of 1897.

Statement showing the average rates per ton for entire sea-freight on Class F. Stores, Station Materials and Fencing," sent out from England to the several Ports in India during 1896.

Articles.	Kurrachee.	Bombay.	Cocanada or Vizagapatam.	Calcutta.	Rangoon.	Remarks.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Clocks	0 17 6	.....	.....	.....	.....	Where rates for sea-freight are not shown, it should be understood that the articles specified were not imported during the year.
Cranes, water-pillar, long neck, complete ...	1 5 0	.....	1 13 9	1 10 0	1 10 0	
Fencing, wire; materials for—	1 5 0	.....	1 10 0	0 17 0	1 2 6	
Piping, iron, wrought and connections ...	.....	.....	.....	0 17 6	1 3 9	
Roofing iron	1 2 6	.....	.....	.....	.....	
Safes	.....	.....	.....	.....	1 5 0	
Signals	.....	.....	.....	.....	1 5 0	
Tanks	.....	.....	.....	.....	1 2 6	
Turntables, engine	1 15 0	.....	2 5 0	1 7 6	.....	
Weigh-bridges	.....	.....	1 5 0	.....	.....	
Weighing-machines	.....	.....	.....	1 10 0	1 5 0	

CLASS OF STORES F.—STATION MATERIALS AND FENCING.

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
57/103 4-4-96	Clocks ...	English, round face, 6″ diameter, non-striking, lever escapement with metal case bronzed.	1	15	0	Each.	North-Western.	
64/392 25-11-96		8 day, bracket, double faced, with single movement and heavy pendulum complete, diameter of dial 24″, for first class station.	31	7	0	„	Eastern Bengal.	
64/414 30-11-96		8 day, station, 24 hours dials, with seconds pendulums, in long teak cases, I. S. R. pattern.	9	0	0	„	Bezwada-Madras.	
64/414 30-11-96		Time piece, 8-day, for 2nd and 3rd class stations ...	4	2	6	„	Ditto.	
		Spare parts of :—						
65/5 2-12-96		Winding wire for Benson's platform clocks, in 7 feet lengths	2	0	0	100 pieces	East Coast.	
65/77 11-12-96		Winding wire for Gillett's platform clocks 7′ 6″ lengths ...	0	0	8	Piece.	Ditto.	
65/5 2-12-96		Pendulum springs for Benson's platform clocks ...	0	1	3	Doz.	Ditto.	
65/77 11-12-96		Pendulum springs for Gillett's platform clocks ...	0	0	3	Each.	Ditto.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on Board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
58/189 9-5-96	Cranes, water	8″ pillar complete with piping and connections	33	10	6	Each.	Oudh and Rohilkhand.	
64/243 12-11-96		8″ ditto ditto	42	11	7	„	Eastern Bengal.	
61/287 24-8-96		6″ ditto ditto	23	15	0	„	Mandalay-Kunlon.	
61/287 24-8-96		8″ without pipes or bends ...	29	15	0	„	Bezwada Madras.	
63/317 29-10-96		8″ swan neck with side valves and cast iron piping, &c., &c., complete.	39	15	0	„	Rae-Bareli-Benares.	
65/218 24-12-96	Drums ...	Wrought iron, cylindrical, with Hobbs lock and duplicate keys. Int. diar. high to hold— 1′ 3″ 1′ 6″ 10·5 gallons	0	19	9	Each	Bezwada-Madras.	
		2′ 0″ 2′ 8″ 50 „	2	2	0	„		
64/264 13-11-96	Fencing wire	Bases, cast iron	3	12	6	Ton	Kotri-Rohri.	
56/213 13-3-96		Bolts, eye, straining, galvanized with nuts and washers ...	18	5	0	„	Burma.	
62/65 3-9-96	Fencing wire —*contd.*	Bolts, eye, straining, galvanized, with nuts and washers ...	19	0	0	Ton	North Western.	
