



COROMANDEL
AL ALNAC.

1800

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NORWICH UNION FIRE INSURANCE SOCIETY

OF NORWICH AND LONDON, ENGLAND.

ESTABLISHED 1797.

FOR FIRE INSURANCE ONLY.

President—HENRY STANFORTH PATTESON, ESQ.

Secretary—C. A. BATHURST BIGNOLD, ESQ.

Amount Insured	...	£350,000,000
Losses Paid	...	£ 13,000,000
Premium Income	...	£ 900,000

Insurances effected on the most favourable Terms.

LOSSES LIBERALLY AND PROMPTLY SETTLED

Agents at Madras:

LEIGHTON & CO.

NOTE.

THE Compilers of this Almanac will be much obliged to anyone who takes the trouble to call their attention to its errors or omissions.

COMMERCIAL HOLIDAYS.

Feast.	Madras.	Bombay.	Calcutta.
New Year	Jan. 2.	Jan. 2 & 3.	Jan. 2.
Poongul	" 13.	"	"
Sree Panchomy	"	"	Feb. 14.
Maha Shivratri	"	Mar. 10.	"
Holi	"	" 27.	"
Dode Jatra	"	"	Mar. 8.
Jamshed-i-Nauroz	"	Mar. 21.	"
Ramanavami	"	Apl. 19.	"
Easter	Mar. 31 to Apl. 4.	Mar. 31 to Apl. 3.	Mar. 31 & Apl. 12.
Chaitra Sankranti	"	"	"
Whitsuntide	May 22 & 23.	May 22.	"
Her Majesty's Birthday	To be fixed by the Governor-General in Council.		
Mohurram	"	May 20.	"
Cocosnut Day	"	Aug. 21.	"
Avani Avuttam	Aug. 21.	"	"
Gokul (or Jummoo) Ashtami	"	Aug. 28.	Aug. 28.
Mahalaya Amavasya	Oct. 4.	"	Sep. 15.
Ganesh-Chaturthi	"	Sep. 9.	"
Parsi New Year	"	Sep. 13 & 15.	"
Khordadasal	"	" 20.	"
Dusserah and Doorga Poojah	Oct. 14.	Oct. 14.	Oct. 12, 13, 14.
Lukhee Poojah	"	"	18.
Dipavali, Devvali, and Kallee Poojah	Nov. 2.	Nov. 2 to 4.	Nov. 3.
Prince of Wales' Birthday	" 9.	"	"
Juggodhatri Poojah	"	"	Nov. 11.
Christmas	Dec. 23 to 30.	Dec. 23 to 27.	Dec. 25 to 26.
New Year	"	" 30.	"

MADRAS GOVERNMENT HOLIDAYS.

Jan. 13	Poongul	General.	May 22	Whitsuntide	General.
" 14	Ramzan	Mahmdn.	" 23	"	"
Feb. 12	Yee di Ramzan	Do.	June 1	H. M. Birthday	Do.
" 15	Ash Wednesday	Christian.	Aug. 21	Corpus Christi	Christian.
Mar. 10	Maha Siva Ratri	Hindu.	" 28	Avani Avuttam	General.
" 30	"	"	" 28	Stree Jayentee	Hindu.
to Apl. 4	Easter	General.	Oct. 4	Malaya Amavasya	Do.
Apl. 11	Telugu New Year	Hindu.	" 14	Dusserah	General.
" 12	Tamil do.	Do.	Nov. 2	Depavali	Do.
" 21	Bukreeth	Mahmdn.	" 9	Prince of Wales' Birthday	Do.
" 28	Triplicane Feast	Hindu.	Dec. 18	Shahbahrath	Mahmdn.
May 11	Ascension Day	Christian.	" 21	"	"
" 12	Mohurram	Mahmdn.	" 31	Christmas Day	General.

AGENCY.

COMMISSIONS (EITHER TRIVIAL OR IMPORTANT) ATTENDED TO.

PASSAGES ENGAGED TO ANY PART OF THE WORLD, FREE OF CHARGE.

OCCASIONAL CHEAP STEAMERS AVAILABLE TO ENGLAND AND THE CONTINENT.

PASSENGERS MET AND THEIR BAGGAGE LANDED, CLEARED, STORED, OR FORWARDED.

Packages received, stored, or forwarded to any part of the world.

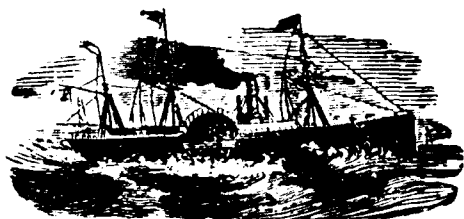
INSURANCES (MARINE, FIRE, AND LIFE) EFFECTED.

PAY, PENSIONS AND ALLOWANCES REALISED.

Securities bought and sold, and held in safe custody.

Patents taken out in India, Ceylon, England and America.

LEIGHTON & CO., MADRAS.



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Affords a convenient and cheap means of sending Packages of every description, small and large, to England, the Continent, America and Australia.

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Scotland	8	..	Austria	8½ to 15 ..
Ireland	8	..	Denmark	8 to Rs. 1-2 ..
Germany	8 to As. 13½	..	Canada	9 to 1-2 ..
Switzerland	8 to 15	..	United States	8 to 1-4 ..
Holland	8½ to 12	..	Australia	10 to 1-4 ..

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Goods and Parcels cleared through the Customs and forwarded to Clubs, Messes, Firms and Private Individuals throughout Southern India.

LEIGHTON & CO., MADRAS.

Calendar for 1899.

JANUARY							MAY							SEPTEMBER						
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
8	9	10	11	12	13	14	8	9	10	11	12	13	14	8	9	10	11	12	13	14
15	16	17	18	19	20	21	15	16	17	18	19	20	21	15	16	17	18	19	20	21
22	23	24	25	26	27	28	22	23	24	25	26	27	28	22	23	24	25	26	27	28
29	30	31					29	30	31					24	25	26	27	28	29	30

FEBRUARY							JUNE							OCTOBER						
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
			1	2	3	4				1	2	3	4	1	2	3	4	5	6	7
5	6	7	8	9	10	11	4	5	6	7	8	9	10	8	9	10	11	12	13	14
12	13	14	15	16	17	18	11	12	13	14	15	16	17	15	16	17	18	19	20	21
19	20	21	22	23	24	25	18	19	20	21	22	23	24	22	23	24	25	26	27	28
26	27	28					25	26	27	28	29	30		29	30	31				

MARCH							JULY							NOVEMBER						
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
			1	2	3	4						1	2				1	2	3	4
5	6	7	8	9	10	11	2	3	4	5	6	7	8	5	6	7	8	9	10	11
12	13	14	15	16	17	18	9	10	11	12	13	14	15	12	13	14	15	16	17	18
19	20	21	22	23	24	25	16	17	18	19	20	21	22	19	20	21	22	23	24	25
26	27	28	29	30	31		23	24	25	26	27	28	29	26	27	28	29	30		

APRIL							AUGUST							DECEMBER						
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S
					1	2		1	2	3	4	5	6						1	2
2	3	4	5	6	7	8	3	4	5	6	7	8	9	3	4	5	6	7	8	9
9	10	11	12	13	14	15	10	11	12	13	14	15	16	10	11	12	13	14	15	16
16	17	18	19	20	21	22	17	18	19	20	21	22	23	17	18	19	20	21	22	23
23	24	25	26	27	28	29	24	25	26	27	28	29	30	24	25	26	27	28	29	30
30							31							31						

JANUARY—31 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st Jany.	to 31st Dec.
1	S	First Sunday after Christmas	1	364
2	M	Farneekabad taken, 1858	2	363
3	T		3	362
4	W		4	361
5	Th		5	360
6	F	Epiphany. (Twelfth Night)	6	359
7	S		7	358
8	S	First Sunday after Epiphany	8	357
9	M		9	356
10	T		10	355
11	W	Trincomallee taken, 1765	11	354
12	Th		12	353
13	F	Chillianwallah, 1849	13	352
14	S	Death of Duke of Clarence, 1892	14	351
15	S	Second Sunday after Epiphany	15	350
16	M	Corunna, 1809	16	349
17	T	Abu Klea, 1885	17	348
18	W	Bhurt pore taken, 1826	18	347
19	Th	Ciudad Rodrigo, 1812. Aden taken, 1839	19	346
20	F		20	345
21	S		21	344
22	S	Third Sunday after Epiphany	22	343
23	M		23	342
24	T		24	341
25	W	Conversion of St. Paul	25	340
26	Th		26	339
27	F		27	338
28	S	Aliwal, 1846	28	337
29	S	Septuagesima Sunday	29	336
30	M		30	335
31	T		31	334

FEBRUARY—28 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st Jany.	to 31st Dec.
1	W		32	333
2	Th	Purification	33	332
3	F		34	331
4	S	Gwalior, 1804	35	330
5	S	Sexagesima Sunday	36	329
6	M		37	328
7	T		38	327
8	W		39	326
9	Th	Calcutta retaken, 1737	40	325
10	F	Marriage of Her Majesty, 1840	41	324
11	S		42	332
12	S	Quinquagesima Sunday	43	322
13	M		44	321
14	T	Shrove Tuesday. St. Valentine's Day	45	320
15	W	Ash Wednesday	46	319
16	Th	Colombo taken, 1796	47	318
17	F	Eupatoria, 1855	48	317
18	S		49	316
19	S	Quadragesima First Sunday in Lent	50	315
20	M		51	314
21	T	Alumbagh, 1858. Gujerat, 1849	52	313
22	W		53	312
23	Th		54	311
24	F	St. Matthias	55	310
25	S	Canton, 1841	56	309
26	S	Second Sunday in Lent	57	308
27	M		58	307
28	T		59	306

MARCH—31 DAYS.

M W FEASTS, FESTIVALS, AND ANNIVERSARIES.			from 1st Jany.	to 31st Dec.
1	W	St. David	60	305
2	Th		61	304
3	F		62	303
4	S		63	302
5	S	Third Sunday in Lent	64	301
6	M		65	300
7	T		66	299
8	W		67	298
9	Th		68	297
10	F	Marriage of Prince of Wales, 1863	69	296
11	S		70	295
12	S	Fourth Sunday in Lent	71	294
13	M		72	293
14	T	Lucknow retaken, 1858	73	292
15	W		74	291
16	Th		75	290
17	F	Annunciation St. Patrick	76	289
18	S	Birth of Princess Louise, 1848	77	288
19	S	Fifth Sunday in Lent	78	287
20	M		79	286
21	T	Marriage of Princess Louise, 1871	80	285
22	W		81	284
23	Th		82	283
24	F	Sind Annexed, 1843	83	282
25	S	Annunciation	84	281
26	S	Palm Sunday. Holy Eileen	85	280
27	M		86	279
28	T	Death of Duke of Albany, 1884	87	278
29	W	Punjab annexed, 1849	88	277
30	Th		89	276
31	F	Good Friday	90	275

APRIL—30 DAYS.

M W FEASTS, FESTIVALS, AND ANNIVERSARIES.			from 1st Jany.	to 31st Dec.
1	S		91	274
2	S	Easter Sunday	92	273
3	M	Easter Monday	93	272
4	T	Easter Tuesday	94	271
5	W		95	270
6	Th	Mercara taken, 1834	96	269
7	F		97	268
8	S		98	267
9	S	First Sunday after Easter	99	266
10	M		100	265
11	T		101	264
12	W	Lord Rodney's Victory, 1782	102	263
13	Th	Magdala, 1868	103	262
14	F	Birth of Princess Beatrice, 1857	104	261
15	S		105	260
16	S	Second Sunday after Easter	106	259
17	M		107	258
18	T	Chitral relieved, 1895	108	257
19	W	Primrose Day	109	256
20	Th		110	255
21	F		111	254
22	S		112	253
23	S	Third Sunday after Easter St. George	113	252
24	M		114	251
25	T	St. Mark	115	250
26	W		116	249
27	Th		117	248
28	F		118	247
29	S		119	246
30	S	Fourth Sunday after Easter	120	245

MAY—31 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st any.	to 31st Dec.
1	M	Birth of Duke of Connaught, 1850	121	244
2	T		122	243
3	W		123	242
4	Th	Seringapatam taken, 1799	124	241
5	F		125	240
6	S		126	239
7	S	Fifth Sunday after Easter Rogation Sunday	127	238
8	M		128	237
9	T		129	236
10	W		130	235
11	Th	Ascension Day Holy Thursday	131	234
12	F		132	233
13	S		133	232
14	S	Sunday after Ascension	134	231
15	M		135	230
16	T	Albuera, 1811	136	229
17	W		137	228
18	Th		138	227
19	F		139	226
20	S		140	225
21	S	Whitsun Day. Pentecost	141	224
22	M	Whitsun Monday	142	223
23	T	Whitsun Tuesday Ramillies, 1706	143	222
24	W	Birth of Her Majesty, 1819	144	221
25	Th		145	220
26	F	Birth of Duchess of York, 1867	146	219
27	S		147	218
28	S	Trinity Sunday	148	217
29	M		149	216
30	T		150	215
31	W	Canton, 1841	151	214

JUNE—30 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st Jan'y.	to 31st Dec.
1	Th	Corpus Christi. Howe's Victory, 1794	152	213
2	F		153	212
3	S	Birth of Duke of York, 1865	154	211
4	S	First Sunday after Trinity	155	210
5	M		156	209
6	T		157	208
7	W		158	207
8	Th	Cuddalore, 1760	159	206
9	F		160	205
10	S		161	204
11	S	Second Sunday after Trinity	162	203
12	M		163	202
13	T		164	201
14	W		165	200
15	Th		166	199
16	F	Quatre Bras, 1815	167	198
17	S		168	197
18	S	Third Sunday after Trinity Waterloo, 1815	169	196
19	M		170	195
20	T	Accession of Her Majesty, 1837	171	194
21	W	Victoria, 1813	172	193
22	Th		173	192
23	F	Plassey, 1757	174	191
24	S	St. John the Baptist	175	190
25	S	Fourth Sunday after Trinity	176	189
26	M		177	188
27	T	Cawnpore Massacre, 1857	178	187
28	W	Coronation of Her Majesty, 1838	179	186
29	Th	St. Peter	180	185
30	F		181	184

JULY—31 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st Jany.	to 31st Dec.
1	S	...	182	183
2	S	Fifth Sunday after Trinity. Wandiwash, 1760	183	182
3	M	...	184	181
4	T	Ulundi, 1879	185	180
5	W	...	186	179
6	Th	Marriage of Duke of York, 1893	187	178
7	F	...	188	177
8	S	...	189	176
9	S	Sixth Sunday after Trinity...	190	175
10	M	...	191	174
11	T	Oudenarde, 1708	192	173
12	W	...	193	172
13	Th	...	194	171
14	F	...	195	170
15	S	...	196	169
16	S	Seventh Sunday after Trinity	197	168
17	M	...	198	167
18	T	...	199	166
19	W	...	200	165
20	Th	Armada defeated, 1588	201	164
21	F	...	202	163
22	S	...	203	162
23	S	Eighth Sunday after Trinity	204	161
24	M	...	205	160
25	T	St. James	206	159
26	W	...	207	158
27	Th	Talavera, 1806	208	157
28	F	...	209	156
29	S	...	210	155
30	S	Ninth Sunday after Trinity	211	154
31	M	...	212	153

AUGUST—31 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st Jany.	to 31st Dec.
1	T	...	213	152
2	W	...	214	151
3	Th	...	215	150
4	F	...	216	149
5	S	...	217	148
6	S	Tenth Sunday after Trinity	218	147
7	M	...	219	146
8	T	...	220	145
9	W	...	221	144
10	Th	...	222	143
11	F	...	223	142
12	S	Ahmadnagar taken, 1803	224	141
13	S	Eleventh Sunday after Trinity. Blenheim, 1704	225	140
14	M	...	226	139
15	T	...	227	138
16	W	...	228	137
17	Th	Rohilla, 1808	229	136
18	F	...	230	135
19	S	...	231	134
20	S	Twelfth Sunday after Trinity	232	133
21	M	Vimiera, 1808	233	132
22	T	...	234	131
23	W	...	235	130
24	Th	St. Bartholomew	236	129
25	F	...	237	128
26	S	Crecy, 1346	238	127
27	S	Thirteenth S. after Trinity. Exmouth's victory, 1816.	239	126
28	M	...	240	125
29	T	...	241	124
30	W	...	242	123
31	Th	Kandahar, 1880	243	122

SEPTEMBER—30 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st Jany.	to 31st Dec.
1	F	...	244	121
2	S	Ondurman, 1890	245	120
3	S	Fourteenth Sunday after Trinity	246	119
4	M	...	247	118
5	T	...	248	117
6	W	...	249	116
7	Th	...	250	115
8	F	Sebastopol taken, 1855	251	114
9	S	...	252	113
10	S	Fifteenth Sunday after Trinity	253	112
11	M	...	254	111
12	T	...	255	110
13	W	Quebec, 1759. Tel-el-Kebir, 1882	256	109
14	Th	...	257	108
15	F	...	258	107
16	S	...	259	106
17	S	Sixteenth Sunday after Trinity	260	105
18	M	...	261	104
19	T	...	262	103
20	W	Alma, 1854. Delhi retaken, 1857	263	102
21	Th	St. Matthew	264	101
22	F	...	265	100
23	S	Assaye, 1803	266	99
24	S	Seventeenth Sunday after Trinity	267	98
25	M	...	268	97
26	T	...	269	96
27	W	Busaco, 1810	270	95
28	Th	...	271	94
29	F	St. Michael and all Angels	272	93
30	S	...	273	92

OCTOBER—31 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st Jany.	to 31st Dec.
1	S	Eighteenth Sunday after Trinity	274	91
2	M	...	275	90
3	T	...	276	89
4	W	...	277	88
5	Th	...	278	87
6	F	...	279	86
7	S	...	280	85
8	S	Nineteenth Sunday after Trinity	281	84
9	M	...	282	83
10	T	...	283	82
11	W	Camperdown, 1779	284	81
12	Th	Pekin, 1860	285	80
13	F	...	286	79
14	S	...	287	78
15	S	Twentieth Sunday after Trinity	288	77
16	M	...	289	76
17	T	...	290	75
18	W	St. Luke	291	74
19	Th	...	292	73
20	F	Navarino, 1827	293	72
21	S	Trafalgar, 1805	294	71
22	S	Twenty-first Sunday after Trinity	295	70
23	M	...	296	69
24	T	...	297	68
25	W	Balaclava, 1854	298	67
26	Th	...	299	66
27	F	...	300	65
28	S	St. Simon & St. Jude	301	64
29	S	Twenty-second Sunday after Trinity	302	63
30	M	...	303	62
31	T	...	304	61

NOVEMBER—30 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st Jany.	to 31st Dec.
1	W	All Saints' Day	305	60
2	Th	...	306	59
3	F	...	307	58
4	S	...	308	57
5	S	Twenty-third Sunday after Trinity Inkerman, 1854	309	56
6	M	...	310	55
7	T	Mooltan, 1848	311	54
8	W	...	312	53
9	Th	Birth of Prince of Wales, 1841	313	52
10	F	...	314	51
11	S	...	315	50
12	S	Twenty-fourth Sunday after Trinity	316	49
13	M	...	317	48
14	T	...	318	47
15	W	...	319	46
16	Th	...	320	45
17	F	...	321	44
18	S	...	322	43
19	S	Twenty-fifth Sunday after Trinity	323	42
20	M	Hawke's victory, 1759	324	41
21	T	...	325	40
22	W	...	326	39
23	Th	...	327	38
24	F	...	328	37
25	S	...	329	36
26	S	Twenty-sixth Sunday after Trinity	330	35
27	M	...	331	34
28	T	...	332	33
29	W	...	333	32
30	Th	St. Andrew	334	31

DECEMBER—31 DAYS.

M	W	FEASTS, FESTIVALS, AND ANNIVERSARIES.	from 1st Jany.	to 31st Dec.
1	F	Birth of Princess of Wales, 1844	335	30
2	S	...	336	29
3	S	First Sunday in Advent. Hohenlinden, 1800	337	28
4	M	...	338	27
5	T	...	339	26
6	W	...	340	25
7	Th	...	341	24
8	F	...	342	23
9	S	...	343	22
10	S	Second Sunday in Advent	344	21
11	M	...	345	20
12	T	...	346	19
13	W	...	347	18
14	Th	...	348	17
15	F	...	349	16
16	S	...	350	15
17	S	Third Sunday in Advent	351	14
18	M	...	352	13
19	T	...	353	12
20	W	Suakin, 1888	354	11
21	Th	...	355	10
22	F	Ferozeshah, 1845	356	9
23	S	...	357	8
24	S	Fourth Sunday in Advent	358	7
25	M	Christmas Day	359	6
26	T	...	360	5
27	W	...	361	4
28	Th	...	362	3
29	F	Mooltan taken, 1848	363	2
30	S	...	364	1
31	S	First Sunday after Christmas	365	...

POSTAL GUIDE.

INDIAN RATES.

Each Post-card.		LETTERS.				PACKETS.		PARCELS.		
						Newspapers, Books and Patterns.		Postage payable in cash.		
Single.	Reply.	Not exceeding 1 tola.	Exceeding 1 tola but not exceeding 1 tola.	For every additional tola or fraction thereof.		Not exceeding 10 tolas.	For every additional 10 tolas or fraction thereof.	Not exceeding 20 tolas.	Exceeding 20 tolas but not exceeding 40 tolas.	For every additional 40 tolas or fraction thereof.
$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	1	1	anna.	$\frac{1}{2}$	$\frac{1}{2}$	4	8	4
anna.	anna.	anna.	anna.	anna.		anna.	anna.	annas.	annas.	annas.

UNPAID POSTAGE CHARGE-
ABLE ON DELIVERY.

For an unpaid letter or packet—double the prepaid rate.
For an insufficiently paid letter or packet—double the deficiency.
For an unpaid parcel—the prepaid rate.

Commission on ordinary Inland Money Orders.

On any sum not exceeding Rs.10 ... 2 annas.

" exceeding Rs.10 but not exceeding Rs.25 4 annas.

" " Rs.25 ... 4 annas for each complete sum of Rs.25 and 4 annas for the remainder; provided that if the remainder do not exceed Rs.10, the charge for it is only 2 annas.

(The value of a single money-order may not exceed Rs.600.)

Value-payable Commission.		Insurance Fees.	
The amount specified for realisation will, when required, be paid to the sender by means of a money-order. In the case of an unregistered book packet, the whole amount specified will be remitted; in the case of any other value-payable article the amount specified will be remitted minus a commission calculated at ordinary Inland money-order rates (as given above).		WHEN THE VALUE INSURED DOES NOT EXCEED	
		Rs. 50.	Rs. 100.
Parcels, registered letters, registered, and unregistered book packets, and Railway Receipt-notes can be sent value-payable.		Every Rs. 100.	
		2	4
		annas.	annas.

Registration Fee. Two annas (in stamps) for each article registered.

Acknowledgment Charge. One anna (in stamps for registered articles, and cash for ordinary parcels.

FOREIGN RATES.

COUNTRIES AND PLACES.		UNION RATES.							
Registration fee—3 annas (in stamps) for each letter or packet registered.		Each post-card.		Printed papers, including books and newspapers.		Legal & Commercial documents.		Samples.	
Acknowledgment fee—3 annas (in stamps), in addition to the registration fee, for each letter or packet registered.		Single.	Reply.	Each packet per 2 os.	Not exceeding 10 os.	Per 2 os. additional.	Not exceeding 4 os.	Per 2 os. additional.	
(For the countries and places to which post-cards cannot be sent or registration is not available or prepayment of postage is compulsory, see the Schedule of Foreign Postage Rates in Section III. of the Postal Guide.)		A.	A.	A.	A.	A.	A.	A.	
Any part of the world with the exceptions of the places mentioned below, by any route, and Ceylon by P. and O. or French Packet or by private vessel ...		2½	1	2	1	2½	1	1	1
Ceylon by Land Post or Indian Packet Aden, Berbera, Bulhar, Harrar, Lahej, Makalla, Perim, Shehr and Zeyla French and Portuguese Possessions in India Indian Offices in the Persian Gulf and Turkish Arabia and on the Mekran Coast ...									

Indian Inland Rates from any Indian Post Office except Zanzibar.

Foreign Money Order Commission.

For a Sterling Money Order not exceeding

£2		£5		£7		£10		£12		£15		£17		£20	
R.	A.	R.	A.	R.	A.	R.	A.	R.	A.	R.	A.	R.	A.	R.	A.
0	4	0	8	0	12	1	0	1	4	1	8	1	12	2	0

British Postal Orders

of the following denominations:—

£.	d.	£.	d.	£.	d.	£.	d.	£.	d.
1	0	2	6	4	0	7	0	15	0
1	6	3	0	4	6	10	0	30	0
2	0	3	6	5	0	10	6	...	...

are sold at Post Offices and are payable in the United Kingdom and Constantinople. The cost of a postal order is the nominal value converted into Indian currency at the rate of exchange in force, plus commission.

Foreign Parcel Post.

The following are the principal countries to which parcels may be sent from any Post Office in India:—

United Kingdom.	Denmark.	New South Wales.	Straits Settlements.
Austria-Hungary.	Egypt.	Norway.	Sweden.
Belgium.	France.	Queensland.	Switzerland.
Ceylon.	Germany.	Siam (Bangkok).	Victoria.
China (British).	Holland.	South Australia.	Zanzibar.

Postage.—For United Kingdom and Zanzibar, when not exceeding 11 lbs., 8 annas for the first pound and 6 annas for each subsequent pound; when exceeding 11 lbs., 8 annas for each pound. For Ceylon, Indian Inland rates. For the Australian Colonies, 12 annas per pound. In the case of other countries, 8 annas per pound. Prepayment is compulsory.

TELEGRAPH GUIDE.

Inland Rates.

Urgent Rs. 2—Ordinary Re. 1—Deferred 8 As. for the first eight words.
" As. 4— " As. 2— " 1 A. for each additional word.

Foreign Rates.

To		PER WORD	
		From India.	From Burma.
		Rs. A.	Rs. A.
All countries in Europe (except Russia and Turkey) ...		3 0	3 2
Ceylon ...		0 8	0 4½

EXCHANGE CALCULATOR.
Rupees into £ Sterling.

[illegible]

EXCHANGE CALCULATOR.
£ Sterling into Rupees.

[illegible]

EXCHANGE CALCULATOR.
Rupees into £ Sterling.

1-3½			1-3½			1-3½			1-3½			1-3½			1-3½			1-3½			1-3½		
Σ	s. d.	dec.	Σ	s. d.	dec.	Σ	s. d.	dec.	Σ	s. d.	dec.	Σ	s. d.	dec.	Σ	s. d.	dec.	Σ	s. d.	dec.	Σ	s. d.	dec.
1	3	300	1	3	300	1	3	300	1	3	300	1	3	300	1	3	300	1	3	300	1	3	300
2	6	600	2	6	600	2	6	600	2	6	600	2	6	600	2	6	600	2	6	600	2	6	600
3	9	900	3	9	900	3	9	900	3	9	900	3	9	900	3	9	900	3	9	900	3	9	900
4	12	1200	4	12	1200	4	12	1200	4	12	1200	4	12	1200	4	12	1200	4	12	1200	4	12	1200
5	15	1500	5	15	1500	5	15	1500	5	15	1500	5	15	1500	5	15	1500	5	15	1500	5	15	1500
6	18	1800	6	18	1800	6	18	1800	6	18	1800	6	18	1800	6	18	1800	6	18	1800	6	18	1800
7	21	2100	7	21	2100	7	21	2100	7	21	2100	7	21	2100	7	21	2100	7	21	2100	7	21	2100
8	24	2400	8	24	2400	8	24	2400	8	24	2400	8	24	2400	8	24	2400	8	24	2400	8	24	2400
9	27	2700	9	27	2700	9	27	2700	9	27	2700	9	27	2700	9	27	2700	9	27	2700	9	27	2700
10	30	3000	10	30	3000	10	30	3000	10	30	3000	10	30	3000	10	30	3000	10	30	3000	10	30	3000
11	33	3300	11	33	3300	11	33	3300	11	33	3300	11	33	3300	11	33	3300	11	33	3300	11	33	3300
12	36	3600	12	36	3600	12	36	3600	12	36	3600	12	36	3600	12	36	3600	12	36	3600	12	36	3600
13	39	3900	13	39	3900	13	39	3900	13	39	3900	13	39	3900	13	39	3900	13	39	3900	13	39	3900
14	42	4200	14	42	4200	14	42	4200	14	42	4200	14	42	4200	14	42	4200	14	42	4200	14	42	4200
15	45	4500	15	45	4500	15	45	4500	15	45	4500	15	45	4500	15	45	4500	15	45	4500	15	45	4500
16	48	4800	16	48	4800	16	48	4800	16	48	4800	16	48	4800	16	48	4800	16	48	4800	16	48	4800
17	51	5100	17	51	5100	17	51	5100	17	51	5100	17	51	5100	17	51	5100	17	51	5100	17	51	5100
18	54	5400	18	54	5400	18	54	5400	18	54	5400	18	54	5400	18	54	5400	18	54	5400	18	54	5400
19	57	5700	19																				

EXCHANGE CALCULATOR.

2 Sterling into Rupee.

[illegible]

EXCHANGE CALCULATOR.

Rupees into £ Sterling.

[illegible]

EXCHANGE CALCULATOR.

[illegible]

EXCHANGE CALCULATOR.
Rupees into £ Sterling.

1-44			1-45			1-46			1-47			1-48			1-49			1-50		
n.	d.	dec.	n.	d.	dec.	n.	d.	dec.	n.	d.	dec.	n.	d.	dec.	n.	d.	dec.	n.	d.	dec.
1	4	0.23	1	4	0.33	1	4	0.34	1	4	0.34	1	4	0.34	1	4	0.34	1	4	0.34
2	8	0.67	2	8	0.67	2	8	0.68	2	8	0.68	2	8	0.68	2	8	0.68	2	8	0.68
3	3	1.01	3	3	1.01	3	3	1.02	3	3	1.02	3	3	1.02	3	3	1.02	3	3	1.02
4	7	1.35	4	7	1.35	4	7	1.35	4	7	1.36	4	7	1.36	4	7	1.36	4	7	1.36
5	1	1.69	5	1	1.69	5	1	1.69	5	1	1.70	5	1	1.70	5	1	1.70	5	1	1.70
6	5	2.03	6	5	2.03	6	5	2.03	6	5	2.04	6	5	2.04	6	5	2.04	6	5	2.04
7	9	0.06	7	9	0.07	7	9	0.07	7	9	0.08	7	9	0.08	7	9	0.08	7	9	0.08
8	13	0.12	8	13	0.14	8	13	0.15	8	13	0.17	8	13	0.18	8	13	0.18	8	13	0.18
9	17	0.18	9	17	0.21	9	17	0.23	9	17	0.25	9	17	0.26	9	17	0.26	9	17	0.26
10	21	0.25	10	21	0.28	10	21	0.31	10	21	0.34	10	21	0.37	10	21	0.37	10	21	0.37
11	25	0.31	11	25	0.35	11	25	0.39	11	25	0.43	11	25	0.46	11	25	0.46	11	25	0.46
12	29	0.43	12	29	0.49	12	29	0.54	12	29	0.60	12	29	0.65	12	29	0.65	12	29	0.65
13	33	0.62	13	33	0.70	13	33	0.78	13	33	0.86	13	33	0.93	13	33	0.93	13	33	0.93
14	37	1.00	14	37	1.12	14	37	1.25	14	37	1.37	14	37	1.50	14	37	1.62	14	37	1.75
15	41	2.00	15	41	2.25	15	41	2.50	15	41	2.75	15	41	3.00	15	41	3.25	15	41	3.50
16	45	3.00	16	45	3.37	16	45	3.75	16	45	4.12	16	45	4.50	16	45	4.87	16	45	5.25
17	49	4.00	17	49	4.50	17	49	5.00	17	49	5.50	17	49	6.00	17	49	6.50	17	49	7.00
18	53	5.00	18	53	5.62	18	53	6.25	18	53	6.87	18	53	7.50	18	53	8.12	18	53	8.75
19	57	6.00	19	57	6.87	19	57	7.75	19	57	8.62	19	57	9.50	19	57	10.37	19	57	11.25
20	61	7.00	20	61	8.00	20	61	9.00	20	61	10.00	20	61	11.00	20	61	12.00	20	61	13.00
21	65	8.00	21	65	9.12	21	65	10.25	21	65	11.37	21	65	12.50	21	65	13.62	21	65	14.75
22	69	9.00	22	69	10.25	22	69	11.37	22	69	12.50	22	69	13.62	22	69	14.75	22	69	15.87
23	73	1.00	23	73	1.36	23	73	1.75	23	73	2.12	23	73	2.50	23	73	2.87	23	73	3.25
24	77	2.00	24	77	2.50	24	77	3.00	24	77	3.50	24	77	4.00	24	77	4.50	24	77	5.00
25	81	3.00	25	81	3.62	25	81	4.25	25	81	4.87	25	81	5.50	25	81	6.12	25	81	6.75
26	85	4.00	26	85	4.75	26	85	5.50	26	85	6.25	26	85	7.00	26	85	7.75	26	85	8.50
27	89	5.00	27	89	5.87	27	89	6.75	27	89	7.62	27	89	8.50	27	89	9.37	27	89	10.25
28	93	6.00	28	93	6.87	28	93	7.75	28	93	8.62	28	93	9.50	28	93	10.37	28	93	11.25
29	97	7.00	29	97	7.87	29	97	8.75	29	97	9.62	29	97	10.50	29	97	11.37	29	97	12.25
30	101	8.00	30	101	8.87	30	101	9.75	30	101	10.62	30	101	11.50	30	101	12.37	30	101	13.25
31	105	9.00	31	105	9.87	31	105	10.75	31	105	11.62	31	105	12.50	31	105	13.37	31	105	14.25
32	109	1.00	32	109	1.12	32	109	1.25	32	109	1.37	32	109	1.50	32	109	1.62	32	109	1.75
33	113	2.00	33	113	2.25	33	113	2.50	33	113	2.75	33	113	3.00	33	113	3.25	33	113	3.50
34	117	3.00	34	117	3.37	34	117	3.75	34	117	4.12	34	117	4.50	34	117	4.87	34	117	5.25

INTEREST TABLES FOR ONE MONTH.

Principal.	At 2 per cent.				At 2½ per cent.				At 3 per cent.				At 3½ per cent.				At 4 per cent.			
RS.	RS.	A.	P.	D.	RS.	A.	P.	D.	RS.	A.	P.	D.	RS.	A.	P.	D.	RS.	A.	P.	D.
1,00,000	166	10	8		208	5	4		250	0	0		291	10	8		333	5	4	
90,000	150	0	0		187	8	0		225	0	0		262	8	0		300	0	0	
80,000	133	5	4		166	10	8		200	0	0		233	5	4		266	10	8	
70,000	116	10	8		145	18	4		175	0	0		204	2	8		232	5	4	
60,000	100	0	0		125	0	0		150	0	0		175	0	0		200	0	0	
50,000	83	5	4		104	2	8		125	0	0		145	13	4		166	10	8	
40,000	66	10	8		83	5	4		100	0	0		116	10	8		133	5	4	
30,000	50	0	0		62	8	0		75	0	0		87	8	0		100	0	0	
20,000	33	5	4		41	10	8		50	0	0		58	5	4		66	10	8	
10,000	16	10	8		20	13	4		25	0	0		29	2	8		33	5	4	
9,000	15	0	0		18	12	0		22	8	0		26	4	0		30	0	0	
8,000	13	5	4		16	10	8		20	0	0		23	5	4		26	10	8	
7,000	11	10	8		14	9	4		17	8	0		20	6	8		23	5	4	
6,000	10	0	0		12	8	0		15	0	0		17	8	0		20	0	0	
5,000	8	5	4		10	6	8		12	8	0		14	0	4		16	10	8	
4,000	6	10	8		8	5	4		10	0	0		11	10	8		13	5	4	
3,000	5	0	0		6	4	0		7	8	0		8	12	0		10	0	0	
2,000	3	5	4		4	2	8		5	0	0		5	13	4		6	10	8	
1,000	1	10	8		2	1	4		2	8	0		2	14	8		3	5	4	
900	1	8	0		1	14	0		2	4	0		2	10	0		3	0	0	
800	1	5	4		1	10	8		2	0	0		2	5	4		2	10	8	
700	1	2	8		1	7	4		1	12	0		2	0	8		2	5	4	
600	1	0	0		1	4	0		1	8	0		1	12	0		2	0	0	
500	0	13	4		1	0	8		1	4	0		1	7	4		1	10	8	
400	0	10	8		0	13	4		1	0	0		1	2	8		1	5	4	
300	0	8	0		0	10	0		0	12	0		0	14	0		1	0	0	
200	0	5	4		0	6	8		0	8	0		0	9	4		0	10	8	
100	0	2	8		0	3	4		0	4	0		0	4	8		0	5	4	
90	0	2	4		0	3	0		0	3	7		0	4	2		0	4	9	
80	0	2	1		0	2	8		0	3	2		0	3	8		0	4	3	
70	0	1	10		0	2	4		0	2	9		0	3	3		0	3	8	
60	0	1	7		0	2	0		0	2	4		0	2	9		0	3	2	
50	0	1	4		0	1	8		0	2	0		0	2	4		0	2	8	
40	0	1	0		0	1	4		0	1	7		0	1	10		0	2	1	
30	0	0	9		0	1	0		0	1	2		0	1	4		0	1	7	
20	0	0	6		0	0	8		0	0	9		0	0	11		0	1	0	
10	0	0	3		0	0	4		0	0	4		0	0	5		0	0	6	
9	0	0	2		0	0	3		0	0	4		0	0	5		0	0	5	
8	0	0	2		0	0	3		0	0	3		0	0	4		0	0	5	
7	0	0	2		0	0	2		0	0	3		0	0	3		0	0	4	
6	0	0	1		0	0	2		0	0	2		0	0	3		0	0	3	
5	0	0	1		0	0	2		0	0	2		0	0	2		0	0	3	
4	0	0	1		0	0	1		0	0	1		0	0	2		0	0	2	
3	0	0	0		0	0	1		0	0	1		0	0	1		0	0	1	
2	0	0	0		0	0	0		0	0	0		0	0	1		0	0	1	
1	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	
Annas	8	0	0		0	0	0		0	0	0		0	0	0		0	0	0	
7	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	
6	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	
5	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	
4	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	
3	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	
2	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	
1	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0	

INTEREST TABLES FOR ONE MONTH—(Continued).

Principal.	At 4½ per cent.				At 5 per cent.				At 5½ per cent.				At 6 per cent.				At 12 per cent.				
RS.	RS.	A.	P.	D.	RS.	A.	P.	D.	RS.	A.	P.	D.	RS.	A.	P.	D.	RS.	A.	P.	D.	
1,00,000	375	0	0		416	10	8		458	5	4		500	0	0		1000	0	0		
90,000	337	8	0		375	0	0		412	8	0		450	0	0		900	0	0		
80,000	300	0	0		333	5	4		366	10	8		400	0	0		800	0	0		
70,000	262	8	0		291	10	8		320	13	4		350	0	0		700	0	0		
60,000	225	0	0		250	0	0		275	0	0		300	0	0		600	0	0		
50,000	187	8	0		208	5	4		229	2	8		250	0	0		500	0	0		
40,000	150	0	0		166	10	8		183	5	4		200	0	0		400	0	0		
30,000	112	8	0		125	0	0		137	8	0		150	0	0		300	0	0		
20,000	75	0	0		83	5	4		91	10	8		100	0	0		200	0	0		
10,000	37	8	0		41	10	8		45	13	4		50	0	0		100	0	0		
9,000	33	12	0		37	8	0		41	4	0		45	0	0		90	0	0		
8,000	30	0	0		33	5	4		36	10	8		40	0	0		80	0	0		
7,000	26	4	0		29	2	8		32	1	4		35	0	0		70	0	0		
6,000	22	8	0		25	0	0		27	8	0		30	0	0		60	0	0		
5,000	18	12	0		20	13	4		22	14	8		25	0	0		50	0	0		
4,000	15	0	0		16	10	8		18	5	4		20	0	0		40	0	0		
3,000	11	4	0		12	8	0		13	12	0		15	0	0		30	0	0		
2,000	7	8	0		8	5	4		9	2	8		10	0	0		20	0	0		
1,000	3	12	0		4	2	8		4	9	4		5	0	0		10	0	0		
900	3	6	0		3	12	0		4	2	0		4	8	0		9	0	0		
800	2	0	0		2	14	8		3	10	8		4	0	0		8	0	0		
700	2	10	0		2	8	0		3	8	0		3	8	0		7	0	0		
600	2	4	0		2	8	0		2	12	0		3	0	0		6	0	0		
500	1	14	0		2	1	4		2	4	8		2	8	0		5	0	0		
400	1	8	0		1	10	8		1	18	4		2	0	0		4	0	0		
300	1	2	0		1	4	0		1	6	0		1	8	0		3	0	0		
200	0	12	0		0	13	4		0	14	8		1	0	0		2	0	0		
100	0	6	0		0	6	8		0	7	4		0	8	0		1	0	0		
90	0	5	4	8	0	6	0	0	0	6	7	2	0	7	2	4	0	14	4	8	
80	0	4	9	6	0	5	4	0	0	5	10	4	0	6	4	8	0	12	9	6	
70	0	4	2	4	0	4	8	0	0	5	1	6	0	5	7	2	0	11	2	4	
60	0	3	7	2	0	4	0	0	0	4	4	8	0	4	9	6	0	9	7	2	
50	0	3	0	0	0	3	4	0	0	3	8	0	0	4	0	0	0	8	0	0	
40	0	2	8	8	0	2	8	0	0	2	11	2	0	3	2	4	0	6	4	8	
30	0	2	1	6	0	2	0	0	0	2	2	4	0	2	4	8	0	4	9	6	
20	0	1	2	4	0	1	4	0	0	1	5	6	0	1	7	2	0	3	2	4	
10	0	0	7	2	0	0	8	0	0	0	8	8	0	0	9	6	0	1	7	2	
9	0	0	6	48	0	0	7	2	0	0	7	92	0	0	8	64	0	1	5	28	
8	0	0	5	76	0	0	6	4	0	0	7	04	0	0	7	68	0	1	3	36	
7	0	0	5	04	0	0	5	6	0	0	6	16	0	0	6	72	0	1	1	44	
6	0	0	4	32	0	0	4	8	0	0	5	28	0	0	5	76	0	0	11	52	
5	0	0	3	60	0	0	4	0	0	0	4	40	0	0	4	80	0	0	9	60	
4	0	0	2	88	0	0	3	2	0	0	3	52	0	0	3	84	0	0	7	68	
3	0	0	2	16	0	0	2	4	0	0	2	64	0	0	2	88	0	0	5	76	
2	0	0	1	44	0	0	1	6	0	0	1	76	0	0	1	92	0	0	3	84	
1	0	0	0	72	0	0	0	8	0	0	0	88	0	0	0	96	0	0	1	92	
Annas	8	0	0	0	36	0	0	0	4	0	0	0	44	0	0	0	48	0	0	0	96
7	0	0	0	0	31	0	0	0	35	0	0	0	38	0	0	0	42	0	0	0	84
6	0	0	0	0	27	0	0	0	30	0	0	0	33	0	0	0	36	0	0	0	72
5	0	0	0	0	22	0	0	0	25	0	0	0	27	0	0	0	30	0	0	0	60
4	0	0	0	0	18	0	0	0	20	0	0	0	22	0	0	0	24	0	0	0	48
3	0	0	0	0	13	0	0	0	15	0	0	0	16	0	0	0	18	0	0	0	36
2	0	0	0	0	09	0	0	0	10	0	0	0	11	0	0	0	12	0	0	0	24
1	0	0	0	0	04	0	0	0	05	0	0	0	05	0	0	0	06	0	0	0	12

INTEREST TABLES FOR ONE YEAR.

Pr.	At 2 per cent.	At 2½ per cent.	At 3 per cent.	At 3½ per cent.	At 4 per cent.
RS.	RS. A. P. D.	RS. A. P. D.	RS. A. P. D.	RS. A. P. D.	RS. A. P. D.
1,00,000	2,000 0 0	2,500 0 0	3,000 0 0	3,500 0 0	4,000 0 0
90,000	1,800 0 0	2,250 0 0	2,700 0 0	3,150 0 0	3,600 0 0
80,000	1,600 0 0	2,000 0 0	2,400 0 0	2,800 0 0	3,200 0 0
70,000	1,400 0 0	1,750 0 0	2,100 0 0	2,450 0 0	2,800 0 0
60,000	1,200 0 0	1,500 0 0	1,800 0 0	2,100 0 0	2,400 0 0
50,000	1,000 0 0	1,250 0 0	1,500 0 0	1,750 0 0	2,000 0 0
40,000	800 0 0	1,000 0 0	1,200 0 0	1,400 0 0	1,600 0 0
30,000	600 0 0	750 0 0	900 0 0	1,050 0 0	1,200 0 0
20,000	400 0 0	500 0 0	600 0 0	700 0 0	800 0 0
10,000	200 0 0	250 0 0	300 0 0	350 0 0	400 0 0
9,000	180 0 0	225 0 0	270 0 0	315 0 0	360 0 0
8,000	160 0 0	200 0 0	240 0 0	280 0 0	320 0 0
7,000	140 0 0	175 0 0	210 0 0	245 0 0	280 0 0
6,000	120 0 0	150 0 0	180 0 0	210 0 0	240 0 0
5,000	100 0 0	125 0 0	150 0 0	175 0 0	200 0 0
4,000	80 0 0	100 0 0	120 0 0	140 0 0	160 0 0
3,000	60 0 0	75 0 0	90 0 0	105 0 0	120 0 0
2,000	40 0 0	50 0 0	60 0 0	70 0 0	80 0 0
1,000	20 0 0	25 0 0	30 0 0	35 0 0	40 0 0
900	18 0 0	22 8 0	27 0 0	31 8 0	36 0 0
800	16 0 0	20 0 0	24 0 0	28 0 0	32 0 0
700	14 0 0	17 8 0	21 0 0	24 8 0	28 0 0
600	12 0 0	15 0 0	18 0 0	21 0 0	24 0 0
500	10 0 0	12 8 0	15 0 0	17 8 0	20 0 0
400	8 0 0	10 0 0	12 0 0	14 0 0	16 0 0
300	6 0 0	7 8 0	9 0 0	10 8 0	12 0 0
200	4 0 0	5 0 0	6 0 0	7 0 0	8 0 0
100	2 0 0	2 8 0	3 0 0	3 8 0	4 0 0
90	1 12 9 6	2 4 0 0	2 11 2 4	3 2 4 8	3 9 7 2
80	1 9 7 2	2 0 0 0	2 6 4 8	2 12 9 6	3 3 2 4
70	1 6 4 8	1 12 0 0	2 1 7 2	2 12 9 6	2 6 4 8
60	1 3 2 4	1 8 0 0	1 12 9 6	2 1 7 2	2 6 4 8
50	1 0 0 0	1 4 0 0	1 8 0 0	1 12 0 0	2 0 0 0
40	0 12 9 6	1 0 0 0	1 3 2 4	1 9 7 2	1 3 2 4
30	0 9 7 2	0 12 0 0	0 14 4 8	1 0 9 6	1 3 2 4
20	0 6 4 8	0 8 0 0	0 9 7 2	0 11 2 4	0 12 9 6
10	0 3 2 4	0 4 0 0	0 4 9 6	0 5 7 2	0 6 4 8
9	0 2 10 56	0 3 7 2	0 4 3 84	0 5 0 48	0 5 9 12
8	0 2 6 72	0 3 2 4	0 3 10 08	0 4 5 76	0 5 1 44
7	0 2 2 88	0 2 9 6	0 3 4 32	0 3 11 04	0 4 5 76
6	0 1 11 04	0 2 4 8	0 2 10 56	0 3 4 32	0 3 10 08
5	0 1 7 20	0 2 0 0	0 2 4 80	0 2 9 60	0 3 2 40
4	0 1 3 36	0 1 7 2	0 1 11 04	0 2 2 88	0 2 6 72
3	0 0 11 52	0 1 2 4	0 1 5 28	0 1 8 16	0 1 11 04
2	0 0 7 68	0 0 9 6	0 0 11 52	0 1 1 44	0 1 3 36
1	0 0 3 84	0 0 4 8	0 0 5 76	0 0 6 72	0 0 7 68
Annas 8	0 0 1 92	0 0 2 4	0 0 2 88	0 0 3 36	0 0 3 84
7	0 0 1 68	0 0 2 1	0 0 2 52	0 0 3 24	0 0 3 36
6	0 0 1 44	0 0 1 8	0 0 2 16	0 0 2 52	0 0 2 88
5	0 0 1 20	0 0 1 5	0 0 1 80	0 0 2 10	0 0 2 40
4	0 0 0 96	0 0 1 2	0 0 1 44	0 0 1 68	0 0 1 92
3	0 0 0 72	0 0 0 9	0 0 1 08	0 0 1 26	0 0 1 44
2	0 0 0 48	0 0 0 6	0 0 0 72	0 0 0 84	0 0 0 96
1	0 0 0 24	0 0 0 3	0 0 0 36	0 0 0 42	0 0 0 48

INTEREST TABLES FOR ONE YEAR—(Continued).