64/263 13-11-96		Bolts, eye, straining, galvanized, with 2 nuts and 1 washer to each.	19	0	0	„	Rae-Bareli-Benares.	
56/301 20-3-96		Posts, wrought iron, intermediate	6	5	0	„	Burma.	
63/140 16-10-96		„ „	6	7	6	„	Eastern Bengal.	
62/90 4-9-96		„ „	6	5	0	„	North-Western.	
64/265 13-11-96		„ „	6	7	6	„	Kotri-Rohri.	
62/90 4-9-96		Posts, wrought iron, stiffening	7	6	0	„	North Western.	
63/140 16-10-96		„ „ „	7	10	0	„	Eastern Bengal.	
64/265 13-11-96		„ „ „	7	10	0	„	Kotri-Rohri.	
64/264 13-11-96		Posts, cast iron, straining, to strain in one direction ...	4	5	0	„	Kotri-Rohri.	
		Posts, cast iron, straining, for corners, to strain at right angles	4	15	0	„	Ditto.	
		Cast iron washers for corner post	8	0	0	„	Ditto.	
56/301 20-3-96		Wedges, wrought iron	13	17	6	„	Burma.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
64/265 13-11-96	Fencing wire —*concld.*	Wedges, wrought iron	14	0	0	Ton	Kotri-Rohri.	
56/163 12-3-96		Wire, 7 strand, galvanized, No. 4, in coils of 450 yards ...	10	11	6	„	Burma.	
64/298 16-11-96		Wire, 7 strand, galvanized, No. 4, in coils of 450 yards ...	12	10	0	„	Rae-Bareli-Benares.	
62/91 4-9-96		Wire, 7 strand, galvanized, No. 4, in coils of 450 yards ...	11	0	0	„	North Western.	
61/420 31-8-96	Fountains ...	Pillar, and watering standpost combined, complete with sluice valves and all connections including packing.	13	3	10	Each	Bezwada-Madras ...	With screwed ends and sockets for pillar fountain to stand 25 feet water pressure.
		Pipes and connections for :—						
		Pipes, wrought iron, black, 3″ bore and No. 5 B. W. G. thick, in lengths of 12 feet.	0	1	1	Foot		
		Pipes, with one end screwed and the other end flanged, with wrought iron flange, and one separate screwed socket for each length.	0	1	4½	„		
		Bends, quarter, 3″ bore, 6″ radius, to suit pipes, with one socket to each.	0	0	6½	„		
54/18 3-1-96	Paling ...	*Steel, unclimable 5 feet high as per details below :—*						
		Angles, horizontal, 2″ × 2″ × ¼″ iron, in lengths of 19′ 6″ punched for rivets for poles at 6″ intervals.	7	12	6	Ton.	North-Western ...	Cost of 1 mile of paling £370-1-8.
		Pales, vertical, section 3¼″ × 16½ w. g. steel, 5 feet high, punched for attachment to horizontal angles.	11	17	6	„		
		Rivets, steel, ⅞″ × ¼″ for joining verticals to horizontals, with bonnet heads.	28	10	0	„		
		Rivets, steel, 2¼″ × ⅞″ for joining horizontals to rails. ...	27	10	0	„		
64/243 12-11-96	Pipes, cast iron	Flanged at both ends— 12″ bore in lengths of 9 feet	6	16	6	Ton.	Eastern Bengal.	
63/55 6-10-96		9″ „ „ of 9 „	6	5	0	„	Bezwada-Madras.	
		9″ „ „ of 4 feet 3 inches	10	5	0	„		
		9″ „ „ of 4 „	10	5	0	„		
64/243 12-11-96		8″ „ „ of 6 „	9	0	0	„	Eastern Bengal.	
63/55 6-10-96		Socked jointed at one end and flanged at the other— 9″ bore in lengths of 9 feet	6	5	0	„	Bezwada-Madras.	
64/243 12-11-96		8″ „ „ of 6 „	9	0	0	„	Eastern Bengal.	
63/55 6-10-96		Spigot jointed at one end and flanged at the other— 9″ bore in lengths of 9 feet	6	5	0	„	Bezwada-Madras.	
		Socket and spigot piping— 9″ bore in lengths of 9 feet	4	5	0	„		
63/55 6-10-96		Socket and spigot jointed in lengths of 9 feet— 9″ main	8	5	0	„		
		3″ branch						
64/243 12-11-96		8″ bore	5	0	0	„	Eastern Bengal.	