Pr.	At 4½ per cent.	At 5 per cent.	At 5½ per cent.	At 6 per cent.	At 12 per cent.
RS.	RS. A. P. D.	RS. A. P. D.	RS. A. P. D.	RS. A. P. D.	RS. A. P. D.
1,00,000	4,500 0 0	5,000 0 0	5,500 0 0	6,000 0 0	12,000 0 0
90,000	4,050 0 0	4,500 0 0	4,950 0 0	5,400 0 0	10,800 0 0
80,000	3,600 0 0	4,000 0 0	4,400 0 0	4,800 0 0	9,600 0 0
70,000	3,150 0 0	3,500 0 0	3,850 0 0	4,200 0 0	8,400 0 0
60,000	2,700 0 0	3,000 0 0	3,300 0 0	3,600 0 0	7,200 0 0
50,000	2,250 0 0	2,500 0 0	2,750 0 0	3,000 0 0	6,000 0 0
40,000	1,800 0 0	2,000 0 0	2,200 0 0	2,400 0 0	4,800 0 0
30,000	1,350 0 0	1,500 0 0	1,650 0 0	1,800 0 0	3,600 0 0
20,000	900 0 0	1,000 0 0	1,100 0 0	1,200 0 0	2,400 0 0
10,000	450 0 0	500 0 0	550 0 0	600 0 0	1,200 0 0
9,000	405 0 0	450 0 0	495 0 0	540 0 0	1,080 0 0
8,000	360 0 0	400 0 0	440 0 0	480 0 0	960 0 0
7,000	315 0 0	350 0 0	385 0 0	420 0 0	840 0 0
6,000	270 0 0	300 0 0	330 0 0	360 0 0	720 0 0
5,000	225 0 0	250 0 0	275 0 0	300 0 0	600 0 0
4,000	180 0 0	200 0 0	220 0 0	240 0 0	480 0 0
3,000	135 0 0	150 0 0	165 0 0	180 0 0	360 0 0
2,000	90 0 0	100 0 0	110 0 0	120 0 0	240 0 0
1,000	45 0 0	50 0 0	55 0 0	60 0 0	120 0 0
900	40 8 0	45 0 0	49 8 0	54 0 0	108 0 0
800	36 0 0	40 0 0	44 0 0	48 0 0	96 0 0
700	31 8 0	35 0 0	38 8 0	42 0 0	84 0 0
600	27 0 0	30 0 0	33 0 0	36 0 0	72 0 0
500	22 8 0	25 0 0	27 8 0	30 0 0	60 0 0
400	18 0 0	20 0 0	22 0 0	24 0 0	48 0 0
300	13 8 0	15 0 0	16 8 0	18 0 0	36 0 0
200	9 0 0	10 0 0	11 0 0	12 0 0	24 0 0
100	4 8 0	5 0 0	5 8 0	6 0 0	12 0 0
90	4 0 9 6	4 8 0 0	4 15 2 4	5 6 4 8	10 12 9 6
80	3 9 7 2	4 0 0 0	4 6 4 8	4 12 9 6	9 9 7 2
70	3 2 4 8	3 8 0 0	3 13 7 2	3 9 2 4	8 0 4 8
60	2 11 2 4	3 0 0 0	3 4 9 6	3 9 7 2	7 3 2 4
50	2 4 0 0	2 8 0 0	2 12 0 0	3 0 0 0	6 0 0 0
40	1 12 9 6	2 0 0 0	2 3 2 4	2 6 4 8	4 12 9 6
30	1 5 7 2	1 8 0 0	1 10 4 8	1 12 9 6	3 9 7 2
20	0 14 4 8	1 0 0 0	1 1 7 2	1 3 2 4	2 6 4 8
10	0 7 2 4	0 8 0 0	0 8 9 6	0 9 7 2	1 3 2 4
9	0 6 5 76	0 7 2 4	0 7 11 04	0 8 7 68	1 1 3 36
8	0 5 9 12	0 6 4 8	0 7 0 48	0 7 8 16	0 15 4 32
7	0 5 0 48	0 5 7 2	0 6 1 92	0 6 8 64	0 13 5 28
6	0 4 3 84	0 4 9 6	0 5 3 36	0 5 9 12	0 11 6 24
5	0 3 7 20	0 4 0 0	0 4 4 80	0 4 9 60	0 9 7 20
4	0 2 10 56	0 3 2 4	0 3 6 24	0 3 10 08	0 7 8 16
3	0 2 1 92	0 2 4 8	0 2 7 68	0 2 10 56	0 5 9 12
2	0 1 5 28	0 1 7 2	0 1 9 12	0 1 11 04	0 3 10 08
1	0 0 8 64	0 0 9 6	0 0 10 56	0 0 11 52	0 2 11 04
Annas 8	0 0 4 32	0 0 4 8	0 0 5 28	0 0 5 76	0 0 11 52
7	0 0 3 78	0 0 4 2	0 0 4 62	0 0 5 04	0 0 10 18
6	0 0 3 24	0 0 3 6	0 0 3 96	0 0 4 32	0 0 8 64
5	0 0 2 70	0 0 3 0	0 0 3 30	0 0 3 60	0 0 7 20
4	0 0 2 16	0 0 2 4	0 0 2 64	0 0 2 88	0 0 5 76
3	0 0 1 62	0 0 1 8	0 0 1 98	0 0 2 16	0 0 4 32
2	0 0 1 08	0 0 1 2	0 0 1 32	0 0 1 44	0 0 2 88
1	0 0 0 54	0 0 0 6	0 0 0 66	0 0 0 72	0 0 1 44

WEIGHTS AND MEASURES (INDIAN).**MADRAS.****Weights.**

32 Red Seeds	= 1 Pagoda weight.
10 Pagodas	= 1 Pollum or 3 Tolas.*
8 Pollums	= 1 Kucha seer.
24 "	= 1 Pucca seer.
40 "	= 1 Viss = 3 lbs. 2 oz.
50 "	= 1 Thook.
8 Viss	= 1 Maund = 25 lbs.
20 Maunds	= 1 Barum or Candy 500 lbs.

* A Rupee weighs one Tola.

Salt Measure.

80 Tolas	= 1 Seer.
40 Seers	= 1 Bengal Maund.
35 "	= 72 lbs. Avoirdupois.

Measures of Length.

4 Ungalums	= 1 Hand.
3 Hands	= 1 Span.
2 Spans	= 1 Cubit.
2 Cubits	= 1 Yard.
2 Yards	= 1 Thundum.
2,200 Thundams	= 1 Cos = 2½ Miles.
4 Cos	= 1 Kadum = 10 Miles.

Liquid Measure.

8 Ollocks	= 1 Measure	cub. ins.
8 Measures	= 1 Mercal	= 800
5 Mercals	= 1 Parrah of Chunnam	= 400
400 Mercals	= 1 Garce	= 320,000

When Grain is sold by weight 9,256½ lbs. = 18 Candies 12½ Maunds are allowed to a Garce. Milk, Ghee, Oil, &c., are sold by the grain measure containing 8 Ollocks. 20 Ollocks = 1 Gallon.

BENGAL.**Weights.**

5 Tolas	= 1 Chittack.
16 Chittacks	= 1 Seer = 2½ lb.
40 Seers	= 1 Bengal Maund = 82½ lb.

82½ lb.	= 1 Bazaar Maund.
7½ "	= 1 Factory Maund.
82½ "	= 1 Indian Maund.

Cwts. × 15 = Bazaar Maund.

11
Cwts × 49
36 = Indian Maund.

B. Md. × 11
10 = Factory Maund.

MYSORE.**Weights.**

3 Tolas	= 1 Pollum
40 Pollums	= 1 Viss.
24 Tolas	= 1 Seer.
5 Seers	= 1 Viss.
8 Viss	= 1 Maund.
20 Maunds	= 1 Candy of 480 lbs.

In the Coffee District of Mysore and Coorg the Maund of 28 lbs. is used.
In Bangalore Pettah, the dealers buy by the Maund of 25½ lbs. (42½ seers), and sell by the maund of 24 lbs. (40 seers).

Grain Measures.

4 Grains	= 1 Soligay or Para.
4 Seers	= 1 Mana.
4 Manas	= 1 Bullah.
4 Bullahs	= 1 Colaga.
5 Colagas	= 1 Punchaga.
4 Punchagas	= 1 Candy.

Land Measures.

1 Coodoo	= 3,200 sq. yds. of Dry land; or 500 sq. yds. of Wet land.
20 Coodoos	= 1 Candy = 64,000 sq. yds. Dry land; or 10,000 sq. yds. of Wet land.
120 Square yards	= 1 Gunta.
40 Guntas	= 1 Acre.

District Weights and Measures.

A Chotakoo	= ½ of a Seer.
Urda Pavoo	= ¼ do.
Pavoo	= ¼ do.
Urda Seru	= ¼ do.
Pullah	= ¼ do.
Adai Seer	= 2½ do.
Pun Seer	= ½ do.
Dudai	= 5 Seers.

TRAVANCORE.**Weights.**

13 Pannams	= 1 Callenjoo.
13 Callenjoo	= 1 Pallam.
7½ Pallams	= 1 Rautel.

Liquid.

4 Thodums	= 1 Nauli.
4 Naulies	= 1 Edungally.
12 Edungallies	= 1 Chothanay.
5 Chothanays	= 1 Codum.

Land Measure.

24 Angoolams	= 1 Kolo.
4 Koles	= 1 Thendoo.
800 Thendoos	= 1 Nauligay.
2½ Nauligays	= 1 Crosam.
4 Crosams	= 1 Yogena.

WEIGHTS AND MEASURES (BRITISH).

Length. 12 Parts = 1 Inch. 12 Inches = 1 Foot. 3 Feet = 1 Yard. 6 Feet = 1 Fathom. 120 Fathoms = 1 Cable. Road. 22 Yards = 1 Chain. 10 Chains = 1 Furlong. 8 Furlongs = 1 Mile. 3 Miles = 1 League. Square. 144 Sq. inches = 1 Sq. foot. 9 Sq. feet = 1 Sq. yd. 30½ Sq. yards = 1 Sq. pole. 40 Sq. poles = 1 Sq. rood. 4 Sq. roods = 1 Acre. Land. 10 Sq. chains = 1 Acre. 640 Acres = 1 Sq. mile. 30 Acres = 1 Yd. of land. 100 Acres = 1 Hide. 40 Hides = 1 Barony. Solid. 1728 C. ins. = 1 C. foot. 27 C. feet = 1 C. yard. Timber. 40 C. ft. of rough } = 1 Ton. 50 C. ft. of hewn } 42 C. ft. = 1 Shipping ton. 108 C. ft. = 1 Stock. 128 C. ft. = 1 Cord	Avoirdupois. 16 Drachms = 1 Ounce. 16 Ounces = 1 lb. 28 lb. = 1 Quarter. 4 Qtrs. = 1 Cwt. 20 Cwts. = 1 Ton. Troy. 24 Grains = 1 Dwt. 20 Dwt. = 1 Oz. 12 Oz. = 1 lb. Apothecaries. 90 Drops } = 1 Drachm. 60 Minims } 8 Drachms = 1 Oz. 20 Fluid oz. = 1 Pint. 8 Pints = 1 Gallon. 4 Teaspoons = 1 Table- spoon. 4 Tablespoons = 1 Wine- glass. Medicines. 20 Grains = 1 Scruple. 3 Scruples = 1 Dram. 8 Drams = 1 Ounce. 12 Ounces = 1 Pound. 180 Grains = 1 Tolla. Liquid. 4 Gills = 1 Pint. 2 Pints = 1 Quart. 4 Quarts = 1 Gallon. Dry. 2 Gallons = 1 Peck. 4 Pecks = 1 Bushel. 8 Bushels = 1 Quarter.	Beer. 9 Gallons = 1 Firkin. 18 " = 1 Kilderkin. 36 " = 1 Barrel. 54 " = 1 Hogshead. 72 " = 1 Puncheon. 108 " = 1 Butt. Wine. 42 Gallons = 1 Tierce. 63 " = 1 Hogshead. 84 " = 1 Puncheon. 126 " = 1 Pipe. 252 " = 1 Tun. 22 " = 1 Hectolitre. Cloth. 24 Inches = 1 Nail. 4 Nails = 1 Quarter. 4 Quarters = 1 Yard. 3 " = 1 Flemish ell. 5 " = 1 English ell. 6 " = 1 French ell. Paper. 24 Sheets = 1 Quire. 20 Quires = 1 Ream. 10 Reams = 1 Bale. Glass. 5 Pounds = 1 Stone. 24 Stones = 1 Seam. Coal. 4 Picks = 1 Bushel. 3 Bushels = 1 Sack. 12 Sacks = 1 Chaldron. Bottles. 2 Pints = 1 Quart. 2 Quarts = 1 Magnum.
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Circular Measure.

60 Seconds	= 1 Minute.
60 Minutes	= 1 Degree.
30 Degrees	= 1 Sign.
90 Degrees	= 1 Quadrant.
4 Quadrants, or 360	= 1 Circumference or Great Circle.

Diameter of a Circle × 3.1416 gives Circumference.

Diameter Squared × .7854 gives Area of Circle.

Diameter Squared × 3.1416 gives Surface of Sphere.

Diameter Cubed × .5236 gives Solidity of Sphere.

One Degree of Circumference × 57.3 gives Radius.

Diameter of Cylinder × 3.1416 product by its length, gives the Surface.

Diameter Squared × .7854 product by the length, gives Solid Contents.

A Circular Acre is 235,504 feet, a Circular Rood 117,752 feet, in diameter. The Circumference of the Globe is about 24,855 miles, and the Diameter about 7,900 miles.

Balance between Measures and Weights.

A pint of water at 59° F. in air at 62° F. weighs 1.25032 lbs. avoird., and is equal to 34.65 cubic inches; or a square box 3 inches long, 3 inches wide, and about 3½ inches deep.

A quart of water, under the same conditions, weighs 2½ lbs., and is equal to a square box of about 4 × 4 inches, and about 4½ inches deep.

A gallon of water weighs 10 lbs., and is equal to a box 6 × 6 inches square, and very nearly 8 inches deep.

A peck is equal to a box 8 × 8 inches square, and 8½ inches deep.

A bushel fills a box 12 × 12 inches square and 15½ inches deep.

A cubic foot of water weighs 62.5 lbs., and contains 6.25 gallons.

A tumbler usually contains about 10 ounces; a teacup 6 ounces; a wine glass, 2 ounces; a table spoon, 4 drachms; a dessert spoon, 2 drachms; a tea spoon, 1 drachm.

METRICAL WEIGHTS AND MEASURES.

Measures of Length (Unit Metre).

EQUAL TO	Inches.	Feet.	Yards.	Miles.
Millimètre	0.03937	0.003	0.001	0.000
Centimètre	0.39371	0.032	0.010	0.000
Décimètre	3.93708	0.328	0.109	0.000
METRE	39.37079	3.280	1.093	0.000
Décamètre	393.70790	32.808	10.936	0.006
Hectomètre	3937.07900	328.089	109.363	0.062
Kilomètre	39370.79000	3280.899	1093.633	0.621
Myriamètre	393707.90000	32808.991	10936.330	6.213

Square, or Measures of Surface (Unit Arc).

EQUAL TO	Sq. Feet.	Sq. Yards.	Acres.
Centaire, or sq. mètre	10.764299	1.196	0.000
Arc, or 100 sq. mètres	1076.429934	119.603	0.024
Hectare, or 10,000 sq. m.	107642.993419	11960.332	2.417

Cubic, or Measures of Capacity (Unit Litre).

EQUAL TO	Cub. In.	Cub. Feet.	Gallons.	Bushels.
Millilitre, or cubic centim.	0.06103	0.000	0.000	0.000
Centilitre, 10 cubic do.	0.61027	0.000	0.002	0.000
Déclitre, 100 cubic do.	6.10271	0.003	0.022	0.002
LITRE, or cubic Décimètre	61.02705	0.035	0.220	0.027
Décalitre, or Centistère	610.27052	3.353	2.200	0.275
Hectolitre, or Déciatère	6102.70515	3.531	22.009	2.751
Kilolitre, or Stère	61027.05152	35.316	220.096	27.512
Myrialitre, or Décastère	610270.51519	353.165	2200.966	275.120

Measures of Weight (Unit Gramme).

EQUAL TO	Grains.	Troy Oz.	Avoir. Oz.	Cwt.
Milligramme	0.01543	0.000	0.000	0.000
Centigramme	0.15432	0.000	0.000	0.000
Décigramme	1.54323	0.003	0.000	0.000
GRAMME	15.43235	0.032	0.002	0.000
Décegramme	154.32349	0.321	0.022	0.000
Hectogramme	1543.23488	3.215	0.220	0.001
Kilogramme	15432.34890	32.150	2.204	0.019
Myriagramme	154323.48800	321.507	22.046	0.196

In the French Metric system, the Metre is the basis of all the weights and measures.

The Metre was intended to be (and is very nearly) one ten-millionth part of the distance from the pole to the equator along any meridian, and it equals 39.37 inches, or about 3 feet 3 $\frac{1}{4}$ inches.

Upon the Metre are based the Arc (square measure), the Litre (cubic measure) and the Gramme (weight).

The Arc is a square, the sides of which are each 10 metres long.

The Litre is the capacity of a cube whose sides are each one-tenth of a metre.

And the Gramme is the weight of distilled water contained in a cube whose sides are each one-hundredth part of a Metre.

The Money system of France is connected with that of the Metric weights by an authorized coin of silver, representing the unit, and called the Franc. The other coins are multiples or sub-multiples of the Franc.

CONVERSION OF METRIC WEIGHTS AND MEASURES.

Mètres into yards.

1 =	1.094
2 =	2.187
3 =	3.281
4 =	4.374
5 =	5.468
6 =	6.562
7 =	7.655
8 =	8.749
9 =	9.843
10 =	10.936
20 =	21.873
30 =	32.809
40 =	43.745
50 =	54.682
60 =	65.618
70 =	76.554
80 =	87.491
90 =	98.427
100 =	109.363
200 =	218.727
300 =	328.090
400 =	437.453
500 =	546.816

Kilomètres into miles and yards.

1 =	0 1094
2 =	1 427
3 =	1 1521
4 =	2 355
5 =	3 188
6 =	3 1282
7 =	4 615
8 =	4 1709
9 =	5 1043
10 =	6 376
20 =	12 753
30 =	18 1129
40 =	24 1505
50 =	31 122
60 =	37 498
70 =	43 874
80 =	49 1251
90 =	55 1627
100 =	62 243
200 =	124 487
300 =	186 730
400 =	248 973
500 =	310 1217

Litres into gallons and quarts.

1 =	0 0.860
2 =	0 1.761
3 =	0 2.641
4 =	0 3.521
5 =	1 0.402
6 =	1 1.282
7 =	1 2.163
8 =	1 3.043
9 =	1 3.923
10 =	2 0.804
20 =	4 1.608
30 =	6 2.412
40 =	8 3.215
50 =	11 0.019
60 =	13 0.823
70 =	15 1.627
80 =	17 2.431
90 =	19 3.235
100 =	22 0.039
200 =	44 0.077
300 =	66 0.116
400 =	88 0.155
500 =	110 0.193

Hectolitres into quarters and bushels.

1 =	0 2.751
2 =	0 5.502
3 =	1 0.254
4 =	1 3.005
5 =	1 5.756
6 =	2 0.507
7 =	2 3.258
8 =	2 6.010
9 =	3 0.761
10 =	3 3.512
20 =	6 7.024
30 =	10 2.536
40 =	13 6.048
50 =	17 1.560
60 =	20 5.072
70 =	24 0.585
80 =	27 4.097
90 =	30 7.609
100 =	34 3.121
200 =	68 6.242
300 =	103 1.362
400 =	137 4.483
500 =	171 7.604

Kilogrammes into cwt. qrs. lb. oz.

1 =	0 0 2 34
2 =	0 0 4 64
3 =	0 0 6 94
4 =	0 0 8 13
5 =	0 0 11 04
6 =	0 0 13 34
7 =	0 0 15 7
8 =	0 0 17 104
9 =	0 0 19 134
10 =	0 0 22 04
20 =	0 1 16 14
30 =	0 2 10 24
40 =	0 3 4 3
50 =	0 3 26 34
60 =	1 0 20 44
70 =	1 1 14 54
80 =	1 2 8 6
90 =	1 3 2 64
100 =	1 3 24 7
200 =	3 3 20 15
300 =	5 3 17 6
400 =	7 3 13 14
500 =	9 3 10 5

Hectares into acs. r. p.

1 =	2 1 35
2 =	4 3 31
3 =	7 1 26
4 =	9 3 22
5 =	12 1 17
6 =	14 3 12
7 =	17 1 8
8 =	19 3 3
9 =	22 0 33
10 =	24 2 34
20 =	49 1 28
30 =	74 0 21
40 =	98 3 15
50 =	123 2 9
60 =	148 1 3
70 =	172 3 37
80 =	197 2 38
90 =	222 1 24
100 =	247 0 18
200 =	494 0 37
300 =	741 1 15
400 =	988 1 33
500 =	1235 2 11

A foot = 3048 mètre.

A yard = 9144 "

A rod = 5.029 "

A mile = 1609 kilom.

Anacre = 4047 hectares.

A square mile = 259 "

A quart = 9465 litres.

A gallon = 3.786 "

A peck = 8.811 litres.

A bushel = 35.24 "

A lb = 4536 Kilog.

A ton = 9072 "

USEFUL NOTES.

Simple rules for calculating Interest.

—For 4%, multiply the principal by the number of days, separate the last digit and divide by 9.—For 5%, multiply by the number of days and divide by 72.—For 6%, multiply by the number of days, separate the last digit and divide by 6.—For 8%, multiply by the number of days and divide by 4.—For 9%, multiply by the number of days, separate the last digit, and divide by 4.—For 10%, multiply by the number of days and divide by 6.—For 12%, multiply by the number of days, separate the last digit and divide by 3.

Simple Rules for Exchange.—At Ex. 1-4 a sovereign is worth Rs.15. At $\frac{1}{2}$ d. higher or lower it would be worth 6 pils less or more. And at $\frac{1}{4}$ d. higher or lower, 13 pils less or more.

At Ex. 1-4 Rs.10 are worth 13s. 4d. At $\frac{1}{2}$ d. higher or lower, 1 $\frac{1}{2}$ farthing more or less. And at $\frac{1}{4}$ d. higher or lower 2 $\frac{1}{2}$ farthings more or less.

But these rules are only applicable to small sums.

Builders' Measurement.

Stock or kiln bricks ... 8 $\frac{1}{2}$ inches $\times$ 4 $\frac{1}{2}$ $\times$ 2 $\frac{1}{2}$
Welsh fire-bricks ... 9 " $\times$ 4 $\frac{1}{2}$ $\times$ 2 $\frac{1}{2}$
Paving bricks ... 9 " $\times$ 4 $\frac{1}{2}$ $\times$ 1 $\frac{1}{2}$
Square tiles ... 9 $\frac{1}{2}$ " $\times$ 9 $\frac{1}{2}$ $\times$ 1
" " " 6 " $\times$ 6 $\times$ 1

Dutch clinker bricks ... 9 $\frac{1}{2}$ " $\times$ 3 $\times$ 1 $\frac{1}{2}$

A Rod of Brickwork 16 $\frac{1}{2}$ feet $\times$ 16 $\frac{1}{2}$ feet $\times$ 1 $\frac{1}{2}$ brick thick = 306 cubic feet, or 11 $\frac{1}{2}$ cubic yards, and contains about 4,500 bricks with about 75 cubic feet of mortar.

A Square of Flooring is 100 square feet.

Ordinary bricks weigh about 7lb. each; a load of 500 weighs over 1 $\frac{1}{2}$ tons.

Sizes of Slates—

	in.	in.
Empress	26	16
" Small	26	14
Princesses	24	14
Duchesses	24	12
Marchionesses	22	12
" Small	22	11
Countesses	20	10
" Wide	20	12
Viscountesses	18	10
" Small	18	9
Ladies	16	10
" Small	16	8
" Large	14	12
"	14	8
Plantations	13	11
Doubles	13	10
"	13	7
Smalls	12	8
"	12	6
"	11	5

Water—

Cubic inch ... = .0361 lb.
Gallon ... = 10.0000 "
Cubic foot = 62.3210 lb. or 6.2321 gallons.
(35.943 cubic feet 210 gallons) = 1 ton.

The gallon is = 277 $\frac{1}{4}$ cubic inches = 0.16 cubic feet = 10lb. distilled water.

Water for Ships: Ton 210 gals., Butt 110, Puncheon 72, Barrel 36, Kilderkin 18.

Cisterns, 1 cubic foot is equal to about 6 $\frac{1}{4}$ gallons, or 62.321 lb. A cistern 4 feet by 2 $\frac{1}{2}$ and 3 deep will hold about 187 gallons, and weigh nearly 16 cwt. in addition to its own weight.

The No. 3 Navy Tank is 49 in. long, 49 in. broad and 49 in. deep; it holds 400 gals. of water, weighing 1 ton 9 $\frac{1}{2}$ cwt. in addition to the tank itself about 6 cwt. 3 qrs. 25 lb.

A TON WEIGHT OF THE FOLLOWING WILL AVERAGE IN CUBIC FEET.

Earth	21	Coal, Newcastle	43
Clay	18	Pit Sand	22
Chalk	14	River Sand	19
Thames ballast	20	Marl	18
Coarse gravel	19	Shingle	23
Coal, Welsh	40	Night Soil	18

A cubic foot of pure gold weighs 1,210 lb., pure silver 855 lb., cast iron 450 lb., copper 550 lb., lead 710 lb., pure platinum 1,220 lb., tin 456 lb.

Sundry Casks (Sizes and Contents).

	Length.	Diam.	Conts.
	Ins.	Ins.	Gals.
Marsala pipe	65	32	108
" hogshead	41	25	45.5
Brandy pipe	52	24	114
" hogshead	49	28	57.5
Port pipe	58	34	113
" hogshead	37	30	56.5
Sherry butt	50	35	108
" hogshead	38	28	54.5
Rum puncheon	42	36	91

Admiralty Casks (Sizes and Contents).

	Length.	Diam.	Conts.
	Ins.	Ins.	Gals.
Leager	59	38	164
Butt	53	33	110
Puncheon	41 $\frac{1}{2}$	30	72
Hogshead	37	28	54
Barrel	31 $\frac{1}{2}$	24.5	36
Half-hogshead	28	22.5	27
Kilderkin	22	19.75	18
Firkin	22	17	12

Hay and Straw.—Truss of Straw, 36

lb. Truss of Old Hay, 56 lb. Truss of New Hay, 60 lb.
Load, 36 Trusses—Straw, 11 cwt. 2 qrs. 8 lbs.; Old Hay, 18 cwt.; New Hay, 19 cwt. 1 qr. 4 lb.

TABLE OF DAILY PAY OR ALLOWANCE.

Rupees per Month.	Of 28 Days.	Of 30 Days.	Of 31 Days.	Rupees per Month.	Of 28 Days.	Of 30 Days.	Of 31 Days.
	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.
1	0 0 7	0 0 6	0 0 6	54	1 14 10	1 12 10	1 11 10
2	0 1 2	0 1 1	0 1 0	55	1 15 5	1 13 4	1 12 5
3	0 1 9	0 1 7	0 1 7	56	2 0 0	1 13 10	1 12 11
4	0 2 3	0 2 2	0 2 1	57	2 0 7	1 14 5	1 13 5
5	0 2 10	0 2 8	0 2 7	58	2 1 2	1 14 11	1 13 11
6	0 3 5	0 3 2	0 3 1	59	2 1 9	1 15 6	1 14 5
7	0 4 0	0 3 9	0 3 7	60	2 2 3	2 0 0	1 15 0
8	0 4 7	0 4 3	0 4 2	61	2 2 10	2 0 1	1 15 6
9	0 5 2	0 4 10	0 4 8	62	2 3 5	2 1 6	2 0 0
10	0 5 9	0 5 4	0 5 2	63	2 4 0	2 1 7	2 0 6
11	0 6 3	0 5 10	0 5 8	64	2 4 7	2 2 2	2 1 0
12	0 6 10	0 6 5	0 6 2	65	2 5 2	2 2 8	2 1 6
13	0 7 5	0 6 11	0 6 9	66	2 5 9	2 3 2	2 2 0
14	0 8 0	0 7 6	0 7 8	67	2 6 3	2 3 9	2 2 7
15	0 8 7	0 8 0	0 7 9	68	2 6 10	2 4 3	2 3 1
16	0 9 2	0 8 6	0 8 3	69	2 7 5	2 4 10	2 3 7
17	0 9 9	0 9 1	0 8 9	70	2 8 0	2 5 4	2 4 2
18	0 10 3	0 9 7	0 9 3	71	2 8 7	2 5 10	2 4 8
19	0 10 10	0 10 2	0 9 10	72	2 9 2	2 6 5	2 5 2
20	0 11 5	0 10 8	0 10 4	73	2 9 9	2 6 11	2 5 8
21	0 12 0	0 11 2	0 10 10	74	2 10 3	2 7 6	2 6 2
22	0 12 7	0 11 9	0 11 4	75	2 10 10	2 8 0	2 6 9
23	0 13 2	0 12 3	0 11 10	76	2 11 5	2 8 6	2 7 3
24	0 13 9	0 12 10	0 12 5	77	2 12 0	2 9 1	2 7 9
25	0 14 3	0 13 4	0 12 11	78	2 12 7	2 9 7	2 8 3
26	0 14 10	0 13 10	0 13 5	79	2 13 2	2 10 2	2 8 9
27	0 15 5	0 14 5	0 13 11	80	2 13 9	2 10 8	2 9 3
28	1 0 0	0 14 11	0 14 5	81	2 14 3	2 11 2	2 9 10
29	1 0 7	0 15 6	0 15 0	82	2 14 10	2 11 9	2 10 4
30	1 1 2	1 0 0	0 15 6	83	2 15 5	2 12 3	2 10 10
31	1 1 9	1 0 6	1 0 0	84	3 0 0	2 12 10	2 11 4
32	1 2 3	1 1 1	1 0 6	85	3 0 7	2 13 4	2 11 10
33	1 2 10	1 1 7	1 1 0	90	3 3 5	3 0 0	2 14 5
34	1 3 5	1 2 2	1 1 7	95	3 6 3	3 2 8	3 1 0
35	1 4 0	1 2 8	1 2 1	100	3 9 2	3 5 4	3 3 7
36	1 4 7	1 3 2	1 2 7	200	7 2 3	6 10 8	6 7 3
37	1 5 2	1 3 9	1 3 1	300	10 11 5	10 0 0	9 10 10
38	1 5 9	1 4 3	1 3 7	400	14 4 7	13 5 4	12 14 5
39	1 6 3	1 4 10	1 4 2	500	17 13 9	16 10 8	16 2 1
40	1 6 10	1 5 4	1 4 8	600	21 6 10	20 0 0	19 5 8
41	1 7 5	1 5 10	1 5 2	700	25 0 0	23 5 4	22 9 3
42	1 8 0	1 6 5	1 5 8	800	28 9 2	26 10 8	25 12 11
43	1 8 7	1 6 11	1 6 2	900	32 2 3	30 0 0	29 0 6
44	1 9 2	1 7 6	1 6 9	1,000	35 11 5	33 5 4	32 4 2
45	1 9 9	1 8 0	1 7 3	2,000	71 6 10	66 10 8	64 8 3
46	1 10 3	1 8 6	1 7 9	3,000	107 2 3	100 0 0	96 12 5
47	1 10 10	1 9 1	1 8 3	4,000	142 13 9	133 5 4	129 0 6
48	1 11 5	1 9 7	1 8 9	5,000	178 9 2	166 10 8	161 4 8
49	1 12 0	1 10 2	1 9 3	6,000	214 4 0	200 0 0	193 8 9
50	1 12 7	1 10 8	1 9 10	7,000	250 0 0	233 5 4	225 12 11
51	1 13 2	1 11 2	1 10 4	8,000	285 11 5	263 10 8	258 1 0
52	1 13 9	1 11 9	1 10 10	9,000	321 6 10	300 0 0	290 5 2
53	1 14 3	1 12 3	1 11 4	10,000	357 2 3	333 5 4	322 9 3

LIST OF WINES

SHIPPED TO

LEIGHTON & CO., MADRAS,

BY WELL-KNOWN

ENGLISH AND CONTINENTAL FIRMS.

Per dozen.

CHAMPAGNE.	{	Lanson père et fils ...	...Qts.	Rs. 70	0
		Extra Quality, Extra Dry ...	...Pts.	„ 37	0
BURGUNDY...	{	Macon 1878 ...	...Qts.	„ 24	0
		Beaune 1878 ...	... „	„ 24	0
		Pommard 1878 ...	... „	„ 34	0
CLARET ...	{	Rouiba ...	...Qts.	„ 13	0
		St. Julien ...	... „	„ 14	0
		Margaux 1893 ...	... „	„ 15	0
PORT ...	{	Graham's "5 Crowns" ...	...Qts.	„ 40	0
		Stone's White ...	... „	„ 40	0
SHERRY ...	{	Vino de Pasto ...	...Qts.	„ 24	0
		Manzanilla ...	... „	„ 28	0
MADEIRA ...		Williams and Humbert ...	...Qts.	„ 30	0
CHIANTI ...	{	Gasparini's Estra ...	...Litres	„ 25	0
		Vecchio, Marca Oro ...	... 1/2 Litres	„ 15	0
HOCK ...	{	Niersteiner 1886 ...	...Qts.	„ 18	0
		Geisenheimer 1889 ...	... „	„ 20	0
		Brauneberger 1886 ...	... „	„ 22	0
LIQUEURS ...	{	Apricot Brandy ...	...Litres	„ 48	0
		Mandarine Brandy ...	... „	„ 48	0
WHISKY ...	{	Craig's "Club" ...	...Qts.	„ 25	0
		Mackay's Liqueur ...	... „	„ 28	0
		Power's Dublin Pot-still ...	... „	„ 33	0
PILSEN BEER ...	{	"Gold Bock" ...	4 doz. Qts.	„ 18	0
			6 „ Pts.	„ 18	0

THE VINTAGES OF EUROPE.

CHAMPAGNE.		BURGUNDY.	CLARET.
1870	Excellent; good body.	Very superior.	Late to develop.
1871	Fair.	Indifferent.	Have become fine wines.
1872	Ordinary.	Ordinary quality.	Never showed much quality.
1873	Bad.	Medium quality.	Without maturing power.
1874	Very full-bodied.	Above the average.	Very useful.
1875	Lighter, but useful.	Quality passable.	Elegant and cheap.
1876	Fair.	Good medium quality.	Fair color, but not good.
1877	Fair.	Quality satisfactory.	Light and elegant.
1878	Fine, but delicate.	Very good.	Rather full-bodied.
1879	Bad.	Poor.	Coarse and rough.
1880	A beautiful wine.	Poor.	Useful, but not fine.
1881	Fair.	Exceedingly good.	Full-bodied, but coarse.
1882	Bad.	Below mediocrity.	Very light and thin.
1883	Indifferent.	Good quality.	Light and mildewed.
1884	Very elegant.	Rich in vinosity.	Do.
1885	Light and pleasant.	Very good.	Do.
1886	Full-bodied.	Good.	Do.
1887	Good, but light.	Very good.	Useful, now developing.
1888	Very poor.	Satisfactory.	Light and elegant.
1889	Good style.	Very good.	Not so good.
1890	Useful.	Fairly good.	Give good promise.
1891	Thin.	Very fine.	Mostly useful wines.
1892	Exceptionally good.	Excellent all round.	Full-bodied.
1893	Good and cheap.	Good quality.	Promises very well.
1894	Sound and cheaper.	Good color and body.	Thin and inferior.
1895	Fairly good.	Very soft and natural.	Requires careful selection.
1896	Thin and green.	Somewhat light.	Good body and color.
HOCK.		PORT.	SHERRY.
1870	Medium quality.	Very fine.	Good quality.
1871	Extremely bad.	Thin but clean.	Moderate quality.
1872	Medium quality.	Fine flavour.	Good quality.
1873	Do.	Very good, dry.	Do.
1874	Very good.	Good, but light.	Fairly good.
1875	Good.	Sweet and smooth.	Good and useful.
1876	Light and useful.	Very inferior.	Thin and acid.
1877	Poor in quality.	Better, but not fine.	Good quality.
1878	Indifferent.	Fine big wines.	Developes fairly well.
1879	Poor.	Not shipped.	Good quality.
1880	Quality fair.	Do.	Do.
1881	Unfit for export.	Has turned out well.	Indifferent.
1882	Bad.	Not shipped.	Very good.
1883	Some very good.	Do.	Quality irregular.
1884	Fair quality.	A great success.	Thin and hard.
1885	Mediocre.	Clean and sound.	Good quality.
1886	Some very good.	Lacking in quality.	Not so good.
1887	Inferior.	Very good.	Fair quality.
1888	Bad.	Sound and useful.	Inferior.
1889	Fairly good.	Fair quality.	Indifferent.
1890	Very useful.	Very good.	Good quality.
1891	Very bad.	Not shipped.	Good, but light.
1892	Good quality.	Very few good.	Some good wines.
1893	Excellent.	Not shipped.	Medium quality.
1894	Unsatisfactory.	Medium quality.	Superior quality.
1895	Light and elegant.	Very few good.	Fairly good.
1896	Poor quality.	Good quality.	Bids fair to be good.

INDIAN STAMP DUTIES.

	RS.	A.		RS.	A.
Acknowledgment of Debt	0	1	Charter Party	1	0
Affidavit of Declaration	1	0	Cheque for amount exceeding Rs.20.	0	1
Agreement or Memo. of Agreement—			Composition—Deed	10	0
For Sale of Shares or Bill of			Conveyance, not being a Transfer—		
Exchange	0	1	Not exceeding Rs 50	0	8
Exchange of Lands	0	4	Exceeding Rs.100	1	0
In any other case	0	8	For every Rs.100 in excess to		
Appointment	15	0	Rs.1,000	1	0
Article of Association	25	0	For every Rs.500 in excess	5	0
Articles of Clerkship	250	0	Copy of extract, if the original was		
Bill of Exchange or Pro. Note on			not chargeable with duty, or if		
demand, amount exceeding Rs 20.	0	1	duty with which it was charge-		
Bill of Lading	0	4	able does not exceed 1 Rupee	0	8
Bond (when not otherwise provided for)—			In any other case	1	0
Not exceeding Rs.10	0	2	Declaration of Trust	15	0
Exceeding „ 10 to Rs. 50	0	4	Delivery Order	0	1
„ „ 50, „ „ 100..	0	8	Entry in a High Court of an Advo-		
„ „ Rs.1,000, every Rs.100	0	8	cate or Vakil	500	0
And for every Rs.500 in excess			In the case of an Attorney	250	0
of 1,000	2	8	Instrument of Apprenticeship	5	0
Bond or Mortgage Deed—			„ Co-Partnership	10	0
When amount secured does not			„ Dissolution of Partner-		
exceed Rs.1,000 same duty as			ship	5	0
a Bond.			„ Divorce	1	0
In any other case	5	0	„ Conferring an Authority		
Certificate or other Document relat-			to adopt	10	0
ing to Shares	0	1	Lense		
Letter of Allotment					
„ Credit					
„ License					
Memo. of Association					
Notarial Act					
Note of Protest					
Petition for leave to File a Specification of an Invention					
Polices: Marine—For every Rs.1,000					
In the case of any other insurance—For every Rs.1,000					
Power of Attorney—					
When executed for the sole purpose of procuring the presentation of one or					
more documents of registration in relation to a single transaction					
When authorising one or more persons to act in a single transaction other					
than that mentioned in above					
When authorising not more than five persons to act jointly and severally in					
more than one transaction, or generally					
When authorising more than five but not more than 10 persons to act jointly					
and severally in more than one transaction, or generally					
In any other case, for each person authorised					
Proxy					
Receipt					
Revocation of any Trust					
Shipping Order					
Surrender of Lease—When the duty with which the Lease is chargeable does					
not exceed Rs. 5, the duty with which such Lease is chargeable.					
In any other case					
Transfer of Shares—Quarter of the duty payable on a Conveyance.					
Transfer of Interest secured by a Bond, Lease, Deed, or Policy—					
If duty on such does not exceed Rs.5, the duty with which such Bond, Lease,					
Deed, or Policy is charged.					
In any other case					
Warrant for Goods					

INDIAN IMPORT DUTIES.

Arms and Ammunition.

	RS.	A.	P.
Fire-arms, other than pistols, each.	50	0	0
Pistols	15	0	0
Springs used for fire-arms	8	0	0
Gunstocks, sights, blocks,	5	0	0
Extractors, nipples, heel-plates,			
pins, screws, tongs, bolts, triggers,			
guards, hammers, &c., and all			
tools	1	8	0
Machines for loading cartridges	10	0	0
Do. for capping cartridges	2	8	0
Gunpowder, all sorts	10	per cent.	
All other sorts of arms, ammuni-			
tion and military stores		do.	

Liquors.

	RS.	A.	P.
Ale and porter, cider, and other			
fermented liquors, per gallon.	0	1	0
Liqueurs	6	0	0
Spirit, Methylated	5	per cent.	
Do. in drugs, &c., under 20°		do.	
Do. performed	8	0	0
Do. other sorts	6	0	0
Wines, sparkling	2	8	0
Do. still	1	0	0
Opium	24	0	0
Salt and salted fish in accordance			
with the excise duty			

Miscellaneous.

Coffee	5	per cent.
Fruit and vegetables	„	„
Mineral waters	„	„
Provisions and groceries	„	„
Spices, Sugar and Tea	„	„
Chemical products and prepara-		
tions	„	„
Drugs, Medicines and Narcotics	„	„
Dyeing and Tanning Materials	„	„
Hardware and Cutlery	„	„
Iron	1	per cent.
Machinery (with exceptions)	5	per cent.
Metals (excepting Iron)	„	„
Oils	„	„
Petroleum	per gallon	One anna.
Apparel	„	5 per cent.
Works of Art	„	„
Bags, casks, and boxes	„	„
Brushes and Brooms, Candles,		
Carriages, Cycles, Clocks and		
Watches, Earthenware, Furni-		
ture, Furs, Glassware, Hides and		
Skins, Ivory, Jewellery, Matches,		
Mats, Paints, Paper, Perfumery,		
Pitch and Tar, Seeds, Shells, Silk		
and articles made of Silk, Soap,		
Sponges, Stationery, Stone and		
Marble, articles made of Straw,		
Tallow and Grease, Toilet re-		
quisites, Toys, Umbrellas and		
Walking Sticks, Wax, &c.	5	per cent.
Piece-goods	3½	„

The following are Free of Duty.

Live animals; Hops; Grain and Pulse; Quinine; Unmanufactured tobacco; Prime-movers, whether worked by steam, water, fire, or electricity; Machines for agricultural and manufacturing purposes, worked otherwise than by animal or hand power; Gold bullion and coin; Lead for tea-chests; Bamboos; Belting; Printed books, maps, music, &c.; Coal, coke and patent fuel; Horn; Raw jute; Manures of all kinds; Cattle-food of all kinds; Plants and Bulbs; Precious stones and Pearls; Railway material; Specimens illustrative of natural science; Tea-chests; Raw wool; and Firewood.

AN ABSTRACT OF THE CUSTOMS TARIFFS OF AUSTRALASIAN COLONIES.

	West Australia.	South Australia.	Victoria.	New South Wales.	Queens- land.	Tasmania.	New Zealand.	Figi.	British New Guinea.
Advertising matter	15 ⁰ / ₁₀₀	free	35 ⁰ / ₁₀₀	free.	5 ⁰ / ₁₀₀	...	20 ⁰ / ₁₀₀	12 ⁰ / ₁₀₀	10 ⁰ / ₁₀₀
Apparel, Woollen	10 ⁰ / ₁₀₀	15 ⁰ / ₁₀₀	35 ⁰ / ₁₀₀	free.	5 ⁰ / ₁₀₀	...	25 ⁰ / ₁₀₀	12 ⁰ / ₁₀₀	10 ⁰ / ₁₀₀
Do. Other	10 to 15 ⁰ / ₁₀₀	25 ⁰ / ₁₀₀	35 ⁰ / ₁₀₀	free.	5 ⁰ / ₁₀₀	...	25 ⁰ / ₁₀₀	12 ⁰ / ₁₀₀	10 ⁰ / ₁₀₀
Beer, &c., Bulk	1-3d.	1-3d.	1-6d.	0-6d.	1-3d.	1-6d.	1-6d.	0-9	0-6d.
Do. Bottled	1-6d.	1-6d.	25 ⁰ / ₁₀₀	0-9d.	1-3d.	1-6d.	1-6d.	1-0d.	0-9d.
Bicycles	20 ⁰ / ₁₀₀	25 ⁰ / ₁₀₀	25 ⁰ / ₁₀₀	free.	10-0d.	3-0d.	7-0d.	5-0d.	4-0d.
Cigars	6-0d.	6-3d.	6-0d.	6-0d.	6-0d.	3-0d.	0-3d.	...	0-3d.
Coffee, Raw	0-1d.	0-3d.	free.	free.	0-4d.	...	15 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Coin Matting	5 ⁰ / ₁₀₀	15 ⁰ / ₁₀₀	35 ⁰ / ₁₀₀	free.	...	...	20 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Do. Rope	5 ⁰ / ₁₀₀	5-0d.	2-0d.	free.	8-0d.	...	15 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Firearms	10 ⁰ / ₁₀₀	25 ⁰ / ₁₀₀	35 ⁰ / ₁₀₀	free.	...	...	15 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Furniture	20 ⁰ / ₁₀₀	25 ⁰ / ₁₀₀	35 ⁰ / ₁₀₀	free.	...	...	15 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Grain, Raw	20 ⁰ / ₁₀₀	25 ⁰ / ₁₀₀	35 ⁰ / ₁₀₀	free.	...	...	15 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Harness	15 ⁰ / ₁₀₀	2-0d.	2-0d.	0-10d.	5 ⁰ / ₁₀₀	1-6d.	0-9d.	2-0d.	0-6d.
Jewelry	20 ⁰ / ₁₀₀	25 ⁰ / ₁₀₀	45 ⁰ / ₁₀₀	free.	...	10 ⁰ / ₁₀₀	15 ⁰ / ₁₀₀	20 ⁰ / ₁₀₀	10 ⁰ / ₁₀₀
Lamps	20 ⁰ / ₁₀₀	25 ⁰ / ₁₀₀	35 ⁰ / ₁₀₀	free.	...	...	15 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Luggage, Personal	10 ⁰ / ₁₀₀	15 ⁰ / ₁₀₀	35 ⁰ / ₁₀₀	free.	...	...	15 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Machinery, not prime movers	free	mostly free.	free.	free.	...	...	free.	...	free.
Medicines	15 ⁰ / ₁₀₀	20 ⁰ / ₁₀₀	25 ⁰ / ₁₀₀	free.	...	...	15 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Rugs	15 ⁰ / ₁₀₀	14-0d.	15-0d.	free.	...	...	15 ⁰ / ₁₀₀	...	10 ⁰ / ₁₀₀
Spirits	16-0d.	14-0d.	15-0d.	14-0d.	14-0d.	15-0d.	16-0d.	14-0d.	12-0d.
Stationery	15 ⁰ / ₁₀₀	free.	35 ⁰ / ₁₀₀	free.	...	...	25 ⁰ / ₁₀₀	10 ⁰ / ₁₀₀	...
Sugar, Raw	4-0d.	3-0d.	3-0d.	5-0d.	...	6-0d.	4-8d.	...	2-4d.
Tea	0-4d.	0-3d.	0-3d.	free.	0-6d.	0-3d.	0-4d.	0-3d.	0-2d.
Wines	6-6d.	10-0d.	15-0d.	5-0d.	6-0d.	8-0d.	6-0d.	4-0d.	4-0d.

BRITISH CUSTOMS DUTIES.

	£ s. d.		£ s. d.
Beer, Mum. or Spruce—		Snuff, containing more than 13 per	
Original sp. grav. not exceeding		cent. of moisture ... lb.	0 3 9
1215 deg. per barl. of 36 gals. ...	1 8 0	" not more than 13 per cent. of	
Exceeding 1215 deg. ...	1 12 10	moisture ... lb.	0 4 6
Of other sorts, spec. grav. 1055		Soap, transparent, in manufacture of	
deg. per brl. of 36 gals., and so		which spirit has been used ... lb.	0 0 3
in proportion for any difference		Spirits, Perfumed ... gal.	0 17 0
in gravity ...	0 7 0	" Any other description, includ-	
Chicory, raw or kiln-dried ... cwt.	0 13 3	ing Naphtha purified so as	
roasted or ground ... lb.	0 0 2	to be potable; and mixtures	
Chicory (or other vegetable sub-		and preparations containing	
stances) and coffee, roasted and		spirits ... proof gal.	0 10 1
ground, mixed ... lb.	0 0 2	Tea ... lb.	0 0 4
Chloral Hydrate ...	0 1 3	Tobacco, unmanufactured, contain-	
Chloroform ...	0 3 1	ing 10 per cent. or more	
Cocoa and Cocoa Butter ...	0 0 1	of moisture ... lb.	0 3 2
" husks and shell ... cwt.	0 2 0	" containing less than 10 per	
" or chocolate, ground, prepared,		cent. of moisture ... lb.	0 3 6
or manufactured ... lb.	0 0 2	" Cigars ...	0 5 0
Coffee, raw ... cwt.	0 14 0	" Cavendish or Negro-head,	
kiln-dried, roasted or ground lb.	0 0 2	manufactured ... lb.	0 4 6
Colloidion ... gal.	1 5 0	" ditto, manufactured in	
Confectionery, in manufacture of		bond ... lb.	0 4 0
which spirits are used ... lb.	0 0 0 1/2	" other manufactured ...	0 4 0
Currants ... cwt.	0 2 0	Wine, not exceeding 30 deg. proof	
Ether, acetic ... lb.	0 1 10	spirits ... gal.	0 1 0
" butyric ... gal.	0 15 8	" exceeding 30 but not exceeding	
" sulphuric ...	1 6 2	42 deg. proof spirits ... gal.	0 2 6
Ethyl, Iodide of ...	0 13 7	" for each additional deg. or	
Figs and Fig Cake ... cwt.	0 7 0	part of a deg. of strength	
Liqueurs, Cordials, &c. ... gal.	0 14 8	beyond 42 deg. ... gal.	0 0 3
Playing Cards ... per doz. packs	0 3 9	Wines, Sparkling, imported in	
Plums or Prunes ... cwt.	0 7 0	bottles, in addition to alcoholic	
Raisins ...	0 7 0	duty ... gal.	0 2 0

TRAVELLER'S LUGGAGE—CUSTOMS REGULATIONS.

In France, Belgium, and practically in all European Countries, no merchandise is allowed to enter free of duty. In the case of travellers, the custom-house officials have a certain latitude allowed them, and, in the absence of any suspicious circumstances, the question "Have you anything to declare?" if answered in the negative usually suffices to enable the traveller to pass with quite nominal examination.

The English Customs Authorities require declaration of all articles liable to duty on importation, but passengers are usually allowed to bring in free small quantities of spirits or tobacco, not exceeding half a pint of spirits or half a pound of tobacco, or if from Channel Islands one-half of these quantities.

The following is given in Bradshaw's Guide as a list of what travellers are allowed to carry free:—

Cut Tobacco—As a rule enough for the railway journey, say an *opened* packet. The duty on cut tobacco in France is about 9s. and in Italy about 7s. 6d. per lb.; in Germany, Switzerland, and Austria, only a few pence, but the traveller is liable to be charged dealer's license, which is heavy.