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
64/23 12-11-96	Pipes, cast iron—*concld.*	*Connections for*—						
		Bends, quadrant, flanged at each end:—						
63/55 6-10-96		12″ bore	11	0	0	Ton.	Eastern Bengal.	
		9″ bore 1′ 6″ radius	10	5	0	,,	Bezwada-Madras.	
64/243 12-11-96		9″ ,, 1′ 6″ ,, diminishing to 8″ bore ...	10	5	0	,,		
		Bends, quadrant, socket and spigot jointed 8″ bore ...	9	0	0	,,	Eastern Bengal.	
		Tees flanged—						
63/55 6-10-96		9″ bore, main and branch, 2′ 6″ long	10	5	0	,,	Bezwada-Madras.	
		8″ bore	9	0	0	,,		
64/243 12-11-96		Bolts and nuts, ⅞″ diameter, 4″ long, for bends and flanged pipes.	18	10	0	,,	Bezwada-Madras.	
63/55 6-10-96		Bolts and nuts for flanged piping	20	0	0	,,	Eastern Bengal.	
		Lewis bolts with nuts, ⅞″ diameter, for special quadrant bends	18	0	0	,,	Bezwada-Madras.	
62/216 17-9-96	Pipes, wrought iron.	Galvanized, with screwed ends and a socket to each, in 12 feet lengths—						
		½″	6	18	1	Lengths 100	North-Western.	
		¾″	9	15	0	,,		
		1″	13	16	3	,,		
62/216 17-9-96		Galvanized with screwed ends and a socket to each in 12 feet lengths—				Lengths.		
		1¼″	18	10	6	100	North-Western.	
		1½″	23	3	1	,,		
		2″	31	10	9	,,		
		2½″	48	15	0	,,		
		3″	64	2	5	,,		
56/384 27-3-96	Pipes, wrought iron—*contd.*	Gas (black) with screwed end and a socket to each length—						
		1″	0	0	1·87	Foot.	Eastern Bengal.	
		1½″	0	0	3·30	,,		
		1¾″	0	0	3·95	,,		
		2″	0	0	4·61	,,		
		2¼″ In lengths of 11, 12, 13 and 14 feet... ...	0	0	6·10	,,		
		2½″	0	0	7·80	,,		
		3″	0	0	9	,,		
60/458 29-7-96		3″	0	0	7½	,,		
		4″	0	0	10	,,		
		Connections for:—						
		Bends, quarter, with socket to each, galvanized for:—						
62/216 17-9-96		¾″	1	7	4	Per 100.	North-Western.	
		1″	1	14	4	,,		
		1¼″	2	11	4	,,		
		1½″	3	1	10	,,		
		2″	5	16	10	,,		
		2½″	13	15	0	,,		
		3″	21	18	11	,,		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Connections for—contd.						
63/85 8-10-96	Pipes, wrought iron—*contd.*	Bends, quarter, for gas pipes with a socket to each—						
		1″	0	0	3	Foot	Eastern Bengal.	
		1¼″	0	0	5·40	,,		
56/384 27-3-96		2″	0	0	10	,,		
		2½″	0	1	3·21	,,		
		3″	0	2	0	,,		
57/74 2-4-96		Bends, quarter, galvanized, with a socket to each for water connections—						
		2½″	0	3	1½	,,		
		Elbows, round, for galvanized piping—						
62/216 17-9-96		1″	0	2	6½	Each	Burma.	
		1¼″	1	16	8	Per 100	North-Western.	
		1½″	2	12	8	,,		
		2″	3	8	8	,,		
		Elbows, round, to suit steam pipes—	5	5	4	,,		
60/284 18-7-96		1½″	0	0	7½	Each	Warora Colliery.	
		2″	0	0	10¾	,,		
		3″	0	3	9½	,,		
62/216 17-9-96	Pipes, wrought iron—*concld.*	Tees for galvanized piping—						
		¾″	1	7	1	Per 100	North-Western.	
		1″	1	14	4	,,		
		1¼″	2	9	10	,,		
		1½″	1	8	8	,,		
		2″	1	3	0	,,		
		2½″	13	1	1	,,		
56/384 27-3-96		Tees for gas pipes with a socket to each—						
		2″	0	0	9	Foot	Eastern Bengal.	
		2¼″	0	1	2	,,		
		2½″	0	1	10½	,,		
		3″	0	3	2·60	,,		
63/85 8-10-96		Tee pieces for gas fittings—						
		1″	0	0	3	,,		
		1½″	0	0	6	,,		
57/74 2-4-96		Flanges, screwed galvanized, for wrought iron pipes and bends—						
		2½″	0	1	4½	,,	Burma.	
60/122 6-7-96	Pipes, mild steel.	With screwed ends and socket to each length—						
		3″ bore in lengths, of 20 feet	0	0	11	Each.		
		Connections for above bends, with socket to each—					North-Western.	
		1/16″						
		⅛″	0	7	7	,,		
		¼″						