Cigars—In France or Germany, enough for the railway journey. In Spain, only a few, not more than 20. In Italy, a cigar-case full. In Portugal, one *opened* box.

Spirits or Wine—A small bottle, which must have been uncorked and used from. In Italy, under two gills.

Patent Medicines—What is needed for the journey; in France, subject to duty, in Germany free, excepting pills. In Portugal, only one bottle free, rest pays duty.

Sporting Guns and Rifles—Must pay duty according to weight in Germany, France, Portugal and Belgium. For Spain, a permit should be obtained from the Spanish Consul before starting from England. Military rifles, as a rule, are forbidden.

Dogs—Free in most countries. In Portugal, they pay an *ad valorem* duty. In Norway the introduction of dogs is absolutely forbidden.

LONDON & LANCASHIRE LIFE ASSURANCE COMPANY.

ESTABLISHED 1862.

*Assurances on every Sound and Approved Plan effected on
most favourable Terms.*

PROGRESS OF THE COMPANY.

The following Table shows the progress of the Company during the
last Quinquennium:—

Year.	New Business.		Net Premium Income.	Invested Fund.
	Sum Assured.	New Premium.		
1892	£788,332	£28,126	£175,494	£240,000
1897	912,489	35,600	231,750	1,238,849

Showing an increase in the Funds of **£398,753** in five years.

This remarkable expansion affords convincing testimony of good Management and
successful working.

The Policies of the London and Lancashire afford special facilities
for Family Provisions, Self Endowments and Securities for Loans.

*Full Prospectus, Proposal Forms and all necessary
information will be gladly supplied by*

LEIGHTON & Co.,
AGENTS, MADRAS.

THE INSURANCE OF LIFE.

Many men intend to assure, but still they allow year after year to slip away and leave the duty unperformed. Lolling in easy comfort in their homes, they cannot bring their minds to admit the possibility of their families ever being destitute. Let such parents—and they are too common—contemplate for one moment in what a position their offsprings are, hanging by the slender thread of the life of him to whom they owe their existence, a life which no sooner ceases than the frail strands on which they depended part and they are beggars; but, from their nurturing, suffering pangs inexpressibly keener than can ever come to those reared in want.

But what is this system by which a man may secure comfort and plenty to his family in the event of his death? It is called *Life Assurance*; and, as is now universally acknowledged, it is the most useful and beneficial institution known to modern times. It is a scientific system, which for its successful prosecution requires to be conducted on strictly scientific lines—lines which have in the past proved their correctness. Life Assurance cannot for long be successfully pursued by Societies based upon other than sound assurance principles. The English Life Assurance Companies in our midst offer Assurance of the highest order: and owing to their having to conform to the stringent regulations of the English Government Board of Trade, they present a guarantee of soundness, security, and excellence which such Government Supervision can alone bring about. Of these Companies the London and Lancashire Life holds a foremost place, and presents to the public—European and Native—advantages that cannot be excelled.

The main feature of Life Assurance, as offered by the London and Lancashire, is that the Company undertake for a small—often trifling—fixed payment (annual, half-yearly, quarterly, or monthly) to pay a capital sum immediately on the death of the Subscriber, whenever death may occur, even though it happen but one day after acceptance of the first payment.

To show the practical working of the system, the monthly minimum rates for various ages for an Assurance of **Rs.1,000** payable at death are here given:—

Age.	Premium.	Age.	Premium.
25	Rs.2 5 0	35	Rs.3 1 0
25	" 2 9 0	40	" 3 7 0
30	" 2 13 0	45	" 3 14 0

It will thus be seen how altogether insignificant is the cost of the invaluable provision of *Life Assurance*. The protection of your family, therefore, does not mean a large present sacrifice. It can be secured for a payment that would make little appreciable difference to your income. A policy for Rs.10,000 could be secured by a man of 25 for a monthly payment of **Rs.25-3** and should death occur immediately after receipt of the first monthly premium, the sum assured would be **at once** payable.

In addition to the above, Life Assurance presents many other phases—all particulars of which will be readily given on application to the undersigned. Assurances suitable to poor men and to men of wealth—to married men with families and to bachelors without domestic responsibilities—to money lenders who desire to protect themselves from loss and to borrowers who are desirous of obtaining advances. Life Assurance is not for one class only, but for all sorts and conditions of men—and the London and Lancashire, through its admirable systems, can meet on unusually favourable terms the varying requirements of all classes.

To most men Life Assurance is an absolute necessity—being the only means within their reach of making provisions for their families—and to those men to whom it is not a necessity it is at once a safeguard, a blessing, and a good investment.

LEIGHTON & CO., AGENTS, MADRAS.

NOTES FOR PLANTERS.

Corrugated Iron.—One-tenth of the weight to be added for lappage. Sheets should be double rivetted at the joints, and all bolts and screws must be in the ridges and not in the valleys of the corrugations, otherwise the roof will leak.

3 lb. of rivets, 70 lb. of bolts and nuts, or 70 screws are needed for each square of 100 square feet. Purlins should be about 6 feet apart.

Rail Charges from Madras are as follows:—

	Per ton.		
	RS.	A.	P.
To Calicut	22	13	7
" Palghat	18	11	9
" Mettapollium	18	4	11
" Salem	12	1	0
" Ooregun	10	14	9
" Bangalore	12	10	1
" Paschimavahini	16	2	10
" Banavar	17	14	1
" Kadur	18	9	5
" Dindigul	8	9	3
" Ammanayakanur	9	0	0
" Madura	9	11	3

When Corrugated Iron sheets are stacked, they should be kept in a dry place to prevent being tarnished, and they should never be left in the open air without an air space between each sheet, or rain and other moisture will, by chemical action, produce an oxidation on the surface. Rain will do the sheets no harm, if it is allowed to run off, and the sheets dry in due course, but it must not get in between the sheets without a free circulation of air.

Curved Roofs.—A convenient and usual height is $\frac{1}{3}$ rd to $\frac{1}{4}$ th of the span, but they are very often made $\frac{1}{4}$ of the span.

Barbed Fencing Wire.—*Long-set* has barbs 6 ins. apart, and measures about 530 yds. per cwt. *Thick-set* has barbs 3 ins. apart and measures about 450 yds. per cwt.

For putting up the fencing with wooden posts the following hints may be useful. The main-posts should be 10 ft. from the corner-posts and from each other, and they should be firmly embedded in the ground. Mark on each post the height each line of wire that is to cross it. Simply fasten the end of a reel of wire to the first corner post at the highest of mark thereon, and then carry the reel the entire length of the proposed fence, allowing the wire to unwind as you proceed. Before cutting the wire, raise it to its proper place on each main-post, stapling it loosely. Then draw the wire from your starting point to the first main-post; strain it rigidly, and staple it firmly to each intermediate post, and to the main-post. Repeat this operation to each main-post.

Corner-posts are indispensable wherever the line of the fence forms angles, whether acute, obtuse, or square. They should be made of the hardest possible wood, deeply bedded into the ground, and supported on either side in the direction of the fence by stays, which had better be joined to the foot of the post by means of a crosspiece. These posts may be placed at intervals of up to 250 or even 500 yards, over which distance the wire may be strained without fear of rupture. To make a pattern fence, each corner-post should be from 6 to 8 inches square. If made of round timber the stays should be of about 4 inches diameter, reaching from just below the top wire to the ground, at an angle of 45.

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Intermediate posts may be correspondingly lighter than the corner-posts, their object being to support the wires and prevent them from swiveling. They may be bedded in the ground without braces, at intervals of 5 or 6 yards, but if great strength is required they had better be placed at intervals of 3 yards. If the fence is to keep out tramps they should be 5 yards apart, and two or three droppers made of galvanized flat iron should be introduced in each interval. These droppers prevent the wires from being drawn apart.

Galvanized Steel Staples.—Are for fastening the wire to wooden posts. For each cwt. of wire 100 to 120 staples are necessary.

Portland Cement.—Improves by age, if kept from moisture. The longer it is in setting, the stronger it will be. At the end of a year, 1 of cement to 1 of sand is about $\frac{1}{4}$ th the strength of neat cement; 1 to 2 about $\frac{1}{2}$ strength; 1 to 3 about $\frac{1}{3}$ rd; 1 to 4, $\frac{1}{4}$ th; and 1 to 5 about $\frac{1}{5}$ th. The cleaner and sharper the sand the greater the strength, and the less water used in mixing the better; salt water is as good as fresh for mixing. Bricks, stones, &c., used with cement should be well soaked.

A barrel of Portland Cement weighs 400 lb. gross and 375 lb. nett.

	1 in. thick.	$\frac{3}{4}$ in. thick.	$\frac{1}{2}$ in. thick.
1 bushel of neat cement will cover	1 $\frac{1}{2}$ sq. yds.	1 $\frac{1}{2}$ sq. yds.	2 $\frac{1}{2}$ sq. yds.
1 bushel of neat cement and 1 of sand will cover	2 $\frac{1}{2}$ do.	3 do.	4 $\frac{1}{2}$ do.
1 bushel of neat cement and 2 of sand will cover	3 $\frac{1}{2}$ do.	4 $\frac{1}{2}$ do.	6 $\frac{1}{2}$ do.
1 bushel of neat cement and 3 of sand will cover	4 $\frac{1}{2}$ do.	6 do.	9 do.

Rail charges from Madras are as follows:—

	Per barrel.		
	RS.	A.	P.
To Calicut	4	2	0
" Palghat	3	4	6
" Mettapollium	2	2	0
" Salem	1	15	0
" Ooregun	2	4	0
" Bangalore	2	14	0
" Paschimavahini	3	5	6
" Banavar	3	3	0
" Kadur	2	11	0
" Dindigul	2	13	0
" Ammanayakanur	3	0	0
" Madura	3	0	0

Coal Tar.—A barrel weighs about 5 cwts. gross and $4\frac{1}{2}$ cwts. nett. It should contain 40 gallons. One gallon will cover 108 sq. ft. for the first coat, and 192 sq. ft. for the second. The rail charges are about $1\frac{1}{2}$ times as much as on cement.

Asphalte.—Should not be used when it is likely to be saturated with oil or grease. Asphalte floors should be laid on a good concrete foundation 6 inches deep, of 7 of sharp clean gravel to 1 of lime, the inequalities being flushed with fine concrete of 6 of fine gravel to 1 of lime, passed through a sieve of 10 meshes to the inch.

The concrete should be thoroughly set dry before the asphalte is laid, otherwise the asphalte will blow. Dry ashes should be swept over the surface to remove moisture.

The asphalte should be heated with wood; coke is more injurious than coal. When the asphalte is ready for use, it should give off light puffs of smoke and drop freely from the stirrer.

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Harrison's Asphalte is impervious to white-ants, and does not admit of any kind of vegetation rot or decay. A ton of it will cover 360 square feet to a thickness of one inch.

Break it in pieces, and add about its own weight of gravel or sand which must be mixed with it in boiling. Spread it to half-inch, one inch, or one and-half inch thick, according to the amount of traffic expected. It is best applied in two casts; the second of which should be sprinkled with fine sand, lightly brushed over whilst warm, and then smoothed with a towel or flat piece of wood.

Linseed Oil.—Most of the Linseed Oil imported into India is very much adulterated with Resin or Colophony (black resin, or turpentine boiled in water and dried).

This adulteration may be detected by digesting the oil with alcohol, decanting the latter, and adding acetate of lead, when the appearance of a white precipitate is indicative of this falsification.

Linseed Oil has a specific gravity of .94, and weighs 58 lb. per cubic foot. When adulterated with mineral oils, as it sometimes is, it will rise to the surface, if allowed to settle.

Dark drying Oil for paint:—

- 1 gallon of Raw Linseed Oil.
- 1 lb. of Red Lead.
- 1 lb. of Umber.
- 1 lb. of Litharge.

The Linseed Oil is heated to about 200 Fahr., and the scum removed. The Red Lead, Umber and Litharge are then added and the whole raised to 400 Fahr., and kept at that heat about three hours. It is then allowed to settle before decanting off.

Raw drying Oil.—Add white-lead in the proportion of 1 lb. of lead to 1 gallon of linseed oil; then allow it to settle for a week.

Driers.—Litharge or oxide of lead; red-lead and sulphate of zinc are also used. Oxide of manganese is used for quick drying. From $\frac{1}{2}$ to 1 lb. of driers are used to a gallon of oil. Resin is sometimes mixed with paint to make it dry.

Priming.—White-lead (sometimes mixed with chalk) diluted with linseed oil.

Knotting.—Red-lead and size.

Putty.—Spanish whiting and linseed oil well beaten and kneaded into a stiff paste.

Paints.—A gallon of mixture, viz. 6 pints of raw linseed oil, 1 pint of boiled, 1 pint of turpentine, require from 12 to 14 tons of dry paint, but these proportions vary according to circumstances.

A gallon will cover 450 to 630 sq. ft. of wood-work, or about 720 sq. ft. of iron.

Turpentine Varnish.—Half-pound of resin dissolved in a pint of turpentine warm.

Painting old wood-work.—Old paint should be washed with soap and water, or a solution of potash, and afterwards rubbed with pumice-stone. To remove old paint, dissolve one ounce of soft soap and two ounces of potash in boiling water, and add 4 ounces of quick-lime. Apply hot and leave on for 12 or 15 hours.

Lubricants.—The main points in deciding the kind of oil best suited for a given journal, are the weight, size or friction surface, and the speed and temperature at which it works. For heavy and slow-moving journals, a thick oil or one with a heavy body is best, and for small high-speed journals, a lighter or thinner oil. This is the fundamental rule in lubrication, but it is subject to many modifications.

Animal and vegetable oils contain or absorb certain acids which rapidly corrode metals, and are therefore harmful to machinery. Hydrocarbons or mineral oils on the other hand are absolutely free from any tendency to dry or become acid, and when mixed with other oils they neutralise the drying tendency and the acidity. Mineral oils alone are not very good lubricants, but they will do for light machinery running in a low temperature.

Engines and Boilers.—See that the water is about half-way up gauge-glass ($\frac{3}{4}$ full when stopping work) and when steam is up, see that the cocks are all clear and not stopped up with dirt; see that the safety-valve is quite clean and the lever works freely. Never overload the safety-valve on any pretext whatever. If the valve leaks

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badly, wait until there is no steam in the boiler and remove the lever and weight, take out the valve, fasten its shank to a wooden handle and grind it into its seat with emery (fine) and oil. This will generally suffice. Leaks and drip should not be allowed to fall on the plates of the boiler, and wet ashes from the furnace cause rapid corrosion. Paint—or tar—the shell of the boiler but not, of course, any brasswork. Man-hole and mud-hole doors should, if they leak badly, be removed and a fresh joint made. For joints use plaited hemp with red-lead and raw linseed oil about the consistency of thin putty. If, by neglect, the water disappears from the gauge-glass and test-cocks, don't run away but haul out the fire, open the furnace door, cool down the boiler and fill up the boiler through the safety valve. Don't turn on the feed pump, for if the water has sunk below the crown-plates of the furnace you will probably have an explosion. Blow off the boiler once or twice a day to clear out dirt and scale (about an inch by the gauge-glass will do) and then turn on the feed and fill up again; a boiler will, if properly cared for, work without danger for 15 or 20 years, but where doubt of its history exists, have it tested to at least $1\frac{1}{2}$ times its working pressure by cold-water with an hydraulic force pump made for the purpose and, if no cracks or defects are disclosed, the boiler is safe for another year. Cracks between rivet-holes are always dangerous. The fire should be evenly distributed over the fire gate, or considerable loss results by cold air passing through and neutralizing the heat of the furnace. Priming in a boiler is often caused by dirty water and may generally be cured by a wooden-grating (say of plank $1\frac{1}{2}$ in. thick) fastened inside the boiler so that it floats under the steamchest or orifice where the steam is drawn off. Priming is very much in the nature of a water-spout inside the boiler by which the water is churned up with the steam and may be understood in its action by watching a tub or tank of water emptying itself through a hole in the bottom. Once or twice a year open and thoroughly cleanse the boiler. Be sure and keep the flues clean and occasionally unscrew and clean the steam gauge pipe. Finally a careful stoker is the best of all safeguards.

Coal Memo.—Ordinary High-pressure Engines consume 10 to 12 lb. coal per hour per indicated H. P. In ordinary practice 1 lb. coal evaporates 6 to 8 lb. water at 212°. Wood has only about $\frac{1}{4}$ th of the evaporative power of coal or coke.

Starting and Working Engine.—Examine and clean all oil holes and see they are well supplied with oil. Open cylinder water-cock before starting and do not shut them till all condensed water is blown through. Use grease or tallow for lubricating cylinder, heat in a kettie and pour in while liquid.

Brasses heating.—Watch while machine or engine is working, and if (through want of oil or the caps being screwed down too tightly) they heat, stop work and cool down with cold water before commencing again. It is a good plan to cut a small groove in the top brass, parallel with the axis of the shaft (not crosswise running round the journal) as this distributes the oil evenly and use a syphon made of worsted.

Friction increase directly with the pressure per square inch, so that large bearing surfaces decrease (not increase) friction. The velocity of the moving surface does not affect the friction except indirectly as using up the lubricating agent.

Feed Pump.—If this does not act, the valves perhaps are choked and must be cleared; sometimes a few taps with a piece of wood outside may free the valve; otherwise the cap must be removed and the valve taken out. If the retention valve near the boiler leaks badly and the pipes become very hot (from the boiler-water being blown back on the pump valves) take out the former valve and if no mere temporary obstacle has checked its action the valve may need to be ground with fine emery to a good bearing into its seat.

Belting.—Care should be taken that the pulleys are correctly hung on the shafting, also that lines of shafting are perfectly parallel. If these points are not carefully attended to in the first instance, the belting will work at a disadvantage, and give constant trouble by slipping off the pulleys.

Pulleys should have their faces slightly convex. Flanged pulleys are injurious to

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any belting however good and stout. A pulley with a properly rounded face will always retain the belt on the centre.

If there is too great a distance between the pulleys, the weight of the belt will produce a heavy sag, drawing so hard on the shafts as to cause great friction at the bearings; while at the same time the belt will have an unsteady, flapping motion, injurious to itself and to the machinery.

To obtain a greater amount of power from belts, the pulleys may be covered with leather; this will allow the belts to be run very slack, and give 25 per cent. more durability.

If possible, the machinery should be so planned that the directions of the belt motion shall be from the top of the driving to the top of the driven pulley.

Never overload a belt. For single belts a fair working strain is 50 lbs., and for double belts 80 lbs., for every inch of breadth.

In cases of "cross" or any exceptional "twist" driving, the fact should be stated to the belt manufacturer, that he may advise as to the material and construction of the belt.

Horizontal, inclined, and long belts give a much better effect than vertical and short belts.

Short belts require to be tighter than long ones. A long belt working horizontally increases the grip by its own weight.

Care should be taken to let belts run free and easy, so as to prevent the tearing out of lace holes at the lap; it also prevents the rapid wear of the metal bearings.

It is asserted that the grain side of a belt put next to the pulley, will drive 30 per cent. more than the flesh side. Experience can only verify this; but when belts are required to be worked this way, the fact should be stated in the order, so that the rivetting may be arranged accordingly.

Leather belts should be well protected against water, and even loose steam or other moisture.

Belts working in very wet places should be ordered to be water-proofed.

A belt will slip on the pulleys when it has too heavy a load to drive or when it gets dry and out of condition. To remedy this use a little belting syrup or re-dress the belt as described in the next paragraph.

A careful workman will see that his belts are re-dressed about every four months, by sponging the dirt from them with warm soap and water, then drying with a cloth, and while still damp, rubbing in Currie's grease, which will be readily absorbed, the leather being moist from washing. No belting should be allowed to become saturated with oil, which induces a weakening and gradual rotting, or rather eating, of the fibres; so that when the belt breaks, as it will at some time, the material resembles scorched or burned leather. It is not always possible to keep oil from the belt, especially such a belt as the cone belt of a lathe, that must needs to be often shipped with greasy hands. But when the workman wipes up his lathe or other machine, it would require but a moment to wipe the belt with clean waste, outside and inside. Such slight care will pay.

In putting on a belt, be sure that the joints run with the pulleys, and not against them.

In punching a belt for lacing, it is desirable to use an oval punch, the larger diameter of the punch being parallel with the belt, so as to cut out as little of the effective sections of the leather as possible. Use a workman's square in marking for the lace holes.

Begin to lace in the centre of the belt. The lacing should not be crossed on the side of the belt that runs next to the pulley. Thin but strong laces only should be used.

When a belt breaks from fair strain it does so nearly straight across, at the weaker part. When a belt breaks diagonally across the solid leather then be sure it is torn by something else than fair strain.

NOTES FOR PLANTERS.

A careful attendant will make a belt last many years, which, through neglect, may not last one.

A safe rule for finding the length of a roll of belting is to take the over-all diameter and add to it the diameter of the hole in the centre of the roll; then divide the sum by 2 to find the mean diameter; this multiplied by 3.1416 (or $3\frac{1}{4}$) will give the circumference. Then multiply this by the number of "laps" and the result is obtained in inches, and by dividing by 1 the length 2 of the roll is obtained in feet.

Water Wheels and Turbines.—The effective H. P. of a water-wheel (overshot or breast) is calculated from the vertical distance through which a given weight of water acts on its periphery or rim, for it is clear that if you could put 33,000 lb. of water (= 1 H.-P.) or any other weight on one side of the wheel it will exactly counterbalance (= 1 H.-P.) or any other weight on the other side. Now 1 H.-P.=33,000 lb. lifted 1 foot in or lift a is milar weight on the other side. Now 1 H.-P.=33,000 lb. lifted 1 foot in 1 minute, so if you calculate the weight of water passing over your wheel in 1 minute and multiply that weight by the height in feet from the moment the water begins to act on the buckets to the moment it leaves them, you have the total number of lb. of power expended in working the wheel; divide this total by 33,000 and you have the effective H.-H. less about $\frac{1}{4}$ which must be deducted for friction, etc.

Example: Required the H.-P. of one 16-foot, overshot wheel supplied by a stream 3 feet wide $\times$ 1 foot deep with a mean velocity of 2 feet per second (= 120 feet per minute) performing $\frac{1}{2}$ of its theoretical efficiency.

$$H.-P. = \frac{3 \times 1 \times 120 \times 16 \times 62.5}{33,000} \times \frac{1}{2} \\ = 8.18 \text{ or say } 8 \text{ } 1 \text{ } 5 \text{ nearly.}$$

Turbines realize a greater percentage of useful effect than other water-wheels, the water acting simultaneously on all parts of the wheel with equal force. To compute the H.-P., multiply the weight of water passing through the supply pipe per minute into the vertical fall in feet from the top of supply pipe to bottom ditto and divide by 33,000, deduct $\frac{1}{5}$ th from the result and the actual power given off by the wheel at its periphery will be obtained. In Ceylon many of the water-wheels are so indifferently hung that they develop considerably less power than they should do.

To gauge the Water Power of a Stream.—Take a board and cut a long notch in it sufficiently large to contain all the water in the stream, make it say 6 feet long and of sufficient depth in small streams. Place it as a dam across the stream and make all the water spill through the notch. Note breadth and depth of water. The delivery in cubic feet per minute will be found as in annexed table. [Walker & Co.]

Table for Weirs:

Giving the Delivery in cubic feet per minute for each one inch of width of weir.

Inches depth on Weir.	0	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2
1	0.40	0.41	0.57	0.65	0.74	0.83	0.77	1.03	
2	1.14	1.25	1.36	1.47	1.59	1.71	1.84	1.96	
3	2.09	2.28	2.36	2.60	2.64	2.78	2.93	3.06	
4	3.22	3.38	3.58	3.69	3.85	4.01	4.17	4.34	
5	4.51	4.68	4.85	5.02	5.20	5.38	5.56	5.74	
6	5.92	6.10	6.30	6.49	6.68	6.87	7.07	7.27	
7	7.46	7.67	7.37	8.07	8.28	8.49	8.70	8.91	
8	9.12	9.33	9.55	9.77	9.99	10.21	10.43	10.66	

To find the power of well-made water-wheel or turbine. Multiply the cubic feet of water per minute by the height of the fall, and divide by 700: the quotient will be the horse-power of the wheel.

NOTES FOR PLANTERS.

1. **Manures.**—Cattle manure is *par excellence*, the best and most lasting, the effect remaining over two to three years. Next in order come Bones and Poonac, which are good from one to two years. Guano alone is too stimulating and not lasting; but in mixtures (in small quantities) with Bones and Poonac has a very beneficial effect. Several writers speak very favourably of the application of Pulp; and one indeed goes so far as to put it on a par with Cattle manure.

The ammonia in chemically pure Sulphate of Ammonia contains 21.21% of nitrogen. The commercial salt, however, contains only about 93% pure sulphate, yielding at most 20% of Nitrogen, equivalent to about 24% of Ammonia.

Nitrate of Soda should contain 95% of the pure salt, equivalent to about 19% of Ammonia. It gives the most lasting results on clayey land, as it is perfectly soluble, and is fully retained by the soil. If applied frequently without other manure, it will exhaust the land. It may be mixed with Slag or Bone manures, but not with Superphosphates.

The most important of the potash salts is Kainite, of which the following table gives a detailed analysis of the form in which it is usually met with in the market—

Water	...	...	3.4
Water of combination	...	...	10.9
Potassic sulphate	...	...	24.4
Sodic chloride (common salt)	...	...	30.4
Magnesian chloride	...	...	14.3
Magnesian sulphate	...	...	13.2
Calcic sulphate	...	...	2.7
Insoluble silica	...	...	0.7

100.0

It is seldom that a potash manure is required by a soil, except when growing potatoes and beans, clover, or other leguminous. If, however, a soil contains less than 25% of potash, or the same of magnesia, an addition of these substances is likely to be beneficial.

Gas lime is the spent lime from gasworks which has been used in purifying the gas, especially for the removal of carbonic acid and sulphuretted hydrogen. When quite fresh, it contains a large proportion of the sulphide of lime, which is poisonous to plants, but on exposure to the air this takes up oxygen and changes into the sulphite, and then into the sulphate, the latter being a valuable manurial substance. Besides its manurial properties it is an insecticide, and will even kill out the weeds. It is, of course, liable to kill the nitrifying organisms in the soil. Mixed with earth or waste vegetable matter it forms good compost. Gas lime gives the best results on stiff clay soils, while as much as three tons per acre may be spread directly on rough pasture land with benefit.

In mixing artificial manures great care must be taken not to put those together which are likely to have chemical reactions among their constituents. Thus, nitrate of soda must not be mixed with superphosphate, because the free sulphuric acid in the latter has a very great affinity for soda, and will set free the nitric acid in the form of poisonous fumes (nitric anhydride N_2O_5), whereby the nitrogen is lost. Again, Slag phosphate contains a strong alkali in the form of caustic lime, and if Sulphate of Ammonia is mixed with it, the ammonia is displaced by the lime and dissipated into the air. Or, again if Superphosphate and bones or slag are mixed, the soluble phosphate will

NOTES FOR PLANTERS.

take up some more base and become reverted, or reduced, phosphate. The following mixtures are safe:—

Superphosphate with Sulphate of Ammonia.
Bones with Nitrate of Soda or Sulphate of Ammonia.
Bones with Slag.
Slag with Nitrate of Soda.
Fish guano with any mineral manure.
Phosphatic guanos with Nitrate of Soda or Sulphate of Ammonia.
Organic manures with any mineral manure.

If the manures are perfectly dry, there is less chance of chemical reactions taking place.

Number of Trees or Plants for an Acre of Ground.

Set at regular distances apart.

Dists. apart.	No. of plants.	Dists. apart.	No. of plants.	Dists. apart.	No. of plants.
3 inches by 3 inches	696,960	4 feet by 4 feet	2,722	13 feet by 13 feet	257
4 " by 4 " "	392,040	4½ " by 4½ " "	2,151	14 " by 14 " "	222
6 " by 6 " "	174,240	5 " by 1 foot	8,712	15 " by 15 " "	194
9 " by 9 " "	77,440	5 " by 2 feet	4,356	16 " by 16 " "	190
1 foot by 1 foot	43,560	5 " by 3 " "	2,904	16½ " by 16½ " "	170
1½ " by 1½ " "	19,360	5 " by 4 " "	2,178	17 " by 17 " "	150
2 feet by 1 " "	21,780	5 " by 5 " "	1,742	18 " by 18 " "	134
2 " by 2 feet	10,890	5½ " by 5½ " "	1,417	19 " by 19 " "	120
2½ " by 2½ " "	6,960	6 " by 6 " "	1,210	20 " by 20 " "	108
3 " by 1 foot	14,520	6½ " by 6½ " "	1,031	25 " by 25 " "	100
3 " by 2 feet	7,260	7 " by 7 " "	881	30 " by 30 " "	48
3 " by 3 " "	4,840	8 " by 8 " "	680	33 " by 33 " "	40
3½ " by 3½ " "	3,555	9 " by 9 " "	537	40 " by 40 " "	27
4 " by 1 foot	10,890	10 " by 10 " "	435	50 " by 50 " "	17
4 " by 2 feet	5,445	11 " by 11 " "	360	60 " by 60 " "	12
4 " by 3 " "	3,620	12 " by 12 " "	302	66 " by 66 " "	10

Madras Land Measure.

2,400 square feet = 1 mannie or ground.
24 mannies or 57,600 square feet = 1 cawnie.
484 cawnies = 1 square mile.

To convert cawnies into acres, multiply by 160 and divide by 121.

In some Districts the cawnie is divided into annas or sixteenths, each anna being 3,600 square feet, or 60 feet each way. A Kole or Rod=24 feet—A Goole reo square Kole=576 square feet=100 Goolees=1 Cawnie.

Coffee.—Parchment Coffee, as it leaves the estate, is usually reckoned 60 bushels to the ton; rather less than five bushels being the average required to give a hundred weight of coffee ready for shipment. Every ton of coffee carried by cart or rail to the coast should give 12 cwt. clean coffee for export, after weight of parchment skin, silver skin and water dried off, as well as weight of bags, are deducted. Bags would count for ½ cwt. per ton; washed parchment and silver skin about 20 per cent. or 4 cwt.

A standard bushel of cherry turns out 45 to 47 per cent. of parchment; a box (14 in. cub) turns out 52 to 60 per cent. of parchment.

NOTES FOR PLANTERS.

Pulping and Curing.—Set lower chop of pulper clear of cylinder and upper chop 9-32nds of an inch from cylinder and 5-16ths of an inch from lower chop.

With one of Westland's improved sieve-plates coffee pulping is now almost perfectly done.

When practicable do not commence pulping until 14 hours after measuring, and if possible avoid pulping at night. Cherry gathered in very dry weather should have a few buckets of water thrown over it, after measuring the day's gathering.

Pulping.—While pulping, float off all light coffee as it passes along the spout from the pulper and before the good parchment coffee falls into the fermenting cistern. This is done by a simple arrangement of a tongue of galvanized iron, fitted into, but sufficiently clear of the bottom of the spout, so that half the water carries the good parchment into the fermenting cistern, and the upper half floats off the light coffee into a separate cistern.

After pulping, the water in the cisterns should be well drained off and the parchment allowed to ferment from 36 to 48 hours according to climate.

Wash the parchment clean, with a plentiful supply of water, and spread out to dry, on mats or tarred harbacue in the sun, turning it frequently by the feet in a shuffling sort of walk or by hand rake, so that all may be equally dried while exposed to the sun the first day. On taking the parchment into the store spread as thinly over the upper floor as you have space to do so. If compelled to put it deeper than three inches, keep turning it until it cools down. It is not advisable to put it out in the sun again, unless in a very moist climate and so long as it keeps sweet, until within a day or two of despatching, when from three to six hours sun should be sufficient to dry it for despatch to the mills, even if the time required for the journey be three weeks. Parchment coffee, partially dried, should not be allowed to get wet, and when ready for despatch from the estate store should have a fresh, or sweet smell, and on breaking off the outer husk, the silvery-looking skin should readily rub off between finger and thumb, while the bean should be sufficiently hard to resist a slight pressure, without taking an impression, from point of the thumb nail, and should also have a fine bluish colour.

Should by any chance decayed or pulper-cut beans be observed in the parchment while washing or drying during the first day, they should be carefully picked out, as decayed beans affect the others. Despatching, always send either one or two bushels in double sealed bags, as samples of each lot sent from the estate. Light coffee should be washed immediately after washing each day's parchment, and what sinks in washing will be found slightly deficient beans but a good No. 2 parchment. For the lights which have floated in the washing, use Westland's small hand sieves for separating the light parchment coffee from the blacks.

Timber Measuring.—To find the cubical contents of a log:—

A = one-fourth of the girth at the middle, in feet.

B = do do at one end, do.

C = do do at the other end, do.

D = Length of the log, do.

$$(A+B+C)^2$$

then $D \frac{\text{---}}{8} = \text{cubical contents.}$

According to the thickness of the bark, deduct from $\frac{1}{4}$ in. to 2 ins. from each fourth of the girth—

100 square feet of planking = One square.

50 cube feet of squared planking = One load.

40 do unhewn timber = One load.

600 square feet of one inch planking = One load.

Boards 7 inches wide are = Battens.

Do 9 " " " = Deals.

Do 12 " " " = Planks.

NOTES FOR PLANTERS.

Strength and Weight of Materials—

Material.	Sq. gravity.	Weight of a cub. ft. in lb.	Weight of a cub. in. in lb.	Tensile strength per sq. in. in lb.	Crushing steam per sq. in. in lb.
Asphalte	2.5	156	.09	...	...
Bricks, Common	1.6	100	.087	...	...
Do Fire	2.4	160	.086	...	...
Cement, Portland	1.7	110	.05	600	5,984
Do Belgian	1.66	100	.057	185	...
Clay	1.9	119	.068	...	...
Concrete, Ordinary	1.9	119	.068	...	...
Earth, Average	2.0	125	.072	...	...
Glass, Common	2.53	158	.091	2,896	31,876
Lime, Quick	.843	53	.038	...	...
Mortar, Average	1.7	106	.061	...	...
Oil, Linseed	.94	58	.034	...	...
Pitch	1.15	69	.041	...	...
Sand, River	1.88	117	.067	...	...
Shingle	1.42	88	.051	...	...
Sulphuric Acid	1.84	115	.068	...	...
Tallow	.94	59	.034	...	...
Tar	1.016	63	.036	...	...
Water 30°	1	62.425	.036	...	...

Melting and Boiling Points of various Bodies—

	Melts at Fahr.		Boils at Fahr.
Cast Iron, average	2,786	Mercury	660
Gold, fine	2,016	Linseed oil	660
Copper	1,996	Sulphuric acid	590
Gun Metal	1,900	Turpentine	560
Silver, pure	1,873	Nitric acid	242
Brass	1,869	Sea water	213
Zinc	773	Fresh water	212
Lead	594		
Beeswax	151		
Tallow	72		

Soldering Tin or Zinc Plates.—An excellent alloy for this purpose is obtained by mixing 2 parts of lead with 1 part of English bar tin. The lead is melted first, and after removing the lead dross formed by melting the tin is added.

Natural Slopes of Earths with Horizontal line—

	Shingle, average	...	39°
Gravel,	...	Rubble,	45°
Dry Sand,	38°	Clay, well drained,	45°
Sand,	22°	Clay wet,	16°
Vegetable Earth, do	28°		
Compact Earth do	50°		

Angle of Roofs—

Proportion of Rise to Span	18° 25'	26° 35'	33° 42'	45°	53°	56° 20'	63° 20'
Angle	...	...	...	...	...	...	...
Slope	3 to 1	2 to 1	1½ to 1	1 to 1	¾ to 1	½ to 1	¼ to 1

Load on Roof (exclusive of Traming)—

	Per square.	Minimum slope.
Lead Sheets	7 cwt.	4°
Zinc "	1½ "	4°
Corrugated Iron	3 "	4°
Mangalore Tiles	8 to 10 "	26½° to 30°
Boarding ¾" thick	2½ "	25°

NOTES FOR PLANTERS:

Tea Seed.—1 maund (82 lb.) contains 20,000 to 30,000 seeds, and gives on an average of 10,000 plants if Indian, 15,000 plants if Ceylon.

Nursery beds 5' x 20' with 1' 6" paths.

Each bed contains, with seed 2" x 2", 3,600 seeds.

" " " 2" x 3", 2,400 "

" " " 3" x 3", 1,600 "

Cost of raising plants, R2 to R3 per 1,000.

4 lb. green leaf equal 3 lb. withered, equal 1 lb. dry tea.

1 lb. leaf to 6 square feet of withering space.

Sizes of Tea Lead.—Sizes are 37 in. by 22 in., boxes of 2 cwt. = 126 sheets

25 " by 19 " " = 210 "

84 x 22 } are easily procured sizes; the larger size serves a full chest all save the
72 x 19 } top piece, and latter serves a half chest complete.

A full-sized Tea-chest of five cubic feet takes two chests of each of above sizes.

For 100 chests 158 box of large and 95 box of small lead are thus required; or, for all practical purposes, one-and-a-half box of large, and one box of small lead per 100 Tea-chests

Solder.—There are 44 sticks in a box of 28 lb. and one stick fastens up 8 Tea-chests—say 352 chests to a box of 28 lb.

To make Solder. 3 lb. lead to 1 lb. Block tin melt and mix together.

Soldering Fluid—1 quart Baker's fluid is sufficient for 300 tea-chests.

Nails.—French, 1½ in., 64 are used to fasten a full-sized chest (5 c. ft) or

18½ lb. to 100 chests

1½—(300 nails to 1 lb.) or 21½ lb. to 100 "

Hoop-iron, French, of 15 16 in. size, 56 go to a chest when clamps are

employed (880 nails to 1 lb., or 8½ lb. to 100 "

Clamp Tacks, ½ in., 6 bundles to 100 "

Tea Chests.—

Size.	Outside Measurements.	Cubic feet.	Capacity.
Chest	24 in. x 19 " x 19 in.	5.013	80 to 100 lb.
Half-chest	17 " x 17 " x 17 "	2.675	40 " 50 "
Quarter-chest	13 " x 13 " x 13 "	1.271	20 lb.
Eighth-chest	10 " x 10 " x 10 "	.578	10 "
Sixteenth-chest	8 " x 8 " x 8 "	.300	5 "

For freight, one ton (average 917 lb. of Tea) = 50 cubic feet.

Tea chests with corner or angle pieces are by far the strongest and do not require hoop-iron over the lid. The hoop-iron should be carried round the bottom, and up each side, the ends being nailed down on top under the lid.

The lid should be nailed, and fastened with clamps; eight clamps are quite sufficient, three on each side and one on each end. The chest should be made of full ½ in. boards; if this rule is adhered to, a uniform tare will result.

Corner pieces may be either flat battens, the inner side being rounded to prevent injury to the load, or they may be angle pieces. When angle pieces are used they should be 2 to 2½ ins. on sides, cut out of 2 or 2½ inch square wood divided, and should be nailed to the ends. The battens should be about 2 to 2½ ins. wide according to the class of wood used, and be nailed to the faces and planks; they should be nailed to the planks before the chest is put together, and the ends of the nails drenched down on what will become the inside of the chest.

Patent triangular jagged nails are the best, and fewer of these may be safely used than of French nails. Nails of over 1½ ins. long should not be used in making the chest, and the clamps should be nailed down with ½ in. nails; 3 on the top and 3 on the side of each; 3 nails in each side plank, and 2 in each top and bottom plank should be sufficient.

INSURANCE FOR PLANTERS.

London and Lancashire Life Assurance Coy.

LIBERAL CONDITIONS, UNDOUBTED SECURITY.

(INDIAN FUNDS INVESTED IN INDIA.)

Claims paid in Madras immediately on proof of death and title.

POLICIES:—

LIFE—

(a) **Unconditional**, allowing free travel and residence in any part of the world. (b) **Unchallengeable** from commencement. (c) **Non-forfeitable**, by granting Free-paid-up Policies.

Loans granted to the extent of the Surrender Value of Policies, or such value paid in Cash if preferred.

Surrender Values held at the disposal of Policy-holders for a period of one year from the date of lapsing.

Policy Stamps and Medical Fees paid by the Company.

Lapsed Policies may be revived at any time within twelve months of lapsing.

Railway Passengers Assurance Company.

ACCIDENTS

A premium of £5 per annum will insure the payment of £1,000 in the event of death through any sort of accident; an allowance of £6 per week for total disablement; and of £1-10 per week for partial disablement by injury.

Norwich Union Fire Insurance Society.

FIRE—

Coffee Pulping-houses, Tea Factories and Withering Houses, with their contents, insured against Fire on very favourable terms. Coffee, Tea and Cinchona Bark insured against Fire during transit to the coast.

North Queensland Insurance Company, Ltd.

MARINE—

Shipments of Tea, Coffee, Cinchona Bark, &c., insured against total or partial loss during transit by sea to any part of the world, at very low rates. Claims settled promptly and liberally.

AGENTS FOR THE ABOVE-NAMED OFFICES:

LEIGHTON & CO., MADRAS.

REUTER'S TELEGRAM COMPANY, LIMITED.

HEAD OFFICE: 24, OLD JEWRY,
LONDON, E.C.

Directors.

Admiral the Right Hon. Sir John C. Dalrymple Hay, K.C.B.
Chairman.

Baron de Reuter.

Frederick J. Griffiths.

The Hon. Mark J. Napier.

Herbert de Reuter.

Managing Director.

Secretary.

Mr. Walter F. Bradshaw.

AGENCIES AT

ADELAIDE	COLOMBO	MELBOURNE
ALEXANDRIA	DUNEDIN	NAPIER
AUCKLAND	DURBAN	NEWCASTLE
BATAVIA	GLASGOW	PENANG
BOMBAY	HOBART	PERTH
BRISBANE	HONGKONG	SHANGHAI
BULUWAYO	INVERARGLI	SINGAPORE
CAIRO	LAUNCESTON	SYDNEY
CALCUTTA	LIVERPOOL	WELLINGTON
CAPETOWN	MADRAS	YOKOHAMA
CHRISTCHURCH	MANCHESTER	&c., &c.

AGENTS AT MADRAS:

LEIGHTON & CO.

REUTER'S TELEGRAM COMPANY, LIMITED.

PRIVATE TELEGRAM SERVICE

TO
GREAT BRITAIN, CONTINENT OF EUROPE, UNITED STATES OF AMERICA,
AUSTRALASIA AND SOUTH AFRICA.

The Company registers *free of charge* the names and addresses of senders and receivers, under a Code word, to be selected by the Company, which can be used both Outwards and Homewards, after the arrival of the mail by which the registration is effected.

Both parties are duly notified when the Indicator is available, and full instructions how to use it accompany the notice.

The Indicators registered with the Company are only available for the transmission of telegrams through its Agencies, and messages intended to be sent under such Indicators must be delivered at or sent to the Company's offices for despatch.

Every telegram transmitted through the Company's Agency is delivered to the receiver with the full name and addresses of the sender, if registered, and the date on which it was despatched. To receivers in the mofussil a copy of the telegram wired from the Agency is transmitted by post.

Any change in address should be at once notified to the Company to ensure prompt and correct delivery of telegrams.

Enquiries respecting any telegram received through the Company, if not intelligible to the receiver, should be made *at once* of the Company's Agent. The Company does not hold itself in any way responsible for any charges or expenses incurred by the independent action of senders or receivers.

All telegrams, correspondence, &c., should be addressed to, and cheques, remittances, &c., be made payable to the Agents, Madras, from whom any further information that may be desired can be obtained.

Tariffs, telegram forms, &c., are supplied *gratis* on application, and senders are requested to use the Company's form only.

ADVANTAGES TO SENDERS.

The advantages offered to senders of private telegrams through the Agency are:—

Free Registration.—Whereby the full addresses of both sender and receiver are telegraphed in *one word only*.

Lowest Charges.—A Rebate of Rs.1-0 per message is allowed to regular senders, that is those who send a minimum average of one telegram a week to the same or different correspondents.

Use of Private Code.—Telegrams in plain language can be forwarded in the Company's Code at a considerable saving of expense. A new and complete Code having been compiled especially to meet the requirements of private senders on social and business matters, thus affording facilities for cheap telegraphing which have not hitherto been accessible to the public.

Telegrams so coded will, in all cases, be translated before delivery to the receiver, to whom a copy in plain language only will be handed.

A charge of Rs.3 is made on such telegrams in addition to the ordinary rate.

The Codes being the private property of the Company are not for sale.

RESIDENT SENDERS can obtain every assistance in coding their messages at the Company's office.

MOFUSSIL SENDERS can forward their telegrams in plain language, writing the words "Code and despatch" immediately before the address or registered Code word of the receiver. The Company's Agent will then code the text as economically as possible, adhering to the wording employed by the sender.

The introduction of private Code words in messages to be sent in the Company's Code is not permissible, as such would lead to serious confusion and errors.

The *Quickest Route* can always be selected, as the Company receives messages by either line (via Teheran and via Suez) showing the working of both.

INSTRUCTIONS TO SENDERS.

ALL CHARGES ARE PAYABLE IN ADVANCE, and the Company does not undertake to forward any telegram that is unpaid or insufficiently paid. Undercharges are recoverable from the sender.

LEIGHTON & CO., AGENTS, MADRAS.

SOUTHERN INDIA.

SOUTHERN INDIA may be conveniently defined as that portion of the peninsula which lies to the south of the river Kistna and its tributary the Tungabhadra, and it comprises the greater portion of the Madras Presidency, the Province of Coorg, the Native States of Mysore, Cochin, Travancore and Pudukotta, and the three French Settlements of Pondicherry, Karikal, and Mahé. But it does not include the Circars, or East Coast districts, viz., Ganjam, Vizagapatam, Godavery, and the northern half of Kistna.

It extends from 16° 20' to 8° 4' N. latitude, and from 74° 9' to 80° 55' longitude, and is bounded on all sides, except the north, by the sea. The Districts of North Canara and Dharwar in the Bombay Presidency adjoin it on the north-west, and on the further side of the Tungabhadra and Kistna, are the Nizam's Dominions and the Circars.

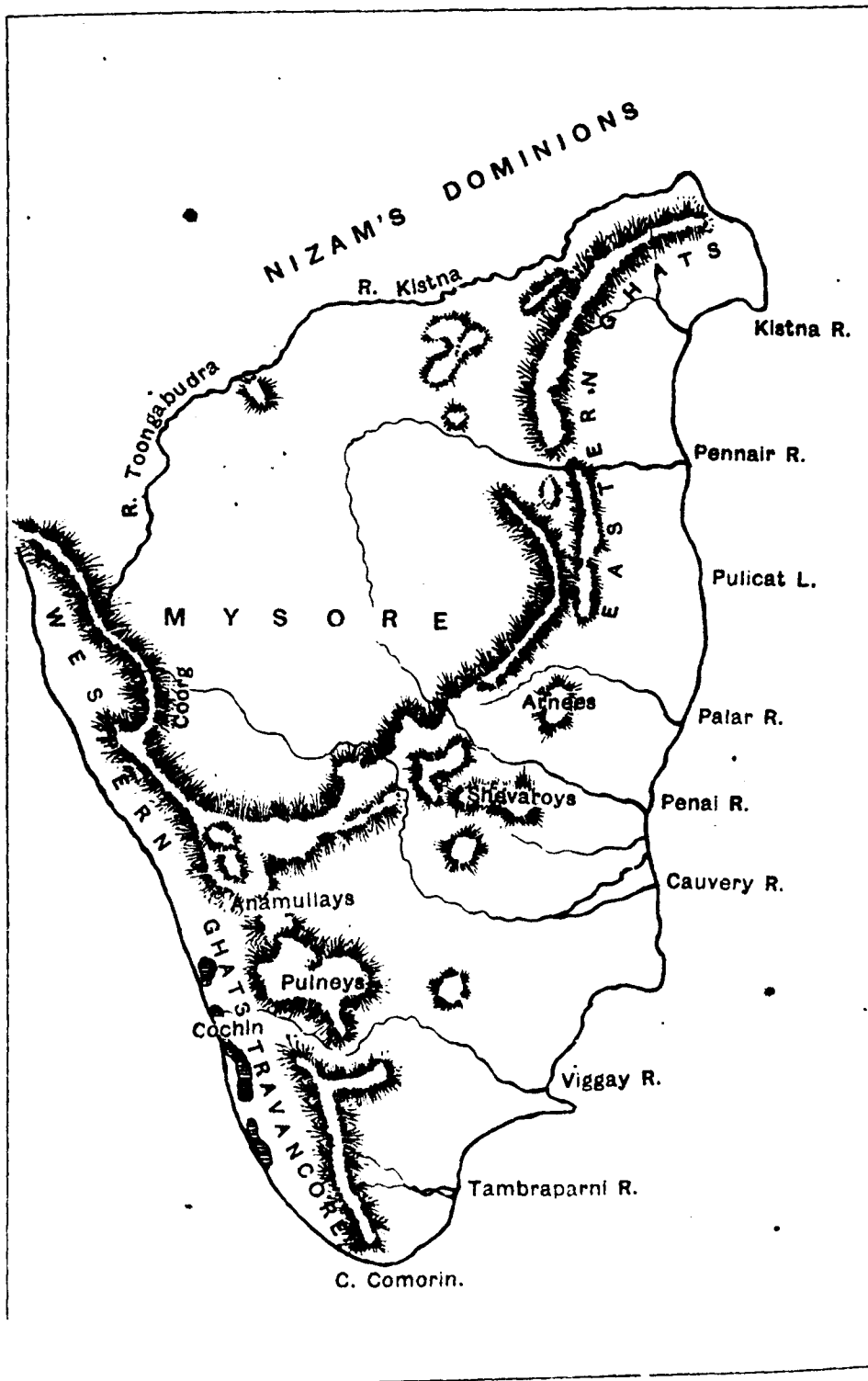
Its shape is triangular with the apex (Cape Comorin) at the south; the western side is known as the Coast of Malabar, and the eastern as the Coast of Coromandel. Its internal features correspond to this configuration; two chains of mountains, the Western and Eastern Ghats, diverge from the south, and extend to the north-west and north-east, leaving between them and the sea littoral plains varying from 40 to 100 miles in breadth, and enclosing table-lands and outlying spurs, thus forming the physical backbone of the country.