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Connections for—contd.						
		Elbows, round	0	3	4	Each		
		Flanges, steel	0	4	3	,,		
		Tee pieces	0	3	6	,,		
60/122 6-7-96 ...	Pipes, mild steel—*concld.*	Sluice valves, 3″ flanged	1	8	0	,,		
		Cast iron road boxes for sluice valves	0	3	6	,,	North-Western.	
		Keys for sluice valves	0	0	7	,,		
		Nipples for connection tee pieces and flanges	0	0	8½	,,		
		Bolts and nuts, ⅝″ diameter, for flanges	0	0	1·15	,,		
		Sockets, spare, for 3″ pipes	0	0	11	,,		
56/450 31-3-96 ...	Presses, ticket dating.	Indenting, with type complete	2	12	0	Each.	Burma	Packing extra.
61/88 8-8-96 ...		Ditto ditto	2	12	0	,,	Oudh and Rohilkhand ...	Ditto.
61/418 31-8-96 ...		Ditto ditto	2	12	0	,,	North-Western.	
64/191 10-11-96 ...		Ditto ditto	1	16	0	,,	East Coast	Ditto.

95/24 4-12-96 ...	Presses, ticket dating—*concld*	Indenting, with type complete	2	12	0	Each.	Bezwada-Madras ...	Packing extra.
65/154 19-12-96 ...		Ditto ditto	2	12	0	,,	Rae-Bareli-Benares ...	Ditto.
62/138 10-9-96 ...		Ribbon, dating, to print dates complete	2	2	0	,,	Burma.	
59/80 10-6-96 ...		Tape, black, 1½″ wide for—	0	4	4	Pieces.	Oudh and Rohilkhand, North-Western.	
65/24 4-12-96 ...		Nippers ticket, ordinary, to cut a mark in the ticket for:— ...	0	2	6	,,	Bezwada-Madras.	Ditto.
56/450 31-3-96 ...		Spare boxes of types for:—	0	17	6	,,	Burma.	Ditto.
61/88 8-8-96 ...		Ditto	0	17	6	,,	Oudh and Rohilkhand.	Ditto.
65/154 19-12-96 ...		Ditto	0	17	6	,,	Rae-Bareli Benares.	
61/8 5-8-96 ...	Pumps ...	Hand, lift and force, 6″ diameter barrels, Holman's, mounted on a cast iron standard and fitted with a crank, connecting rod, crank shaft and fly wheel.	10	0	0	Each.	Mandalay-Kunlon.	
61/90 8-8-96 ...		Cylinder, double, hand power, with rams 3⅝″ diameter and 8″ stroke, with 50 feet of 2¼″ galvanized lap welded, *w. i.* suction and delivery piping with *w. i.* galvanized flanges and strainer, 3 *w. i.* galvanized elbows and one cup with screw for shaping bucket leathers and all necessary galvanized bolts and nuts. Also 70 feet additional 2¼″ galvanized suction and delivery piping.	30	10	0	,,	Bezwada-Madras.	
		Cylinder, double, hand power, with rams 3½″ diameter and 8″ stroke.	26	10	0	,,	Mandalay-Kunlon.	