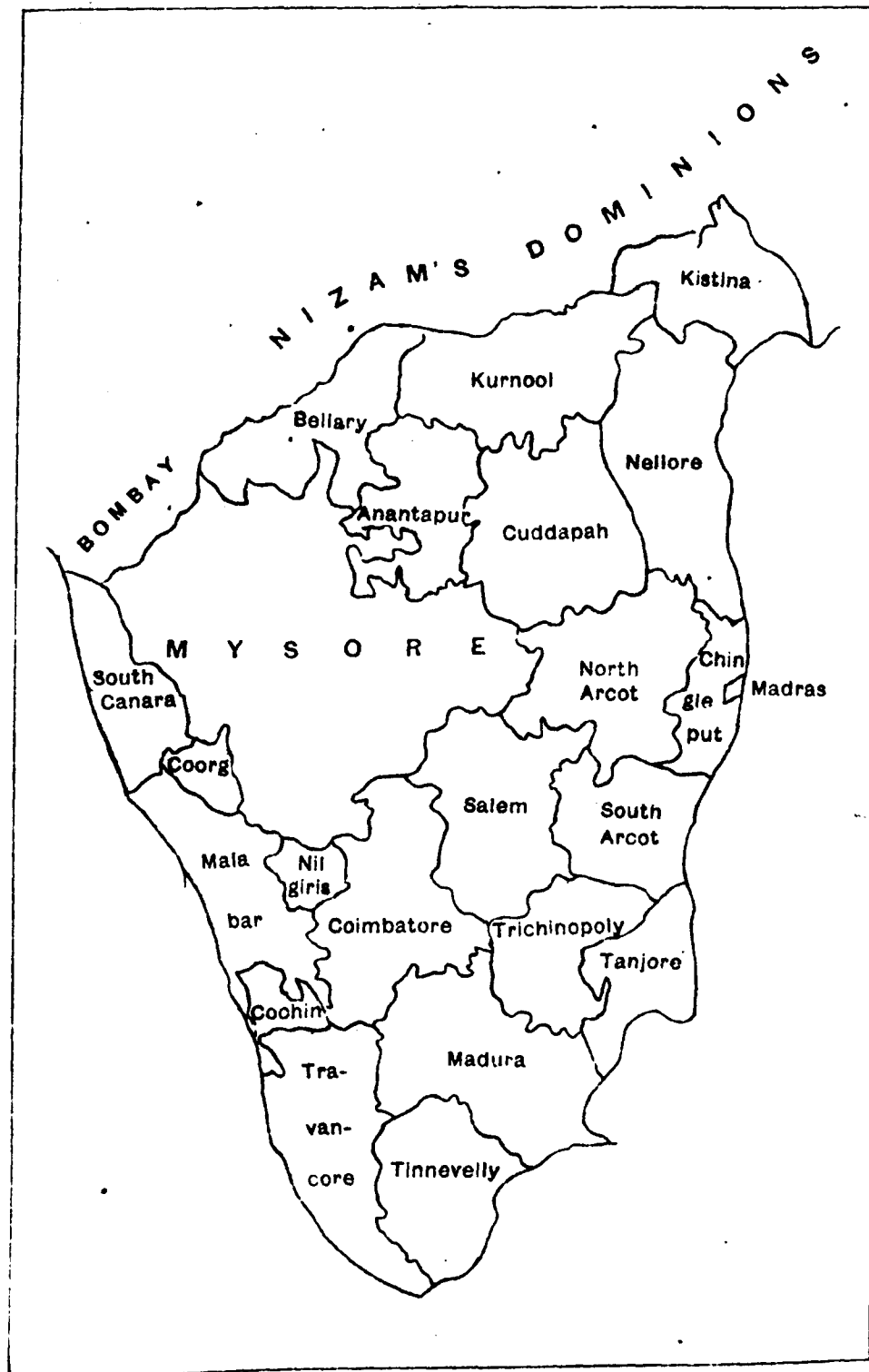
The Western Ghats rise to elevations of from 5,000 to 8,000 feet, and comprise the Travancore hills, the Anamullays and Nilgiris. The Eastern Ghats, with the exception of the Pulneys and Shevaroyas, are of much less elevation, their average height being only 1,500 feet. The central table-land includes the whole of Mysore, and several Districts of the Madras Presidency.

The principal rivers, viz., the Kistna, Pennair, Palar, Penai, Canvery, Viggay, and Tambraparni, rise on the Western Ghats, and run across the peninsula in a south-easterly direction. None of them is navigable, but they spread over alluvial deltas before reaching the sea, and so become of immense value for irrigation. The western slopes of the Western Ghats are precipitous, and the rivers which flow to that side are of a totally different character.

There are no lakes to speak of in Southern India. A remarkable series of backwaters or lagoons, which skirt the coasts of Travancore, Cochin, Malabar and Canara, has been formed by the constantly recurring conflict between the mountain torrents and the ocean, and a large backwater at Pulicat on the Coromandel Coast, has been caused by the sea breaking through the low sandy beach.

The climate varies considerably. The Western Ghats intercept the lower strata of rain clouds brought up from the Indian Ocean by the South-West Monsoon, and gain for the Malabar Coast and portions of the table-land a regular and abundant rainfall, while the country to the east generally receives but a few inches. The North-East Monsoon (October to January) to some extent makes amends for this deprivation, but this monsoon is uncertain, and has been known to fail altogether, and repeated failures have at various periods been the cause of terrible famines which have decimated the population. Cultivators have thus learnt the necessity of making provision for the storage of water for irrigation purposes, and innumerable tanks have, from very ancient times, been constructed throughout the country. The Government has supplemented this safeguard by the stupendous work of turning a river (*Periyar*) near its source, and making it flow to the east, instead of to the west coast. The Nilgiris enjoy the climate of the temperate zone, with a moderate rainfall and a thermometer rarely exceeding 86° F., and sometimes falling to freezing-point. Other high mountain ranges have comparatively cool climates, and during nine months of the year the table-land of Mysore has a pleasant and even enjoyable temperature. But the plains on both coasts are for the most part excessively hot. Such a thing as cold weather is unknown there; and the inhabitants, though being inured to the torrid heat, come to look upon a temperature of 70° F. as chilly and exhilarating.





POPULATION.

With a few exceptions the natives of Southern India belong to the Dravidian race, of which there are two branches, the pre-Tamilians and the Tamilians. The pre-Tamilians consist of the Coorumbars and Toolars of the Nilgiris, the Kadars of the Nelliampatties, the Veddahs of Madura, and other hill tribes. Also of the Shanuars of Tinnevely, the Tamil Pariahs, the Pollars, and Chueklers, the Malayalam Pooliyars, the Canarese Holayars, &c.

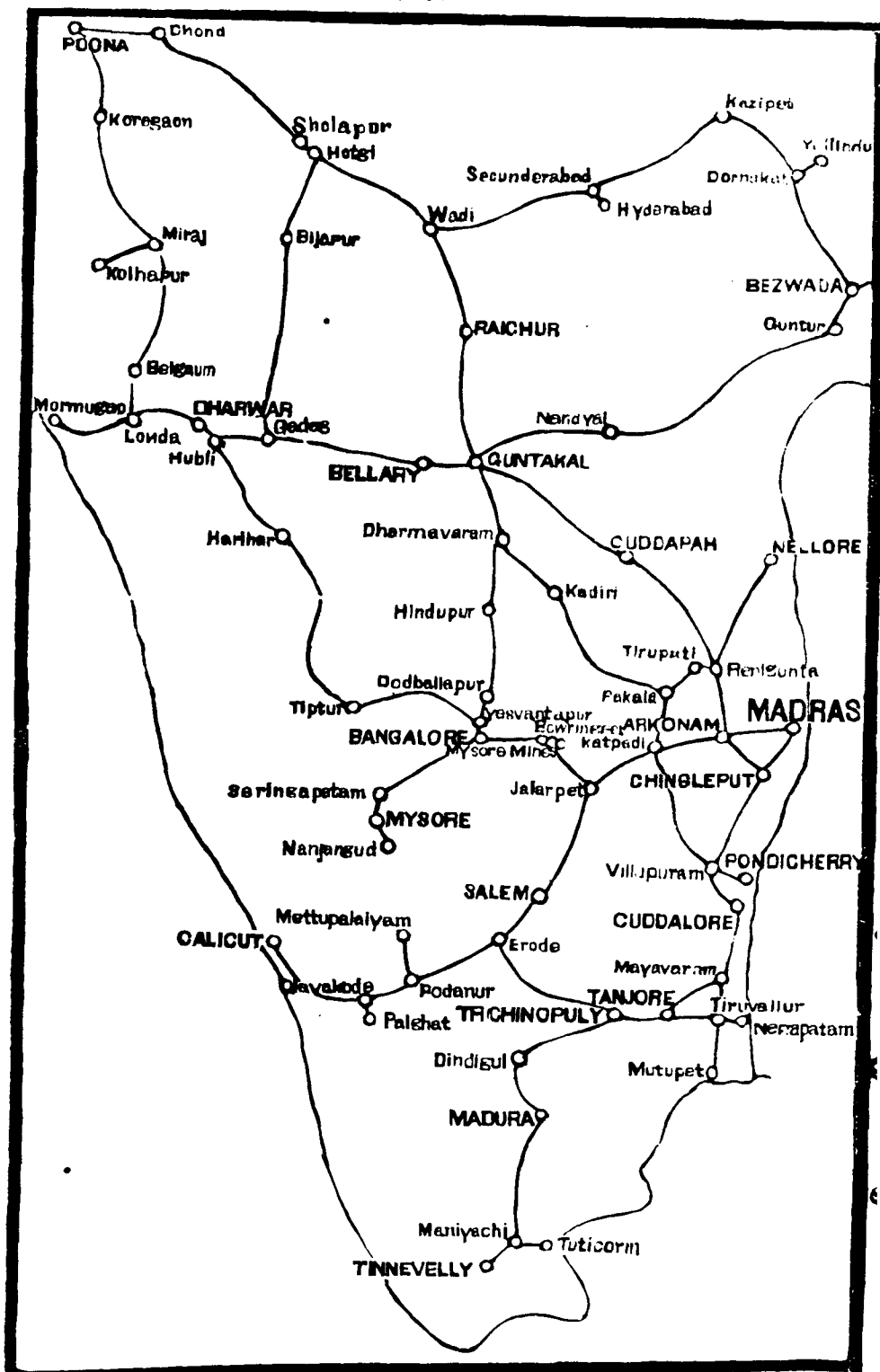
The divisions of the Tamilians correspond to a great extent with the five branches of Aryans, viz. :- Brahmins (or councillors); Chatriyas (or rulers); Vaisyas (or cultivators and traders); and Shoodras (or artisans). This branch also comprises the Toolars and Badagahs of the Nilgiris; the Vellaulars, Kullars and Maravars in the south, and many other tribes.

The Aryans of Southern India are principally the Brahmin class, although there are also Tamil Brahmins. The Mahomedans are a mixed race, descending originally from unions contracted between Arab or Persian traders and native women of the country. They include the Moplahs of the West Coast and Labbays. Some of the ruling Mahomedan families were of Turkish descent. There are Jews at Cochin, and Syrian Christians. Comparatively small in numbers are the Portuguese, Dutch, Danish, French and English, and the intermixtures of these races with natives.

Canarese is the language of Mysore, Coorg, the Bellary District, and parts of the Coimbatore and Salem Districts. Telugu that of the Kistna, Kurnool, Anantapur, Cuddapah and Nellore districts, and of the Northern portions of the North Arcot and Chingleput Districts. Tamil that of all the remaining districts of the Madras Presidency. Malayalam that of Travancore, Cochin and the Malabar district. And Tooloo (besides Canarese and Malayalam) that of the South Canara district. Hindustani is to a great extent the language of the Mahomedans everywhere.

The areas and population of the various Districts and States in Southern India according to the Census of 1891 were as follows :-

DISTRICTS AND STATES.			SQUARE MILES.	POPULATION.
Bellary	...	...	5,975	900,126
Anantapur	...	...	5,275	708,549
Kurnool	...	...	7,514	817,811
Cuddapah	...	...	8,722	1,272,072
Kistna (part, approx.)	...	...	4,000	900,000
Nellore	...	...	8,765	1,463,736
Chingleput	...	...	2,842	1,136,928
Madras	...	...	29	452,518
North Arcot	...	...	7,616	2,180,487
South Arcot	...	...	5,217	2,162,851
Salem	...	...	7,529	1,962,591
Coimbatore	...	...	7,860	2,004,839
Trichinopoly	...	...	3,631	1,372,717
Tanjore	...	...	3,709	2,228,114
Madurai	...	...	8,808	2,608,404
Tinnevely	...	...	5,387	1,916,095
Malabar	...	...	5,585	2,652,565
South Canara	...	...	3,902	1,056,081
Nilgiris	...	...	957	99,797
Total under the Madras Government	...	...	103,323	27,896,281
Mysore	...	...	27,936	4,943,604
Coorg	...	...	1,583	173,055
Travancore	...	...	6,730	2,557,736
Cochin	...	...	1,362	722,906
Pudukotah	...	...	1,101	375,096
Banganapalle	...	...	255	35,496
Sandur	...	...	161	11,388
Grand Total	...	...	142,451	36,713,562



RAILWAYS.

SOUTHERN INDIA is served by the Madras, East Coast, South Indian, Southern Mahratta and Nilgiri Railways. The two first broad gauge (viz., 5 ft. 6 in.), and the others are narrow gauge (viz., 3 ft. 3½ in.) lines.

The following is approximately the mileage at present open for traffic south of the Tungabhadra and Kistna:—

Madras Railway	831 miles.
East Coast Railway (Madras-Bezwada)	268 "
South Indian Railway	1,095 "
Southern Mahratta	850 "
Nilgiri Railway	17 "

Total ... 3,061 miles.

During the past year the Nilgiri Railway and the Madras-Bezwada Railway have been practically completed. For some weeks goods trains were running on the former line, but the heavy rains in October and November damaged it to such an extent that the necessary repairs are not likely to be completed for some months. Meanwhile the extension from Coonoor to Ootacamund (12 miles) has been "hung up." The opening of the East Coast line to Bezwada is expected at a very early date. The South Indian line which formerly extended to Nellore, now stops short at Gudur.

The survey of the Arsikere-Hassan-Mangalore project has been completed, and the result shows that while the alignment as far as Saklasapur would be fairly easy, the works on the ghat section beyond would be so difficult and costly as to render the project for a through line to Mangalore almost impracticable. The Birur-Shimoga branch (38½ miles) of the Southern Mahratta Railway has, however, been commenced, as well as a short extension of the Mysore-Nanjangud line. A project for linking up this line with the South Indian Railway at Erode (109 miles) is under discussion. Also one from Nanjangud to Calicut (155 miles) and another from Mysore to Fraserpet (52 miles).

The following additions to the Madras Railway system have been put in hand:—A branch of 7 miles from Arcot station to Kampet, where there is a large sugar refinery and distillery. An extension from Calicut to Cannanore (59 miles), which has been very favourably reported upon. The Sranur Cochin extension of 73 miles, passing through Trichur, a much-needed development which has been talked of for many years past, and for which reduced estimates have now been submitted. And a line from Podanur to Dindigul, via Udumalpet, which also would traverse well-cultivated country, and be a boon to the planting industry of the Palneys and northernmost Travancore.

A suggestion, which has been supported by the Chambers of Commerce, has been made to convert the Madras line westward from Podanur, to the metre gauge, to construct all the new lines in that quarter of the same gauge, and to link up Mettupalayam with the S. M. R. at Nanjangud.

The most interesting of the projects connected with the South Indian Railway is the Madras-Pamban line, as it forms part of the more ambitious scheme for a direct connection, i.e. Palk Strait and Adam's bridge, between India and Ceylon. While the cost of this section of about 100 miles would not be more than Rs.45,000 per mile, the survey has shown that it is sufficiently promising to merit consideration as a separate project. The extension of the Tinnevely branch to Shenkora, 46 miles, and from there through the Travancore State to Quilon, 157 miles, is another line which has been for long talked of. The survey has now been completed and the plans submitted. The descent of the ghat, and the crossing of the rough and undulating country from the foot to Quilon, involves very heavy work, and on the ghat section, passes for the most part through dense jungle.

Railway Passengers' Assurance Company.

ESTABLISHED 1849.

Capital—One Million.

HEAD OFFICES—

64, CORNHILL, LONDON.

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Deputy Chairman.—JAMES MITCHELL, Esq.,

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THE HON. SIR S. PONSONBY

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FANE, K.C.B.

THE Company was established in 1849 for the Insurance of Compensation to the victims of Railway Accidents, but the principle was speedily applied to **Accidents of all kinds**, and the success of the Company is attested by the fact that it has paid away no less than three millions two hundred thousand pounds as Compensation for over one hundred and sixty thousand accidents.

The Company's General Accident Policies cover the risks of Walking, Riding, Driving, Hunting, Shooting, &c.; in fact, the risks incurred in the pursuits of every-day life with its business and pleasures, &c. They are valuable, therefore, for all classes, and a large proportion of the Compensation paid is in respect of Accidents in the House, such as falling over mats, falling down stairs, for injuries and death occasioned by the most trivial causes.

The Company has a fully subscribed Capital of one million, of which £200,000 are paid up, and its Funds in hand are over £300,000.

LEIGHTON & CO., AGENTS AT MADRAS.

ACCIDENTS.

RAILWAY PASSENGERS ASSURANCE COMPANY.

The Insurances granted by the Company are under three principal heads:—

- 1.—Insurances against Accidents of all kinds, including Railway Accidents.
- 2.—Insurances against Railway Accidents exclusively.
- 3.—Insurances against Fatal Accidents to Passengers on a Voyage at Sea.

1.—Insurance against Accidents of all kinds.—Policies of Assurance are issued to secure the payment of

1st—A fixed sum in the event of Accidental Death or loss of two limbs or both eyes; a fixed sum (half the full amount insured) in the event of total and irrecoverable loss of one eye or of one limb, i.e., hand or foot; and a weekly allowance in case of Total and Partial Disablement for a period not exceeding 26 weeks;

2nd—A fixed sum in the event of Accidental Death or loss of two limbs or both eyes, and a weekly allowance in case of Total Disablement for a period not exceeding 26 weeks.

Class I.—The ordinary Risks are those of the Public generally, as Architects, Bankers, Civil Servants, Officers in the Army, Merchants, Professional Men, and Station Masters.

Class II.—The Hazardous Risks are those incurred by Civil Engineers, Contractors, Veterinary Surgeons, &c.

Class III.—Certain Extra Hazardous Risks are comprised in this Class, the premiums on which are special, and may be learned on application at the office.

2.—Insurances against Railway Accidents exclusively.—These Insurances may be effected

I.—FOR PERIODS OF TIME BY ANNUAL POLICY.

II.—FOR A FIXED TIME BY ONE PAYMENT.

III.—FOR THE WHOLE TERM OF LIFE BY ONE PAYMENT.*

*Example.—A person at any age above 25 and under 30 may be insured for £1,000 against Railway Accident by a Single Payment of £10 5s.

A Railway Accident is understood to mean Injury or Death caused by an accident to the Train by which the Insurer may be travelling as a Passenger.

[Railway Accident Policies may be held in addition to Policies against Accidents of all kinds.]

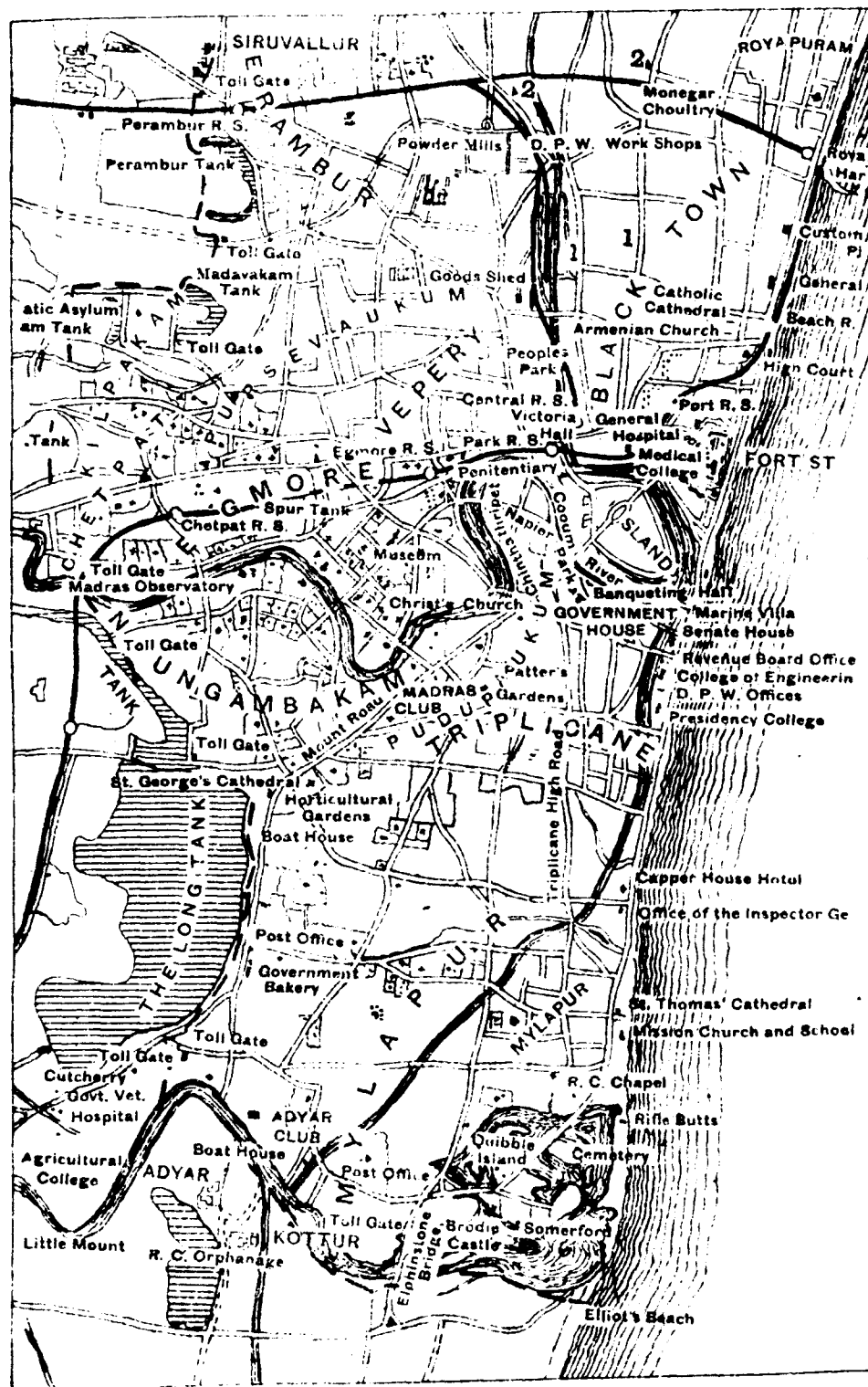
3.—Insurances against Fatal Accident during a Sea Voyage:—

Policies of Assurance are granted to Insure Passengers against death by Accident at Sea during a Single or Double Voyage.

The amount assured is payable in the event of death by Accident of any kind during the Voyage, so soon as satisfactory proof of such death has been furnished. Notice of Accident must be given at the Head Office within three months of its occurrence.

No compensation for non-fatal injury is payable under this Class of Assurance.

For Prospectus and Proposal Forms apply to
LEIGHTON & CO., AGENTS AT MADRAS.



RESIDENTS IN MADRAS.

Adyar.

Kilpāk.

St. Thomé.

Egmore.

The Luz.

Royapettah.

Teynampet.

Hotels.

Nungumbaukam.

Fort.

Chetput.

Rayapuram.

Rules for calling in Madras.

The following rules regulating calling were unanimously agreed to by the ladies of Madras after a canvas held in the beginning of November, 1891, and are published for general information:—

1. Ladies and gentlemen leaving Madras for a time, and then returning to it, may send their cards by post to their former friends and acquaintances to inform them of their return with the letters *P. A. R.* in the corner, precisely on the same principle as they would send round their *P. P. C.* cards before leaving the place. The sending of the cards will be accepted as a visit and will be so considered and returned by the friend's card being sent in return.

2. The first visits of gentlemen must be paid in person between noon and 2 P.M., and those of ladies may be paid either between noon and 2 P.M., or during the usual hours of calling in the evening.

3. Gentlemen may call in the afternoon between the hours of 4 and 6 P.M.

ACCIDENTS

OF ALL KINDS, INSURED AGAINST

— BY THE —

Railway Passengers Assurance Company.

FOR PARTICULARS, APPLY TO

LEIGHTON & CO.,

SUB-AGENTS,

MADRAS.

MARINE INSURANCE.

THE

NORTH QUEENSLAND

INSURANCE COMPANY, LD.

FOR RATES AND POLICIES, APPLY TO

LEIGHTON & CO.,

AGENTS AT MADRAS.

RESIDENTS IN BANGALORE.

High Ground.

Trinity Road.

Ulsoor Road.

Cunningham Road.

Richmond Town.

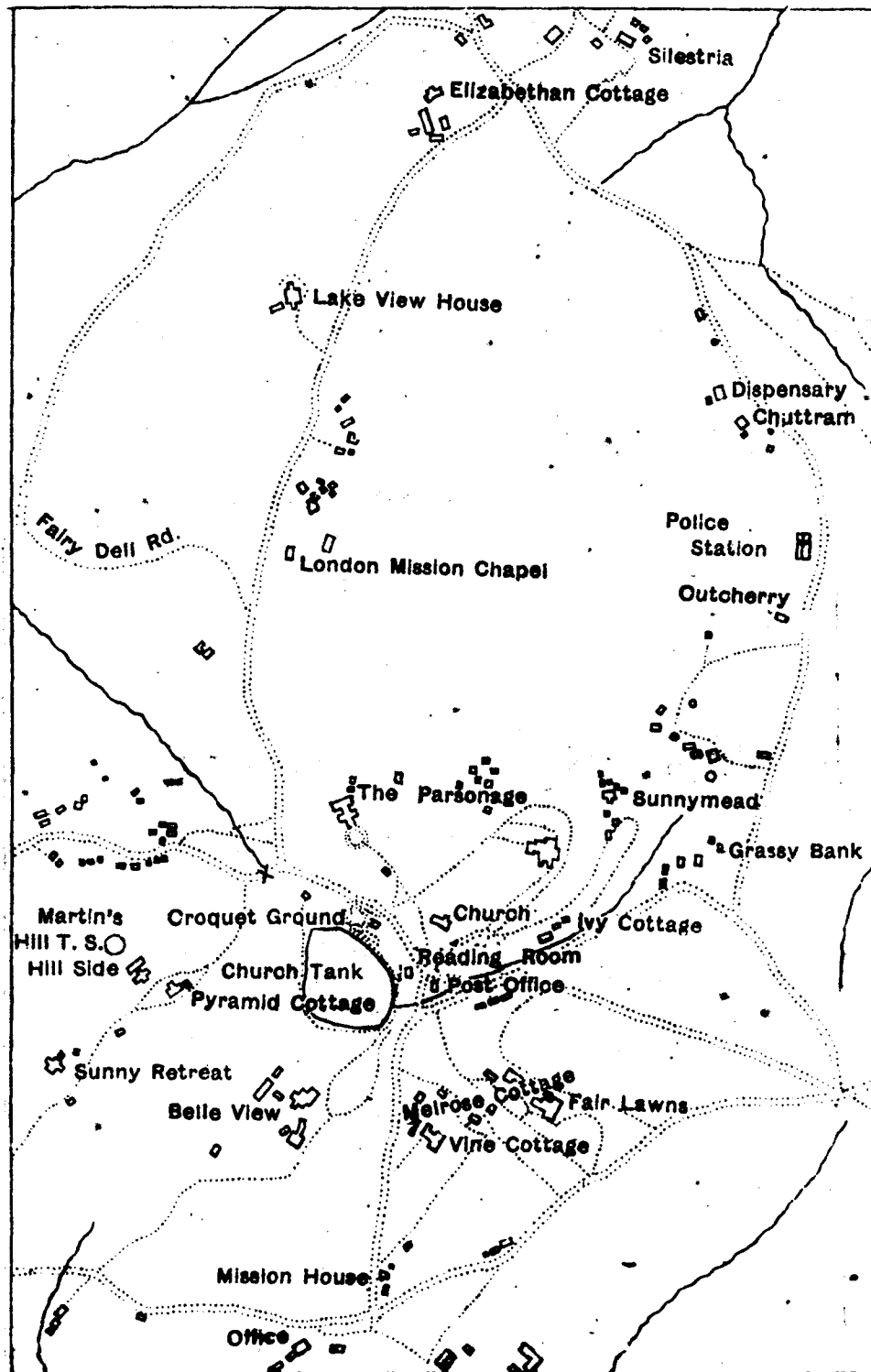
Infantry Road.

Cleveland Town.

Hotels.

Benson Town.

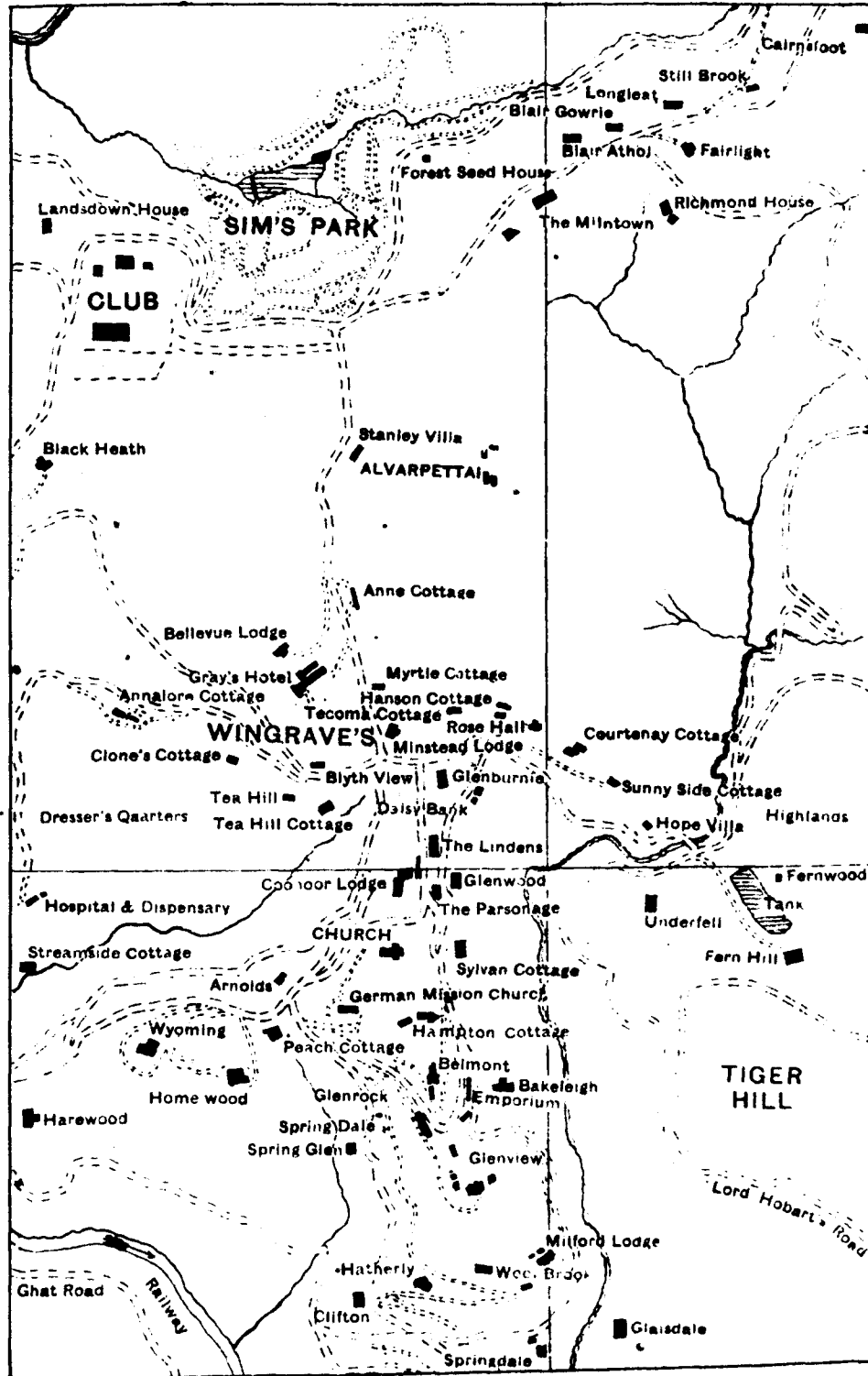
St. John's Hill.



RESIDENTS IN VERCAUD.

Athur Lodge.....	Melrose Cottage
Ballymahon	Melrose House.....
Bea's Cave	Montretout Villa.....
Beaunanoir	Parsonage, The.....
Bellvue	Phillips' House.....
Carlton Cottage	Pyramid House.....
Carlton House	Rock Hill.....
Charrington House	Rookery.....
Clifton Cottage.....	Rose Cottage.....
Daisy Bank.....	Sans Souci.....
Danby Hall.....	Shamrock Castle.....
Elizabethan Cottage.....	Silestria.....
Fairlawns.....	Silver Oak.....
Fern Dell.....	Stoke Villa.....
Fir, The.....	Sunnymead.....
Grange, The.....	Sunnyside.....
Grassy Bank.....	Swiss View.....
Holyrood.....	Sylvan Cottage.....
Ivy Cottage	Tipperary Cottage.....
Joseph's Villa.....	Tony Villa.....
Lake View.....	Vine Cottage.....

COONOR.



RESIDENTS IN COONOR.

Alma.....	Highlands.....
Anne Cottage.....	Holmwood.....
Bakeleigh	Hopeville.....
Bellevue.....	Lansdown.....
Belmont.....	Longleat.....
Blackheath.....	Milntown.....
Blair Athol.....	Minstead.....
Blair Gowrie.....	Moville.....
Brooklands.....	Myrtle Cottage.....
Brookview	Northley.....
Cairnsfoot.....	Orange Grove.....
Clifton.....	Peach Cottage.....
Courtenay Cottage.....	Prospect Lodge.....
Culford.....	Richmond.....
Culmore.....	Rocklands.....
Daisy Bank.....	Rose Hall.....
Elkhill.....	Springdale.....
Fairlight.....	Springfield.....
Felixstowe.....	Stanley Villa.....
Fernhill.....	Stillbrook.....
Fernwood.....	Sunnyside.....
Gables.....	Tecoma.....
Glaidsdale.....	Underfell.....
Glenrock.....	Wyoming.....
Hampton Cottage.....	Woodcote.....
Harewood.....	Woodlands.....
Hatherly.....	



Commandant.

P. M. O.

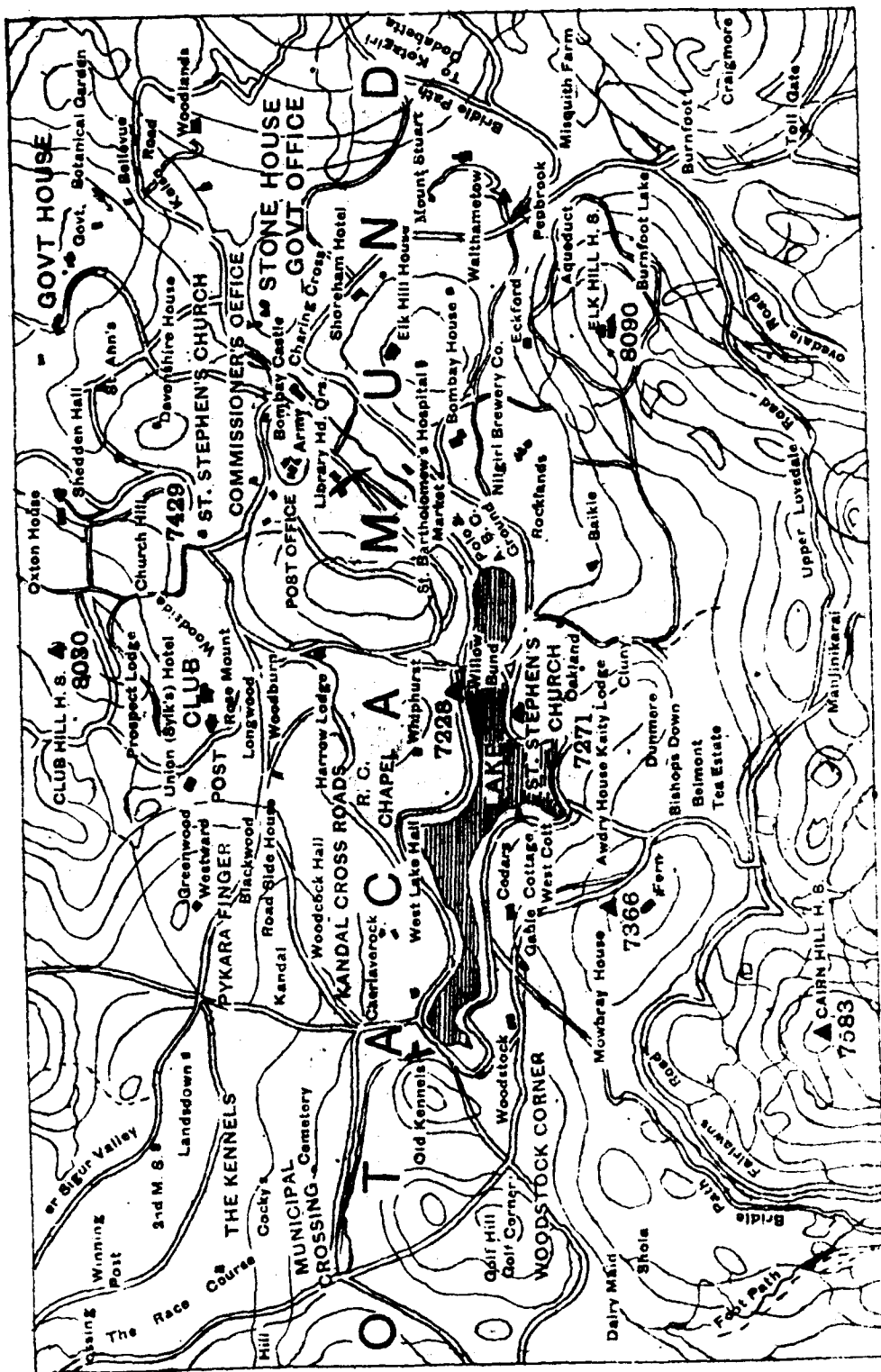
Regimental Mess.

Col

Majors.

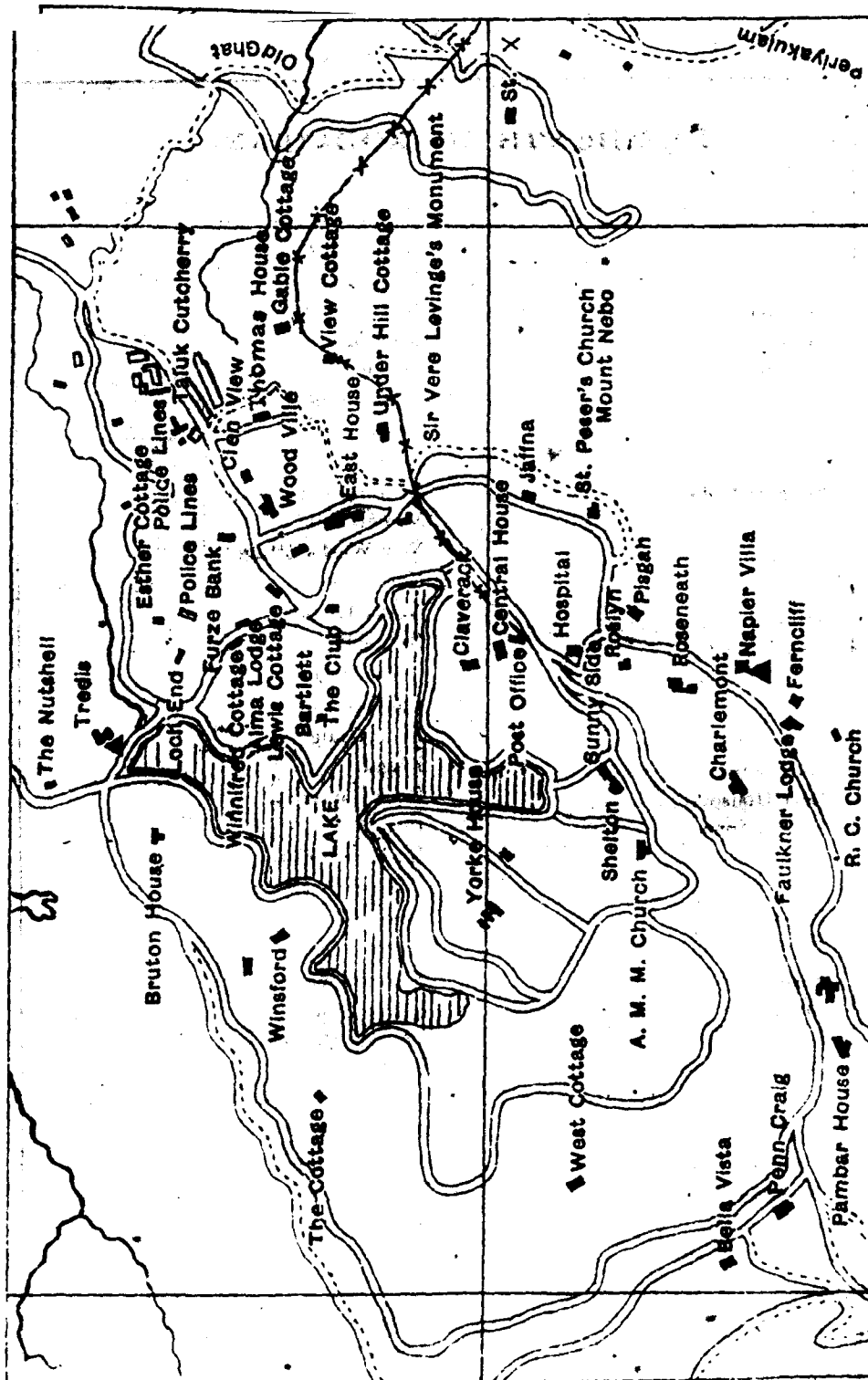
Captains

Subalterns.



RESIDENTS IN OOTACAMUND.

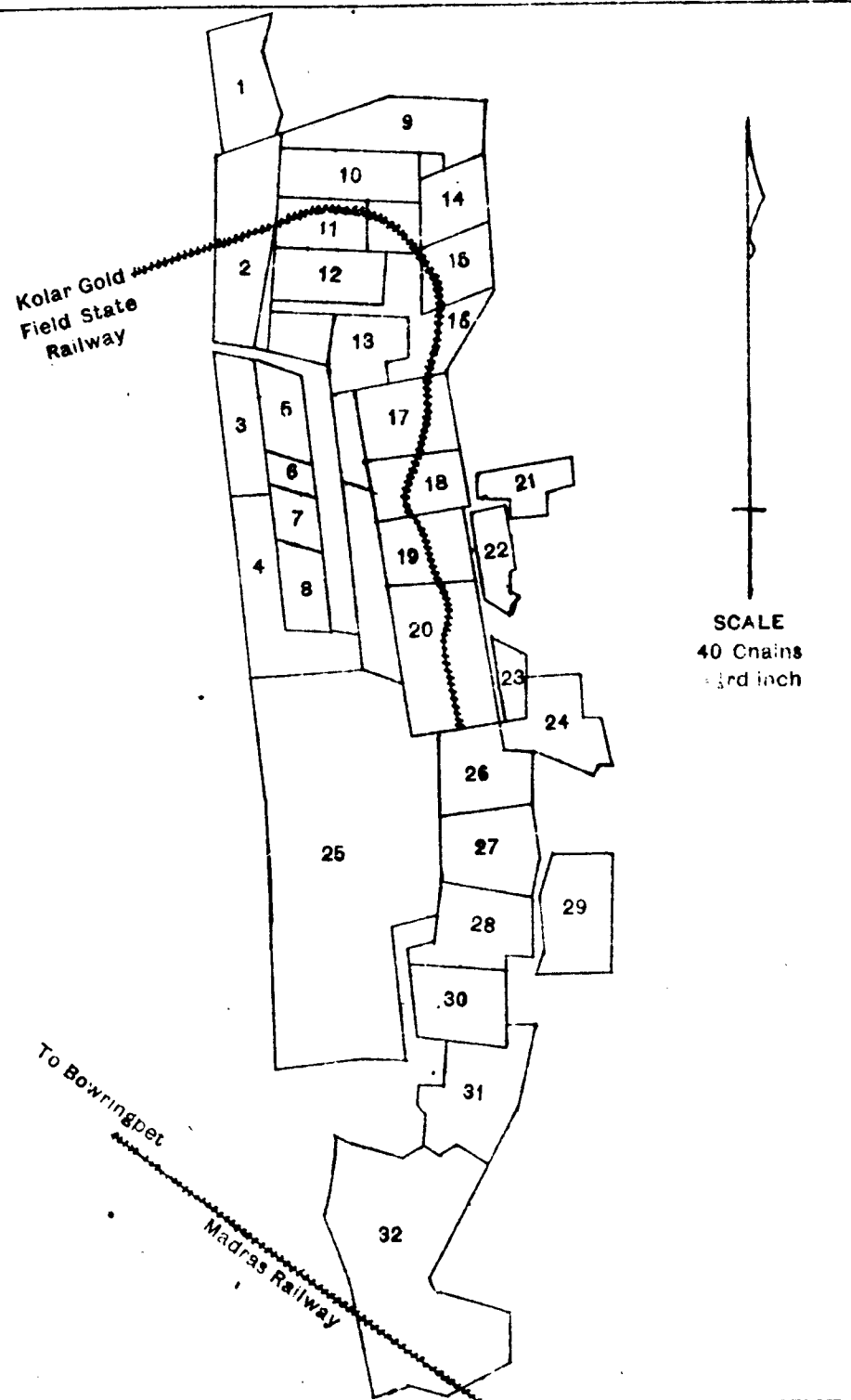
Alexandra.....	Kelso.....
Alta.....	Kempstowe.....
Ancklands.....	Kenilworth.....
Avnel.....	Laurels.....
Baikie.....	Lochend.....
Belmont.....	Locetto.....
Blenheim.....	Maplecroft.....
Bramley.....	Montauban.....
Caerlaverock.....	Mountain View.....
Carass.....	Norview.....
Cedars.....	Oakend.....
Clifton.....	Oaklands.....
Cluny.....	Oxton.....
Cottissa.....	Prospect.....
Daisy Bank.....	Race View.....
Devonshire.....	Rocklands.....
Dunmere.....	Rosewood.....
Eckford Lodge.....	Runnymede.....
Elkhill.....	Sandrock.....
Erin.....	Shedden.....
Farley.....	Snowdon.....
Fox How.....	Southwick.....
Frome.....	Stoneridge.....
Gayton.....	Templeton.....
Glenbrook.....	Trengwainton.....
Gorse.....	Walpole Cottage.....
Greenwood.....	Walthamstowe.....
Harewood.....	Warley.....
Harrington.....	Woodcot.....
Hanterville.....	Woodlands.....
Hermitage.....	Woodside.....
Ivy Bank.....	Woodstock.....



RESIDENTS IN KODAIKANAL.

Airlie ...	Kerala ...
Alma ...	Lake View Cottage ...
Arcotia ...	Lansdowne... ..
Arcotia ...	Lewis Cottage ...
Bartlett ...	Loch End ...
Barton ...	Lidcot ...
Bella Vista ...	Lillingstone ...
Bellevue... ..	Lynwood ...
Ben Lomond ...	Merton House ...
Berkett Lodge ...	Merton Lodge ...
Bourne End ...	Napier Villa ...
Benton ...	New West Cottage ...
Burnside ...	Northbrook ...
Central ...	North House ...
Charlemont ...	Nutshell ...
Cliff ...	Orchard House ...
Dorothy ...	Pambar House ...
Danmore ...	Penn Craig ...
Earlscote ...	Pisgah ...
East House ...	Rock Cottage ...
Edmonstone ...	Roslyn ...
Elm Side ...	Roseneath Cottage ...
Fairy Cottage. ...	Roseneath House ...
Faulkner Lodge ...	Roslyn ...
FernCliff ...	Shelton Cottage ...
Fern Hill ...	South House ...
Freidheim ...	Sunny Side ...
Furze Bank ...	Thomas House ...
Gable Cottage ...	Tredis House ...
Glen ...	Trewin ...
Glenview ...	Under Hill ...
Harcourt House ...	View Cottage ...
Hartwell ...	West-brook ...
Hillingdon ...	West Cottage ...
Hollow Cottage ...	Winsford ...
Hope Ville ...	Winsten ...
Jaffna House ...	Woodville ...
Jesmond... ..	Yorke House ...