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
		Spare parts for—						
61/90 8-8-96 ...	Pumps—*concld.*	700 ft. of additional 2¼″ galvanized section and delivery piping for 3⅜″ × 8″ pumps.	36	0	0	Each.	Bezwada-Madras.	
64/402 27-11-96 ...		Cylinder double, hand power, capable of delivering 1,000 gallons of water per hour.	26	0	0	,,	East Coast.	
65/220 24-12-96 ...	Pumping Engine.	Water motor (engine and pump combined). To raise 1,080 gallons per hour to a height of 800 feet through 25,000 feet of 4″ pipe. Power water 3,720 gallons per hour, 13,000 feet of 4″ pipe. Height of source above pump 380 feet. Motor cylinder 8″ diameter with 12″ stroke.	116	0	0	Each.	Mushkaf-Bolan.	Double ram pump to raise part of its own supply.
59/36 3-6-96 ...	Roofing ...	Steel work for one engine shed 120 feet long by two spans of 45 feet clear width, including T. bar rafters, T. bar ventilator standards, T. bars at bearings, T. bar struts, Flat bars, Gusset and Bearing plates, angle bars in purlins, rivet heads and spare rivets, wind tie rods and bolts of sizes, holding down bolts, washer plates, for ditto, and service bolts, nuts and washers.	411	11	0	Total.	Kotri-Rohri.	
59/34 3-6-96 ...		Iron, galvanized, for one engine shed 120 feet long by two spans of 45 feet clear width comprising *w. i.* corrugated sheets, ridge plates, wind ties, valley gutters, clips, rivets and burrs.	342	3	10	,,		
		Cost of steel and ironwork for one roof of engine shed complete.	753	14	10	Roof.	.....	*Quantities in engine shed roof.* T. c. q. lbs. Steel work ... 37 16 3 14; Corrugated sheets, &c. 25 18 0 0; Total ... 63 14 3 14
63/333 30-10-96 ...	Roofing—*concld.*	Steel work for one engine shed, 170 feet long and 45 feet clear width, including T. bar rafters, T. bar standards, T bars at bearings, T bar struts, Flat bars, Gusset and bearing plates, angle bars in purlins, angle bar connections for ditto, rivet heads and spare rivets, wind tie rods, wind tie bolts of sizes, holding down bolts, washer plates for ditto, service bolts, nuts and washers.	344	17	7	Total.	Rae-Bareli-Benares.	*Quantities in engine shed roof.* T. c. q. lbs. Steel work ... 25 10 3 21; Corrugated sheets 18 5 3 7; Total ... 43 16 3 0
64/334 19-11-96 ...		Iron galvanized for one engine shed 170 feet long by 45 feet clear width, comprising *w. i.* corrugated sheets, with ridge plates, wind ties, clips, rivets and burrs.	222	12	5	,,		
		Cost of steel and ironwork for one roof of Engine shed complete	567	10	0	Roof.		
		Spare parts of—						
63/101 13-10-96 ...		Sheets, galvanized, corrugated, 20 B. W. G. 3″ corrugation, ¾″ deep—						
		8′ 0″ × 2′ 6″ centres of outer ridges ...	10	17	6	Ton.	Eastern Bengal.	
		9′ 0″ × 2′ 6″ ditto ditto ...	10	17	6	,,		
		10′ 0″ × 2′ 6″ ditto ditto ...	11	17	6	,,		
56/446 31-3-96 ...	Safes, cast iron	Fire proof, 24″ × 18″ × 18″	8	17	6	Each.	Burma.	
61/26 6-8-96 ...		Do. 24″ × 18″ × 18″	8	17	6	,,	Mandalay-Kunlon.	
62/25 2-9-96 ...		Do. 24″ × 18″ × 18″	8	17	6	,,	Burma.	
65/20 3-12-96 ...		Do. 24″ × 18″ × 18″	8	17	6	,,		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £	s.	d.	Unit.	For what railway.	Remarks.
65/20 3-12-96	Safes, cast iron —*concld.*	Fire proof 30″ × 18″ × 18″	12	15	6	Each	Bezwada-Madras.	
62/25 2-9-96		Do. 36″ × 30″ × 24″	16	6	6	,,		
64/73 4-11-96	Signals. ...	List and Morse's patent, with latest improvements, *vide* Appendix A.	175	14	2	Per station	Bezwada-Madras, and Mandalay-Kunlon.	
64/385 12-11-96		Semaphore, distant, complete, with lamps and wrought iron lattice posts 30 ft. high from the ground line to the centre of the signal arm.	22	15	0	Each.	Mari-Attock.	
64/188 10-11-96		Distant complete, with levers, pulleys, stakes, lamp, strand wire, &c., &c., and wrought iron double lattice post, 20′ from ground to centre of signal arm.	22	19	6	,,	East Coast.	
		Fittings for—						
56/350 24-3-96		Distant, complete, (except lamps and wooden posts) but including strand wire, pulleys, stakes, crossing wheels, gas piping, &c., for changing direction of connections, &c., &c.	14	0	0	,,	Oudh and Rohilkhand.	
		Station, complete (except lamps and wooden posts) ...	5	5	4	,,		
61/424 31-8-96		Station, complete with all fittings (except wooden posts) ...	7	10	0	,,		
		Distant, complete, except wooden posts, but including lamps, strand wire, pulleys, stakes, crossing wheels, gas piping, &c., for changing direction of connections, &c., &c.	14	15	0	,,	Burma.	
64/385 12-11-96		Semaphore, without lamps and posts, but including strand wire, pulleys, stakes, crossing wheels, piping for changing direction of connection, &c., &c.	13	15	0	,,	Rae-Bareli-Benares.	
63/123 14-10-96	Signalling and interlocking apparatus.	Messrs. Mackenzie and Holland's signalling and interlocking apparatus complete for a station No. 2, *vide* Appendix B.	81	10	...	Set.	Eastern Bengal.	
65/44 8-12-96		Messrs. Dutton & Co., signalling and interlocking apparatus complete for a simple passing station on a single line of railway, *vide* Appendix C.	115	2	4	,,	Oudh and Rohilkhand.	
65/228 29-12-96		Messrs. Saxby and Farmer's signalling and interlocking apparatus complete for Cawnpore station, *vide* Appendix D.	1,887	18	0	,,	Cawnpore Lucknow, Gogra Ghat connection.	
		Spare parts of—						
58/141 6-5-96		Messrs. Saxby and Farmer's signalling and interlocking apparatus, *vide* Appendix E.	2,175	9	0	Total	North-Western.	
61/253 20-8-96	Tanks ...	Wrought iron for watering stations with cast iron connection pipes, etc. — 8′ × 8′ × 4′	13	14	7	Each	Bezwada-Madras.	
		4″ × 4″ × 4″	5	10	3	,,	Mandalay-Kunlon.	
61/253 20-8-96		8′ × 8′ × 4″	13	9	1	,,		
63/163 19-10-96		8′ × 8′ × 4′	13	18	3	,,	Eastern Bengal.	
63/163 19-10-96		16′ × 12′ × 4′ deep, including 10 per cent. extra of rivets, without *c. i.* connection pipes.	32	0	0	,,		
64/206 10-11-96		Galvanized, for travelling water tanks with delivery cock ...	92	0	0	,,		
		Spare parts of—						
		6′ lengths of pipe flanged at both ends	1	2	0	,,		
		3′ lengths of flanged one end and spigot jointed at the other	0	12	3	,,		
64/42 3-11-96		6′ lengths of pipe flanged at one end and socket jointed at the other.	1	4	9	,,	Burma.	
		Quadrant bends with feet	0	16	6	,,		
		Tees with blank flanges	1	1	0	,,		

CLASS OF STORES F.—STATION MATERIALS AND FENCING—*contd.*

Contracted for in 1896.

Contract number and date.	Articles.	Details.	Rate—Free on board. Amount. £.	s.	d.	Unit.	For what railway.	Remarks.
64/46 — 3-11-96	Traverser ...	Steam 26 feet long, to take a broad gauge engine weighing 50 tons.	760	0	0	Each	Eastern Bengal.	
60/472 — 30-7-96	Turn-tables, Engine.	Complete of the central balance description 50 feet, diameter 5′ 6″ gauge suitable for turning an engine and tender weighing 80 tons.	435	0	0	Each	Bezwada-Madras.	
62/140 — 10-9-96		Ditto ditto ditto ...	450	0	0	„	North-Western.	
63/130 — 14-10-96		Ditto ditto ditto ...	450	0	0	„	Rae-Bareli-Benares.	
64/227 — 18-11-96		Ditto ditto ditto ...	475	0	0	„	East Coast.	
60/474 — 30-7-96		Metre gauge 36 feet diameter of the central balance description, each suitable for turning an engine and tender weighing together 38 tons.	210	0	0	„	Mandalay-Kunlon.	
57/253 — 14-4-96		*Spare parts of*— Rails, bridge, steel, 14′ 4″, 73 lbs. per yard	0	7	0	Cwt.	Burma.	
59/72 — 8-6-96	Tyres ...	India rubber, 11″ diameter with wrought iron rings for wheels of platform barrows.	0	15	7	Each	North-Western.	
61/419 — 31-8-96	Washing out apparatus.	For Locomotive boilers, complete with all fittings ...	11	0	0	Each	Mandalay-Kunlon.	
62/20 — 2-9-96	Water metre...	Kent's patent 6″ water metre	59	17	6	Total.	North-Western.	Including packing and dilivery F. O. B.
60/473 — 30-7-96	Weigh-bridges	With platform 18 feet long 5′ 6″ gauge adjusted to weigh by English and Indian standard up to 25 tons and 681 maunds.	125	0	0	„	Bezwada-Madras.	
64/335 — 19-11-96		Wagon, with platform 18 feet long, 6′ 6″ wide for 5′ 6″ gauge adjusted to weigh by English and Indian standards up to 30 tons and 817 maunds.	135	0	0	„	Rae Bareily-Benares.	
60/504 — 30-7-96	Weighing-machines.	Platform 30″ × 20″ with steel yard graduated for Burmese and English weights only, *viz.*, cwt. qrs. lbs. and viss; to weigh up to 10 cwts. and 308 viss.	9	10	0	Each	Mandalay-Kunlon.	
61/422 — 31-8-96		Ditto ditto ditto ...	9	10	0	„	Burma.	
61/68 — 7-8-96		Platform 36″ × 36″ on wheels to weigh up to 1 ton and 28 maunds with steel yards graduated for English and Indian weights.	14	0	0	„	Oudh and Rohilkhand.	
64/359 — 21-11-96		Ditto 36″ × 36″ ditto 1 ton 23 maunds	11	0	0	„	Rae Bareli-Benares.	
64/359 — 21-11-96		Ditto 32″ × 32″ ditto 1 „ 28 „	11	0	0	„	Bezwada-Madras.	
		Ditto 33″ × 29″ ditto 1 „ 28 „	*9	0	0	„	North-Western	* *The same also contract No. 64/359, dated 21st November 1896, for the Rae-Bareili-Benares railway.*
62/121 — 9-9-96		Ditto 30″ × 30″ ditto 10 cwt. 14 „	7	0	0	„		
61/423 — 31-8-96		Ditto 24″ × 24″ ditto 5 „ 7 „	16	15	6	„	Burma.	
		"Duckham's" patent, suspended and self-indicating, hydrostatic, to weigh up to 5 tons.						

Appendix A.

Specification for one Station for Signal fittings and connections required in addition to Interlocking Gear as supplied by Messrs. Saxby and Farmer, Limited, on India Office Contract No. $\frac{64}{73}$, dated 4th November 1896.

Two double 12″ crossing wheels in cast iron frame with pins for leading off from Station levers.

Six yards of $\frac{1}{4}$″ straight link chain for ditto.

Four right and left hand adjusting screws with brass swivels and nuts for regulating length of wires.

Two sets of iron work complete with arms, spectacles, glazed, red and green lamps with kerosine oil burners and cisterns, ladders, rods, balance lever and weight casting and everything necessary for Distant signals 20 feet high, the posts of which will be made of wood in India.

Two sets of ironwork and fittings complete for 2 arm bracket signals 26 feet 6 inches to top arm, with arms, spectacles, glazed, red and green lamps with kerosine oil burners, cisterns, ladders, hand rails and standards for lamp stage rods, joints, balance levers and balance weights and all fittings complete suitable for List and Morses' gear, the posts to be made of old rails in India, the fittings to be arranged suitable for fixing to the old rails.

Two right and left hand wire adjusting screws with brass swivels and nuts for regulating length of wire.

Eight Feet of $\frac{1}{4}$″ straight link chain.

Sixteen yards of rod connections for connecting lever to points and setting lever to locking slide.

Four 12″ side wheels in cast iron frames for working home signals.

Eight yards of $\frac{1}{4}$″ straight link chain for ditto.

2,550 yards of wire connection consisting of best $\frac{7}{17}$″ galvanized steel strand wire, improved galvanized pulleys bolted to wrought iron galvanized channel iron stakes 4 feet long.

Specification for the Station.

One Patent Lever locking frame with 2 levers fitted with spring catches and all fittings complete for fixing in centre of station for working 4 Home signals two in each direction properly interlocked so that conflicting signals at opposite ends of stations cannot be given.

Two wrought iron scale beam levers 4 feet long fixed on one centre casting each with 2 shackles and 1, $1\frac{1}{4}$″ joins and pins and drilled with 10 holes for regulating stroke for enabling either of the 2 levers to work either of 2 signals.

Two sets of Patent gear with floating crank casting vertical and horizontal locking rods for interlocking signals and points to be fixed at the foot of the Home signals.

Two detachers for disengaging the wires of Distant signals so that a Distant cannot be worked until one or other of the Home signals has been lowered and when either Home signal is raised the Distant is put to danger, with engaging hooks, slides, guides, cast iron foundation, bolts, nuts and everything complete.

Two Lever frames each with 3 levers with spring catch and fittings complete for working points, Distant signal and for interlocking the Home signals with the points.

Two sets of patent Point locks each with 2 locks and 2 keys, 2 locking rods with boss end sockets, pins and cotters for connecting the points and to setting levers.

Four keys each to differ with special distinguishing heads for acting upon Point Locks.