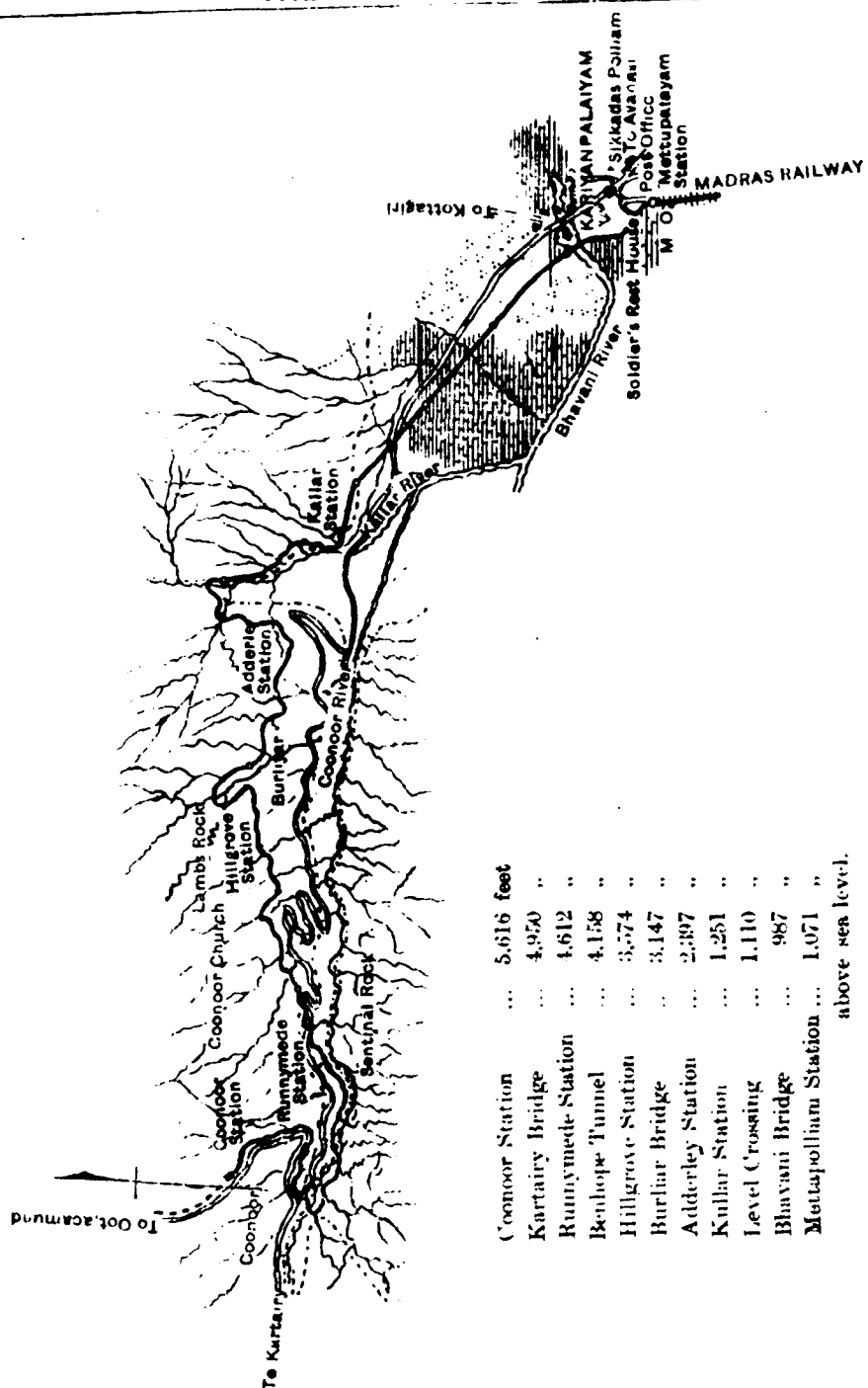
THE KOLAR GOLD FIELD.



THE KOLAR GOLD FIELD.

INDEX TO THE MAP OPPOSITE.

No.	Name of Block or Blocks.	Acres.	REMARKS.
1	North-West Reefs	396	} Property of the Gold Field of Mysore Company, Limited.
2	Ajjapalli Block	586	
3	Eastern Emperor	425	
4	Victoria	636	
5	Kaiser-i-Hind	50	Do.
6	Mysore-Wynaad	100	
7	Mysore-West	665	
8	Kaiser-i-Hind	360	
9	Road	213	Do.
10	Nine Reefs	218	
11	West Balaghat	220	
12	Golconda	164 1/2	
13	Oriental	370	{ (Mysore-West and Mysore-Wynaad.)
14	Balaghat	382	
15	Coromandel	340	
16	Tank	268	
17	Nundydroog	158	} Property of the Gold Field of Mysore Company, Limited.
18	Ooregum	122	
19	Champion Reef	282	
20	Mysore	2,865	
21	East Ooregum	320	Do.
22	Colar Central	320	
23	South-East Mysore	326	
24	East India	327	
25	South	320	Do.
26	Kempinkote Gold Field, Ltd.	320	
27	Colar Central	326	
28	Mysore Reefs	327	
29	Maharajah	320	Do.
30	Kempinkote Gold Field, Ltd.	320	
31	South-East Mysore	320	
32	Mysore Reefs	320	



THE NILGIRI RAILWAY.

The Nilgiri Mountain Railway is a rack railway on the Abt system. It is so far the only one of its kind in India. The rack consists of a double-toothed rail made of one inch steel plates laid midway between the ordinary rails, and there are cog-wheels under the locomotive, which fit into the teeth, causing the train to cling firmly to the track, and by its means to climb up or down a very steep gradient. The method may be likened to planting one's foot securely upon each step, when ascending or descending a staircase.

On landing at the Mettapollium station from the M.R. train, the traveller will find the little one waiting alongside the opposite platform. It probably consists of a first and a second class saloon, a carriage for luggage and servants, a brake-van, and a locomotive. The latter strikes one as being sturdily and compactly built, and its position is always at the lower end of the train, either going up or down the ghat. It has been so constructed that the driving power may be applied to either the cog-wheels, or the ordinary flanged side-wheels. Each carriage is supported upon four pairs of bogey wheels, and has entrances and platforms at both ends. The brake-power on the train is enormous; consisting of blocks upon the engine, a vacuum throughout, and rack rails. To work the last-named there are brakemen on each vehicle, all under the direction of the controller of the brake-van. But massive as the engine appears, it is not too powerful for pushing 40 tons over and above its own weight, up the long and steep incline; the furnaces are therefore being adapted for the consumption of liquid fuel. For the ordinary traffic, however, it will probably be found that one composite car for all classes of passengers and luggage will suffice.

The almost level run from Mettapollium to Kullar ($4\frac{1}{2}$ m.) is accomplished in about 12 minutes, and then the ascent and the rack begin. Between Kullar and Adderley ($7\frac{1}{2}$ mile)—the region of bridges, the gradient is continuously 1 in 12.50, excepting about midway, where the line crosses the Kullar river by a magnificent stone bridge 80 feet high, with 3 spans of 60 feet each. The next 3 miles (the region of viaducts) to Hillgrove ($10\frac{1}{2}$ mile) are equally steep, and again about midway there is a bridge crossing the Burliyar river. High up on the right-hand are Lady Canning's Seat and Lamb's Rock. From Hillgrove to Runnymede ($13\frac{1}{2}$ mile) is the region of tunnels; one of 200, one of 100, one of 200, and one of 300 feet in length. The line traverses the Keerambady valley, (note the scenery) and along the Benhope cliffs. Passengers for Kartaary and Devashola alight here. Others continue the ascent, 3 miles—(the region of cuttings) which, though as severe as before, makes a wide detour across the valley; skirts close around the hill called Crimea; and at last brings into view the picturesque bungalows of Coonoor. A few minutes later the end of the rack is reached, and the engine arrives panting at the terminus, above which there are waiting-rooms and refreshments for the traveller, before he proceeds by tonga to Ootacamund (11 miles), or elsewhere.

The total distance from Mettapollium to Coonoor is 17 miles, and the journey, either up or down, will occupy about two hours.

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Guduvancheri ... 1, 10	Kalay ... 15	Kolatur South ... 2
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Poranagulla	15	Seram	17	Thondabhai	10
Porur Road	1	Sermapettai	16	Tiloti	13
Potto Novo	1	Sethupatti	1	Thinnamachala	12
Pottu	13	Servapet Road	1, 12	Tiranghat	15
Pottur	1	Shahabad	1	Tiruvannamalai	1
Pulicherla	2	Shahdol	1	Tirunelveli	6, 12
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Putalapattu	6	Shivani	1	Tiptur	10
Puttur	12	Shiyali	1	Tirukoilur	8
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[illegible]

(1) MADRAS TO TRICHINOPOLY (S.I.R.)

DOWN.				STATIONS.	UP.			
Ord.	Mail.	Ord.	Exp.		Ord.	Mail.	Ord.	Exp.
...	...	16	10	Beach	...	...	...	8 15
...	...	16	16	Fort	...	...	...	8 10
...	...	16	22	Park	...	...	...	8 2
...	...	16	27	Egmore	...	...	...	7 55
...	7	26	18	Chespat	9	45	17	25
...	7	30	18	Kodambakam	...	...	...	...
...	...	...	...	Saidapet	9	24	17	1
...	8	31	17	St. Thomas' Mount	9	11	16	44
...	8	13	17	Pallavaram	8	57	16	32
...	8	15	17	Vandalur	8	55	16	30
...	8	34	17	Guduvancheri	8	35	16	19
...	8	48	18	Singaperumalkoil	8	16	16	1
...	9	7	18	Chingleput J* (10)	7	54	15	42
...	9	23	18	Chingleput J*	7	36	15	25
...	9	46	18	Kolatur North	7	35	15	17
...	10	2	19	Pachalam	7	8	15	2
...	10	12	19	Madurantakam	6	58	...	...
...	10	34	19	Acharapakkam	6	34	14	35
...	11	0	20	Perambair	6	9	14	12
...	11	18	20	Olakur	5	48	...	...
...	11	29	20	Tindivanam	5	30	13	12
...	11	53	21	Madham	5	8	13	23
...	12	12	21	Vikravandi	4	46	12	2
...	12	40	21	Villupuram J* (5)	4	19	12	37
...	12	0	22	Pondicherry	3	55	12	10
...	14	53	0	Pondicherry	0	10	9	40
...	0	10	9	Villupuram J*	...	...	...	...
...	3	30	18	Seradanur	2	50	11	50
...	3	45	18	Paprust	2	33	11	36
...	4	30	18	Nellikuppam	2	7	11	16
...	4	57	14	Cuddalore New Town	1	33	10	51
...	5	24	14	Cuddalore C.T.*	1	27	10	38
...	5	35	14	Alapakam	0	40	10	30
...	5	55	15	Porto Novo	0	7	9	51
...	6	20	15	Kille	23	41	9	33
...	7	5	15	Ohidambaram	23	8	9	8
...	7	24	15	Oolaroon	23	46	8	55
...	7	45	16	Shiyali	23	39	8	43
...	8	21	16	Vaithiavarankoil	22	2	8	25
...	8	50	16	Antandavapuram	21	32	8	21
...	9	10	17	Mayavaram J. (3)	20	49	7	31
...	9	33	17	Tiruvallur J.	20	30	7	18
...	9	49	17	Nayapatam	18	5	5	10
...	10	15	17	Mayavaram J	16	35	3	40
...	10	41	17	Kuttalam	19	37	7	8
...	11	5	18	Narasinganpet	19	17	6	49
...	11	31	18	Tiruvadamardur	18	53	6	35
...	11	50	18	Kumbakonam*	18	24	6	19
...	12	20	18	Sundaraperumalkoil	17	30	6	12
...	12	45	18	Papanasam	17	20	6	3
...	12	10	19	Ayyampet	17	10	5	39
...	12	39	19	Titte	16	49	5	27
...	13	2	19	Tanjore J* (3)	16	24	5	18
...	13	25	19	Tanjore J*	16	1	4	57
...	14	35	19	Budalur	15	30	4	40
...	15	56	20	Tiraverambur	14	63	4	31
...	16	47	21	Trichinopoly J* (2, 4)	14	15	3	56
...	17	10	21	...	13	23	3	18
...	...	...	...	...	12	55	3	0

(2) TRICHINOPOLY-TUTICORIN (S.I.R.)

DOWN.				STATIONS.	UP.			
Ord.	Mail.	Ord.	Exp.		Ord.	Mail.	Ord.	Exp.
...	...	...	...	Trichinopoly J* (1, 4)	...	...	...	...
...	...	...	...	Kolatur South	...	...	...	...
...	...	...	...	Manapalai	...	...	...	...
...	...	...	...	Vaiyampati	...	...	...	...
...	...	...	...	Ayyalur	...	...	...	...
...	...	...	...	Vadamadura	...	...	...	...
...	...	...	...	Dindigul	...	...	...	...
...	...	...	...	Ambaturai	...	...	...	...
...	...	...	...	Ammayanayakanur	...	...	...	...
...	...	...	...	(for Kodaikanal)	...	...	...	...
...	...	...	...	Sholavandan	...	...	...	...
...	...	...	...	Samayanallur	...	...	...	...
...	...	...	...	Madura*	...	...	...	...
...	...	...	...	Tiruparankundram	...	...	...	...
...	...	...	...	Tirumangalam	...	...	...	...
...	...	...	...	Kalligudi	...	...	...	...
...	...	...	...	Virudupati	...	...	...	...
...	...	...	...	Talakapatti	...	...	...	...
...	...	...	...	Satur	...	...	...	...
...	...	...	...	Koilpati	...	...	...	...
...	...	...	...	Kumarapuram	...	...	...	...
...	...	...	...	Kadambur	...	...	...	...
...	...	...	...	Maniyachi J	...	...	...	...
...	...	...	...	Gangaikondan	...	...	...	...
...	...	...	...	Tinnevely Branch	...	...	...	...
...	...	...	...	Tinnevely	...	...	...	...
...	...	...	...	Tinnevely	...	...	...	...
...	...	...	...	Gangaikondan	...	...	...	...
...	...	...	...	Maniyachi J	...	...	...	...
...	...	...	...	Tataparai	...	...	...	...
...	...	...	...	Tuticorin*	...	...	...	...
...	...	...	...	Tuticorin	...	...	...	...
...	...	...	...	Colombo	...	...	...	...

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Passengers from Madras are advised to obtain Refreshment tickets at Egmore, early in the day on which they commence their journey, for dinner at Chingleput J. and breakfast at Madura.

BRANCH LINES (S.I.R.)
(3) MAYAVARAM-MUTUPET, PERALAM-KARAKKAL
AND TANJORE-NEGAPATAM.

DOWN.					STATIONS.		UP.			
Ord.	Ord.	Ord.	Mail.			Ord.	Ord.	Ord.	Mail.	
2	50	4	55 10	10 17	40	Mayavaram J (1)	7	0 14	20 20	5
3	10	5	13 10	32 17	59	Manganallur	6	42 14	1 10	46
3	27	5	27 10	50 18	16	Peralam J	6	21 13	10 19	25
3	45	...	13 45	...	...	Peralam J.	...	10 10 17	30	...
4	13	...	14 13	...	...	Ambagarattur	...	9 16 17	6	...
4	43	...	14 43	...	...	Tirunallar	...	9 17 16	37	...
5	5	...	15 5	...	...	Poreur Road	...	8 57 16	17	...
5	15	...	15 15	...	...	Karakkall	...	8 40 16	0	...
3	35	5	35 10	57 18	23	Peralam J	6	13 13	32 19	10
3	59	5	56 11	23 18	46	Nannilam	5	53 13	12 18	50
4	19	6	12 11	43 19	5	Vettar	5	30 12	49 18	27
4	35	6	26 12	0 19	20	Tiruvallur J	5	10 12	28 18	5
4	45	9	35 15	15 21	35	Tanjore J* (1)	4	1 14	40 19	45 21
5	9	10	11 15	48 22	2	Sattiyamangalam	3	17 14	13 19	20
5	21	10	30 16	0 22	15	Aminapet	3	31 13	58 19	6 20
5	44	11	5 16	34 22	40	Nidamangalam	3	6 13	33 18	44 20
6	0	11	32 16	58 22	58	Koradacheri	2	40 13	7 18	21 19
6	19	12	3 17	23 23	18	Kulikarai	2	14 12	40 17	58
6	30	12	18 17	37 23	30	Tiruvallur J	1	56 12	22 17	41 19
7	0	12	30	...	...	Tiruvallur J	...	12	5 17	25
7	25	12	54	...	...	Tirunattiyattangudi	...	11	45 17	5
7	52	13	20	...	...	Ponnirei	...	11	18 16	39
8	17	13	44	...	...	Tiruturaipundi	...	10	56 16	18
8	39	14	5	...	...	Pandi	...	10	31 15	54
9	1	14	26	...	...	Thillaiivilagam	...	10	38 15	33
9	20	14	45	...	...	Mutupet	...	9	45 15	10
4	55	6	43 17	50 23	38	Tiruvallur J	1	46 11	55 17	28 19
5	13	6	55 18	6 23	51	Adyakkamangalam	1	33 11	42 17	17 10
5	39	7	8 18	24 0	6	Kivvalur	1	15 11	22 17	2 18
5	58	7	21 18	44 0	21	Sikkil	0	56 11	2 16	47 18
6	10	7	50 18	55 0	30	Negapatam *	0	40 10	45 16	35 18

(4) TRICHINOPOLY J.-ERODE J.

DOWN.				STATIONS.				UP.						
Ord.	Ord.	—	Mail.					Ord.	Ord.	—	Mail.			
13	0	22	10	...	6	5	Trichinopoly J* (1)	19	25	2	45	...	10	40
13	27	22	25	...	6	20	Trichinopoly Fort	19	10	2	35	...	10	30
14	2	22	40	...	6	47	Elamanur	18	22	2	4	...	10	0
14	25	23	7	...	7	7	Pettaivaytalai	17	51	1	43	...	9	41
14	49	23	26	...	7	26	Kulitalai	17	29	1	27	...	9	27
15	11	23	43	...	7	45	Lalapet	16	57	1	3	...	9	5
15	36	0	2	...	8	6	Katalai	16	27	0	41	...	8	46
16	1	0	22	...	8	26	Puliyur	15	59	0	20	...	8	28
16	31	0	41	...	8	50	Karur	15	32	23	58	...	8	5
17	6	1	15	...	9	21	Pugalur	14	46	23	25	...	7	34
17	38	1	43	...	9	49	Kodumudi	14	15	23	1	...	7	13
17	54	1	57	...	10	3	Unjalur	13	53	22	42	...	6	55
18	25	2	21	...	10	27	Pasur	13	20	22	17	...	6	33
18	44	2	37	...	10	43	Chavadi Palaiyam	12	57	22	1	...	6	18
19	5	2	55	...	11	0	Erode J* (8)	12	30	21	40	...	6	0

(5) PONDICHERRY-GUDUR (S.I.R.)

DOWN.			STATIONS.	UP.						
Ord.	Ord.	Ord.		Ord.	Ord.	Ord.				
0	10	...	9	40	Pondicherry	0	45	...	14	55
0	35	...	9	59	Villianur	0	30	...	14	40
1	45	...	10	59	Kandamangalam	23	59	...	14	15
2	16	...	11	27	Valavanur	23	28	...	13	44
2	40	...	11	45	Villupuram J* (1)	23	5	...	13	20
3	35	...	13	25		22	25	...	11	40
3	57	...	13	49	Venkatesapuram	22	7	...	11	23
4	19	...	14	13	Mambalappattu	21	43	...	11	2
4	43	...	14	39	Mugaiyur	21	17	...	10	39
5	9	...	15	4	Tirukoilur	20	55	...	10	19
5	48	...	15	47	Tandarai	20	5	...	9	37
6	31	...	16	34	Tiruvannamalai	19	25	...	9	2
7	8	...	17	16	Agaram Sibbandi	18	22	...	8	19
7	44	...	17	55	Polur	17	48	...	7	49
8	29	...	18	34	K. Jambur (for Arni)	17	2	...	7	11
8	55	...	19	12	Kannamangalam	16	26	...	6	38
9	21	...	19	40	Kaniyambadi	15	58	...	6	12
10	0	2 30	20	23	Vellore	15	27	22 40	5	45
10	20	2 58	20	45	Katpadi J* (6)	14	50	22 10	5	15
10	45	3 30	22	0		14	28	21 30	5	5
		4 34	22	33	Ramapuram	...	...	20 47	4	35
11	48	5 33	23	14	Chittoor	13	35	19 55	3	59
		6 17	23	42	Butalappattu	...	...	18 58	3	24
12	38	7 0	0	13	Pakala J*	12	40	18 10	2	50
12	55	...	...	...	Pakala J*	12	20	...	...	...
13	15	...	...	...	Dammacheruru	12	3	...	...	...
13	44	...	...	...	Mangalampeta	11	36	...	...	...
14	4	...	...	...	Pakkicherla	11	12	...	...	...
14	40	...	...	...	Piler	10	38	...	...	...
15	10	...	...	...	Kalikiri	10	4	...	...	...
15	55	...	...	...	Vayalpad	9	21	...	...	...
16	20	...	...	...	Chinna T. Samudram	8	52	...	...	...
16	47	...	...	...	Kurabalakota	8	19	...	...	...
17	19	...	...	...	Tummanangutta	7	43	...	...	...
17	41	...	...	...	Buttalapuram	7	19	...	...	...
18	5	...	...	...	Mulacalacheru	6	57	...	...	...
18	37	...	...	...	Tanakallu	6	21	...	...	...
19	5	...	...	...	Nallacheru	5	51	...	...	...
19	35	...	...	...	Kadiri	5	26	...	...	...
20	5	...	...	...	Kalasamudram	4	47	...	...	...
20	25	...	...	...	Malaka Vemala	4	25	...	...	...
20	54	...	...	...	Mudigubba	3	58	...	...	...
21	14	...	...	...	Muktapuram	3	34	...	...	...
21	43	...	...	...	Chinnakuntapalli	3	3	...	...	...
22	10	...	...	...	Dharmavaram J* (16)	2	30	...	...	...
12	50	7 20	0	23	Pakala J*	12	25	17 47	2	35
...	...	8 0	0	52	Panapakam	12	2	17 13	2	9
13	38	8 51	1	27	Chandragiri	11	23	16 18	1	26
14	2	9 31	1	54	Tirupati West	11	0	15 43	0	56
		9 41	2	4	Tirupati East	10	47	15 20	0	39
14	23	10 10	2	24	Renigunta J* (12)	10	25	14 45	0	13
14	55	...	2	45		10	0	...	22	5
15	21	...	3	11	Yerpedu	9	36	...	21	42
15	58	...	3	48	Kalahasti	9	4	...	21	10
16	29	...	4	19	Yellakaru	8	30	...	20	36
16	58	...	4	48	Venkatagiri	7	57	...	20	5
17	35	...	5	25	Vendod	7	17	...	19	23
18	10	...	6	0	Gudur J (18)	6	30	...	18	40

(6) MADRAS-BANGALORE J. (M.R.)

DOWN.				UP.			
3rd Class.	3rd Class.	Ord.	Mail.	STATIONS.	Ord.	3rd Class.	Mail.
19 0 5	0 6	45 18	15	Madras (Central)	18 45	20 45	21 0 7
19 36 5	33 7	5 18	33	Perambur	18 35	20 16	20 50 6
19 48				Connur		19 55	20 32
20 3				Ambattur		19 39	20 22
20 23		7 27	18 53	Avadi	17 58	19 25	20 12 6
20 44				Tinnanur		19 32	0 0
20 59				Servavpet Road		18 46	19 30
21 20 6	40 7	58 19	19	Trivellore	17 31	18 30	19 10 5
21 34 6	54			Kadambattur		18 8	
21 50 7	9			Maur		17 48	
22 1 7	20			Chinnamapet		17 37	
22 15 7	34			Mosur		17 23	
22 26 7	45 8	28 19	49	Arkonam J* (10, 12)	16 50	17 10	4 55
23 5 9	20 8	58 20	19	Arkonam J*	16 25	16 5 11	30 4 39
23 31 9	52			Munnal	16 7	15 41	11 5
23 57 10	28 9	31 20	51	Sholinghur	15 50	15 15	10 39 4
0 13 10	47			Thalanganai		14 52	10 12
0 55 11	20 9	57 21	15	Arcoot	15 27	14 30	9 52 3
1 11 36				Ponnai Road		13 52	9 12
1 29 11	59 10	17		Tiruvallam	15 31	35 8	54
1 55 12	23 10	34 21	49	Katpadi J* (5)	14 43	13 5 8	23 3 15
				Katpadi J*	14 32	12 25	7 30 3
				Lacteri		12 8	7 15
				Virinchipuram	14 13	11 53	6 57 2
				Gudiyattam		11 40	6 42
				Valathoor	13 54	11 22	6 25 2
				Mailpatti	13 33	10 31	5 41
				Ambur	13 21	10 16	5 21 2
				Vinnamangalam	13 0	9 31	4 47 1
				Vaniyambadi		9 10	4 14
				Kettandapatti	12 32	8 50	3 50 1
				Jalarpet J* (8)	12 9	8 17	2 52
				Jalarpet J*	11 56	8 0	2 30 1
14 30 3	30 13	43 1	15	Jalarpet J*	11 27	17 35	20 45 23
15 5 4	5 14	1		Patchur	11 9	17 15	20 20 23
16 15 5	11 14	45 2	12	Mulanur	10 36	16 40	19 35 23
17 17 5	59 15	14 2	12	Kuppam	10 17	15 40	18 5 22
18 2 6	31 15	35		Gudupalli	9 54	14 50	18 5
18 25 7	0 15	47		Bisnattam	9 44	14 33	17 51
18 50 7	26 16	2 3	28	Kannasammudram	9 33	14 15	17 32
				Boweringpet J* (7)	9 15	13 45	17 5 22
19 20 9	4 16	34 4	2	Tyakkal	9 3	13 10	22 0
				Malur	8 48	12 46	
				Devankundi	8 23	12 14	21 26
				Whitefield	7 55	11 36	
				Krishnarajapuram	7 12	11 11	20 56
				Bangalore Cantt.	7 24	10 11	
				Bangalore J* (14, 16)	7 7	9 45	20 30
					6 25	9 0	19 50

(7) KOLAR GOLD FIELDS STATE RAILWAY.

13 35 10	0 18	50 5	15	Boweringpet J* (6)	8 16	12 50	16 22 19	30
14 11 10	37 17	27 6	52	Balaghat Mine	7 46	12 20	15 52 19	0
14 29 11	0 17	44 6	10	Oorgaum	7 34	12 7	15 40 18	46
14 43 11	15 17	57 6	23	Champion	7 8	11 46	15 21 18	30
14 48 11	20 18	2 6	28	Marikuppam	6 55	11 35	15 10 18	20

(8) JALARPET-CALICUT (M. R.)

DOWN.				UP.			
Ord.	3rd Class.	Ord.	Mail.	STATIONS.	Ord.	3rd Class.	Mail.
21 50	13 28	0 30		Jalarpet J* (6)	11 19	22 30	0 21
22 25	13 53	0 43		Tirupattur	11 4	22 10	0 9
22 59	14 15			Kagankarai	10 28	21 17	
23 40	14 42	1 11		Samalpatti	10 6	20 46	23 38
0 20	15 0			Kallavi	9 47	20 11	
2 12	15 33	1 41		Morappur	9 19	19 27	23 7
2 53	15 57			Buddireddipatti	8 51	18 42	
3 45	16 29	2 15		Mallapuram	8 29	18 6	22 34
4 12	16 54			Lokur	7 53	17 6	
4 46	17 19	2 44		Kadiampatti	7 29	16 20	21 49
5 9	17 33			Thinnapatti	7 10	15 44	
5 50	18 0	3 17		Salem* (Suramangalam)	6 40	15 0	21 14
8 45	18 40	3 27		Ariyanur	6 54	15	21 4
9 9	19 3			McDonald's Choultry	5 44	13 53	
9 37	19 32	3 56		Sankaridrug	5 17	13 24	20 38
10 27	20 21	4 27		Anangur	4 33	12 42	20 11
10 48	20 40			Cauvery	3 55	12 6	
11 12	21 1			Erode J* (4)	3 34	11 44	
11 21	21 10	4 58		Erode J*	3 23	11 30	19 36
12 31	22 0	5 8		Totiyapalaiyam	3 4	10 38	19 1
12 51	22 21			Perundurai	2 46	10 20	
13 11	22 41	5 29		Ingur	2 29	10 1	18 43
13 28	22 58			Viziamangalam	2 11	9 40	
13 40	23 17			Uttukuli	1 53	9 22	
14 24	23 45	6 6		Kalipalaiyam	1 30	8 56	18 11
14 44	0 3			Tiruppur	1 11	8 29	
15 16	0 44	6 24		Mangalam	0 53	8 10	17 49
15 44	1 7	6 37		Somanur	0 24	7 37	17 36
16 26	1 34	6 51		Salur	23 57	7 6	17 21
17 10	1 54	7 4		Singanallur	23 36	6 32	17 8
17 37	2 16	7 18		Podanur* (9)	23 14	6 11	16 54
18 0	2 35	7 30		Coimbatore	22 52	5 50	16 40
18 47	3 40	8 16		Mettupalaiyam	22 17	5 20	16 16
15 0	5 15	9 24		Mettupalaiyam	20 25		15 0
16 16	20 25			Coimbatore	5 15		9 24
18 45	3 20	8 3		Podanur J*	3 15		8 9 16 45
19 14	3 47	8 19		Madukarai	22 10		7 50 16 40
19 56	4 25	8 52		Walayar	21 46		7 30 15 26
20 35	5 9	9 19		Kanyikod	21 0		6 45 14 53
21 5	5 25	9 38		Olavakkot J* (for Palgt.)	20 27		6 8 14 27
	6 15	9 53		Parli	19 50		5 30 14 3
	6 39	10 9		Mankarai	19 1		13 48
	6 57	10 21		Lakkiti	18 40		13 35
	7 19	10 35		Ottappalam	18 19		13 23
	7 38	10 48		Shoranur*	18 0		13 10
	8 27	11 29		Pattambi	17 39		12 57
	8 59	11 53		Pallipuram	17 11		12 37
	9 24	12 9		Kuttiapuram	16 12		11 54
	9 47	12 24		Edakkolam	15 47		11 39
	0 21	12 36		Tirur	15 23		11 25
	10 20	12 49		Tanore	15 3		11 14
7 15	10 55	12 57		Parpanangadi	14 39		11 0
7 41	11 15	13 9		Kadalundi	14 12		19 54 10 50
8 5 11	35 13	24		Ferok	13 55		19 38 10 39
8 31	11 57	13 40		Kallayi	13 33		19 16 10 26
8 59	12 15	13 49		Calicut	13 6		18 50 10 10
9 21	12 39	14 4			12 52		18 35 10 1
9 27	12 45	14 9			12 31		18 10 9 47
					12 20		18 0 9 40

(9) NILGIRI BRANCH (M. R.)

DOWN.				STATIONS.	UP.			
Ord.	Ord.	Ord.	Mail.		Ord.	Ord.	Ord.	Mail.
16	35	22	35	8 5 8 0	Podanur J* (8)	22	30	2 45 5 33 16 25
16	45	22	47	3 40 8 16	Coimbatore	22	17	2 27 5 20 16 16
				4 5 8 33	Tudiyalur	21	41	15 54
				4 24 8 46	Periyanaikanpalaiyam	21	22	15 41
				4 58 9 12	Karaimadai	20	52	15 19
				5 15 9 24	Mettupalaiyam*	20	25	15 0

(10) MADRAS-CHINGLEPUT-CONJEEVERAM-ARKONAM.

DOWN.				STATIONS.	UP.			
Ord.	Ord.	Ord.	Mail.		Ord.	Ord.	Ord.	Mail.
				Beach		12	40	16 5 ...
				Fort		12	35	16 0 ...
				Park		12	25	15 52 ...
				Madras		12	18	15 45 ...
6	30	7	25	14 0 18 15	Egmore	9	45	12 5 15 36 22 45
6	38	7	30	14 9	Chetput		11	59 15 30 22 38
6	47			14 19	Kodambakam		11	48 15 20 22 27
6	57	7	52	14 35 ...	Saidapet	9	24	11 37 15 10 22 15
7	21	8	3	14 55 ...	St. Thomas' Mount	9	11	11 22 14 53 22 1
7	31	8	13	15 7 ...	Pallavaram	8	57	11 5 14 37 21 45
7	35	8	15	15 12 ...	Vandalur	8	55	10 56 14 32 21 40
7	56	8	34	15 38 ...	Guduvancheri	8	35	10 34 14 9 21 17
8	20	8	48	16 3 ...	Singaperumalkoil	8	16	10 16 13 50 21 0
8	43	9	7	16 29 ...	Chingleput J* (1)	7	54	9 47 13 20 20 32
9	0	9	22	16 45 19 43		7	36	9 25 13 0 20 10
6	30	9	35	17 5 20 15	Chingleput J*	7	15	9 10 15 10 19 45
6	55	10	3	17 33 20 43	Villiyampakkam	6	53	8 46 14 47 19 25
7	17	10	30	17 59 21 10	Wallajahad	6	27	8 18 14 21 19 8
7	30	10	55	18 24 21 35	Conjeeveram	6	0	7 45 13 50 18 38
7	47			18 35			7	35 18 31
8	13			19 7	Pallur		7	6 18 8
8	38			19 35	Arkonam J* (6, 12)		6	30 17 40

(11) MADRAS-RAYAPURAM-ENNUR.

DOWN.				STATIONS.	UP.			
Ord.	Ord.	Ord.	Mail.		Ord.	Ord.	Ord.	Mail.
8	0	14	45	18 5 20 15	Rayapuram	7	28	9 45 16 52 19 50
6	45	13	30	17 35 18 15	Madras (Central)	8	35	12 55 17 35
7	5	14	15	18 0 18 40	Perambur	8	25	12 22 17 25
7	11	14	21	18 5	Veyasarpady	8	2	16 52
7	15	14	25	18 9 18 40	Washermenpet	7	57	11 42 16 47
8	7	14	54	18 13 20 22	Washermenpet	7	19	9 38 16 43 19 41
8	14	15	1	18 20 20 29	Tondaiyarpettai	7	14	9 33 16 38 19 36
8	21	15	8	18 25 20 36	Tangal	7	7	9 26 16 31 19 29
8	28	15	17	18 32 20 43	Tiruvettiyur	7	1	9 20 16 25 19 23
8	36	15	25	18 40 20 51	Eranavur	6	51	9 12 16 14 19 14
8	43	15	33	18 47 20 58	Ennur (18)	6	40	9 3 16 3 19 5

CHAMPAGNE.

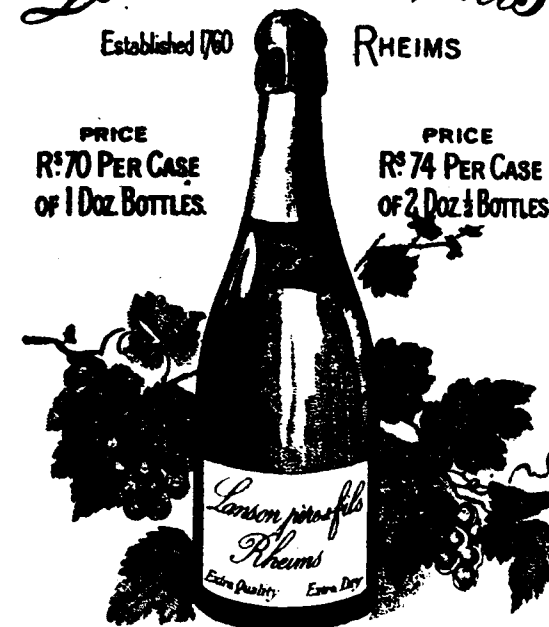
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SPECIAL CUVÉE,**

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Per Case of 24 Half-Bottles ... Rs. 74

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(13) GUNTAKAL J.—BOMBAY (M. R. & G. P. R.)	118
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DOWN.				STATIONS.		UP.			
Ord.	Ord.	Ord.	Mail.			Ord.	Ord.	Ord.	Mail.
		19 13	6 48	Guntakal J* (12,15,16,17)				5 46	18 15
		19 44		Nancherla				5 27	...
		20 14		Molagavalli				4 56	...
		20 43		Aspari				4 26	17 39
		21 7		Nagarur				3 59	...
		21 55	7 59	Adoni				3 34	17 14
		22 35		Kuppal				2 39	...
		23 19	8 36	Kosgi				2 1	16 29
		23 57	8 53	Tungabhadra River				1 26	16 10
		0 41	9 10	Matmari				0 42	...
		1 15	9 30	Raichur J*				0 5	15 0
13 45	6 45		10 0	Raichur Cantonment		23 30	10 25		14 30
13 59	6 59			Chikasegar		23 15	10 12		...
14 13	7 13			Krishna		23 0	9 56		...
14 33	7 32			Saidapur Road		22 40	9 35		...
15 5	8 1			Yadagiri		22 7	9 4		...
15 36	8 30	11 19		Malwar		21 37	8 33		13 15
16 17	9 5			Wadi J* (20)		21 0	7 54		...
16 39	9 24			Hyderabad		20 36	7 30		12 26
8 20	17 25		17 25	Nizam's State Railway	Secunderabad	arr.			...
9 15	17 55		17 55		Bezwada J.	"			...
	8 25		8 25		Bezwada J.	dep.			...
			12 45		Secunderabad	"			...
12 35	21 15		6 15		Hyderabad	"			...
13 45	21 55		6 43	Wadi J*		20 18	7 2		11 58
17 0	9 44		12 15	Shahabad		20 0	6 45		11 43
17 23	10 7		12 36	Martur		19 32	6 21		...
17 40	10 23		13 14	Gulbarga		19 5	5 55		10 58
18 12	10 55			Savali		18 36	5 31		...
18 35	11 15			Ghaugapur		18 9	5 5		...
19 0	11 37			Kulali		17 44	4 41		...
19 23	11 57			Dudni		17 24	4 22		9 47
19 44	12 16	14 24		Boroti		17 1	3 59		...
20 9	12 37			Karabgaon		16 31	3 30		...
20 40	13 3			Tilati		16 6	3 7		...
21 0	13 20			Hotgi J* (17)		15 50	2 51		8 34
21 17	13 35	15 29		Hotgi J*		15 36	2 41		8 16
21 32	13 50	15 37		Sholapur		15 10	2 17		7 55
22 5	14 18	16 1		Barsi Road		13 5	0 8		6 16
0 7	16 17	17 30		Diksal		12 55	23 56		6 0
0 15	16 27	17 40		Dhond J		10 35	21 25		3 52
2 22	19 35	19 35		Poona J* (14)		9 47	20 30		3 43
2 56	20 12	20 15		Kirkee		9 43	20 2		2 11
3 11	20 40	22 0		Lanauli		7 30	17 45		15 2
5 15	22 45	22 30		Khandala		6 49	16 38		19 6
6 0	1 5	22 46		Karjat		4 43	15 10		52 0 4
6 12	1 22	23 0		Neral		4 16	14 30		35
7 40	3 15	23 5		Kalyan J*		3 0	13 33		45 23 2
7 51	3 26	24 1		Thana		2 26	13 7		23
9 3	4 45	24 7		Bucculla		1 30	12 20		42 22 3
9 20	5 11	24 26		Bombay		1 15	12 15		27 22 2
9 52	6 3	25 3				0 43	11 49		41 21 4
9 56	6 11	25 12				23 30	11 6		30 21 3
	6 32	25 41							
10 53	7 49	26 5							
11 0	8 51	26 30							

(14) BANGALORE J.-POONA J.

DOWN.		STATIONS.	UP.	
Mail.			Mail.	
7 25	...	Bangalore J* (6, 16)	18 13	...
7 43	...	Yewantpur	18 0	...
8 6	...	Chick Banawar	17 8	...
8 45	...	Golhalli	16 35	...
9 17	...	Dodbele	16 5	...
9 43	...	Nidvanda	15 39	...
10 11	...	Hirehalli	15 4	...
10 53	...	Tumkur *	14 34	...
11 38	...	Gubbi	13 36	...
12 4	...	Kittur	13 10	...
12 40	...	Yelladbagi	12 38	...
13 11	...	Banasandra	12 0	...
13 39	...	Kardi	11 39	...
14 10	...	Tiptur	11 13	...
14 42	...	Konehalli	10 39	...
15 32	...	Arsikere *	9 55	...
16 10	...	Banavar	9 0	...
16 27	...	Devanur	8 36	...
17 32	...	Kadur *	7 58	...
17 55	...	Birur	7 37	...
18 43	...	Ajjampur	6 46	...
19 15	...	Shivani	6 18	...
19 41	...	Hosdurga Road	5 47	...
20 6	...	Ranagiri	5 15	...
20 34	...	Holalkere	4 44	...
21 0	...	Chick Jajur	4 17	...
21 30	...	Sasalu	3 48	...
21 51	...	Mayakonda	3 24	...
22 15	...	Kodaganur	3 3	...
22 42	...	Tolahunse	2 33	...
23 10	...	Davangere	2 8	...
24 0	...	Harihar J*	1 28	...
0 33	...	Chalgeri	0 34	...
1 10	...	Rambonnur	0 4	...
1 32	...	Dewargudda	23 41	...
2 3	...	Byndgi	23 17	...
2 44	...	Haveri	22 38	...
3 3	...	Karajgi	22 17	...
3 36	...	Hattimattur	21 49	...
4 5	...	Yalvigi	21 28	...
4 39	...	Gudgeri	21 0	...
5 9	...	Saunshi	20 30	...
5 32	...	Kundgol	20 6	...
6 36	...	Hubli J* (15)	19 32	...
7 5	...	Armagol	18 45	...
7 47	...	Dharwar	18 22	...
11 7	...	Londa J* (15)	15 8	...
15 29	...	Castle Rock	15 29	...
19 59	...	Marmagao Harbour	19 59	...
11 32	...	Londa J	14 38	...
13 43	...	Belgaum *	12 47	...
15 28	...	Dhupdhal	10 24	...
15 42	...	Gokak Road	9 50	...
19 0	...	Miraj *	7 17	...
19 21	...	Sangli (for Kolhapur)	6 48	...
0 23	...	Wathar* (for Mahabaleshwar)	2 7	...
5 14	...	Poona J* (13)	20 40	...

(15) GUNTAKAL J.—MARMAGAO. (S. M. R.)

DOWN.		STATIONS.	UP.	
Mail.			Mail.	
18 30	...	Guntakal J* (12,13,16,17)	6 25	...
...	...	Bantanahal	...	...
...	...	Baivanahal	...	...
19 11	...	Virapur	5 43	...
...	...	Bagari	...	...
19 51	...	{ Bellary* }	5 4	...
20 11	...	...	4 49	...
20 23	...	Cantonment	4 39	...
21 1	...	Kudatani	4 0	...
21 23	...	Daroji	3 36	...
21 37	...	Porangullu	3 24	...
21 58	...	Gadiganur	3 7	...
22 37	...	Rapinaikanahalli	2 35	...
23 17	...	Hospet *	1 50	...
23 35	...	Munirabad	1 21	...
0 33	...	Kopbal	0 30	...
1 9	...	Bhanapur	23 58	...
1 40	...	Bannikopa	23 28	...
2 25	...	Harlapur	22 49	...
3 8	...	Gadag J* (17)	22 6	...
4 8	...	{ Bagalkot } arr.	17 27	...
11 15	...	{ Bijapur }	13 7	...
15 15	...	{ Hotgi J. }	8 40	...
3 30	...	Gadag J*	21 48	...
3 59	...	Halkoti	21 20	...
4 28	...	Annigeri	20 53	...
5 6	...	Dundur	20 7	...
5 51	...	Hubli J* (14)	19 25	...
...	...	{ Harihar } arr.	...	...
...	...	{ Arsikere }	...	...
...	...	{ Bangalore J. }	...	...
...	...	{ Mysore }	...	...
6 36	...	Hubli J*	19 3	...
7 5	...	Amaigol	18 45	...
7 37	...	{ Dharwar }	18 22	...
7 47	...	...	17 57	...
8 19	...	Mugad	17 29	...
8 46	...	Kambarganvi	16 59	...
9 18	...	Alnavar	16 33	...
9 53	...	Tavargatti	16 11	...
10 14	...	Nagargali	15 59	...
10 36	...	Devarayi	15 41	...
11 7	...	Londa J* (14)	15 8	...
13 30	...	{ Belgaum } arr.	12 47	...
18 37	...	{ Miraj J. }	7 17	...
0 18	...	{ Wathar }	2 7	...
5 14	...	{ Poona J. }	20 40	...
14 51	...	Londa J*	11 20	...
15 10	...	Tinaighat	10 58	...
15 35	...	Castle Rock	10 32	...
16 7	...	Dudh Sagar	9 37	...
17 0	...	Collem	8 51	...
17 19	...	Kalay	8 19	...
17 51	...	Sanvordum	7 45	...
18 32	...	Chandor	7 31	...
18 47	...	Margao	7 11	...
19 19	...	Majorda	6 54	...
19 38	...	Cansaulim	6 42	...
19 48	...	Dabolim	6 25	...
19 59	...	Vasco da Gama	6 10	...
...	...	Marmagao Harbour	5 55	...

(16) GUNTAKAL J.—BANGALORE J.—MYSORE. (S.M.R.)

DOWN.			STATIONS.	UP.		
Ord.	Mail.	Ord.		Mail.	Ord.	
...	18 35		Guntakal J* (12,13,15,17)	6 20		
...	19 5		Gulapalayamu	5 57		
...	19 51		Khadarpott	4 52		
...	20 10		Kalluru	4 26		
...	20 38		Garladinne	4 1		
...	21 19		Anantapur	3 26		
...	21 50		Kandapur	2 54		
...	22 31		Dharmavaram J* (5)	2 11		
...	22 39		Dharmavaram J*	2 2		
...	23 16		Nagasamudram	1 34		
...	23 54		Makkajipadi	1 4		
...	0 31		Pennukonda	0 37		
...	1 15		Chakarlapalli	0 3		
...	1 43		Malugur	23 34		
...	2 4		Hindupur	23 11		
...	2 9			23 6		
...	2 48		Dodkurugod	22 34		
...	3 4		Goribidnur*	22 19		
...	3 42		Thondebhavi	21 52		
...	4 19		Maklidrug	21 26		
...	5 5		Dodballapur	20 40		
...	5 35		Rajankunti	20 20		
...	5 55		Yalahanka	20 0		
...	6 48		Yasvantpur	19 36		
...	7 0		Bangalore J* (6, 14)	19 20		
...	7 50	21 45	Bangalore J*	18 48	3 30	
...	8 25	22 21	Kengeri	17 50	5 32	
...	9 16	23 14	Bidadi	16 44	4 25	
...	10 2	0 3	Closepet	15 44	3 24	
...	10 40	0 43	Channapatna	15 1	2 39	
...	11 3	1 6	Mudgere	14 40	2 16	
...	11 51	1 48	Maddur*	14 0	1 35	
...	13 0	2 57	Mandya	13 2	0 34	
...	13 33	3 31	Yeltyur	12 39	0 11	
16 46	14 32	4 32	French Rocks	11 41	23 12	
17 4	14 49	4 52	Seringapatam	8 18	11 18	22 49
17 18	15 2	5 6	Paschimavahini	8 10	11 10	22 40
17 53	15 51	5 55	Mysore*	7 30	10 32	22 0
...	18 10	6 25			10 12	21 32
...	18 52	7 7	Kadakola		9 12	20 32
...	19 12	7 27	Nunjangud		8 40	20 0

(17) GADAG J.—HOTGI J. (S.M.R.)

DOWN.		STATIONS.	UP.	
Mail.			Mail.	
22 30		Gadag J* (15)	21 30	
3 47		Bagalkot	17 27	
4 81			17 15	
7 23		Tolgi	15 15	
7 43			15 0	
10 22		Bijapur	13 7	
11 15			12 52	
15 15		Hotgi J* (13)	8 40	

(17) GUNTAKAL J.—BEZWADA J. (S.M.R.)

DOWN.			STATIONS.	UP.		
Mail.	Ord.			Mail.	Ord.	
18 45	...		Madras	6 0		
19 20	...		Bangalore J.	7 0		
5 4	...		Bellary	19 51		
7 25	...		Guntakal J* (12,13,15,16)	17 10		
7 59	...		Maddikera	16 41		
8 33	...		Taggali	16 6		
9 19	...		Pendekalla	15 22		
9 53	...		Muliyala	14 38		
10 19	...		Kurnool Road*	14 7		
10 38	...			14 2		
11 22	...		Malkapuram	13 26		
11 53	...		Rungapuram	12 55		
12 23	...		Betamcherla	12 21		
13 26	...		Panyam	10 50		
13 59	...		Nandyal*	10 9		
14 20	...			9 48		
15 12	...		Gazulapalli	9 16		
16 37	...		Chelama	8 23		
18 32	...		Diguvametta	7 5		
19 7	...		Giddalur	6 28		
19 53	...		Somidevipalli	5 45		
20 45	...		Cumbum*	4 52		
21 15	...			4 41		
21 55	...		Tarlupadu	4 7		
22 40	...		Markapur Road	3 37		
23 26	...		Gajjalakonda	3 0		
23 59	...		Donakonda	2 32		
0 19	3 30			2 17	21 20	
0 50	4 6		Kurichedu	1 45	20 41	
1 20	4 39		Gundlakamma	1 16	20 5	
1 58	5 25		Vinukonda	0 43	19 25	
2 24	5 55		Savalyapuram	0 16	18 49	
2 57	6 34		Santamagulur	23 48	18 15	
3 46	7 29		Narsaravupet	23 6	17 20	
4 13	8 1		Satulur	22 34	16 36	
4 45	8 40		Phirangipuram	22 4	15 58	
5 11	9 12		Sattenapalle	21 42	15 30	
5 36	9 42			21 13	14 54	
5 55	10 7		Guntur	21 3	14 36	
6 18	10 35		Numbur	20 45	14 12	
6 45	11 9		Mangalagiri	20 19	13 39	
7 4	11 35		Tadepalli	20 3	13 18	
7 32	12 8		Bezwada J* (18, 19, 20)	19 0	12 35	
5 40	...		Secunderabad	18 33		
15 30	...		Rajahmundry	5 35		
18 50	...		Cocanada Port	2 15		
22 18	...		Waltair	21 10		
1 52	...		Vizianagram	18 12		
10 55	...		Berhampur	8 45		
13 8	...		Rambha	6 25		
18 52	...		Barang	0 15		

(18) MADRAS-BEZWADA J. (E.C.R.)

DOWN.			STATIONS.	UP.
—	Ord.	—		
...	...	...	Madras (Rayapuram)	...
...	...	...	Washermanpet	...
...	...	...	Tondaiyarpettai	...
...	...	...	Tangal	...
...	...	...	Tiruvottiyur	...
...	...	...	Eranavur	...
...	...	...	Ennur (11)	...
...	...	...	Minjur	...
...	...	...	Ponneri	...
...	...	...	Kavaraipettai	...
...	...	...	Gummidipundi	...
...	...	...	Elavur	...
...	...	...	Arambakkam	...
...	...	...	Tada	...
...	...	...	Sullurupeta	...
...	...	...	Dhoravari Chattram	...
...	...	...	Nayudupeta	...
18 55	6 30	...	Pedapariya	...
...	...	...	Gudur J. (5)	6 5 10 25
...	...	...	Manobolu	...
20 35	8 0	...	Venkatachellam	...
...	8 15	...	Nellore*	4 50 17 10
...	...	...	Padugupadu	16 55
...	...	...	Kodavaluru	...
...	...	...	Talamanchi	...
...	9 45	...	Allur Road	...
10 5	...	...	Bitragunta	16 30
...	...	...	Kavali	15 10
...	...	...	Tettu	...
...	...	...	Ulavapadu	...
...	...	...	Singarayakonda	...
...	...	...	Tanguturu	...
18 18	...	...	Surareddipalem	...
18 25	...	...	Ongole*	11 55
...	...	...	Karavadi	11 35
...	...	...	Ammanabrolu	...
...	...	...	Chinna Ganjam	...
...	...	...	Vetapaliem	...
...	...	...	Chirala	...
15 46	...	...	Bapatla	9 5
15 51	...	...	Bapatla	8 52
...	...	...	Appikatla	...
...	...	...	Ponnur	...
...	...	...	Tsundurru	...
...	...	...	Tenali	...
...	...	...	Duggirala	...
...	...	...	Peddavadlapudi	...
...	...	...	Kistna Canal	...
18 20	...	...	Bezwada J ² (17, 19, 20)	6 0

The above is the only Time-table available up to the hour of going to press.
Total distance 268 miles.