Two wrought iron increase stroke levers fixed in cast iron centres with pins complete with holes for increasing stroke for working Distant signals.

Four wrought iron 9″ cranks for connecting the points and setting locking lever each with one screw joint and lock nut and 1· $1\frac{1}{4}$″ plain joint.

One Patent lock with goose neck rod with pins and keys for siding points, the keys of the loop point locks to pass, so that the siding points will be locked in proper position for passing trains when the Home signals are lowered.

Four right and left hand adjusting screws for regulating the length of point rods.

Two goose neck rods with boss end sockets, pins and cotters for detector locks for facing points.

One wrought iron Rocking shaft with 2 malleable cast iron arms with set screws, bearings, bolts and joints complete.

Appendix B.

Detailed List of Quantities in Signalling and Interlocking Apparatus Station No. 2, as supplied by Mackenzie and Holland on India Office Contract No. $\frac{63}{123}$, dated 14th October 1896.

One Patent Interlocking apparatus (ground pattern) containing 4 working levers, including all necessary interlocking and other fittings complete.

Two sets of wrought iron work and fittings for double arm Bracket Signals, each with two arms, lamps, spectacles, Down Rods, Lever Plates, Brackets, etc.

Two double Woods patent Locks for Points.

Two special Woods patent Locks for Signals.

Eight hundred yards of galvanized steel signal strand wire (7 Strand) with 2″ galvanized side and crown pulleys and screws.

One 10″ pulley in cast iron frames.

Two swivels in cast iron frames.

Two wrought iron 10″ × 15″ cranks.

Two wrought iron 10″ × 20″ cranks.

25 feet of galvanized signal chain.

Six wrought iron wire adjusting screws.

Two wrought iron Single Detectors.

Four wrought iron 1¼″ Extra Joints and Pins.

Twenty yards wrought iron 1¼″ point rod with couplings.

Roller boxes, etc., complete.

One wrought iron Tappet Bolt Lock.

Two wrought iron 1¼″ point adjusting screws.

Two wrought iron 1¼ swan necks.

Appendix C.

One set of signalling and interlocking apparatus for simple passing stations on a single line of Railway by Messrs. Dutton & Co., Worcester, as supplied on India Office Contract No. 65—44, dated 8th December 1896.

Description of Stores.	Quantity required.		Rate per Port of London. £	s.	d.
Iron signal, 20′ high, 2 arms	No.	2	...	...	
Pull over levers, pattern	,,	6	...	...	
Wire pulleys and iron stakes	Yds.	534	...	...	
Do. on same do.	,,	1,067	...	...	
Wheels	No.	12	...	...	
Chain	Ft.	60	...	...	
Wire adjusting screws and chains	No.	6	...	...	
Auto release detector lock, double	,,	2	...	...	
Turn over lever for points	,,	2	...	...	
Flat cranks, adjusting	,,	2	...	...	
1¼″ joints	,,	8	...	...	
1¼″ swan or goose necks	,,	4	...	...	
1¼″ adjusting screws	,,	4	...	...	
1¼″ point rodding and rollers	,,	32	...	...	
Facing points lock bolt	,,	2	...	...	
1″ rods	,,	40	...	...	
Stay rods	,,	4	...	...	
Balance boxes and cast iron brackets	,,	4	...	...	
Cost of packing, drawings, etc.	...		...	...	
The lot			115	2	4

Rates not shown in contract.

Appendix D.

Signalling and Interlocking apparatus by Messrs. Saxby and Farmer, Canterbury Road, Kilburn, N. W., as supplied on India Office Contract No. 65—228, dated 29th December 1896.

Description of Stores.	Quantity required.		Rate per. Port of London £	s.	d.
SCHEDULE.					
SIGNAL APPARATUS.					
Cabin A. including additions.					
Patent locking apparatus with 27 working levers ...	No.	1	4	10	0
Spare levers do. do.	„	4	4	10	0
Cast iron brackets for leading off timber	„	3	1	0	0
Fittings for signals, 1 arm 20 feet high, without posts ...	Sets	11	8	0	0
Fittings for signals, 2 arms Bracket signal 30 feet high, without posts	„	2	18	17	6
Fittings for signals, 3 arms Bracket signal 30 feet high, without posts	„	1	24	10	0
Sets slots (slots from Cabin B with discs in Cabin A working in connection with same	„	5	3	0	0
Discs for slots	No.	5	3	12	0
Ground disc working with points		Not	required.		
Black's patent economical facing point locks with 21 feet bars					
1 detector to signals 2 & 3	No.	4	9	10	0
2 „ „ 4					
1 „ „ 7					
Patent signal detector with 2 slides	„	3	5	0	0
Do. do. 3 with slides	„	1	6	0	0
Points connections with Charrington's patent rollers ...	Yds.	820	0	3	0
Point adjusting screws	No.	5	0	9	0
Vertical cranks	„	4	0	18	0
Horizontal „	„	4	0	16	0
Adjusting „	„	5	1	0	0
Carried over ...	...		521	16	10

Appendix D—*contd.*

Description of Stores.	Quantity required.	Rate per Port of London. £	s.	d.
Brought over ...	...	521	16	10
Vertical compensating levers, improved pattern ...	No. 5	1	15	0
Double joints, 1 only required	„ 1	0	7	0
Wire connections	Yds. 2,700	0	0	4
Wheels for wire connections	No. 100	0	4	6
Wire adjusting screws	„ 46	0	3	6
„ regulators, 2 only required	„ 2	2	10	0
Hanging wheels do.	„ 2	0	7	6
Pedestal wheels 6″ do.	„ 2	0	4	0
Chain	Yds. 180	0	1	3
Cabin B. including additions.				
Locking apparatus with 37 working levers	No. 1	4	10	0
Spare levers	„ 3	4	10	0
C. I. bracket for leading off timber	„ 3	1	0	0
Fittings for signals 1 arm, 20 feet high, without posts ...	Sets 12	8	0	0
Fittings for 2 arms Bracket signal 30 feet high without posts	„ 3	18	7	6
Fittings for 3 arms Bracket signal 30 feet high without posts	No. 1	24	10	0
Discs for slot, (discs to work with points)	„ 5	3	12	0
Slots	Sets 5	3	0	0
Independent ground discs	„ 4	4	10	0
Black's patent economical facing points lock with 21 feet bars—				
2 detectors to signal 6				
2 „ „ 4 and 5				
2 „ „ 26 and 27	No. 10	9	10	0
2 „ „ 24				
2 „ „ 9				
Patent signal detector with 2 slides	„ 5	4	10	0
Carried over ...	...	1,267	12	10

Appendix D—*concld.*

Description of Stores.	Quantity required.	Rate per Port of London. £	s.	d.
Brought over ...	...	1,267	12	10
Patent signal detector with 2 slides	No. 4	5	10	0
Do. do. do. 3 do.	„ 1	6	0	0
Point connections with Charrington's patent rollers *vide* diagram	Yds. 1,995	0	3	0
Point adjusting screws	No. 15	0	9	0
Vertical cranks	„ 10	0	18	0
Horizontal cranks	„ 19	0	15	0
Adjusting „	„ 15	1	0	0
Vertical compensating levers, improved pattern ...	„ 15	1	16	0
Double joints	„ 5	0	7	0
Wire connections	Yds. 10,040	0	0	4
Wheels for wire connections	No. 111	0	4	6
Wire adjusting screws	„ 48	0	3	6
Wire regulators, 3 only required	„ 3	2	10	0
Hanging wheels do.	„ 3	0	7	6
Pedestal wheels 6″ do.	„ 3	0	4	0
Chain	Yds. 194	0	1	3
Total	...	1,887	18	0

Appendix E.

One set of Signalling and Interlocking apparatus by Messrs. Saxby and Farmer, Canterbury Road, Kilburn, N. W., as supplied on India Office Contract No. 58—141, dated 16th May 1896.

Description of Stores.	Quantity required.		Rate per each — Port of London £	s.	d.
Signal apparatus interlocking (points and signals) Saxby and Farmer's spare parts of:—					
Cams, self acting, for signal posts, to lock arms at danger, or to throw to danger when wire breaks ...	No.	9	3	14	0
Clips and ½ crank for North Western Railway standard rails	,,	100	0	7	10
Compensating levers, self acting (wire) to be fitted on posts intermediate from box to signal... ...	,,	9	1	10	0
Connections, chain $\frac{3}{16}''$	Yds.	400	0	1	0
,, ,, $\frac{1}{4}''$	,,	400	0	1	3
Cranks W. I. adjusting side, horizontal	No.	200	1	0	0
Cranks and joints ordinary in sets, 9″	Sets	200	0	16	0
Gongs loud single stroke for block working cabins each with plungers complete (wires and batteries to be supplied in India)	No.	45	7	10	0
Lever frame interlocking with 10 levers and leading off gear within cabin complete...	,,	1	45	0	0
Lever frame interlocking with 10 levers and leading off gear within cabin complete...	,,	1	45	0	0
Lever frame interlocking with 11 levers and leading off gear within cabin complete...	,,	1	49	10	0
Lever frame interlocking with 13 levers and leading off gear within cabin complete...	,,	1	58	10	0
Point rod screwed and slotted 1¼″ (in bundles of 6 rods 17 feet 92 lineal feet effective)	Yds.	5,000	0	2	0
Rollers travelling for 6 point rods	No.	100	0	9	6
Do. 4 ,, ...	,,	210	0	7	8
Do. 3 ,, ...	,,	100	0	6	9
Do. 2 ,, ...	,,	500	0	5	0
Carried over ...	...		1,813	4	4

Appendix E.—*concld.*

Description of Stores.	Quantity required.		Rate per — Port of London £	s.	d.
Brought forward ...	...		1,813	4	4
Screws adjusting right and left handed for ¾″ rod ...	No.	300	0	6	0
Screws adjusting right and left handed for 1⅛″ rod ...	,,	200	0	8	6
Screws adjusting right and left handed for 1¼″ rod ...	,,	100	0	9	0
Screws adjusting right and left handed for regulating wires improved type	,,	100	0	5	0
Wire strand, galvanized, steel in coils, 1,611 feet long ...	Coils	125	0	18	9
Total ...	...		2,175	9	0