(19) BEZWADA J.-CALCUTTA (E.C.R.)

DOWN.				STATIONS.	UP.		
...	Mail.	Ord.	...		...	Mail.	Ord.
...	9 20	23 30	...	Bezwada J ² (17, 18, 20)	...	12 0	19 0
...	11 35	2 49	...	Ellore*	...	10 0	16 45
...	13 38	6 14	...	Nidadavolu	...	7 29	13 34
...	14 14	7 10	...	Godavari South	...	6 50	12 35
...	14 35	7 35	...	Steam Ferry	...	6 0	11 45
...	15 25	8 25	...	Godavari North	...	5 40	20 5
...	15 43	8 38	...	Rajahmundry*	...	5 35	20 0
...	17 20	10 32	...	Samalkot J ²	...	3 22	17 55
...	18 35	11 25	...	Cocanada Town	...	2 25	16 42
...	18 50	11 38	...	Cocanada Port	...	2 15	16 33
...	16 33	9 44	...	Cocanada Port	...	4 18	18 50
...	16 42	9 54	...	Cocanada Town	...	4 4	18 35
...	17 37	10 49	...	Samalkot J ²	...	3 7	17 36
...	19 31	13 2	...	Tuni*	...	1 10	15 52
...	20 5	13 47	...	Narasapatam Road	...	0 15	14 59
...	21 27	15 45	...	Anakapalle	...	22 30	13 23
...	22 40	17 18	...	Waltair*	...	21 10	12 10
...	23 0	6 0	...	Vizagapatam	...	20 50	11 50
...	2 8	9 20	...	Vizianagram*	...	18 12	8 56
...	5 10	12 52	...	Chicacole Road	...	14 49	5 0
...	6 5	13 53	...	Parlakimedi Road*	...	14 7	4 5
...	7 55	16 8	...	Palasa	...	12 5	1 47
...	10 5	18 15	...	Ichapur	...	9 55	23 21
...	11 15	19 20	...	Berhampur*	...	8 45	22 20
...	12 11	20 15	...	Chatrapur	...	7 28	21 15
...	13 25	...	...	Rambha	...	6 25	...
...	13 55	...	...	Kallikota	...	5 43	...
...	17 20	...	...	Khurda Road J ²	...	1 52	...
...	6 0	...	...	Delang	...	17 4	...
...	6 32	...	...	Sukhigopal	...	16 33	...
...	7 5	...	...	Puri	...	16 0	...
...	16 0	...	...	Puri	...	7 5	...
...	16 33	...	...	Sukhigopal	...	6 32	...
...	17 4	...	...	Delang	...	6 0	...
...	17 42	...	...	Khurda Road J ²	...	1 30	...
...	18 52	...	...	Barang	...	0 15	...

PASSENGER AND CARGO SERVICE between Cuttack, Chandbally and Calcutta, by the steamers *Hindu* and *Oriya*, which sail from Chandbally to Calcutta, and vice versa.

Steam launches to connect with the sea-going steamers at Chandbally, leave Cuttack every second or third day.

The steamers are fitted with Electric light, and are replete with all the latest improvements.

The rails of the E.C.R. have actually been linked on to those of the Bengal-Nagpore Ry., and passengers will very soon be run alongside the river steamer. This arrangement however will ere long be superseded by through running to the Howrah station, Calcutta.

(2) BEZWADA J.—WADI J. (N.S.R.)

DOWN.			STATIONS.	UP.		
Ord.	Mail.	Ord.		Ord.	Mail.	Ord.
...	...	12 45	Bezwada J* (17, 18 19)	...	8 25	...
...	...	13 16	{ Kondapalli	...	7 55	...
...	...	13 21		...	7 50	...
...	...	13 56	Gangineni	...	7 22	...
...	...	14 21	Yerupalayam	...	6 55	...
...	...	15 0	Madira	...	6 20	...
...	...	15 42	Bona Kalu	...	5 42	...
...	...	16 13	Chinta Kani	...	5 14	...
...	...	16 55	Khammameth	...	4 35	...
...	...	17 36	Papatapalli	...	3 50	...
...	...	17 58	Dornakal J*	...	3 37	...
...	...	20 40	Singareni Branch.	16 35	2 5	...
...	...	21 15		16 0	1 30	...
...	16 0	16 0		...	6 0	...
...	16 35	16 35		...	5 30	...
...	19 45	18 30	Dornakal J*	23 45	3 17	...
...	20 5	18 46	Garla	23 30	3 7	...
...	21 0	19 38	Manukota	22 40	2 24	...
...	21 50	20 19	Kamasamudram	21 55	1 52	...
...	22 35	21 1	Nekonda	21 0	1 17	...
...	23 25	21 50	Chintalapalli	20 5	0 43	...
...	0 40	22 30	Warangal	19 30	0 18	...
...	1 30	23 27	Khasipet J	18 40	23 50	...
...	2 30	0 16	Ghanapur	17 35	22 55	...
...	3 15	1 1	Raghunathpali	16 50	22 26	...
...	3 55	1 30	Jangaon	16 10	22 1	...
...	4 40	2 8	Alir	15 25	21 26	...
...	5 10	2 35	Wangapali	14 45	20 51	...
...	5 35	2 56	Raigir	14 25	20 33	...
...	6 15	3 25	Bhongir	14 5	20 13	...
...	6 50	4 0	Bibinagar	13 20	19 48	...
...	7 40	4 40	Ghatkesar	12 40	19 19	...
...	8 25	5 25	Maula Ali	11 50	18 40	...
...	8 45	5 40	Secunderabad*	11 30	18 30	...
21 15	12 35	6 15	Secunderabad*	17 0	17 55	9 15
21 40	13 5	6 30	{ Hyderabad	16 30	17 40	8 50
21 55	13 45	6 43		15 55	17 25	8 20
23 0	15 0	7 23	Lingampalle	...	...	...
23 25	15 25	...	Nagalapalle	14 50	16 51	7 25
23 55	16 25	7 53	Shankarpalle	13 55	16 21	6 20
0 25	17 5	...	Gollaguda	13 25	...	5 50
1 5	17 50	8 29	{ Vikarabad*	12 40	15 42	5 10
1 15	18 0	8 34		12 30	15 37	5 0
2 5	18 55	9 3	Dharur	11 20	15 4	3 55
3 5	20 0	9 50	Tandur	10 0	14 33	2 52
3 45	21 0	10 17	Navandgi	9 0	13 58	1 40
4 25	22 5	10 42	Seram	8 15	13 33	0 45
5 20	23 25	11 15	Chittapur	7 10	13 2	23 30
5 55	23 55	11 35	Wadi J* (14)	6 30	12 40	22 45
4 30	—	22 0	Poona J	16 15	2 11	7 30
11 15	—	6 0	Bombay	7 45	21 30	23 30

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JEYES' FLUID

RECOGNIZED AS THE BEST AND MOST EFFICIENT DISINFECTANT.



JEYES' POWDER.

Prof. W. FOSTER, M.A., F.G.S., F.I.G., &c., &c.,

Lecturer on Chemistry of Middlesex Hospital,

SAYS:—
 "Jeyes' Sanitary Powder is admirably adapted for use in the sick room, and in all instances where solid putrescible matter requires to be disinfected and rendered inoffensive."

JEYES' SANITARY COMPOUNDS CO., LD.

Head Office—CANNON STREET, LONDON, E.C.

Wholesale Agents at Madras—LEIGHTON & CO.

TABLE OF FARES—First Class.

Note:—First Class fares are at the rate (approximately) of One Anna per mile. Second Class, one-half of First Class. Third Class at 2s, or 2½ Pies per mile.

This Table may be used for comparing the cost of travelling by different routes. For example—Cuddalore to Salem.

Rs. A.	Rs. A.
Guddalore to Katpadi 8 0	Guddalore to Trichinopoly 6 15
Katpadi to Salem ... 8 0	Trichinopoly to Salem ... 7 12
<u>Rs. 16 0</u>	<u>Rs. 14 11</u>

MADRAS.
CHINGLEPUT J.
Cuddalore.
VILLUPURAM J.
Tanjore J.
Negapatam.
Trichinopoly J.
Ammayavakur.
Madura.
Tuticorin.
Pondicherry.

SIR JOHN POWER & SON.

DUBLIN.

DUBLIN POT STILL WHISKEY.

Agents: LEIGHTON & CO., MADRAS.

TABLE OF FARES.

[illegible]

LANSON

PERE ET FILS, RHEIMS.

CHAMPAGNE, EXTRA QUALITY, EXTRA DRY.
Agents: LEIGHTON & Co., MADRAS.

GENERAL INFORMATION.

Madras Time is kept at all stations. To make sure of obtaining tickets, passengers should be at the station 10 minutes before the time of departure named in the time table.

Passengers are booked at intermediate stations only on the condition that on arrival of the train there shall be sufficient room for them.

Tickets must be shown to or given up to the Company's servants whenever demanded.

Sleeping Accommodation is provided, whenever practicable, for first and second-class passengers on Mail trains, but the Railways do not undertake to do so when there is a pressure of traffic.

Reserved Accommodation can generally be obtained by giving 6 hours' notice in Madras and 24 hours' notice at up-country stations.

A Ladies' Compartment, first or second-class, will be reserved without extra charge, on 24 hours' notice being given to the Station-Master.

Spring Stretchers for Invalids travelling first class are provided on the Madras Railway for a small charge, but 48 hours' notice should be given.

Children's Fares.—On all the Railways children under 3 years are carried free; and those above that age and under 12 are charged half fares.

Luggage.—All passengers' luggage is weighed before departure. The following amounts are carried free of charge:—First class, 120 lbs.; Second class, 60 lbs.; Third class, 30 lbs.

Cloak Rooms.—Passengers can leave their luggage, parcels, &c., in the Cloak rooms on payment of two annas for each article.

Return Tickets are only granted for third-class passengers during their festivals, but monthly, quarterly and half-yearly season tickets are available for first and second-class passengers on reduced terms. Cricket, Football, Polo and Golf teams are also booked at special rates.

Refreshments.—Passengers can obtain Breakfast, Dinner, or Tiffin tickets at the Booking Office when commencing their journey. They can also, while *en route*, have their meals ordered in advance by telegraph, free of charge, by the Guard of the train.

Smoking.—Any traveller who, against the wishes of his fellow passengers, smokes in a compartment, not provided for the purpose, is liable to a fine of twenty rupees.

Dogs.—The charge is about 4 annas for 50 miles or less. Passengers are not allowed to take any dog into a compartment without the permission of the Station-Master, and the consent of all the fellow-passengers, and then only on payment of double fare for each dog, and subject to the condition that it shall be removed if subsequently objected to. Cats, Monkeys, Guinea-pigs, &c., come under the same rule.

Horses and Ponies.—24 hours' notice should be given if a Horse-box is required, and the Horse must be at the station at least 45 minutes before the departure of the train. The Horse-keeper is allowed to travel in the Horse-box, free of charge. The Railways will not be liable for a greater value than Rs.500 for each Horse, unless the animal is insured beforehand for the declared value in excess of Rs.500. The rate of insurance is one per cent. per 100 miles or fraction of 100 miles. Return tickets are issued for Race Horses on special terms.

Fees.—All the railways prohibit their servants, under pain of dismissal, from accepting gratuities.

GAZETTEER.

Adoni—(M. R.) A big town with old fortifications; population 22,400. Cotton pressing is carried on here on a large scale, and rugs of brilliant colors, known as Adoni carpets are manufactured in the neighbourhood.

Ambattur—(M. R.) Large laterite quarries near the station. The important temple, at a short distance.

Ambur—(M. R.) Population 10,600. Celebrated for its tanneries. The Palar river runs parallel to the railway.

Ammayanayakanur—(S. I. R.) Station for Kodaikanal, which see. Public Bungalow close to Station, but previous notice of meals required. Good trunk road to the Toppe Bungalow, at foot of ghat, 32 miles by Bullock transit. Thence ponies or chairs to Kodaikanal, 12 miles. Notice of requirements should be sent beforehand to the Transit Agent at Ammayanayakanur.

Anantapur—(S. M. R.) Head-quarters of the Collectorate. Large and picturesque Tank and Muchulota hills in the neighbourhood.

Aroot—(M. R.) The fort and town are 5 miles distance, across the Palar river. Raipet, the head-quarters of the Head Assistant Collector, North Aroot district, is 3 miles, and Walajapet 4 miles, from the station.

Arkonam—Junction of the M. R. and S. I. R. Sleeping accommodation at the station. A rest camp for troops close by. The M. R. Engineering workshops are also here.

Arsikere—(M. S. R.) Station for Hassan, the head-quarters of the district and the future junction with the line through Hassan to Mangalore. The Mysore-Haruballi Gold Mine is about 7 miles distance.

Avadi—(M. R.) Poonamallee (depôt) is about 4 miles, and St. Thomas' Mount about 8 miles distant. Junkies can be generally obtained at the station.

Banavar—(S. M. R.) The nearest station for the Halebid and Belur temples. Also for the Mudigiri and North Coorg Coffee planting districts.

Bangalore Cantonment—(M. R.) A very large Civil and Military Station. Population 100,000. Its climate, which is agreeable all the year round, is delightful from July to October. There are numerous hotels and boarding houses, and it is the head-quarters of the Resident in Mysore.

Bangalore City—Junction of the M. R. and M. S. R. Known as the Petta or native town. It contains the Maharajah's Palace, Public Offices, Museum, Cubbon Park and Lal Bagh, and is the seat of a large Carpet-weaving industry.

Barang—(E. C. R.) About 4 miles south of Cuttack on the Ganjam Road. This station is the base for through booking with Calcutta, arrangements having been completed for opening out Agencies at Cuttack Town, Chandbali and Calcutta till the B. N. Ry. is completed into Calcutta. It is also of some antiquarian interest on account of the ruin of the fortress of Surangar said to have been erected by King Madhab Kesori between 971 and 989 A.D. The remains of the ramparts of this fort which was built of laterite stones and of the surrounding moat still exist.

Belgaum—(S. M. R.) Head-quarters of the Collectorate, and a Military Station under the Madras command.

Bellary—(S. M. R.) Head-quarters of the Collectorate, and a Military Station. Also a large Cotton-pressing centre. The Fort, consisting of three lines of works, two encircling, and one crowning an irregularly shaped granite hill, is a fair sample of Indian fortifications.

Berhampur—(E. C. R.) (Chief city of Bramha). Is the chief town of the District Ganjam and contains a population of 25,653. It is distant by road 664 miles from Madras, 325 miles from Calcutta, and 560 miles from Nagpur in the Central Provinces. The chief industry in the town is weaving of silk and tussar silk cloths, which are usually of excellent quality. Cotton cloths are also woven. The trade of Berhampur in raw products is very considerable. There is a branch of the Bank of Madras here.

Bezwada—Junction of the N. S. R., the E. C. R. and the S. M. R. Situated on the north bank of the Kistna river, across which there is a splendid Aicut, 3,713 feet long. It has a large trade and is the centre of the Kistna Irrigation Canals. Several legends are attached to the place, one of them that here were situated the Eastern and Western Buddhist monasteries spoken of by the Chinese traveller Hwen Tsang. Buddhist remains there certainly are in the neighbourhood, and Amravati, higher up the river, has produced some of the finest Buddhist sculpture in the world, specimens of which are to be found in the Calcutta, Madras and London Museum.

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Bhubaneswar—(E. C. R.) On the Road to Pari, 17 miles from Kharida. There are over a hundred temples in the place, the most famous of these being the great temple of Lingraj Mohadev. Large number of pilgrims come to visit this shrine. Three miles from Bhubaneswar there are two sand stone hills—Khondgiri and Udayagiri—These sand stone hills in Orissa are honey-combed with caves and exhibit what are believed to be the very earliest memorials of Buddhist life.

Bijapur—(S. M. R.) The former capital of the flourishing Kingdom of the Adil Shahs eventually subjugated by Aurangzeb in 1686. It contains the remains of some splendid buildings—the great Gol Gumbaz; the Jumma Masjid; the Mehtar Mahal; the Asar Mahal, etc. Dāk bungalow; tongas and bullock coaches obtainable.

Birur—(M. S. R.) Station for Shimoga, and the famous Gersoppa Falls. Also for the Baba Budan hills.

Bolarum—(N. S. R.) Head-quarters of the Hyderabad Contingent; 5 miles north of Secunderabad.

Bowringpet—(M. R.) Junction for the Kolar Gold Field, which since 1880 has developed into a busy and prosperous Mining centre.

Calicut—The Western Terminus of the Madras Railway, which, however, will probably be continued to Tellicherry and Cannanore. Head-quarters of the Malabar Collectorate. Population 60,000. A Club, two hotels, several Coffee-curing Works, and a Timber depot.

Channarayana—(M. S. R.) Celebrated for its lacquer-ware and toys, also fine steel wire used for musical instruments.

Chidambaram—(S. I. R.) Remarkable for its two large temples, which attract a great number of people during certain festivals.

Chingleput—(S. I. R.) The chief town of the district. The railway passes through the old fort, and there is a large and picturesque tank on the east side.

Chittoor—(S. I. R.) Head-quarters of the Collectorate of North Arcot. The country around here is picturesque.

Coconada—(E. C. R.) Is a municipality and the head-quarters of the District. Contains a branch of the Bank of Madras, European and Native Chambers of Commerce, and is also the centre of trade on the East Coast. Its chief trade is rice, paddy, pulses, castor, gingelly, jaggery, Lanka tobacco. The town is a well-built one with a population of 40,553 as per census of 1891. The East Coast Railway has an extensive Goods Entrepot here.

Coimbatore—(M. R.) Head-quarters of the Collectorate. Population 30,000. There are several Coffee-curing works here, also a large Spinning and Weaving Mill.

Conjeevaram—(S. I. R.) A place celebrated for its temples and religious festivals.

Connur—(M. R.) The famous temples of Damodaraperumal and Agattasewarar are close by.

Cuddalore New Town—(S. I. R.) The ruins of old Fort St. David are on the sea shore.

Cuddalore Old Town—(S. I. R.) Head-quarters of the Collectorate of South Arcot. Locomotive Workshops.

Cuddapah—(M. R.) Head-quarters of the Cuddapah Collectorate. Population 16,400.

Devangiri—(M. S. R.) A large trade is done here in woollen blankets, and in cotton

Dindigul—(S. I. R.) Head-quarters of the Sub-Collector, Madura district. There is a large Tobacco-growing industry in the neighbourhood, and several well-known Cigar makers have their factories here. Tippoo Sultan fort was captured by the British in 1783. A railway from here to Palghat (M. R.) is contemplated.

Dodballapur—(M. S. R.) Station for Nandydroog hill, a pleasant and quiet sanatorium.

Erode—Junction of the M. R. and S. I. R. Sleeping accommodation at the station. The Cauvery river is about 2 miles.

French Rocks—(S. M. R.) The former Cantonment of the French troops in the service of Hyder Ali and Tippoo Sultan.

Gersoppa Falls—These famous water-falls may be reached from Birur station (M. S. R.) through Shimoga and the Kumsli forest, 75 miles. Four days' notice should be given to the Amildar at Birur, to lay the Radari. A good Dāk bungalow at the Falls, but provisions should be taken. There are four distinct falls, which can all be seen from one point. The

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"Rajah", falls direct to a depth of 830 feet. The "Roarer", "Rocket" and "Dame Blanche", descend over the cliff from rock to rock. The best season for seeing them is from November to February. From the Falls to Gersoppa village 18 miles, mostly through forest, but a good road. At the village comfortable boats will be found, which will convey the traveller down the beautiful Gersoppa river, to Honawar on the West Coast. The return journey may be made by coasting steamer to Calicut, or to Marmagao, but as these steamers are uncertain, the traveller may go by murchel from Honawar to Kumpta (12 miles) and by cart or murchel, from there to Carwar (40 miles), whence a coasting steamer is more readily obtainable.

Goa—The capital of Portuguese India, may be reached by Steamer in one hour from Marmagao. Portrait gallery of Governors from the 16th century; tomb of Francis Xavier, and Jesuit Cathedral.

Gooty—(M. R.) The old road to Kurnool and Hyderabad joins the railway here. Dāk bungalow in the town. Sir Thomas Munro's Cenotaph.

Gudiyattam—(M. R.) The town is 3 miles north of the station, and Palmanair is 5 miles beyond. Jatkas and Bullock carts can be obtained.

Gudur—(S. I. R.) The East Coast Railway from Madras to Bezvada, via Nellore will join the S. I. R. at this point.

Guduvancheri—(S. I. R.) There is a very good snipe shooting all round here during the season.

Guntakal—Junction of the M. R. and S. M. R. A rest camp for troops.

Harihar—Junction of the M. S. R. and M. R. Situated on the Tungabhadra which is here the boundary of the Mysore State.

Holalkere—(M. S. R.) Station for Chitaldroog, the head-quarters of the district.

Hyderabad—(N. S. R.) Four miles south of Secunderabad; consists of the City, and Chudderghat, the European quarter. The City is well worth a visit, but a permit should be obtained through the Resident. The old fort of Golconda, 5 miles distant, the Meer Alim Tank, and the Mulkapet race-course should also be seen. Two hotels near the station.

Jalarpet—(M. R.) Junction with the Bangalore branch. Yailagiri hill is on the south of the line.

Kadambatur—(M. R.) The centre of a prospective coal-field. The Arkonam Coal Company, Limited, has obtained the right to prospect over a tract of country which stretches as far as eye can see to the north and the south.

Kadiampatti—(M. R.) Travellers can ride from here to Yercaud, but it is not so convenient as the route from Salem.

Kadur—(M. S. R.) Head-quarters of the district, and nearest station to Chikmagalur and the Coffee Plantations thereabouts.

Kandumangalam—(S. I. R.) The French frontier is near here, and there is a douane at this station.

Katpadi—Junction of the M. R. and S. I. R.

Kodaikanal—This popular sanatorium on the Pulney Hills is 7,000 feet above the sea-level, and has a very dry and bracing climate, and a gravel soil. Highclere hotel, a Club, lake, and fine scenery. The new Government Observatory is being erected here. See Annamayanayakanur.

Kumbakonam—(S. I. R.) A great Brahmin centre, celebrated for its College, and richly endowed temple. The town is one mile distant.

Kuttalam—(S. I. R.) The line crosses the Cauvery river a little to the north of this station.

Maddur—(M. S. R.) Station for the Cauvery Falls. Also for Kollegal in the Coimbatore district.

Madras—One of the pleasantest cities in India. Occupying a long stretch of the coast, it is open to the sea breeze, and has an equable and healthy climate all the year round. It possesses in abundance that great desideratum of modern cities, large open spaces, but the Municipality is in consequence impoverished, and it labours under the disadvantages of defective drainage and badly lighted streets. It possesses many very handsome buildings, viz.: the Post and Telegraph Office, High Court buildings, Central Station, Town Hall, Senate House, and the Connemara Library. But owing to the weathering effect of the sea air upon the plastered walls and houses, and to the persistent use of laterite for road-making, the greatest portion of the City presents a dilapidated and untidy appearance. On the other hand the

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suburbs are picturesque, and delightful places of residence, especially those in the neighbourhood of the beautiful Adyar river, on the south. There is also a grand Marina two miles in length. In matters of sport Madras takes the lead. The Guindy Race Course is 5 miles distant; there is a flourishing Gymkhana Club on the Island, a Cricket Club at Chepak, and a Rowing Club on the Adyar. The country has been regularly hunted for very many years, and the Madras Hunt brings out from England a fresh pack of carefully selected hounds every season. The Hotels leave much to be desired in the way of comfort.

Madura—(S. I. R.) Head-quarters of the Collectorate; famous for its temples and for Tirumalaik's palace. Sleeping accommodation at the station. A Railway from this to Ramnad has been surveyed, and possibly it may some day be extended across Adam's bridge to Ceylon.

Mailpatti—(M. R.) Near here the line crosses the Palai river. The bridge is one of the largest on this Railway.

Malur—(M. R.) Town half mile from station. A good Dāk bungalow close by. Hosur, the Government Remount Depot, is 18 miles distant.

Manantoddy—The capital of North Wynnad, 60 miles from Mysore; cost of cart six rupees. The road passes the famous Mysore Keddahs: good travellers' bungalows. Game of all descriptions en route. 52 miles from Calicut, via Vythery or Tellicherry. Club, Golf links, Public offices, &c.

Mayavaram—(S. I. R.) Junction of the Mayavaram-Mutpet branch with the main line. Dāk bungalow in the town, which is 3 miles from the station.

Mettupalaiyam—(M. R.) The Nilgiri Railway not being yet open for traffic, passengers make the journey to Coonoor, Wellington, Ootacamund or Kotagiri by Tonga. They should write or telegraph beforehand for seats to Brown's Tonga Agency. Hotel near the station.

Morappur—(M. R.) Station for Dharmapuri (population 6,900), 17 miles west. The temple of Ramanathaswaram is on a hill situated 17 miles to the east.

Mysore—(M. S. R.) Capital of the Mysore State, and residence of its Maharaja. The chief places of interest are the Palace in the Fort, the Jagan Mohan Palace, the Summer Palace, and Chamundi hill. There is a good trunk road, originally made by Tipu Sultan, to the Wynnad. See Manantoddy.

Nanjangud—On the right bank of the Kabbani river. The present terminus of the Mysore State Railway. Travellers can proceed to Ootacamund by the Sigur Ghat road. There is a Residency Bungalow near the river. Two railway extensions, one to Gudalur in South-east Wynnad, and the other to Erode J., which would link up the S. I. R. with the S. M. R., are contemplated.

Negapatam—(S. I. R.) Formerly a Dutch Settlement, but now a thriving town, carrying on a considerable trade with Ceylon and the Straits. The Locomotive Workshops of the S. I. R. are here.

Nellikuppam—(S. I. R.) A very large Sugar refining factory belonging to Messrs. Parry & Co. is here.

Nellore—(S. I. R.) Head-quarters of the Collectorate, 12 miles distant from the Coast.

Palghat—(M. R.) Station for the Nelliampatti hills. A large town, population 36,800. Head-quarters of the Head Assistant Collector, Malabar District. A fort built by Tipu Sultan is situated about 2 miles distant. A line from here to Diudigul (S. I. R.) is in contemplation.

Pallavaram—(S. I. R.) A Cantonment for Madras Infantry. The stone used for making concrete blocks for the Madras Harbour is obtained from Pallavaram hill.

Paschimavahini—(M. S. R.) The nearest station to Hunsur (depot of the Amrit Mahal Cattle) and to Mercara, the capital of Coorg.

Patchur—(M. R.) At the foot of the Mysore plateau; very steep gradients between this and Mullalur (2,000 feet above sea level). Kistnagiri is 17 miles to the west.

Perambore—(M. R.) Tickets collected. Locomotive and Carriage Workshops. Red Hills Tank 7 miles by road from station.

Podanur—(M. R.) Junction with the Nilgiri branch. Sleeping accommodation at the station. A rest camp for troops close by.

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Pondicherry—(S. I. R.) The chief town and seat of the Government of the French Settlements in India. It is a clean, pleasant place, but very dull. Several inferior hotels; a pier, light-house, public garden, and statue of Duplex. There are two Cotton Spinning and Weaving Mills, and a large export trade in ground-nut kernels.

Porto Novo—(S. I. R.) The scene of Sir Eyre Coote's victory over Hyder Ali. The Salem iron ores were at one time brought down here and smelted at large works, the remains of which are still visible. A line direct from here to Salem (M. R.) has been surveyed.

Puttur—(M. R.) Station for Karvatnagar.

Puri—(E. C. R.) A branch line runs to Puri from Khurda Road. It is the administrative headquarter of the District (Puri), stands on the sea coast and is a seaport town. It contains the great Hindu temple of Jagannath, which is visited at all seasons of the year by pilgrims from all parts of Hindustan.

Raichur—Junction of the M.R. and G.I.P.R. Population 13,600. The centre of a large Cotton-pressing industry. There is an interesting old fort close by, which was the scene of many a conflict between the Hindus and Mussulmans in the fifteenth and sixteenth centuries.

Rajahmundry—(E. C. R.) (Raja-moha-Indravaram or the town of great King Indra). Is a town of considerable antiquity, situated on the left bank of the Godavari river which is regarded by all Hindus as a peculiarly sacred stream. It is crossed by the East Coast steam ferry. A bridge is, however, in construction which in replacing the ferry will continue the East Coast line without break, and help to develop the traffic.

Royapuram—Close to the Madras Harbour. The Station is now used for the general offices of the Railway, but it was formerly the terminus, and it is temporarily the terminus of the East Coast line.

Renigunta—Junction of the M.R. and S.I.R. The celebrated ancient temple on Tirupati hill is about 7 miles from the station, and the Rajah Mahal and Ram Mahal about 14 miles.

Saidapet—(S.I.R.) Head-quarters of the Chingleput Collectorate. The Government Model Farm and Agricultural College are within half-a-mile of the station.

Salem—(M. R.) Head-quarters of the Collectorate. The station is 4 miles from the town (population 67,000) and 7 miles from the foot of the Shevaroy Hills Ghat. Jutkas can be obtained at the station, but travellers should write to Yercaud (Fairlawns Hotel) for ponies or chairs to be sent to carry them up the Ghat—6 miles.

Secunderabad—(N. S. R.) One of the largest Military Stations in India. Hotel near the station.

Seringapatam—(S. M. R.) The famous city of Tipu Sultan, captured by assault in 1799. The breach dungeons, Wellesley Bridge, Tipu's Tomb, the Dariya Daulat are all well worth visiting.

Sholinghur—(M. R.) Good granite is quarried here, and the Cauveripauk Tank is situated 4 miles to the south-west.

Shoranur—(M. R.) Station for Cochin, Trichur and Quilon. A line of railway to connect the two first mentioned towns with the M. R. has been already surveyed.

St. Thomas' Mount—(S. I. R.) A bridge of Field Artillery is stationed here. Government House, Guindy and the Madras Race Course are in the neighbourhood.

Tadpatri—(M. R.) A Cotton-pressing centre. Dāk bungalow in the town.

Tanjore—(S. I. R.) Head-quarters of the Collectorate. The Palace of the Mabratta Rajahs of Tanjore, and the old Lutheran Church, both in the fort, are worth a visit. The gigantic sacred bull sculptured out of the solid rock should be seen. The branch line from Negapatam joins the main line here. Dāk Bungalow near the station.

Tindivanam—(S. I. R.) Head-quarters of the Sub-Collector of the South Arcot district. The old fort Ginjee is about 18 miles distant.

Tinnevely—(S. I. R.) Head-quarters of the Collectorate; population 25,000. The Church Missionary Society is in great force here. The sanatorium of Kuttalam is 36 miles distant. Two railway extensions are talked of: one northwards to Quilon, and the other in a southerly direction to Trivandrum.

Tirukoilur—(S. I. R.) Several large temples close by. A line from here to Salem has been surveyed.

Tirupattur—(M. R.) Population 16,500. Head-quarters of the Head Assistant Collector, Salem district.

GAZETTEER.

Tiruppur—(M. R.) A Cotton-pressing centre. Avanasby is 5 miles distant.

Tirur—(M. R.) Station for Mallapuram, where a detachment of British Infantry is stationed.

Tiruttani—(M. R.) The picturesque hill to the west of the station is surmounted by the celebrated temple of Coomaraswamy, which attracts a large number of pilgrims.

Tiruvanamalai—(S. I. R.) Very large numbers of natives attend the festivals held at the temple of this place.

Trichinopoly—(S. I. R.) Head-quarters of the Collectorate, and a Military Cantonment; population 80,000. Famous for the manufacture of cigars and silver-ware. Two well-known educational establishments, the S. P. G. College and the Jesuit College of St. Joseph are in the Fort. Also the Trichinopoly Rock, a mass of gneiss 250 feet high. Sleeping accommodation at the station. Branch line to Erode.

Trivellore—(M. R.) The town is 1½ miles to the north. It contains several famous temples. The old fort of Tripassore, built by the East India Company, is about 4 miles distant.

Tumkur—(S. M. R.) Head-quarters of the district. The hill station of Davarayadurga is 9 miles to the east.

Tungabhadra—(M. R.) Close to the river of the same name, which is the southern boundary of the Nizam's dominions.

Vaniyambadi—(M. R.) A great Mahomedan centre, with a considerable trade in oils and skins. Population 15,800.

Vellore—(S. I. R.) Head-quarters of the Sub-Collector of North Arcot. Population 45,000.

Ventimetta—(M. R.) A large and beautiful temple dedicated to Vishnu is situated near her.

Vepagunta—(M. R.) On a peak called Narayanavaram close to the station; bonfires used to be made in the old Company's days for guiding ships to the Madras anchorage.

Villupuram—(S. I. R.) The line from Pondicherry in Katpadi crosses the main line at this station.

Virudupati—(S. I. R.) The centre of a large cotton-growing district.

Vizagapatam—(E. C. R.) Population 35,000. Is a seaport town. South of the backwater rises a hill called the Dolphin's Nose projecting into the bay, from which a very fine view is obtained. North of the backwater is another hill parallel to the Dolphin's Nose, through this hill is a cutting by the East Coast Railway, and upon it stands a Christian Church, a Hindu temple and Musalman Mosque—An unique congeries of men and religions in a happy brotherhood, unknown in any other locality of the same limited area. The town is of some historic importance, having been originally a Dutch settlement and later on an important stronghold of the English on the Coromandel Coast, and there is every hope of its becoming at no distant date a seaport of the first importance.

Vizianagram—(E. C. R.) Has a population of 30,881. There is a military cantonment here, and a regiment of Native Infantry. It is the residence of the Maharajah of Vizianagram. Has a good market with large trade in grain, hides, cloths, cattle, brass, iron, cotton, oil, ghee, leaf platters, precious stones, yarn, &c.

Vythery—In South Wynnad, 32 miles from Calicut, by the Tambacherry ghat. The Sanatorium of Malabar; Club, Jubilee Hall, and Public Offices. Beautiful scenery and climate. Good Shikar. Trunk road to Manantoddy; also to Mysore and Ootacamund.

Wadi—Junction of the G. I. P. R. and N. S. R. A rest-camp for troops near the station.

Waltair—(E. C. R.) The head quarters of the Vizagapatam District and of the East Coast Railway. It has been called the "Indian Brighton," and there is no reason, but the want of public enterprise, that with its very decided advantages, both scenic and climatic, and its easy accessibility, both by sea and rail, that it should not become a popular watering place.

Whitefield—(M. R.) The Eurasian and Anglo-Indian Colony is about 2 miles of the station. Ooscottah 6 miles to the east.

Yellundu—(N. S. R.) Station for the Singareni (Deccan Co.'s) Coal-mines.

DIRECTORY.

Madras Civil Service.

IN COUNCIL—8 Hon. A. T. ARUNDEL AND 6 Hon. H. M. WINTERBOTHAM.

CLASS I.—OVER 31 YEARS. CLASS IV.—13 to 18 YEARS.

1 Grahame, W. F.
2 Starrock, Hon. J.
4 LeFanu, Hon. W. J. H.

CLASS II.—24 YEARS AND OVER.

5 Davies, Hon. Justice.
7 Mackenzie, G. T.
8 Willock, W. A.
9 Moore, Lewis.
10 Nicholson, Hon. F. A.
11 Cox, A. T.
12 Thomson, Hon. James.
13 Stokes, Hon. G.
14 Forbes, Hon. G. S.
15 Benson, Hon. Justice.
16 Tate, W. J.
17 Tremenhore, J. H. A.
18 Rees, Hon. J. D., C.I.E.
19 Thorburn, W. M.
20 Martindale, A. H. T.
21 O'Farrell, H. H.
22 Power, G. F. T.

CLASS III.—19 YEARS AND OVER.

23 Thompson, A.
24 Welsh, W. H.
25 Horsfall, T. M.
26 Higgins, A. W. B.
27 Brodie, V. A.
28 Dumergue, J. W. F.
29 Russell, S.
30 Holmes, W. C.
31 Wolfe-Murray, F. D'A.
32 Hammick, M.
33 Joseph, H. G.
34 Bradley, H.
35 Sim, H. A.
36 Mounsey, C. H.
37 Atkinson, J. N.
38 Weir, C. J.
39 Hamnett, F. H.
40 Mullaly, C. M.
41 Twigg, J.
42 Andrew, J.
43 Stuart, A. E. C.
44 Tate, A. C.
45 Broadfoot, R. D.
46 Moberly, H.
47 Rawson, E. C.

48 Macleod, B.
49 Hewetson, J.
50 Meyer, W. S.
51 Dance, G. W.
52 Stuart, H. A.
53 Cardew, A. G.
54 Bell, M. D.
55 Mardoch, D. D.
56 Horne, W. O.
57 Shipley, E. H.
58 Miller, L. O.
59 Elwin, E. A.
60 Houghton, B.
61 Morris, R.
62 Clegg, R. B.
63 Wynch, L. M.
64 Pinhey, A. F.
65 Taylor, H. D.
66 Carr, R. C. C.
67 Butterworth, A.
68 Campbell, R. H.
69 Cowie, D. W. G.
70 Cobb, H. V.
71 Walker, J.

CLASS V.—UNDER 12 YEARS.

72 Brodie, N. S.
73 Harding, H. O. D.
74 Munro, J. H.
75 Scott, F.
76 Partridge, J. G. D.
77 Batten, J. K.
78 Michael, W. H.
79 Elphinstone, G. W.
80 Vaughan, E. L.
81 Buckley, L. E.
82 Cumming, J. A.
83 Bosanquet, O. F.
84 Forbes, A. T.
85 Davidson, L.
86 Ayling, W. B.
87 Parsons, F. C.
88 Gillman, H. F. W.
89 Jardine, W. E.
90 Slight, A. M.
91 Robertson, J. H.
92 Bedford, J. P.
93 Dutt, A. C.
94 Venugopal Chetti, V.
95 Elwin, E. B.
96 Spencer, C. G.
97 Francis, W.
98 Todhunter, C. G.
99 Phillips, W. W.
100 Rice, P. S. P.

101 Oldfield, F. D.
102 Murphy, M. J.
103 Grimley, R. F.
104 Knapp, A. R.
105 Stocock, F. E. A.
106 Graham, R. A.
107 Hannay, A. L.
108 Thornton, E. L. R.
109 Cumming, A. R.
110 Moore, L. G.
111 Ghose, M.
112 MacIvor, S. W. G. I.
113 Young, M.
114 Hughes, J. W.
115 Cotton, J. J.
116 Gillespie, J. T.
117 Couchman, M. E.
118 Lye, W.
119 Marjoribanks, N. E.
120 Vibert, A. L.
121 Harris, L. T.
122 Roberts, S. G.
123 Macmichael, N.
124 Austin, R. F.
125 Burn, J. G.
126 Lloyd, E. S.
127 Thompson, A.
128 Edgington, A.
129 Coleridge, F. A.
130 Dadachanji, P. K.
131 Bryant, J. F.
132 Wood, R. B.
133 Booty, P. A.
134 Bauerji, A. R.
135 Ashe, R. W. D'E.
136 Heaney, J. S.
137 Turing, J. M.
138 Campbell, A. Y. G.
139 Wallace, E. H.
140 Stokes, H. G.
141 Braidwood, H. L.
142 Holland, R. E.
143 Waller, D. G.
144 Legh, E. W.
145 Johnson, C. T. H.
146 Moore, P. I.
147 Paddison, G. F.
148 Smith, B. C.
149 Loftus-Tottenham, A. R.
150 Moscardi, A. F. G.
151 Innes, C. A.
152 Richards, F. J.
153 Hemingway, F. R.
154 Evans, J. B.
155 Vernon, H. A. B.
156 Cotton, C. W. E.

DIRECTORY.

Madras Police.

Agar, A. P., Supt., Actg. Comr., Madras.
 Arbuthnot, L. G., Dy. Insp., N. Range.
 Armitage, F., Asst. Supt., Vizagapatam.
 Baxshawe, F. T. *On leave.*
 Baudry, G. E., Supt., Madras.
 Bidie, C. L., Supt., Trichinopoly.
 Boyd, J. E. E. A., Supt. *On leave.*
 Cardozo, F. B. M., Asst. Supt., Palghat.
 Carmichael, C. D. J., Supt., Vizagapatam.
 Carr, F. E. C., *Seconded.*
 Clark, A., Asst. Supt., Erode.
 Clogatoun, C. G. W., Supt., Bellary. [Nilgiris.
 David, I. E., Asst. Supt., Coimbatore.
 Dene, F. A., Asst. Supt., Palamcottah.
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Gadsden, E. H., Central Jail, Coimbatore.	Upshon, S. W., District Jail, Tanjore.
Gainsford, G., District Jail, Cuddalore.	Young, J. E., <i>On leave</i> .

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Comdt.... Lt.-Col. F. L. Jones.
Adj.... Lieut. H. C. Oakes.

Q. O. SADDERS AND MINERS, Bangalore.

Comdt.... Lt. Col. S. Grant.
Adj.... Capt. T. Fraser.

ARMY LIST.

MADRAS INFANTRY.

1ST PIONEERS, Bangalore.

Comdt.... Maj. E. C. W. Mackenzie Kennedy.
Adj.... Lt. G. A. Hawks.

2ND REGT., Vizianagram.

Comdt.... Lt.-Col. G. H. Juxon-Jones.
Adj.... H. B. Hopwood.

3RD L. I., Secunderabad.

Comdt.... Lt.-Col. R. K. Teversham, D.S.O.
Adj.... Lieut. W. C. Nicholson.

4TH PIONEERS, Ootacamund.

Comdt.... Major G. B. Stevens.
Adj.... Lieut. C. R. Scott-Elliot.

5TH REGT., Nougong.

Comdt.... Lt.-Col. R. F. Clothier.
Adj.... Lieut. A. H. Butler.

6TH REGT., Jhansi.

Comdt.... Major G. J. Shaw.
Adj.... Lieut. ———.

7TH REGT., Kamptee.

Comdt.... Major D. S. Lewis.
Adj.... Lieut. A. J. Ralph.

8TH REGT., Barrackpore.

Comdt.... Major H. D. McIntyre.
Adj.... Capt. L. W. Y. Campbell.

9TH REGT., Bellary.

ARMY LIST.

VOLUNTEER CORPS.

MADRAS.

Madras Artillery Volunteers.

"The Duke's Own."

Comdt. ... Maj. A. G. Norton-Knight.
(Attached to the M. V. G.)
Enrolled 145. Eff. 144.

Madras Volunteer Guards.

Hony. Colonel Sir Arthur Havelock.
Comdt. ... Lt.-Col. D. D. Pryce.
Adj. ... Lieut. G. L. P. Clarke.
One Mounted Company and one Cadet
Company.
Enrolled 680. Eff. 650.

Madras Railway Volunteers.

Hony. Colonel L. S. Moss.
Comdt. ... Lt.-Col. C. E. Phipps, A.D.C.
Adj. ... Capt. A. G. F. Day.
Enrolled 952. Eff. 939.

BANGALORE.

Bangalore Rifle Volunteers.

Hony. Colonel Col. D. Robertson.
Comdt. ... Maj. G. L. Chambers.
Adj. ... Capt. F. Bruce.
Enrolled 754. Eff. 752.

OOTACAMUND.

Nilgiri Volunteer Rifles.

Hony. Colonel Sir Arthur Havelock.
Comdt. ... Lt.-Col. G. H. A. Tremmenheere.
Adj. ... Major C. J. W. Grant, V.C.
Enrolled 467. Eff. 462.

NEGAPATAM.

South Indian Railway Volunteer Rifles.

Hony. Colonel Lt.-Col. C. E. Crighton.
Comdt. ... Lt.-Col. G. S. Bruce.
Adj. ... Lieut. J. S. Dallas.
Enrolled 761. Eff. 658.

MERCARA.

Coorg and Mysore Rifles.

Hony. Colonel Col. D. Robertson.
Comdt. ... Major J. Logan.
Adj. ... Lieut. H. M. Martin.
Enrolled 242. Eff. 194.

VIZAGAPATAM.

East Coast Rifle Volunteers.

Comdt. ... Lt.-Col. W. O. Horne.
Adj. ... Lieut. A. R. Nethersole.
Enrolled 551. Eff. 543.

BELLARY.

Bellary Volunteer Rifles.

Comdt. ... ———
Adj. ... ———
Enrolled 48. Eff. 48.

CALICUT.

Malabar Volunteer Rifles.

Comdt. ... Lt.-Col. A. W. Macrae.
Adj. ... Capt. J. Kendall.
Enrolled 658. Eff. 581.

YERCAUD.

Yercaud Rifle Volunteers.

Comdt. ... Capt. R. W. B. Gompertz.
Adj. ... ———
Enrolled 44. Eff. 36.

HUBLI.

Southern Mahratta Railway Rifles.

Hony. Colonel Major J. Burn Murdoch, R.E.
Comdt. ... Lt.-Col. L. E. Broc.
Adj. ... Capt. H. C. Johnstone.
Enrolled 729. Eff. 713.

AGENCY.

COMMISSIONS (EITHER TRIVIAL OR IMPORTANT) ATTENDED TO.

PASSAGES ENGAGED TO ANY PART OF THE
WORLD, FREE OF CHARGE.

OCCASIONAL CHEAP STEAMERS AVAILABLE
TO ENGLAND AND THE CONTINENT.

PASSENGERS MET AND THEIR BAGGAGE LANDED, CLEARED,
STORED, OR FORWARDED.

Packages received, stored, or forwarded to
any part of the world.

INSURANCES (MARINE, FIRE, AND
LIFE) EFFECTED.

PAY, PENSIONS AND ALLOWANCES
REALISED.

Securities bought and sold, and
held in safe custody.

Patents taken out in India, Ceylon,
England and America.

LEIGHTON & CO., MADRAS.

NOTICE

TO THE

HOMeward BOUND.

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### SEASON 1898.

As the Homeward-bound P. & O. Steamers from Calcutta will not call at Madras during the ensuing season, and the Clan Steamers no longer carry passengers, there will be fewer opportunities than usual of getting home. It is, therefore, very important for those who intend taking leave to Europe to secure their passages *as early as possible*.

**LEIGHTON & CO.,**

PASSAGE AGENTS, MADRAS.

### LIST OF SAILINGS HOMEWARDS, 1898.

ABOUT FROM MADRAS.

|               |             |           |               |             |           |
|---------------|-------------|-----------|---------------|-------------|-----------|
| 21st Jan. ... | R. I. ...   | Mombassa. | 4th Mar. ...  | B. I. ...   | Golconda. |
| 21st " ...    | Messageries | Dupleix.  | 14th " ...    | Messageries | Dupleix.  |
| 4th Feb. ...  | B. I. ...   | Reva.     | 18th " ...    | B. I. ...   | Matiana.  |
| 14th " ...    | Messageries | Dupleix.  | 1st April ... | "           | Manora.   |
| 18th " ...    | B. I. ...   | Goorkha.  | 7th " ...     | Messageries | Dupleix.  |

ABOUT FROM BOMBAY.

|              |                  |               |               |                  |               |
|--------------|------------------|---------------|---------------|------------------|---------------|
| 1st Jan. ... | Austrian Lloyds  | Imperatriz.   | 18th Feb. ... | P. & O. ...      | Shannon.      |
| 5th " ...    | Florio Rubattino | R. Rubattino. | 25th " ...    | "                | Peninsular.   |
| 7th " ...    | P. & O. ...      | Clyde.        | 1st Mar. ...  | Austrian Lloyds  | Imperatriz.   |
| 14th " ...   | "                | Arabia.       | 2nd " ...     | Florio Rubattino | Singapore.    |
| 14th " ...   | Anchor           | Algeria.      | 4th " ...     | P. & O. ...      | Clyde.        |
| 21st " ...   | P. & O. ...      | Shannon.      | 11th " ...    | "                | Egypt.        |
| 1st Feb. ... | Austrian Lloyds  | Imperator.    | 18th " ...    | "                | Carthage.     |
| 2nd " ...    | Florio Rubattino | D. Balduino.  | 25th " ...    | "                | Arabia.       |
| 3rd " ...    | Anchor           | Nubia.        | 30th " ...    | Florio Rubattino | R. Rubattino. |
| 4th " ...    | P. & O. ...      | Clyde.        | 1st April ... | Austrian Lloyds  | Imperator.    |
| 11th " ...   | "                | Egypt.        | 1st " ...     | P. & O. ...      | Caledonia.    |
|              |                  |               | 8th " ...     | "                | Carthage.     |

ABOUT FROM COLOMBO.

|              |               |                |               |               |                |
|--------------|---------------|----------------|---------------|---------------|----------------|
| 7th Jan. ... | Japan Mail    | Sanuki Maru    | 4th Mar. ...  | Japan Mail    | Kamakura Maru. |
| 11th " ...   | Orient        | Ophir.         | 8th " ...     | Orient        | Cuzco.         |
| 12th " ...   | Bibby         | Derbyshire.    | 10th " ...    | North German. | Sachsen.       |
| 13th " ...   | North German. | Prinz Heinrich | 16th " ...    | Bibby         | Shropshire.    |
| 20th " ...   | "             | Bremen.        | 16th " ...    | North German. | Barbarossa.    |
| 25th " ...   | Orient        | Orotava.       | 18th " ...    | Japan Mail    | Tosa Maru.     |
| 2nd Feb. ... | Bibby         | Lancashire.    | 22nd " ...    | Orient        | Oruba.         |
| 4th " ...    | Japan Mail    | Hakata Maru    | "             | "             | Ormuz.         |
| 8th " ...    | Orient        | Orizaba.       | 5th April ... | Bibby         | Staffordshire. |
| 10th " ...   | North German. | Preussen.      | 6th " ...     | North German. | Bayern.        |
| 16th " ...   | "             | Konigin Luise. | 7th " ...     | "             | Prinz Regt.    |
| 18th " ...   | Japan Mail    | Inaba Maru.    | 13th " ...    | "             | Luitpold.      |
| 22nd " ...   | Orient        | Oroya.         | 19th " ...    | Orient        | Orntah.        |
| 23rd " ...   | Bibby         | Cheshire.      | 27th " ...    | Bibby         | Derbyshire.    |
|              |               |                | 3rd May ...   | Orient        | Austral.       |

**LEIGHTON & CO., PASSAGE AGENTS, MADRAS.**

## HOMEWARD BOUND.

| To              | Steamer Fares.                             | SINGLE.    |            | 6 MONTHS RETURN. |            |
|-----------------|--------------------------------------------|------------|------------|------------------|------------|
|                 |                                            | 1st Class. | 2nd Class. | 1st Class.       | 2nd Class. |
|                 |                                            | Rs.        | Rs.        | Rs.              | Rs.        |
| London          | By P. & O., embarking at Bombay            | 750        | 425        | 1,200            | 750        |
|                 | British India, embarking at Madras         | 625        | 375        | 1,150            | 725        |
|                 | Orient Line, embarking at Colombo          | 725        | 400        | 1,200            | 750        |
|                 | (All of the above named call at Plymouth.) |            |            |                  |            |
|                 | City Line, embarking at Colombo            | 575        |            | 1,100            |            |
| Southampton     | Bibby Line, do. do.                        | 575        |            | 1,100            |            |
|                 | Norddeutscher, embarking at Colombo        | 625        | 400        | 1,130            | 720        |
| Liverpool       | Anchor or Hall Line, embarking at Bombay.  | 600        |            | 1,100            |            |
|                 | Norddeutscher Lloyd                        | 625        | 400        | 1,130            | 720        |
| Marseilles      | P. and O., embarking at Bombay             | 700        | 375        | 1,100            | 650        |
|                 | Messageries, at Madras or Pondicherry      | 700        | 400        | 1,100            | 730        |
|                 | Bibby Line, embarking at Colombo           | 525        |            | 1,000            |            |
| Genoa           | Florio-Rubattino, embarking at Bombay      | 550        | 325        | 900              | 612        |
|                 | Norddeutscher, embarking at Colombo        | 575        | 350        | 1,050            | 635        |
|                 | P. and O., changing steamers at Ismailia   |            |            |                  |            |
| Naples          | British India, embarking at Madras         | 575        | 325        | 1,050            | 625        |
|                 | Orient Line, embarking at Colombo          | 675        | 350        | 1,100            | 650        |
|                 | Norddeutscher Lloyd, do. do.               | 575        | 350        | 1,050            | 635        |
|                 | Florio-Rubattino, embarking at Bombay      | 550        | 325        | 900              | 612        |
| Brindisi        | P. and O., embarking at Bombay             | 700        | 375        | 1,100            | 650        |
|                 | Austrian Lloyd's, embarking at Bombay      | 600        | 375        | 980              | 575        |
|                 | Florio-Rubattino, changing at Alexandria   | 550        | 325        | 900              | 612        |
| Venice          | P. and O., embarking at Bombay             | 700        | 375        | 1,100            | 650        |
|                 | Austrian Lloyd's, embarking at Bombay      | 600        | 375        | 980              | 575        |
|                 | Florio-Rubattino, changing at Alexandria   | 550        | 350        | 900              | 612        |
| Trieste         | Austrian Lloyd's, embarking at Bombay      | 600        | 375        | 980              | 575        |
| Constantinople. | Austrian Lloyd's, embarking at Bombay      | 672        | 400        |                  |            |
| Gibraltar       | P. and O., embarking at Bombay             | 700        | 375        | 1,100            | 650        |
|                 | Orient Line, embarking at Colombo          | 675        | 350        | 1,100            | 650        |
| Malta           | P. and O., embarking at Bombay             | 700        | 375        | 1,100            | 650        |
|                 | City Line, embarking at Colombo            | 450        |            |                  |            |
| Alexandria      | Florio-Rubattino, embarking at Bombay      | 400        | 250        | 700              | 400        |
|                 | P. and O. or Orient Line                   | 625        | 345        | 938              | 518        |
| Port Said       | Messageries, at Madras or Pondicherry      | 630        | 420        |                  |            |
|                 | British India, embarking at Madras         | 550        | 310        | 880              | 496        |
|                 | Florio-Rubattino, embarking at Bombay      | 380        | 240        |                  |            |
|                 | Austrian Lloyd's, do. do.                  | 444        |            | 744              | 510        |

LEIGHTON &amp; CO., PASSAGE AGENTS, MADRAS.

## HOMEWARD BOUND.

| From            | Single Railway Fares to London.                                     | 1st Class. | 2nd Class. |
|-----------------|---------------------------------------------------------------------|------------|------------|
|                 |                                                                     | Rs.        | Rs.        |
| Marseilles      | Via Paris, Calais, and Dover; or Paris, Boulogne and Folkestone.    | 108        | 73         |
|                 | Paris, Newhaven, and Dieppe                                         | 88         | 61         |
|                 | Paris, St. Malo, Jersey, Guernsey, and Southampton                  | 121        | 82         |
|                 | Nice, Genoa, Turin, Paris, Calais and Dover                         | 146        | 101        |
|                 | Nice, Genoa, St. Gothard, Metz, Brussels and Harwich                | 136        | 94         |
| Genoa           | Via Turin, Paris, Calais, and Dover                                 | 126        | 87         |
|                 | Milan, Como, St. Gothard, Lucerne, Calais and Dover                 | 124        | 95         |
|                 | Milan, Como, St. Gothard, Lucerne, Paris and Calais                 | 135        | 95         |
|                 | Milan, St. Gothard, Lucerne, the Rhine, Brussels and Ostend         | 141        | 103        |
|                 | Milan, the Splügen Pass, Zurich, Bale, Paris and Calais             | 144        | 105        |
| Naples          | Mentone, Nice, Cannes, Marseilles, Paris and Calais                 | 149        | 105        |
|                 | Via Rome, Pisa, Genoa, Turin, Paris, Calais and Dover               | 190        | 132        |
|                 | Rome, Pisa, Florence, Genoa, Turin, Paris and Calais                | 195        | 136        |
|                 | Rome, Florence, Bologna, Venice, Milan, Paris and Calais            | 221        | 154        |
|                 | Rome, Florence, Genoa, Nice, Marseilles, Paris and Calais           | 219        | 151        |
| Brindisi        | Rome, Florence, Milan, St. Gothard, Bale, Paris and Calais          | 201        | 140        |
|                 | Rome, Florence, Milan, St. Gothard, Bale, Laon and Calais           | 200        | 141        |
|                 | Rome, Florence, Venice, St. Gothard, Bale, Paris and Calais         | 219        | 152        |
|                 | Rome, Florence, Venice, St. Gothard, the Rhine, Brussels and Ostend | 207        | 139        |
|                 | Via The Mail route                                                  | 200        | 140        |
| Venice          | Naples, Rome, Genoa, Turin, Paris and Calais                        | 240        | 170        |
|                 | Naples, Rome, Florence, Venice, Turin, Paris and Calais             | 254        | 177        |
|                 | Naples, Rome, Florence, Genoa, Nice, Marseilles, and Paris          | 251        | 174        |
|                 | Naples, Rome, Florence, Milan, Bale, Paris and Calais               | 233        | 163        |
|                 | Naples, Rome, Florence, Venice, Bale, Paris and Calais              | 251        | 176        |
| Trieste         | Naples, Rome, Florence, the Rhine, Brussels and Ostend              | 240        | 172        |
|                 | Milan, St. Gothard, Lucerne (or Zurich), Laon and Calais            | 206        | 145        |
|                 | Milan, St. Gothard, Lucerne, Bale, Paris and Calais                 | 223        | 156        |
|                 | Milan, St. Gothard, Lucerne, the Rhine, Brussels and Ostend         | 240        | 172        |
|                 | Milan, the Splügen Pass, Zurich, Bale, Paris and Calais             | 214        | 155        |
| Constantinople. | Via Milan, Turin, Paris, Calais and Dover                           | 147        | 102        |
|                 | Milan, St. Gothard, Lucerne, Bale, Laon and Calais                  | 144        | 102        |
|                 | Milan, St. Gothard, Lucerne, Bale, Paris and Calais                 | 144        | 100        |
|                 | Milan, the Splügen Pass, Bale, Paris and Calais                     | 152        | 118        |
|                 | Milan, Lucerne, the Rhine, Brussels and Ostend                      | 151        | 110        |
| Gibraltar       | Verona, Munich, the Rhine, Brussels and Ostend                      | 153        | 113        |
|                 | Verona, Munich, Nuremberg, the Rhine, Brussels and Ostend           | 165        | 120        |
|                 | Pontebba, Vienna, Munich, the Rhine, Brussels and Ostend            | 182        | 132        |
|                 | Vienna, Dresden, Berlin, Hanover, Brussels and Ostend               | 207        | 148        |
|                 | Via Venice, Milan, Turin, Paris, Calais and Dover                   | 167        | 116        |
| Malta           | Venice, Milan, St. Gothard, Bale, Paris and Calais                  | 164        | 114        |
|                 | Venice, Milan, St. Gothard, Bale, Laon and Calais                   | 164        | 116        |
|                 | Venice, Lucerne, the Rhine, Brussels and Calais                     | 171        | 124        |
|                 | Vienna, Dresden, Berlin, Hanover, Brussels and Ostend               | 199        | 145        |
|                 | Via Pesh, Vienna, Paris, Calais and Dover                           | 272        | 196        |
| Port Said       | Belgrade, Leipsic, Hanover and Harwich                              | 235        | 169        |
|                 | Messageries to Marseilles, Paris, Calais and Dover                  | 202        |            |
|                 | Via Madrid, Barcelona, Paris, Calais and Dover                      |            |            |
|                 | Madrid, Bayonne, Bordeaux, Paris and Calais                         |            |            |
|                 | Via Marseilles, Paris, Calais and Dover                             |            |            |

N.B.—The route via Brussels, Antwerp, and Harwich is cheaper than that via Brussels, Ostend and Dover, by Rs.15 for 1st and Rs.13 for 2nd class.

LEIGHTON &amp; CO., PASSAGE AGENTS, MADRAS.

TO CATCH A CORRESPONDENT.

OUTWARD BOUND BY ANY OF THE FOLLOWING LINES.

| OUTWARD BOUND |                   | A letter should be posted by the Homeward Mail which leaves Bombay not later than |              |
|---------------|-------------------|-----------------------------------------------------------------------------------|--------------|
| At            |                   |                                                                                   |              |
| Gibraltar     | P. & O. or Orient | fourteen days before the date of sailing from London.                             |              |
| Malta         | P. & O.           | nine days before the date of sailing from London.                                 |              |
| Marseilles    | P. & O. or Orient | twenty days before the date of sailing from Marseilles.                           |              |
|               | Orient            | eight days before the date of sailing from London.                                |              |
| Naples        | B. I.             | seven                                                                             | Southampton. |
|               | Norddeutscher...  | "                                                                                 | "            |
| Brindisi      | P. & O.           | six days before the date of sailing from London.                                  |              |
|               | "                 | sixteen days before the date of sailing from Brindisi.                            |              |
| Venice        | P. & O.           | eighteen days before the date of sailing from Venice.                             |              |
|               | P. & O. or Orient | the day after the date of sailing from London.                                    |              |
| Port Said     | B. I.             | the day before                                                                    | Southampton. |
|               | Norddeutscher...  | two days after                                                                    | "            |
|               | P. & O. or Orient | two days after the date of sailing from London.                                   |              |
| Ismailia      | B. I.             | the same day as                                                                   | Southampton. |
|               | Norddeutscher...  | three days after                                                                  | "            |
|               | P. & O. or Orient | eleven days after the date of sailing from London.                                |              |
| Aden          | B. I.             | twelve days                                                                       | "            |
|               | Norddeutscher...  | A fortnight                                                                       | Southampton. |
|               |                   | A letter should be posted at Madras not later than                                |              |
| Colombo       | P. & O. or Orient | twenty-three days after the date of sailing from London                           |              |
|               | B. I.             | twenty-five                                                                       | Southampton. |
|               | Norddeutscher...  | twenty-five                                                                       | "            |

N.B.—The above are calculated for the period of the South-West Monsoon. At other times two days extra may be allowed.

LEIGHTON & CO., PASSAGE AGENTS, MADRAS.

## HOMEWARD BOUND.

## Peninsular &amp; Oriental Steam Navigation Co.

## DEPARTURES FROM COLOMBO.

| Steamers. | Date.       | Steamers. | Date.         |
|-----------|-------------|-----------|---------------|
| A Steamer | 6th Jan. A. | A Steamer | 3rd March. A. |
| "         | 9th " C.    | "         | 13th " C.     |
| "         | 20th " A.   | "         | 17th " A.     |
| "         | 30th " C.   | "         | 27th " C.     |
| "         | 3rd Feb. A. | "         | 31st " A.     |
| "         | 13th " C.   | "         | 10th April C. |
| "         | 17th " A.   | "         | 14th " A.     |
| "         | 27th " C.   | "         | 24th " C.     |

A. from Australia.

C. from Calcutta.

## DEPARTURES FROM BOMBAY.

| Steamers.  | Tons. | Commanders.   | Date.        |
|------------|-------|---------------|--------------|
| Clyde      | 4,099 | C. T. Denny   | 7th Jan. †   |
| Arabia     | 7,908 | J. L. Parfitt | 14th " M.L.  |
| Shannon    | 4,362 | F. Cole       | 21st " †     |
| Caledonia  | 7,558 | E. H. Gordon  | 28th " M.L.  |
| Clyde      | 4,099 | C. T. Denny   | 4th Feb. †   |
| Shannon    | 4,362 | F. Cole       | 11th " M.L.  |
| Egypt      | 7,912 | G. Langbourne | 18th " †     |
| Peninsular | 5,287 | W. A. Wheeler | 25th " M.L.  |
| Clyde      | 4,099 | C. T. Denny   | 4th Mar. †   |
| Egypt      | 7,912 | G. Langbourne | 11th " M.L.  |
| Carthage   | 5,287 | C. Gadd       | 18th " †     |
| Arabia     | 7,908 | J. L. Parfitt | 25th " M.L.  |
| Caledonia  | 7,558 | E. H. Gordon  | 1st April †  |
| Carthage   | 5,287 | C. Gadd       | 8th " M.L.   |
| Clyde      | 4,099 | C. T. Denny   | 15th " †     |
| Caledonia  | 7,558 | E. H. Gordon  | 22nd " M.L.  |
| Shannon    | 4,362 | F. Cole       | 29th " †     |
| Peninsular | 5,287 | W. A. Wheeler | 6th May M.L. |
| Clyde      | 4,099 | C. T. Denny   | 13th " †     |
| Egypt      | 7,912 | G. Langbourne | 20th " M.L.  |
| Shannon    | 4,362 | F. Cole       | 27th " †     |

The Steamers marked M.L. proceed to MARSEILLES, PLYMOUTH and LONDON.

The Steamers marked † proceed to ADEN only, and passengers tranship there to a Steamer for MARSEILLES, PLYMOUTH and LONDON.

Passengers for BRINDISI must always tranship at PORT SAID.

**Free Railway Tickets** from Madras to Bombay are issued to Passengers and Native servants for whom passages are engaged. But these tickets must be obtained before commencing the journey from Madras, otherwise the concession will not be allowed. Tickets are also issued by the Southern Mahratta Railway from Bangalore City only.

Coupons for the return journey must be obtained in London.

**Passage-Tickets** are issued to London via Japan and Vancouver

LEIGHTON & CO., PASSAGE AGENTS, MADRAS.

HOMEWARD BOUND.  
ORIENT LINE.

## SAILING FROM COLOMBO.

**HOMEWARDS.**—For London, calling at Port Said, Naples, Marseilles, Gibraltar and Plymouth.

| Steamers. | Tons. | H. P.  | About         |
|-----------|-------|--------|---------------|
| Ophir     | 6910  | 10,000 | 12th January. |
| Orotava   | 5552  | 7,000  | 26th "        |
| Orisaba   | 6077  | 7,000  | 9th February. |
| Oroya     | 6067  | 7,000  | 23rd "        |
| Cuzco     | 3918  | 4,000  | 9th March.    |
| Oruba     | 5552  | 7,000  | 23rd "        |
| Ormus     | 6031  | 8,500  | 6th April.    |
| Orurah    | ...   | ...    | 20th "        |
| Orurah    | 5524  | 7,000  | 4th May.      |
| Austral   | 6910  | 10,000 | 18th "        |
| Ophir     | 5552  | 7,000  | 1st June.     |
| Orotava   | 6077  | 7,000  | 15th "        |
| Orizaba   | 6057  | 7,000  | 29th "        |
| Oroya     | ...   | ...    | ...           |

**AUSTRALWARDS.**—Calling at Albany, Adelaide, Melbourne, and Sydney, with transhipment to Tasmania, New Zealand, Queensland or Fiji.

| Steamers. | Tons. | H. P.  | About.         |
|-----------|-------|--------|----------------|
| Oroya     | 6057  | 7,000  | 2nd January.   |
| Cuzco     | 3918  | 4,000  | 16th "         |
| Oruba     | 5552  | 7,000  | 30th "         |
| Ormus     | 6031  | 8,500  | 13th February. |
| Orurah    | ...   | ...    | 27th "         |
| Orurah    | 5524  | 7,000  | 13th March.    |
| Austral   | 6910  | 10,000 | 27th "         |
| Ophir     | 5552  | 7,000  | 10th April.    |
| Orotava   | 6077  | 7,000  | 24th "         |
| Orizaba   | 6057  | 7,000  | 8th May.       |
| Oroya     | 3918  | 4,000  | 22nd "         |
| Cuzco     | 5552  | 7,000  | 5th June.      |
| Oruba     | 6031  | 8,500  | 19th "         |
| Ormus     | ...   | ...    | ...            |

**FREE PASSAGES** from Madras to Colombo are granted by the undersigned to passengers booking to any Australasian port, and attention is directed to the accelerated and convenient Mail Service to Colombo, via Trichinopoly and Tuticorin.

For further particulars and plans of the steamers, apply to

**LEIGHTON & CO., MADRAS.**

# **HOMEWARD BOUND.** **MESSAGERIES MARITIMES.** **PROGRAMME FOR 1899.**

| MADRAS—MARSEILLES. |              |                 |                    |               |              | BOMBAY—MARSEILLES. |                    |               |              |                 |                    |
|--------------------|--------------|-----------------|--------------------|---------------|--------------|--------------------|--------------------|---------------|--------------|-----------------|--------------------|
| Leave Madras.      | Leave Pondy. | Arrive Colombo. | Arrive Marseilles. | Leave Madras. | Leave Pondy. | Arrive Colombo.    | Arrive Marseilles. | Leave Bombay. | Leave Pondy. | Arrive Colombo. | Arrive Marseilles. |
| Jan. 21            | Jan. 22      | Jan. 25         | Feb. 14            | Jan. 17       | Jan. 18      | Jan. 21            | Feb. 10            | Jan. 17       | Jan. 18      | Jan. 21         | Feb. 10            |
| Feb. 18            | Feb. 19      | Feb. 22         | Mar. 14            | Feb. 14       | Feb. 15      | Feb. 18            | Mar. 10            | Feb. 14       | Feb. 15      | Feb. 18         | Mar. 10            |
| Mar. 18            | Mar. 19      | Mar. 22         | Apl. 11            | Mar. 14       | Mar. 15      | Mar. 18            | Apl. 10            | Mar. 14       | Mar. 15      | Mar. 18         | Apl. 10            |
| Apl. 15            | Apl. 16      | Apl. 19         | May 9              | Apl. 11       | Apl. 12      | Apl. 15            | May 9              | Apl. 11       | Apl. 12      | Apl. 15         | May 9              |
| May 13             | May 14       | May 17          | June 6             | May 9         | May 10       | May 13             | June 6             | May 9         | May 10       | May 13          | June 6             |
| June 10            | June 11      | June 14         | July 4             | June 6        | June 7       | June 10            | July 4             | June 6        | June 7       | June 10         | July 4             |
| July 8             | July 9       | July 12         | Aug. 1             | July 4        | July 5       | July 8             | Aug. 1             | July 4        | July 5       | July 8          | Aug. 1             |
| Aug. 5             | Aug. 6       | Aug. 9          | 29                 | Aug. 1        | Aug. 2       | Aug. 5             | 29                 | Aug. 1        | Aug. 2       | Aug. 5          | 29                 |
| Sep. 2             | Sep. 3       | Sep. 6          | 26                 | Sep. 2        | Sep. 3       | Sep. 6             | 26                 | Sep. 2        | Sep. 3       | Sep. 6          | 26                 |
| Sep. 30            | Sep. 31      | Oct. 4          | 24                 | Sep. 26       | Sep. 27      | Sep. 30            | 24                 | Sep. 26       | Sep. 27      | Sep. 30         | 24                 |
| Oct. 28            | Oct. 29      | Nov. 1          | 21                 | Oct. 26       | Oct. 27      | Oct. 30            | 21                 | Oct. 26       | Oct. 27      | Oct. 30         | 21                 |
| Nov. 25            | Nov. 26      | Dec. 29         | 19                 | Nov. 21       | Nov. 22      | Nov. 25            | 19                 | Nov. 21       | Nov. 22      | Nov. 25         | 19                 |
| Dec. 23            | Dec. 24      | Jan. 27         | 16                 | Dec. 19       | Dec. 20      | Dec. 23            | 16                 | Dec. 19       | Dec. 20      | Dec. 23         | 16                 |

## **INTERCHANGEABLE TICKETS.**

With a view to afford every facility to passengers availing themselves of the Austrian Lloyd's as well as the Messageries Maritimes Co.'s steamers, it has been arranged between the two Companies, in case of Return passages booked by either Company, to allow passengers to proceed one way by one and the return by the other line. This arrangement will prove in some cases a special boon to the passengers on three months' privilege leave.

Passengers taking at Bombay an Interchangeable Return ticket to Europe proceed to Marseilles, if the Homeward passage was booked by the Messageries Maritimes Co., and they return to Bombay by the Austrian Lloyd's S. N. Co., *via* Brindisi or Trieste, and *vice versa*, if the Homeward passage was booked by the Austrian Lloyd's S. N. Co.

The same arrangement is applicable to passengers proceeding from Europe to India.

## **FARES FROM MADRAS.**

| Class.          | Calcutta. | Pondicherry. | Colombo. | Suez. | Port Said. | Marseilles. | Singapore. | Batavia. | Sumarang. | Hongkong. | Shanghai. | Kobe. | Yokohama. |
|-----------------|-----------|--------------|----------|-------|------------|-------------|------------|----------|-----------|-----------|-----------|-------|-----------|
| I.              | 80        | 16           | 60       | 610   | 630        | 700         | 300        | 370      | 410       | 420       | 500       | 500   | 500       |
| II.             | 55        | 12           | 40       | 405   | 420        | 490         | 200        | 245      | 275       | 280       | 330       | 330   | 330       |
| III.            | 30        | 8            | 22       | 220   | 230        | 255         | 110        | 135      | 150       | 155       | 180       | 180   | 180       |
| Deck, with food | 21        | 7            | 17       | 140   | 148        | 160         | 75         | 100      | 115       | 115       | 130       | 140   | 145       |
| " without "     | 15        | 4            | 11       | 110   | 115        | 127         | 55         | 70       | 80        | 80        | 90        | 90    | 90        |

**LEIGHTON & CO., PASSAGE AGENTS, MADRAS.**

# **HOMEWARD BOUND.** **AUSTRIAN LLOYD'S S. N. Co.** **UNDER MAIL CONTRACT WITH** **THE AUSTRIAN GOVERNMENT.**

## **DEPARTURES FROM BOMBAY.**

## **ACCELERATED SERVICE**

**To Brindisi and Trieste, *via* Aden, Suez, and Port Said.**

| Steamers.  | Captains.    | Tons. | H. P. | To sail on    |
|------------|--------------|-------|-------|---------------|
| IMPERATRIX | T. Rashevich | 4194  | 750   | 1st January.  |
| IMPERATOR  | G. Nicolich  | 4119  | 750   | 1st February. |
| IMPERATRIX | T. Rashevich | 4194  | 750   | 1st March.    |
| IMPERATOR  | G. Nicolich  | 4119  | 750   | 1st April.    |
| IMPERATRIX | T. Rashevich | 4194  | 750   | 1st May.      |
| IMPERATOR  | G. Nicolich  | 4119  | 750   | 1st June.     |

A Surgeon and Stewardess on Board of every Steamer.

## **Rates of Passage Money.**

|                             | 1st Class. | 2nd Class. | Deck.   |
|-----------------------------|------------|------------|---------|
| TRIESTE, VENICE OR BRINDISI | Rs. 600    | Rs. 325    | Rs. 150 |

Steamers for Bombay leave TRIESTE on the 3rd, and BRINDISI on the 4th, of each month.

## **ORDINARY SERVICE.**

**To Trieste *via* Karachi, Aden, Suez and Port Said.**

| Steamers.    | Captains.      | Tons. | H. P. | To sail on    |
|--------------|----------------|-------|-------|---------------|
| M. BACQUEHEM | G. Wallusching | 4766  | ...   | 12th January. |
| VINDOBONA    | C. Bellen      | 4351  | 350   | 12th Feb.     |
| GISELA       | Mosca          | 4253  | ...   | 12th March.   |
| TRIESTE      | A. Mitis       | 5095  | ...   | 12th April.   |

These Steamers call at Karachi two days later.

## **Rates of Passage by this Route.**

|            | 2nd Class. | Deck.   |
|------------|------------|---------|
| TO TRIESTE | Rs. 375    | Rs. 150 |

Steamers for BOMBAY leave TRIESTE on the 21st of each month.

## **Return Tickets.**

By either Accelerated or Ordinary Service to Trieste.

|                         |                                        |
|-------------------------|----------------------------------------|
| Available for 6 months  | 1st Class, Rs. 960; 2nd Class, Rs. 575 |
| Available for 12 months | " " 1,060; " " 625                     |

Including Wine or Beer supplied at meals.

## **Through Tickets to London.**

1st and 2nd Class Single and Return are issued *via* Trieste, the St. Gothard, and other routes.

## **Interchangeable Tickets.**

See the note on the opposite page.

**LEIGHTON & CO., PASSAGE AGENTS—MADRAS.**

## HOMEWARD BOUND. ITALIAN MAIL STEAMERS.

### FLORIO-RUBATTINO S. N. CO.

#### SAILINGS FROM BOMBAY TO GENOA.

CALLING AT ADEN, ALEXANDRIA, MESSINA, AND NAPLES.

| STEAMERS.           | COMMANDERS.    | ABOUT               |
|---------------------|----------------|---------------------|
| <i>R. Rubattino</i> | ... Saporite   | ... 5th January.    |
| <i>D. Balduino</i>  | ... Canepa     | ... 2nd February.   |
| <i>Singapore</i>    | ... Pizzarello | ... 2nd March.      |
| <i>R. Rubattino</i> | ... Saporite   | ... 30th "          |
| <i>D. Balduino</i>  | ... Canepa     | ... 27th April.     |
| <i>Singapore</i>    | ... Pizzarello | ... 25th May.       |
| <i>R. Rubattino</i> | ... Saporite   | ... 22nd June.      |
| <i>D. Balduino</i>  | ... Canepa     | ... 29th July.      |
| <i>Singapore</i>    | ... Pizzarello | ... 17th August.    |
| <i>R. Rubattino</i> | ... Saporite   | ... 14th September. |
| <i>D. Balduino</i>  | ... Canepa     | ... 12th October.   |

#### CORRESPONDENCE.

At Aden, with Assab and Massowa—every 20 days.

At Alexandria, with Patras, Corfu, Brindisi and Venice—weekly.

At Messina, with Brindisi, Trieste and Venice—weekly; with the *Comandante* of Calabria—weekly; with Lipari and Stromboli, and with Catania, Salonica, Smyrna, Constantinople and Odessa—every 2 weeks.

At Naples with Palermo—daily; and thence with Marsala and Tunis—weekly. Also with New York and New Orleans.

At Genoa, with Cagliari, Marseilles, Leghorn—bi-weekly. Also with Rio Janeiro, Montevideo and Buenos Ayres.

**Fares (1st Class) to Naples, Genoa, Brindisi or Venice.**

(Inclusive of Food and Wine.)

**SINGLE.**—Rs. 550.

**RETURN.**—Strictly within three months Rs. 750; six months after landing Rs. 900; nine months Rs. 925; twelve months Rs. 950.

Passengers have the option of going *via* Venice and returning *via* Genoa or *vice versa*, and can break their journey at any port, resuming it by subsequent steamers of Bombay or other Weekly and Daily Local Lines.

Through and Return Tickets to London on application.

BOMBAY to HONGKONG, calling at Singapore, 8th of each month.  
For further particulars and plans of the steamers, apply to

**LEIGHTON & CO., PASSAGE AGENTS—MADRAS.**

## HOMEWARD BOUND. NORDDEUTSCHER LLOYD.

DEPARTURES FROM COLOMBO.

IMPERIAL German Mail Steamers under contract with Government for Egypt, Naples, Genoa, Southampton (LONDON), Antwerp and Bremen.

| Steamers.                   | Tons. | H. P. | Captains.      | Date.          |
|-----------------------------|-------|-------|----------------|----------------|
| <i>Prinz Heinrich</i>       | 6263  | 5,500 | Cüppers        | 18th January.  |
| <i>Bremen</i>               | 10525 | 8,000 | Reimkasten     | 20th "         |
| <i>Preussen</i>             | 5295  | 3,500 | Heintze        | 10th February. |
| <i>Königin Luise</i>        | 10566 | 7,000 | Von Schuckmann | 16th "         |
| <i>Sachsen</i>              | 6023  | 3,500 | Supmer         | 10th March.    |
| <i>Barbarossa</i>           | 10766 | 7,000 | Richter        | 16th "         |
| <i>Bayern</i>               | 5034  | 3,500 | Prehn          | 7th April.     |
| <i>Prinz Regt. Luitpold</i> | 6268  | 5,500 | Walter         | 13th "         |
| <i>Prinz Heinrich</i>       | 6263  | 5,500 | Cüppers        | 5th May.       |
| <i>Gera</i>                 | 5005  | 3,200 | Meissel        | 11th "         |

For  
Singapore, Sumatra, Java, German New Guinea, Hongkong, Shanghai,  
Kiautschau and Japan.

|                       |      |       |         |                |
|-----------------------|------|-------|---------|----------------|
| <i>Sachsen</i>        | 6023 | 3,500 | Supmer  | 26th January.  |
| <i>Bayern</i>         | 5034 | 3,500 | Prehn   | 23rd February. |
| <i>Prinz Heinrich</i> | 6263 | 5,500 | Cüppers | 28th March.    |

For  
Fremantle, Adelaide, Melbourne and Sydney.

|                             |       |       |                |                     |
|-----------------------------|-------|-------|----------------|---------------------|
| <i>Königin Luise</i>        | 10566 | 7,000 | Von Schuckmann | 15th December.      |
| <i>Barbarossa</i>           | 10766 | 7,000 | Richter        | 12th January, 1899. |
| <i>Prinz Regt. Luitpold</i> | 6268  | 5,500 | Walter         | 9th February.       |
| <i>Gera</i>                 | 5005  | 3,200 | Meissel        | 9th March.          |

Return Tickets for 3, 6, 9 and 12 months. Special rates for families.

Special Tickets issued for the "Round the World Tour" *via* China and Japan or Australia and *vice versa*. Captain and Officers speak English.

All Steamers carry Stewardesses and fully qualified Doctors.

Berths can be secured at Time of Booking.

**LEIGHTON & CO., PASSAGE AGENTS, MADRAS.**

# HOMeward BOUND. **"BIBBY LINE"**

## OF **MAIL STEAMERS.**

DEPARTURES FROM COLOMBO.

Colombo to Suez, Port Said, Marseilles, London, and Liverpool.

| NAME OF STEAMER.        | COMMANDER.            | TON-<br>NAGE. | HORSE<br>POWER. | PROBABLE DATE OF<br>SAILING. |
|-------------------------|-----------------------|---------------|-----------------|------------------------------|
| Derbyshire (Twin Screw) | G. H. Harris, R.N.R.  | 6636          | 4,500           | 12th Jan.                    |
| Lancashire              | E. Parker             | 4256          | 3,500           | 2nd Feb.                     |
| Cheeshire               | E. W. Burnett, R.N.R. | 5708          | 4,000           | 23rd "                       |
| Shropshire              | M. Beasley            | 5730          | 4,000           | 16th Mar.                    |
| Staffordshire           | J. O'Neill            | 6006          | 4,200           | 6th Apr.                     |
| Derbyshire              | G. H. Harris, R.N.R.  | 6636          | 4,500           | 27th "                       |
| Lancashire              | E. Parker             | 4256          | 3,500           | 18th May                     |
| Cheeshire               | E. W. Burnett, R.N.R. | 5708          | 4,000           | 9th June                     |
| Shropshire              | M. Beasley            | 5730          | 4,000           | 30th "                       |

Plans of these steamers will be found at the end of this book.

These fast and powerful Steamers (specially constructed by Messrs. Harland and Wolff, Belfast, for the Eastern Trade) are of the most modern type, and uniformly provided with every possible comfort for passengers.

The saloon, state rooms, etc., are amidships and fitted for first class passengers only. The state rooms throughout the fleet are placed entirely on the main and promenade decks, thus ensuring ample light and ventilation under all circumstances. Patent mechanical ventilation and refrigerators. Experienced Surgeon and Stewardess carried.

COLOMBO to RANGOON. — Regular Sailings every Three Weeks, commencing Sunday, 8th Jan., 1899.

## FARES.

| COLOMBO TO                                 | SINGLE. | 4 Months' Return. | 6 Months' Return. | 12 Months' Return. |
|--------------------------------------------|---------|-------------------|-------------------|--------------------|
| Rangoon                                    | Rs. 150 | Rs. 180           | Rs. 180           | Rs. 300            |
| Suez, Ismailia, or Port Said               | 350     | 600               | 650               | 750                |
| Marseilles                                 | 525     | 900               | 1,000             | 1,100              |
| London by Sea                              | 575     | 1,000             | 1,100             | 1,200              |
| London by Sea, returning from Marseilles   | —       | 950               | 1,050             | 1,150              |
| Marseilles returning from Liverpool by Sea | —       | —                 | —                 | —                  |

Children under 12 years, travelling with parents, half price; one child under 3 years (no berth provided) free. Liberal concessions to families. Particulars on application.

Passengers from Southern India joining the Steamers at Colombo are refunded the cost of the journey Tuticorin to Colombo.

LEIGHTON & CO.—PASSAGE AGENTS, MADRAS.

# HOMeward BOUND. **"CITY LINE."**

FROM COLOMBO TO LONDON.

CALLING AT  
 PERIM, SUEZ, PORT SAID, AND MALTA.

The following Sailings have been arranged:—

| Steamers.          | Tons. | H. P. | Captains. | Sailing about |
|--------------------|-------|-------|-----------|---------------|
| City of Bombay ... | 4,548 | 5,000 | J. Marr.  | 12th January. |
| A Steamer          | ...   | ...   | ...       | 24th "        |
| Do.                | ...   | ...   | ...       | 5th February. |
| Do.                | ...   | ...   | ...       | 17th "        |
| Do.                | ...   | ...   | ...       | 1st March.    |
| Do.                | ...   | ...   | ...       | 13th "        |
| Do.                | ...   | ...   | ...       | 25th "        |
| Do.                | ...   | ...   | ...       | 6th April.    |
| Do.                | ...   | ...   | ...       | 18th "        |

These splendid fast iron Steamships, built expressly for the trade under special survey, above the highest Class at Lloyd's, have every requisite for comfort in tropical and cool climates.

Each vessel carries a Surgeon and Stewardess.

Only First Class Passengers carried. Nearly all the Steamers have their Cabin and Saloon accommodation amidships.

Single Fare to London Rs. 575.

European Servants Rs. 350. Native Servants Rs. 170.

**REDUCTION FOR FAMILY PARTIES.**

N.B.—No wines or spirits are supplied on board, but passengers may provide themselves with these.

Early application for berths is desirable.

For further particulars and plans of the steamers apply to

**LEIGHTON & CO., PASSAGE AGENTS—MADRAS.**

## HOMEWARD BOUND.

## NIPPON YUSEN KAISHA.

## JAPAN MAIL STEAMSHIP CO.

FLEET 74 STEAMSHIPS OF 210,000 TONS.

Regular Fortnightly Service to London and  
Antwerp calling at Marseilles.

The following splendid Steamers are expected to be  
despatched from Colombo on or about the dates mentioned:—

| Steamers.     | Tons. | Captain.      | Arrival.        | Sailing.        |
|---------------|-------|---------------|-----------------|-----------------|
| SANUKI MARU   | 6,118 | W. Townsend   | 5th Jan., 1899. | 7th Jan., 1899. |
| HAKATA MARU   | 6,151 | F. L. Sommer  | 2nd Feb. "      | 4th Feb. "      |
| INABA MARU    | 6,192 | W. Bainbridge | 16th " "        | 18th " "        |
| KAMAKURA MARU | 6,124 | N. Trent      | 2nd Mar. "      | 4th Mar. "      |
| TOSA MARU     | 5,800 | R. Going      | 16th " "        | 18th " "        |

The above magnificent TWIN SCREW STEAMERS have  
recently been constructed in England in excess of Lloyds  
requirements—classed 100 A. I.—and are officered and  
engineered by highly qualified Europeans.

In constructing these Steamers special attention has  
been given to the requirements of the Eastern carrying trade,  
such as ventilation of the holds, etc., and they are admirably  
adapted for the safe carrying of Ceylon produce.

The Steamers are lighted throughout with electricity  
and fitted with all latest improvements for the safety and  
comfort of passengers.

## PASSAGE RATES.

|                   |     |           |     |         |
|-------------------|-----|-----------|-----|---------|
| Colombo to London | ... | 1st Class | ... | Rs. 500 |
| " " "             | ... | 2nd "     | ... | " 325   |
| " " Marseilles    | ... | 1st "     | ... | " 450   |
| " " "             | ... | 2nd "     | ... | " 300   |

COLOMBO TO BOMBAY.—Regular Service every  
four weeks.

The service, Colombo to Straits, China and Japan is at  
present suspended owing to the quarantine regulations on  
Steamers calling from Bombay.

LEIGHTON & CO., PASSAGE AGENTS—MADRAS.

## HOMEWARD BOUND.

## "ANCHOR LINE."

## DEPARTURES FROM BOMBAY

To Marseilles, London, Liverpool, and New York.

| Vessels.  | Tons. | Comdrs.              | On or about the    |
|-----------|-------|----------------------|--------------------|
| Armenia   | 3395  | J. W. Shankline      | 3rd January, 1899. |
| Persia    | 3547  | C. Osborne, R.N.R.   | 21st " "           |
| Nubia     | 3551  | S. Knox              | 3rd February "     |
| Britannia | 3069  | A. C. Turner, R.N.R. | 1st March. "       |
| Australia | 3592  | H. Tait              | 14th " "           |
| Hispania  | 3380  | S. Abrey             | 25th " "           |
| Armenia   | 3395  | J. W. Shankline      | 11th April "       |
| Persia    | 3547  | C. Osborne, R.N.R.   | 29th " "           |
| Nubia     | 3551  | S. Knox              | 19th May "         |
| Britannia | 3069  | A. C. Turner, R.N.R. | 2nd June "         |

The Railway journey from Marseilles to London occupies about thirty hours.

Each Steamer carries a duly qualified Surgeon and an experienced  
Stewardess, and is fitted out with every comfort.

All the Cabins are on the Upper Deck.

## SINGLE TICKETS.

## First Saloon—

|                                                | Rs.      |
|------------------------------------------------|----------|
| To Suez, Ismailia, or Port Said                | 350      |
| " Marseilles                                   | 550      |
| " London with First-class Rail, via Marseilles | 550 + £5 |
| " Liverpool by sea                             | 600      |
| " New York, via Liverpool and Glasgow          | 700      |

N.B.—Special rates for Families, Missionaries, Hospital Nurses,  
Railway Employés, &c.

Passengers from MADRAS and BANGALORE for Europe can embark at  
Bombay, the Company providing Railway Tickets to Bombay without  
extra charge. The Railway Tickets must be obtained before  
commencing the journey.

LEIGHTON & CO., PASSAGE AGENTS, MADRAS.

**HOME LINE.**  
**TO NAPLES, PLYMOUTH AND LONDON.**

| Steamers.           | Tons. | COMMANDERS.                | About           |
|---------------------|-------|----------------------------|-----------------|
| <i>Mombassa</i> ... | 4700  | G. C. C. Stevenson, R.N.R. | 21st Jan. 1899. |
| <i>Rewa</i> ...     | 4000  | A. C. Morris               | 4th Feb. "      |
| <i>Goorkha</i> ...  | 4000  | T. Johnston, R.N.R.        | 18th " "        |
| <i>Golconda</i> ... | 6000  | W. A. Burkitt              | 18th March "    |
| <i>Matiana</i> ...  | 4700  | W. A. Fausset              | 1st April "     |
| <i>Manora</i> ...   | 4700  | J. Henderson, R.N.R.       | 15th " "        |

**First Class fare to London via Naples, including Continental Journey,  
Rs. 750.**

**Fortnightly, on dates to be advertised hereafter.**

**Every Thursday, at 8 p.m.**

**Madras to Masulipatam, Coconada, Vizagapatam, Bimlipatam, and Rangoon—every Wednesday, calling at Calingapatam, Barwah and Gopaulpore as inducement offers.**

Madras to Masulipatam, Coconada, Vizagapatam, Bimlipatam, (Calingapatam, fortnightly) Gopaulpore, and Calcutta—weekly.

Madras to Pondicherry, Cuddalore, Negapatam, Colombo, Tuticorin, Alleppey, Cochin, Calicut, Tellicherry, Cannanore, Mangalore, and Bombay—weekly.

Madras to Pondicherry, Porto Novo, Karrikal, Negapatam, Penang, and Singapore—fortnightly.

**ASIATIC STEAM NAVIGATION CO.,  
LIMITED.**



The Asiatic Steam Navigation Company's Royal Mail SS. *Shahjehan*, Capt. W. H. EDGE, for Andaman Islands, Rangoon and Calcutta.

Next sailing from Madras about Monday, 23rd Jan., 1899.

The Steamer stays about 11 days at Calcutta, but passengers are not permitted to remain on board during that time.

Accommodation most comfortable, forward of engines.  
Ports never closed.

Fares, First Class, with diet, but without wines.  
Entire round about 30 days on board .... Rs.300.

To Rangoon and Calcutta and back to Madras *via* Coast Ports { About 20 days on board } Rs.250.

**Madras to Port Blair and Rangoon—every six weeks.**

**Madras to Coconada, Vizagapatam, Bimlipatam and Calcutta—fortnightly.**

**Madras to Pondicherry, Cuddalore, Porto-  
Novo, Tirumulwasal, Karikal, Negapatam,  
Galle, Colombo, Tuticorin, Alleppey, Cochin,  
Calicut, Tellicherry, Cannanore and Bombay—  
fortnightly.**

**LEIGHTON & CO., PASSAGE AGENTS—MADRAS.**

**CLASS 88**

| FALOR POWER. |    | GONKALOM. |    | VILAMANTAN. |    | OCCORADA. |    | MASUTAPATAN. |    | PONDICHERRY. |    | NINRAPATAN. |    | TIVANAPALAN. |     | CULORONG. |     | PITICORIN. |     | OULILAN. |     | AMBERY. |     | 10 CALANG. |     | 12 CALANG. |     | 15 CALANG. |     | 18 CALANG. |     | 20 CALANG. |     | 25 CALANG. |     | 30 CALANG. |     | 35 CALANG. |     | 40 CALANG. |     | 45 CALANG. |     | 50 CALANG. |     | 55 CALANG. |     | 60 CALANG. |     | 65 CALANG. |     | 70 CALANG. |     | 75 CALANG. |     | 80 CALANG. |     | 85 CALANG. |     | 90 CALANG. |     | 95 CALANG. |     | 100 CALANG. |     | 105 CALANG. |     | 110 CALANG. |     | 115 CALANG. |     | 120 CALANG. |     | 125 CALANG. |     | 130 CALANG. |     | 135 CALANG. |     | 140 CALANG. |     | 145 CALANG. |     | 150 CALANG. |     | 155 CALANG. |     | 160 CALANG. |     | 165 CALANG. |     | 170 CALANG. |     | 175 CALANG. |     | 180 CALANG. |     | 185 CALANG. |     | 190 CALANG. |     | 195 CALANG. |     | 200 CALANG. |     | 205 CALANG. |     | 210 CALANG. |     | 215 CALANG. |     | 220 CALANG. |     | 225 CALANG. |     | 230 CALANG. |     | 235 CALANG. |     | 240 CALANG. |     | 245 CALANG. |     | 250 CALANG. |     | 255 CALANG. |     | 260 CALANG. |     | 265 CALANG. |     | 270 CALANG. |     | 275 CALANG. |     | 280 CALANG. |     | 285 CALANG. |     | 290 CALANG. |     | 295 CALANG. |     | 300 CALANG. |     | 305 CALANG. |     | 310 CALANG. |     | 315 CALANG. |     | 320 CALANG. |     | 325 CALANG. |     | 330 CALANG. |     | 335 CALANG. |     | 340 CALANG. |     | 345 CALANG. |     | 350 CALANG. |     | 355 CALANG. |     | 360 CALANG. |     | 365 CALANG. |     | 370 CALANG. |     | 375 CALANG. |     | 380 CALANG. |     | 385 CALANG. |     | 390 CALANG. |     | 395 CALANG. |     | 400 CALANG. |     | 405 CALANG. |     | 410 CALANG. |     | 415 CALANG. |     | 420 CALANG. |     | 425 CALANG. |  | 430 CALANG. |  | 435 CALANG. |  | 440 CALANG. |  | 445 CALANG. |  | 450 CALANG. |  | 455 CALANG. |  | 460 CALANG. |  | 465 CALANG. |  | 470 CALANG. |  | 475 CALANG. |  | 480 CALANG. |  | 485 CALANG. |  | 490 CALANG. |  | 495 CALANG. |  | 500 CALANG. |  | 505 CALANG. |  | 510 CALANG. |  | 515 CALANG. |  | 520 CALANG. |  | 525 CALANG. |  | 530 CALANG. |  | 535 CALANG. |  | 540 CALANG. |  | 545 CALANG. |  | 550 CALANG. |  | 555 CALANG. |  | 560 CALANG. |  | 565 CALANG. |  | 570 CALANG. |  | 575 CALANG. |  | 580 CALANG. |  | 585 CALANG. |  | 590 CALANG. |  | 595 CALANG. |  | 600 CALANG. |  | 605 CALANG. |  | 610 CALANG. |  | 615 CALANG. |  | 620 CALANG. |  | 625 CALANG. |  | 630 CALANG. |  | 635 CALANG. |  | 640 CALANG. |  | 645 CALANG. |  | 650 CALANG. |  | 655 CALANG. |  | 660 CALANG. |  | 665 CALANG. |  | 670 CALANG. |  | 675 CALANG. |  | 680 CALANG. |  | 685 CALANG. |  | 690 CALANG. |  | 695 CALANG. |  | 700 CALANG. |  | 705 CALANG. |  | 710 CALANG. |  | 715 CALANG. |  | 720 CALANG. |  | 725 CALANG. |  | 730 CALANG. |  | 735 CALANG. |  | 740 CALANG. |  | 745 CALANG. |  | 750 CALANG. |  | 755 CALANG. |  | 760 CALANG. |  | 765 CALANG. |  | 770 CALANG. |  | 775 CALANG. |  | 780 CALANG. |  | 785 CALANG. |  | 790 CALANG. |  | 795 CALANG. |  | 800 CALANG. |  | 805 CALANG. |  | 810 CALANG. |  | 815 CALANG. |  | 820 CALANG. |  | 825 CALANG. |  | 830 CALANG. |  | 835 CALANG. |  | 840 CALANG. |  | 845 CALANG. |  | 850 CALANG. |  | 855 CALANG. |  | 860 CALANG. |  | 865 CALANG. |  | 870 CALANG. |  | 875 CALANG. |  | 880 CALANG. |  | 885 CALANG. |  | 890 CALANG. |  | 895 CALANG. |  | 900 CALANG. |  | 905 CALANG. |  | 910 CALANG. |  | 915 CALANG. |  | 920 CALANG. |  | 925 CALANG. |  | 930 CALANG. |  | 935 CALANG. |  | 940 CALANG. |  | 945 CALANG. |  | 950 CALANG. |  | 955 CALANG. |  | 960 CALANG. |  | 965 CALANG. |  | 970 CALANG. |  | 975 CALANG. |  | 980 CALANG. |  | 985 CALANG. |  | 990 CALANG. |  | 995 CALANG. |  | 1000 CALANG. |  |
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| 30           | 35 | 40        | 45 | 50          | 55 | 60        | 65 | 70           | 75 | 80           | 85 | 90          | 95 | 100          | 105 | 110       | 115 | 120        | 125 | 130      | 135 | 140     | 145 | 150        | 155 | 160        | 165 | 170        | 175 | 180        | 185 | 190        | 195 | 200        | 205 | 210        | 215 | 220        | 225 | 230        | 235 | 240        | 245 | 250        | 255 | 260        | 265 | 270        | 275 | 280        | 285 | 290        | 295 | 300        | 305 | 310        | 315 | 320        | 325 | 330        | 335 | 340        | 345 | 350         | 355 | 360         | 365 | 370         | 375 | 380         | 385 | 390         | 395 | 400         | 405 | 410         | 415 | 420         | 425 | 430         | 435 | 440         | 445 | 450         | 455 | 460         | 465 | 470         | 475 | 480         | 485 | 490         | 495 | 500         | 505 | 510         | 515 | 520         | 525 | 530         | 535 | 540         | 545 | 550         | 555 | 560         | 565 | 570         | 575 | 580         | 585 | 590         | 595 | 600         | 605 | 610         | 615 | 620         | 625 | 630         | 635 | 640         | 645 | 650         | 655 | 660         | 665 | 670         | 675 | 680         | 685 | 690         | 695 | 700         | 705 | 710         | 715 | 720         | 725 | 730         | 735 | 740         | 745 | 750         | 755 | 760         | 765 | 770         | 775 | 780         | 785 | 790         | 795 | 800         | 805 | 810         | 815 | 820         | 825 | 830         | 835 | 840         | 845 | 850         | 855 | 860         | 865 | 870         | 875 | 880         | 885 | 890         | 895 | 900         | 905 | 910         | 915 | 920         | 925 | 930         | 935 | 940         | 945 | 950         | 955 | 960         | 965 | 970         | 975 | 980         | 985 | 990         | 995 | 1000        |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |             |  |              |  |

## The San Francisco Overland Route.

Pacific Mail S.S. Co.  
 Occidental and Oriental S.S. Co.  
 Central Pacific, Union Pacific and  
 Chicago and North-Western Ry.

**The Quick Route from India to America and Europe**

The Straits, China, Japan, Honolulu (H. I.) and San Francisco.

**THE GREAT AMERICAN MAIL ROUTE.**  
The fast and magnificent steamers of the Pacific Mail and Occidental and Oriental S.S. Co.'s sail from Hong Kong every ten days, calling at Shanghai, Nagasaki (through the beautiful Island Sea of Japan), Kobe, Yokohama and Honolulu ("The Paradise of the Pacific") to San Francisco, Cal., connecting with the daily trains of the Central Pacific, Union Pacific and Chicago and North-Western Ryrs., the shortest and most direct line to Chicago, New York, Boston, Philadelphia, Washington, Baltimore, Salt Lake City, Kansas City, Omaha, St. Paul, Minneapolis, St. Louis, Cincinnati, Cleveland, Pittsburg, Niagara Falls, Buffalo, and all Eastern cities.

This line has been aptly termed "The World's Picture Line," and the title is well deserved, for the country traversed presents scenic features that for variety and picturesque grandeur are not surpassed on the American Continent.

The sleeping cars are thoroughly luxurious, and suggest in their tasteful appointments the attractions of an elegant hotel. Each of these cars contains spacious drawing-rooms, which, with their luxurious sofas, silken draperies, carved panels and mirrors, merit special mention. The main portion of the cars is equally commodious and attractive, combining every device that can contribute to the enjoyment and comfort of the occupants.

All meals between San Francisco and New York are served in the famous Dining Cars which are models of good taste and perfection of design.

The Buffet, Smoking and Library Car, which is one of the noteworthy features, is especially attractive to lovers of the wood. A choice selection of current newspapers and periodicals is at the disposal of our patrons, and there is also a well-stocked buffet from which light refreshments are served.

**SPECIAL BATHS** are granted to members of the naval, military, diplomatic and civil services and to missionaries.

The patronage of travellers desiring to make the trans-continental journey in the briefest time with the greatest comfort is specially solicited to the **OVERLAND ROUTE.**

newest and shortest time with the greatest comfort and safety.

**THE SAN FRANCISCO OVERLAND ROUTE.**

For full information, maps, guide books, rates of passage and other details, apply to the nearest agent of the Great Northern Railway.

For full information, maps, guide books, rates of passage and particular regulations this route, apply to  
The Agencies of THOS. COOK & SON,  
Madison, Colorado.

The Agencies of THOS. COOK & SON,  
Madras or Colombo.  
J. C. VAN NORDEN,  
Mail and Occidental and Oriental S.S. Co's, Hong-Kong,

Sgt., Pac. Mail and Occidental and Oriental S.S. Co.'s, Hong-Kong,  
T. D. McKAY,  
General Passenger Agent,

General Passenger Agent,  
San Francisco Overland Route,  
No. 4, Water Street, Yokohama, Japan.

No. 4, Water Street, Yokohama, Japan

## GERMAN EAST AFRICAN LINE.

| Subject to Alterations. | 1st Class.   |            |               | 2nd Class. |               |                     |
|-------------------------|--------------|------------|---------------|------------|---------------|---------------------|
|                         | Voyage about | With food. | Without food. | With food. | Without food. | Deck, without food. |
|                         | Days.        | Rs.        | Rs.           | Rs.        | Rs.           | Rs.                 |
| To Louren               | 11           | 250        | 175           | 135        | 100           | 30                  |
| " Mombasa               | 12           | 250        | 175           | 135        | 100           | 30                  |
| " Tanga                 | 14           | 250        | 175           | 135        | 100           | 30                  |
| " Daroesalam            | 15           | 250        | 175           | 135        | 100           | 30                  |
| " Zanzibar              | 15           | 250        | 175           | 135        | 100           | 30                  |
| " Bagamoyo              | 23           | 280        | 185           | 145        | 110           | 35                  |
| " Kilwa                 | 25           | 350        | 240           | 250        | 150           | 40                  |
| " Ludi                  | 27           | 390        | 270           | 280        | 170           | 40                  |
| " Mikiundani            | 28           | 420        | 285           | 270        | 180           | 40                  |
| " Ibo                   | 30           | 440        | 300           | 240        | 220           | 50                  |
| " Mozambique            | 17           | 300        | 225           | 200        | 125           | 50                  |
| " Quillimane            | 20           | 350        | 275           | 225        | 150           | 60                  |
| " Chindi                | 21           | 400        | 325           | 275        | 200           | 60                  |
| " Beira                 | 22           | 400        | 325           | 275        | 200           | 60                  |
| " Inhambane             | 26           | 400        | 325           | 275        | 200           | 60                  |
| " Delagoa Bay           | 25           | 400        | 325           | 275        | 200           | 60                  |
| " Durban (Natal)        | 30           | 450        | 350           | 300        | 225           | 60                  |
| " East London           | ...          | 565        | ...           | 400        | ...           | ...                 |
| " Algoa Bay             | ...          | 580        | ...           | 415        | ...           | ...                 |
| " Cape Town             | ...          | 615        | ...           | 450        | ...           | ...                 |

### INFORMATION FOR PASSENGERS.

Passengers change at Zanzibar into the Mail Steamer of the German East Africa Line and at Durban into the Mail Steamers of the Union Line.

Children under 10 years charged half-fare.

First and Second class Return Tickets available for six months, 10 per cent. rebate.

Bedding, linen and all requisites, cabin furniture provided and wines can be obtained on board at moderate prices. Passengers are not allowed to take on board wines, spirits or other liquors.

In the event of detention at port of transshipment, passengers must defray their own Hotel expenses.

LEIGHTON & CO., PASSAGE AGENTS, MADRAS.

## AUSTRALASIAN SAILINGS.

**P. & O.**—Homewards, *via* Suez, fortnightly, from Sydney, Melbourne, Adelaide, and King George's Sound.

**Orient**—Homewards, *via* Suez, fortnightly, from Sydney, Melbourne, Adelaide and Albany.

**Messageries Maritimes**—Homewards, *via* Suez every four weeks, from Sidney, Melbourne, Adelaide and Albany.

**Norddeutscher Lloyd**—Homewards, *via* Suez, every four weeks, from Sydney, Melbourne and Adelaide.

**Canadian-Australian Line**—To Vancouver, *via* Honolulu, every four weeks, from Sydney and Wellington.

**A. & A. Line**—To San Francisco, *via* Honolulu, ever four weeks, from Sydney and Auckland.

**Shaw, Savill & Albion Line**—To London, *via* Rio Janeiro and Teneriffe, every four weeks, from Lyttelton or Wellington.

**Gulf Line**—Homewards, *via* Suez, fortnightly, from Melbourne.

**Aberdeen Line**—To Cape Town, monthly, from Sydney and Melbourne.

**Sund's Line**—Homewards, *via* Suez, occasionally, from Melbourne and Adelaide.

**New Zealand Line**—To London, *via* Monte Video, Rio Janeiro, and Madeira, monthly, from New Zealand.

**Queensland Line**—Homewards, *via* Batavia and Suez, monthly, from Brisbane and the Northern ports.

**Eastern and Australian Line**—To Hong-Kong, monthly, from Sydney.

**China Navigation Line**—To Hong-Kong, monthly, from Sydney.

**Nippon Yusen Kaisha Line**—To Yokohama, *via* Hong-Kong and Nagasaki, monthly, from Melbourne and Sydney.

**Lake Wakatipu Line**—Between Queenstown, Kingston, and Head of Lake, every week-day.

**Adelaide Steamship Line**—Between West Australian Ports, Adelaide, Melbourne, Sydney and Queensland Ports, frequently.

**A.U.S.N. Line**—Between Queensland Ports, Sydney, Melbourne, Adelaide and West Australia, frequently.

**Union Line**—Between Melbourne, Hobart, Launceston, North-West Ports of Tasmania, Auckland, Napier, Wellington, Lyttelton, Dunedin and Sydney, frequently.

**Huddart Parker Line**—Between Melbourne and Sydney, Launceston, West Australian and New Zealand Ports, frequently.

LEIGHTON & CO., PASSAGE AGENTS, MADRAS.

THE  
North Queensland Insurance Company, Ltd.,

(MARINE DEPARTMENT.)

The undersigned are authorized to issue Policies of Insurance on all descriptions of Cargo to any Port in the world, at the lowest rates of premium.

Special rates for Personal Baggage by steamer.

Parcels of Jewellery, Plate, &c., insured against all risks, during transit by Post to any address in India, Burmah, Ceylon and the Straits Settlements; or in Great Britain and Ireland, France, Germany, Belgium, Holland or Switzerland.

LEIGHTON & CO.,

AGENTS, MADRAS.

THE COROMANDEL

TELEGRAPH CODE  
FOR THE USE OF UP-COUNTRY CORRESPONDENTS.

ORDERS.

Abbot  
Abode  
Abyss  
Academy  
Accordion  
Acolyte  
Acrobat  
Actress  
Adder  
Adjutant  
Admiral  
Ailment  
Alabaster  
Alderman  
Alimony  
Allegory  
Almanac  
Alpaca  
Alpenstock  
Alphabet  
Amalgam  
Amateur  
Amazon  
Amalgam  
Ambush  
Amethyst  
Anagram  
Analogy  
Anatomist

Please send by Goods train (to)  
Please send by Mail train (to)  
Please send by Post (to)  
Addressed to  
Addressed to me here  
Addressed to me at  
Send the Railway receipt to  
Send the Railway receipt to me here.  
Send the Railway receipt to me at  
Send the Railway receipt to the Station-Master.  
Send the Railway receipt to the Transit Agent.  
Send the Railway receipt to Messrs. —  
The foregoing are most urgently wanted.  
Please use the utmost despatch.  
The others can wait.  
Send all in one lot.  
Delay sending till you hear from me again.  
Telegraph date of despatch.  
Telegraph how soon order will be despatched.  
Telegraph how soon you can despatch following.  
Telegraph if you can do so.  
Telegraph if you cannot do so.  
Please reply sharp by wire.  
Please reply sharp by letter.  
You may substitute as suggested.  
You must not substitute.  
I can wait.  
I cannot wait.  
Despatch promptly on arrival of Steamer.

## THE COROMANDEL TELEGRAPH CODE

## REPLIES.

|            |                                                  |
|------------|--------------------------------------------------|
| Anecdote   | We have executed your order.                     |
| Anguish    | We are unable to execute your order.             |
| Animosity  | Because we are out of stock.                     |
| Antagonist | Because the article is not obtainable here.      |
| Antelope   | Because our shipment has not arrived yet.        |
| Aperient   | Because you have not remitted the value.         |
| Apothecary | Because we have not sufficient at your credit.   |
| Appetite   | Because we have nothing at your credit.          |
| Applause   | Because we cannot work at your limit.            |
| Baboon     | Because the price has now advanced.              |
| Badinage   | Unless you authorize us send rail receipt V.P.P. |
| Bagatelle  | We expect a fresh supply next week.              |
| Banquet    | We expect a fresh supply the week after next.    |
| Barnacle   | We expect a fresh supply next month.             |
| Barracks   | We expect to work cheaper soon.                  |
| Barytone   | We expect a decline in price before long.        |
| Basiliak   | We are trying to obtain what you want.           |
| Bastinado  | It will take a little time.                      |
| Battalion  | Price has now declined to—                       |
| Beaconage  | Price has now advanced to—                       |
| Beadroll   | Very small quantity available, reply sharp.      |
| Beatitude  | Not in stock.                                    |
| Bedlamite  | And none expected.                               |
| Belfry     | Supplies expected very soon.                     |
| Benedict   | Supplies have now arrived.                       |
| Beverage   | May we substitute the following?                 |
| Biceps     | May we execute your order now?                   |
| Bigamist   | Can you wait for a week or two?                  |
| Bishopric  | If you can wait a little.                        |
| Bivouac    | We shall despatch as soon as Steamer arrives.    |

|            |                                              |
|------------|----------------------------------------------|
| Bohemian   | Do you anticipate any difficulty?            |
| Bombast    | Anticipate none at all.                      |
| Bonnet     | Can you arrange the matter?                  |
| Bookworm   | Leave you to arrange as you think best.      |
| Botanist   | Have arranged everything satisfactorily.     |
| Boudoir    | Have arranged as follows.                    |
| Bouquets   | What arrangement do you propose?             |
| Braggart   | What arrangement have you made?              |
| Brewery    | Arrangement has failed through—              |
| Bridegroom | Buy for me as best terms obtainable.         |
| Brigadier  | What price has your—                         |
| Bronchitis | Cancel my previous telegram.                 |
| Brougham   | Cancel my order if not already despatched.   |
| Brunette   | And substitute the following.                |
| Bubble     | Carriage must be prepaid.                    |
| Cabbage    | Take charge of everything.                   |
| Cabriolet  | Pending my arrival.                          |
| Cactus     | Cheque has been sent to-day.                 |
| Caddy      | Cheque will be sent to-morrow.               |
| Cadetship  | Cheque returned unpaid, send cash by return. |
| Cadger     | Under no circumstances.                      |
| Caftan     | Address all communications to—               |
| Cairn      | Will comply with your wishes.                |
| Cairngarm  | Cannot comply with your wishes.              |
| Caitiff    | Consult a solicitor and let me know result.  |
| Calabash   | Decline to accept responsibility.            |
| Caldron    | The delay has been unavoidable.              |
|            | Can deliver only against payment.            |

## MISCELLANEOUS SENTENCES.

|            |                                                  |
|------------|--------------------------------------------------|
| Calendar   | Cannot despatch the goods until                  |
| Callority  | Has been already despatched.                     |
| Camellia   | Send a detailed description.                     |
| Campaign   | Difficult to carry out your requirements.        |
| Canaille   | Send dimensions in detail.                       |
| Canary     | Documents forwarded for your signature.          |
| Candelabra | Enquire fully and report by telegram.            |
| Candidate  | Enquire of Agents respecting                     |
| Cannonade  | Have enquired of Agents who say                  |
| Cantatrice | Do you consider it essential?                    |
| Capricorn  | Send me an Estimate for                          |
| Capuchin   | Will bear the expense.                           |
| Cardinal   | To what address shall we forward your letters?   |
| Caricature | Forward my letters to me at                      |
| Cascade    | If you have not already done so.                 |
| Catacomb   | Does this include                                |
| Catalepsy  | Can you inform me?                               |
| Cathedral  | Obtain if possible following information for me. |
| Cavalier   | This is for your private information.            |
| Celibacy   | Keep possession until you hear from me.          |
| Centipede  | Is not known here.                               |
| Chaffinch  | What is the length of—?                          |
| Chagrin    | What is the width of—?                           |
| Chamelion  | Forward my letters to—                           |
| Charade    | Keep my letters until I arrive.                  |
| Charioteer | Have you received my letter (of—)?               |
| Charlatan  | Have received your letter.                       |
| Chemistry  | Have not received any letter from you.           |
| Chilblain  | Have you received my telegram (of—)?             |
| Chopstick  | Have received your telegram.                     |

## MISCELLANEOUS SENTENCES.

|            |                                                    |
|------------|----------------------------------------------------|
| Chrysalis  | Have not received any telegram from you.           |
| Churchyard | Letter posted to you to-day.                       |
| Cigarette  | Do not lose an instant.                            |
| Citizen    | Rectify the mistake without delay.                 |
| Dabchick   | Mistake has been discovered and rectified.         |
| Daffodil   | What is the number of?                             |
| Dahlia     | Can you offer more on same terms?                  |
| Dairymaid  | Wait for a better opportunity.                     |
| Damsel     | Are waiting for a better opportunity.              |
| Dandelion  | Is not according to order.                         |
| Dauphin    | This order is in addition to the previous one.     |
| Daylight   | This order is in substitution of the previous one. |
| Deaconess  | Have you received the parcel?                      |
| Deanery    | Parcel received all right.                         |
| Debenture  | Have not received the parcel.                      |
| Debility   | Parcel is awaiting remittance.                     |
| Declension | No more of the same pattern in stock.              |
| Decoy      | Place to my account at—                            |
| Deemster   | Impossible to act without Power-of-attorney.       |
| Deerhound  | Have sent you a Power-of-attorney.                 |
| Delinquent | What is the present price of—?                     |
| Demagogue  | Cannot entertain the proposal.                     |
| Demecanour | Must be of the best quality.                       |
| Democracy  | Quality is not equal to sample.                    |
| Denizen    | Remittance has been sent as requested.             |
| Deputy     | Remittance is not yet to hand.                     |
| Derrick    | Have remitted to the credit of                     |
| Despair    | Remit the amount by telegraph.                     |
| Despotism  | Have remitted the amount by telegraph.             |
| Detective  | Reply by telegram.                                 |

## THE COMMANDEUR TELEGRAPH CODE

## MISCELLANEOUS SENTENCES.

|            |                                           |
|------------|-------------------------------------------|
| Devotee    | Reply by letter.                          |
| Diagnosis  | Reply has not yet come to hand.           |
| Diaphragm  | Cannot understand why you do not reply.   |
| Dictionary | Reply shall be sent to-morrow.            |
| Digestion  | Request cannot be complied with.          |
| Diphthong  | Cannot accept the responsibility.         |
| Disputant  | Send full particulars of                  |
| Distemper  | Supply expected next week.                |
| Divorce    | Do not understand your meaning.           |
| Doggerel   | Is very unsatisfactory.                   |
| Dolomite   | Wait until you receive my letter.         |
| Doomsday   | Do you think you could find out for me?   |
| Dormouse   | We have succeeded in finding out.         |
| Earldom    | And are writing to you fully.             |
| Easement   | We regret that we are unable to find out. |
| Echelon    | You have quite misunderstood my meaning.  |
| Eclairage  | Please have a look at                     |
| Eclipse    | Advertized in the <i>Madras Mail</i> of   |
| Editorial  | Advertized in the <i>Madras Times</i> of  |
| Effigy     | Do you think it worth the money?          |
| Eiderdown  | If you consider it worth the money.       |
| Elasticity | We think it well worth the money.         |
| Elephant   | We do not think it worth the money.       |
| Elocution  | Try and get it a little cheaper.          |
| Elopement  | We are trying to get it a little cheaper. |
| Eloquence  | We cannot get it any cheaper.             |
| Embassy    | This is the lowest he will accept.        |
| Embrace    | Open to an offer.                         |
| Embryo     | Not open to an offer.                     |
| Enigma     | We recommend you to close at once.        |

## FOR THE USE OF HECOUNTRY CORRESPONDENTS.

## MISCELLANEOUS SENTENCES.

|            |                                                 |
|------------|-------------------------------------------------|
| Enthusiast | Otherwise it will be sold to others.            |
| Epanale    | We advise you not to buy.                       |
| Epidermis  | We advise you not to sell.                      |
| Epilogue   | Think you will do better by waiting.            |
| Epitaph    | This is the very best offer we can get.         |
| Equator    | Buy for me from—                                |
| Equirage   | As advertized in their price-list.              |
| Equity     | As advertized by—                               |
| Ermine     | Not obtainable anywhere in Madras.              |
| Erysipalis | If not obtainable in Madras.                    |
| Escutcheon | Procure it for me from—                         |
| Espionage  | We think we could obtain it from—               |
| Essayist   | We are trying to obtain it from—                |
| Etching    | We know we can procure it in—                   |
| Ethiopian  | Have sent instructions to—                      |
| Etymology  | Am sending instructions to—                     |
| Eulogium   | To pay your account.                            |
| Euphorbia  | For payment please apply to                     |
| Evansong   | Please quote current rate of exchange.          |
| Evergreen  | What are the immediate prospects of exchange?   |
| Excelsior  | What do the Banks quote for—?                   |
| Facade     | Is there good reason to expect?                 |
| Factotum   | Have instructed—to hand you deposit.            |
| Falchion   | Please adhere to my instructions.               |
| Falcory    | If you agree, telegraph confirming.             |
| Falsetto   | Cancel my previous instructions.                |
| Fanatic    | Recommend you to give us <i>carte blanche</i> . |
| Fardel     | I give you <i>carte blanche</i> .               |
| Fashion    | Can only do so on your responsibility.          |
| Febrifuge  | Not responsible for                             |

## THE COMMANDEE TELEGRAPH CODE

## PASSAGES.

|            |                                           |
|------------|-------------------------------------------|
| Fisherman  | What steamers are available?              |
| Fishhook   | During the next fortnight.                |
| Fixture    | During the next month.                    |
| Flabbiness | About the                                 |
| Flagstaff  | Telegraph the sailing dates.              |
| Flambeau   | Write full particulars about              |
| Fleabite   | What are the best berths available:       |
| Fledgling  | First saloon.                             |
| Flotist    | Second saloon.                            |
| Fluke      | I have posted plan of steamer to you      |
| Flycatcher | The following berths are available:       |
| Foghorn    | The only berths now available are         |
| Foliage    | Offer accepted, please secure the berths: |
| Football   | For self only.                            |
| Footman    | For self and wife.                        |
| Forceps    | For self, wife and child.                 |
| Forelock   | For self and daughter.                    |
| Formalist  | For self and sister.                      |
| Fossil     | Secure the best berths available.         |
| Foundling  | Provided that                             |
| Fonglove   | Do not take the berths offered.           |
| Franchise  | Would much prefer.                        |
| Freemason  | Impossible to secure other accommodation. |
| Fretwork   | We can offer you instead.                 |
| Friar      | Must be on the upper deck.                |
| Friskiness | I have no objection to the lower deck.    |
| Frivolity  | Please decide and reply promptly.         |
| Fugleman   | Offer cannot be left open.                |
| Furial     | No other berths available.                |
| Furled     | The other available berths are            |

## FOR THE USE OF STEAMSHIP COMMANDERS.

## PASSAGES.

|            |                                               |
|------------|-----------------------------------------------|
| Gabien     | Steamer likely to be crowded.                 |
| Gabier     | Steamer is due hereon.                        |
| Galaxy     | Steamer will be before her time.              |
| Galliard   | Steamer will be behind her time.              |
| Galvanism  | We have secured the berths required.          |
| Galland    | We have secured berths No.                    |
| Garniture  | The berths you want are already let.          |
| Garrison   | What would be the cost of single journey?     |
| Gasometer  | What would be the cost of return journey?     |
| Gateway    | By P. & O. steamer.                           |
| Generalogy | By Messageries steamer.                       |
| Geometry   | By British India steamer.                     |
| Gerund     | By Clan steamer.                              |
| Giddiness  | By Asiatic steamer.                           |
| Gimcrack   | By Orient steamer for Colombo.                |
| Giraffe    | By North German Lloyd's steamer from Colombo. |
| Gladiator  | By Rubattino steamer from Bombay.             |
| Glimpse    | By Austrian Lloyd's steamer from Bombay.      |
| Glossary   | By Wilson steamer from Bombay.                |
| Glowworm   | The cost would be                             |
| Godchild   | As requested.                                 |
| Godlike    | We have sent you full particulars by post.    |
| Gooseberry | We require a deposit to secure the passages.  |
| Gourmand   | Remittance has been despatched.               |
| Grammar    | Apply for passage money to—                   |
| Grapple    | Cancel the passages if possible.              |
| Greenback  | I have cancelled the passages, as requested.  |
| Grenadier  | Unable to cancel the passages.                |
| Gridixen   | Without forfeiting the deposit money.         |
| Grimace    | But can transfer them to a later steamer.     |

## THE COROMANDEL TELEGRAPH CODE

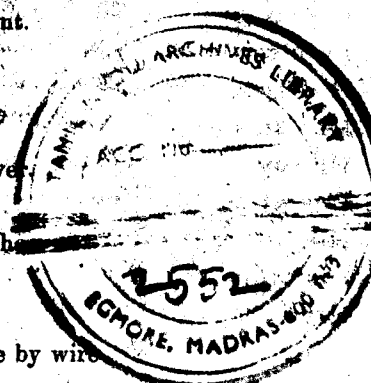
## AGENCY.

|            |                                            |
|------------|--------------------------------------------|
| Haddock    | Please secure rooms at hotel.              |
| Hailstone  | We have secured the rooms required.        |
| Hamlet     | The hotel you name is full.                |
| Handicraft | We can secure rooms at hotel.              |
| Harbinger  | We have secured rooms at hotel.            |
| Hardship   | Please send man to meet me at station.     |
| Harebell   | Please send man to meet me on board.       |
| Harlequin  | We will send our man to meet you.          |
| Harpoon    | Forward all letters addressed to me.       |
| Hartshorn  | To care of                                 |
| Haversack  | Retain all letters until my arrival.       |
| Hawthorn   | Send letters on here until further notice. |
| Hecatomb   | Next letters to be addressed.              |
| Hedgerow   | We have no letters for you.                |
| Heirship   | All letters have been forwarded.           |
| Heliotrope | Am expecting by the steamer—               |
| Hemlock    | Please send on board to meet him (or her). |
| Heptagon   | And give every assistance.                 |
| Herdman    | Telegraph what day steamer expected.       |
| Hersoy     | Will carry out your instructions.          |
| Hesperian  | Steamer now in sight.                      |
| Hilarity   | Steamer has arrived.                       |
| Historian  | We have carried out your instructions.     |
| Hoarfrost  | We await your further instructions.        |
| Hollystone | Pending instructions from you.             |
| Homestead  | We have done our best.                     |
| Honeycomb  | Am detained here until                     |
| Hoodwink   | Please engage for me.                      |
| Hopscotch  | Have engaged for you.                      |
| Hornpipe   | Cannot engage until arrival.               |

## FOR THE USE OF UPOUNTRY CORRESPONDENTS.

## HOME TELEGRAMS.

|            |                                         |
|------------|-----------------------------------------|
| Isicle     | Please telegraph as follows.            |
| Iconoclast | To address indicator (through Reuters). |
| Idealism   | Boy born to-day.                        |
| Idiocracy  | Girl born to-day.                       |
| Idleness   | Mother and child doing well.            |
| Ignominy   | Twins boy and girl born.                |
| Imagery    | Twins both boys born.                   |
| Imbecile   | Twins both girls born.                  |
| Imbroglia  | Mother and children doing well.         |
| Immunity   | Marriage took place to-day.             |
| Impasse    | Marriage unavoidably postponed.         |
| Impostor   | Am ordered home.                        |
| Impromptu  | Expect to sail to-day.                  |
| Inchord    | Leaving by steamer.                     |
| Incognito  | Break the news gently.                  |
| Incubation | Has met with an accident.               |
| Individual | Is seriously ill.                       |
| Indolence  | Is very seriously ill.                  |
| Infancy    | Is dangerously ill.                     |
| Infidel    | Is not expected to recover.             |
| Ingress    | Died on                                 |
| Inkstand   | Please insert notice in the             |
| Innocence  | How is my—                              |
| Inquisitor | Most anxious for news.                  |
| Insignia   | Send on the reply to me by wire.        |
| Instinct   | Prepay the reply.                       |
| Intellect  | Your telegram was duly despatched.      |
| Interview  | Has no reply been received?             |
| Invalid    | No reply has come to hand yet.          |
| Invasion   | Please register an Indicator between    |



ADVERTISEMENTS.

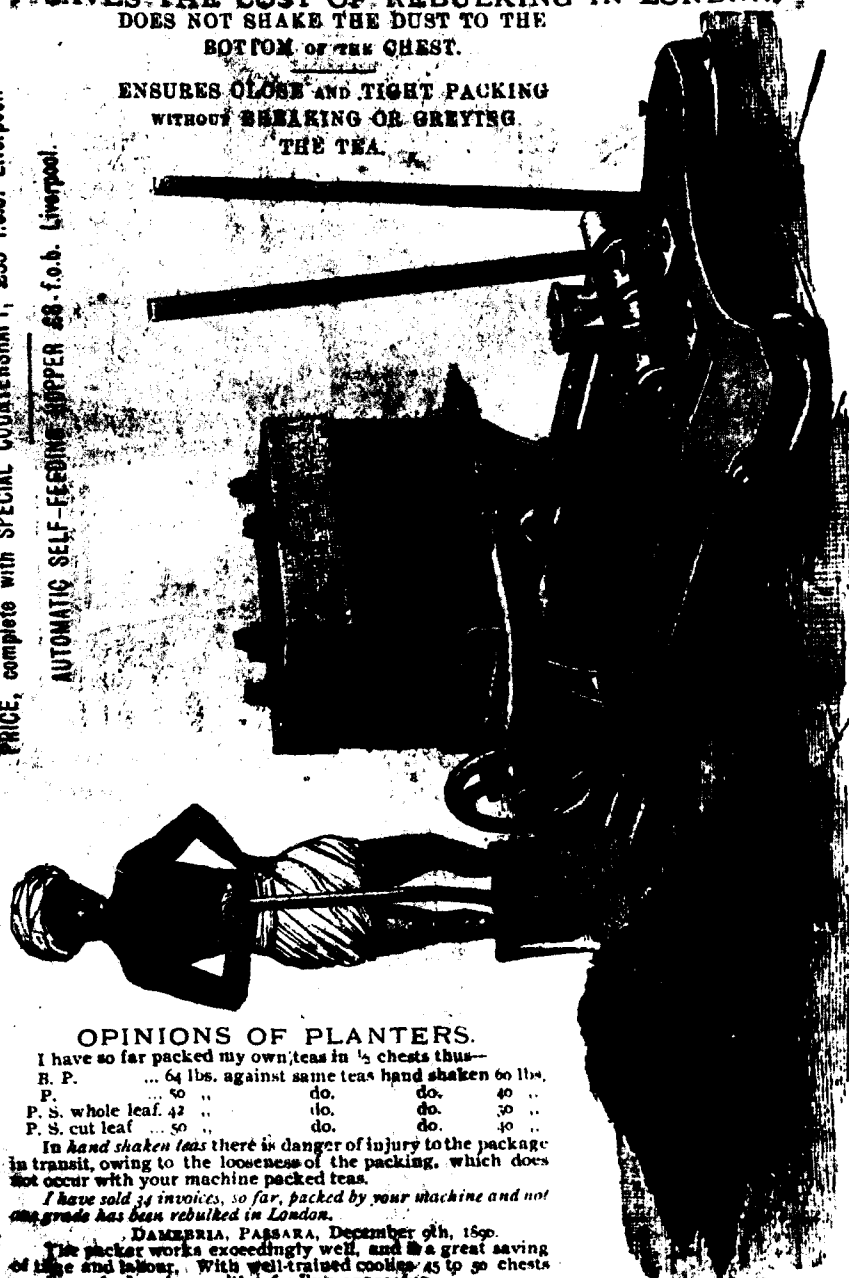
THE DAVIDSON-MAGUIRE  
**PATENT TEA PACKER.**

OVER 250 NOW IN USE.  
SAVES THE COST OF REBULKING IN LONDON.  
DOES NOT SHAKE THE DUST TO THE  
BOTTOM OF THE CHEST.

ENSURES CLOSE AND TIGHT PACKING  
WITHOUT BEARING OR GREYING  
THE TEA.

PRICE, complete with SPECIAL COUNTERSHAFT, £33 f.o.b. Liverpool.

AUTOMATIC SELF-FEEDING SUPPER £8 f.o.b. Liverpool.



**OPINIONS OF PLANTERS.**

I have so far packed my own teas in 1/2 chests thus—  
B. P. ... 64 lbs. against same teas hand shaken 60 lbs.  
P. S. whole leaf 42 " do. 40 "  
P. S. cut leaf 50 " do. 40 "

In hand shaken teas there is danger of injury to the package in transit, owing to the looseness of the packing, which does not occur with your machine packed teas.

I have sold 34 invoices, so far, packed by your machine and not one grade has been rebulked in London.

DAMBERRIA, PASSARA, December 9th, 1890.

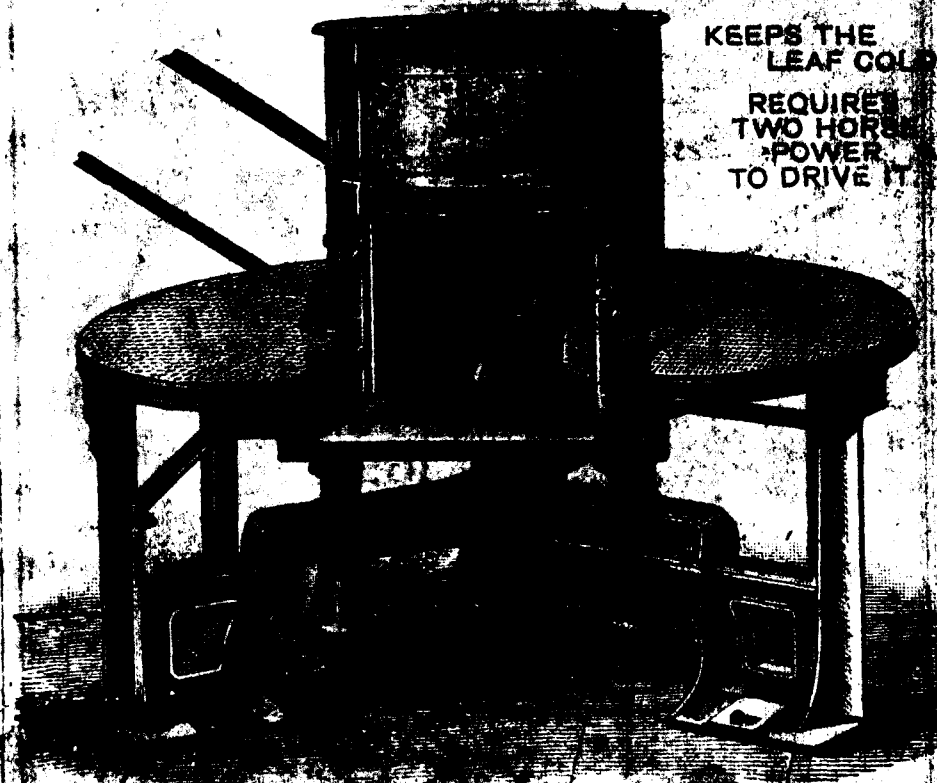
The packer works exceedingly well, and is a great saving of time and labour. With well-trained coolies 45 to 50 chests can be packed an hour with a feeding apparatus.

**LEIGHTON & CO., MADRAS.**

ADVERTISEMENTS.

DAVIDSON'S PATENT  
**SIROCCO TEA ROLLER.**

KEEPS THE  
LEAF COOL.  
REQUIRES  
TWO HORSE  
POWER  
TO DRIVE IT.



IS THE CHEAPEST ROLLER ON THE MARKET.

PRICE £115 F.O.B. LIVERPOOL.

**TESTIMONIALS:**

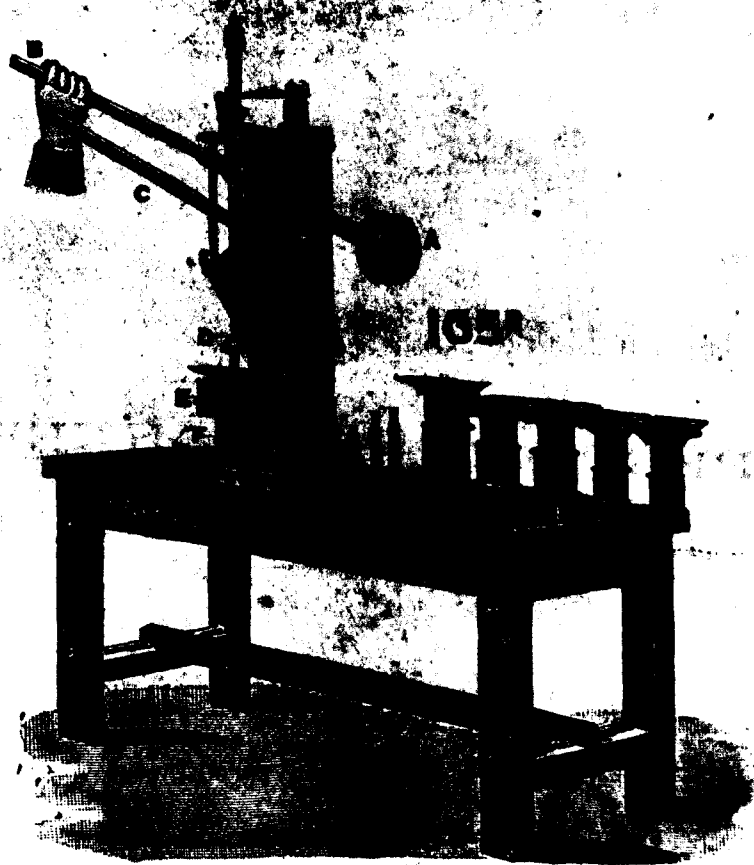
"**EL TEL, PASSARA.**—I am pleased with the working of this machine, and like the ingenious way the leaf rolls itself. I have compared the teas made by the Economic Roller and this, and they are very similar to each other, and I must say that this Roller keeps the leaf perfectly cool, which is an advantage. It does not break the tea up so much as the Economic, and it gives quite as strong and pungent tea."  
(Signed) KENNETH J. THORPE."

**LEIGHTON & CO., MADRAS.**

ADVERTISEMENTS.

# THE "QUICK." TEA PACKING MACHINE.

- DESCRIPTION.**
- |                                         |                                      |
|-----------------------------------------|--------------------------------------|
| A. Counterbalance weight.               | F. Removable plunger.                |
| B. Lever for pressing tea into packets. | G. Adjustable lifter for Tea Funnel. |
| C. Lever for lifting the Funnel.        | H. Adjusting guides for Tea Mould.   |



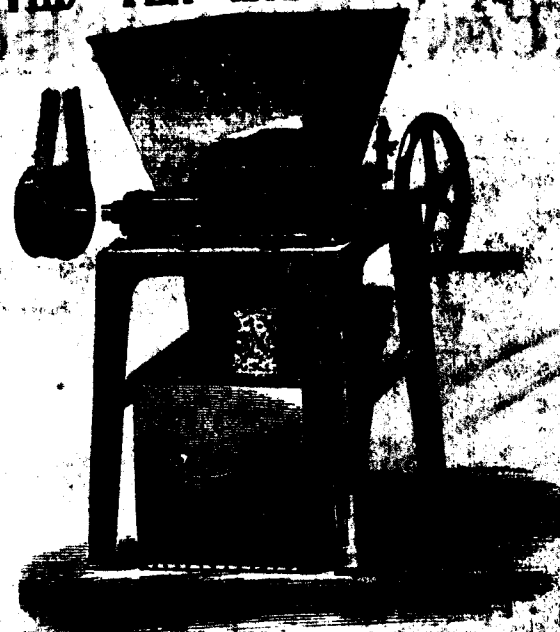
## SPECIAL ADVANTAGES.

1. It does the work faster and better than by hand.
2. The Plunger works vertically, and presses the Tea gently.
3. The Packets are firmly made, smooth, and of uniform size.
4. The Machine can be used for Lead, Lead foil, or Paper.
5. It is adjustable, and will pack  $\frac{1}{4}$ ,  $\frac{1}{2}$  or 1 lb. packets to any desired shape.

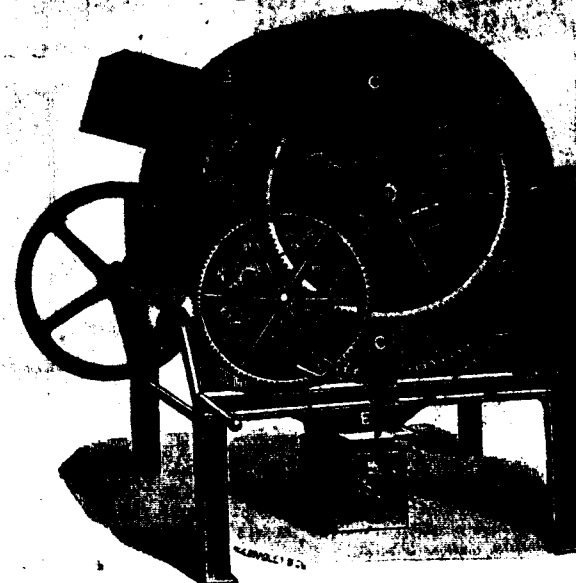
Agents—LEIGHTON & CO., MADRAS.

ADVERTISEMENTS.

# IMPROVED TEA MILL OR EQUALIZER.



## "PERFECT" TEA MIXER.



Agents—LEIGHTON & CO., MADRAS.

# THE "ACME" TEA CHEST.

(PATENT.)

Construction on  
the Estate.

Fig. 1. — Putting up by hand.

Fig. 2. — Sliding slip joint.

Fig. 3. — Chest complete.

The Chests are put together  
in three minutes.

Exported in "Acme"  
Chests.

1884.—1,750,000 lbs.

1895.—10,000,000 lbs.

1898.

Nearly 20,000,000 lbs.

of Tea.

The fact that 1,000 'ACME' Chests will carry home 106,000 lbs. of Tea, while 1,176 Wooden, Lead-lined Chests of the same outside measurement would be required for the same quantity, demonstrates clearly one advantage of 'Acme's' over Wooden Chests, and the following comparison shows the indisputable saving from this source alone to be 1s. 6½d. per 100 lbs. of Tea.

LEIGHTON & CO., MADRAS.

# THE "ACME" TEA CHEST. (PATENT.)

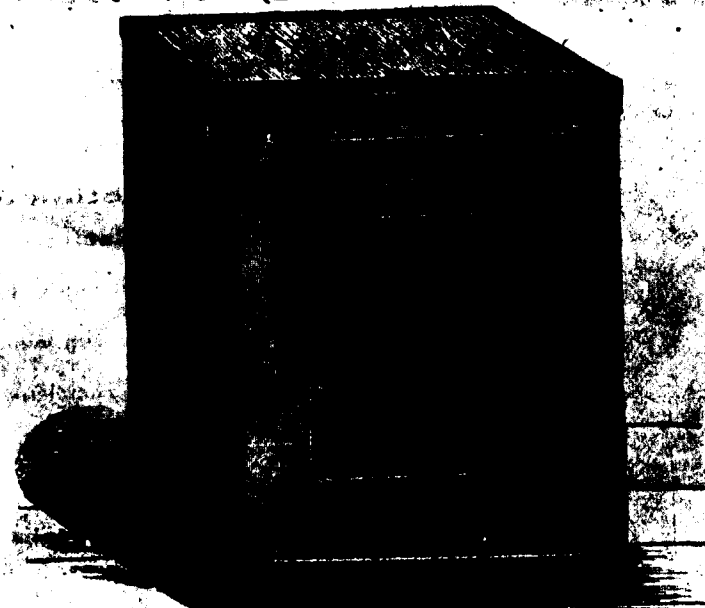


Fig. 3.

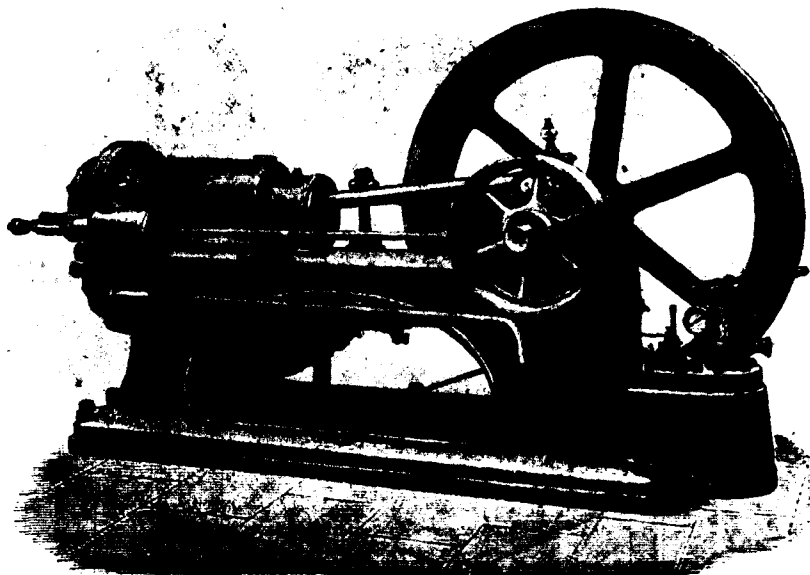
## COMPARISON OF 106,000 LBS. OF TEA. Carried in ACME'S or WOODEN'S.

| "ACME'S," 1 Size.                        |     |          | WOODEN'S.                               |     |         |
|------------------------------------------|-----|----------|-----------------------------------------|-----|---------|
| (24 in. x 19 in. x 19 in.) 5 cubic feet. |     |          | 24 in. x 19 in. x 19 in.) 5 cubic feet. |     |         |
| Cost of 1,000 Acme's at                  | £   | s. d.    | Cost of 1,176 Wooden's at               | £   | s. d.   |
| Gardens at 3/6 each                      | 175 | 0 0      | Gardens, average 8/ each                | 176 | 8 0     |
| Freight, Calcutta to London,             |     |          | Freight, Calcutta to London,            |     |         |
| 1,000 packages, at 3/6 per               | 175 | 0 0      | 1,176 packages, at 3/6 per              | 205 | 16 0    |
| package                                  |     |          | package                                 |     |         |
| Warehouse charges, 1,000                 |     |          | Warehouse charges, 1,176                |     |         |
| packages, at 3/11 per                    | 195 | 16 8     | packages, at 3/11 per                   | 230 | 6 0     |
| package                                  |     |          | package                                 |     |         |
|                                          |     |          |                                         | 612 | 10 0    |
|                                          |     |          |                                         | 545 | 16 8    |
|                                          |     |          |                                         |     |         |
|                                          | £   | 545 16 0 | Saving on "Acme's"                      | £   | 66 14 4 |

Saving 266 14s. 4d., or 1s. 6½d. per 100 lbs. of Tea.

LEIGHTON & CO., MADRAS.

## THE PRIESTMAN OIL ENGINE



### HAS THE FOLLOWING ADVANTAGES.—

**Perfect Governing**, which is effected in a similar manner to the Steam Engine, a greater or less impulse being obtained according to the work to be done. The "hit and miss" arrangement ordinarily employed in internal combustion Engines not being adopted.

**Perfect Combustion** is obtained by the adoption of the "Pneumatic Poker," producing "Oil Dust," whereby the combustion is so perfect that the Engine will run for many months without cleaning piston or valves.

**Automatic Lubrication** is obtained by the mode of treating the Oil, which avoids the trouble and expense of using a costly lubricant for the piston and valves.

**The Self-Starter** is included in the price, and fitted on all Engines of 6 H.P. and upwards. Its action is perfect.

**Improved Means of Heating** the Vaporiser are now supplied, a few strokes of the Pump only being necessary, instead of the constant labour as heretofore in warming.

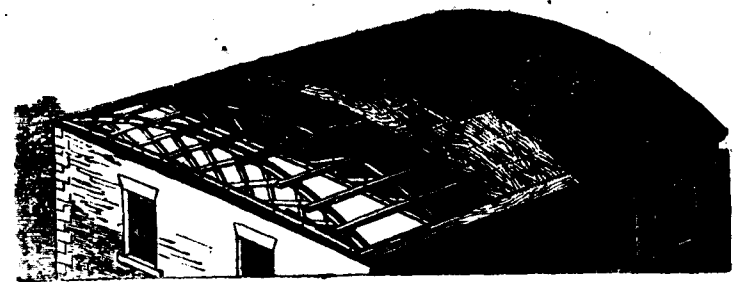
**Alternative Means of Ignition.** The latest improved Electric Igniter is recommended for regularity of speed. Engines are using this for periods varying from 500 to 2,000 working hours and upwards without renewing the cells, but if preferred, Ignition by Heat can be substituted, without additional expense.

LEIGHTON & CO., MADRAS.

## McTear & Co., Belfast.



### PATENT FELT AND ASPHALTE WORKS.



### ASPHALTED ROOFING FELT.

THE BEST MATERIAL FOR RENDERING BUILDINGS  
RAIN PROOF.

IN ROLLS 32 INCHES WIDE AND 25 YARDS LONG.

AGENTS AT MADRAS—LEIGHTON & CO.

ADVERTISEMENTS.

# **HAND POWER. RICE SHELLERS.**



These machines have proved of great value to native cultivators who shell their own rice.

The machine consists of a cone—made of natural or artificial stone—revolving on a shaft inside a conical case, the interior of which is constructed so that a slightly corrugated surface is opposed to the stone cone. The grain passes between these two surfaces, and is subjected to an action similar to that of rubbing between the hands, which effectually loosens and removes the husk with a minimum amount of breakage.

Floor space—3 ft. x 3 ft. Height—5 ft. 2 inches.

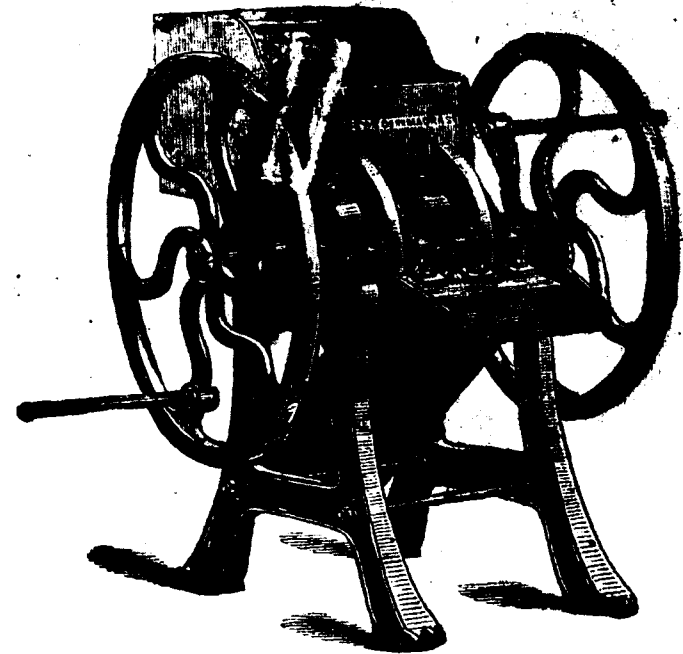
Capacity—1½ to 2 cwt. per hour.

Price—Delivered on rails at Madras. Rs.300.

LEIGHTON & CO., MADRAS.

ADVERTISEMENTS.

# **COFFEE PULPERS.**



|                   | Pulper. | Feed Roller. | Copper Sheets. |
|-------------------|---------|--------------|----------------|
|                   | Rs. A.  | Rs. A.       | Rs. A.         |
| Single Disc       | 187 0   | 15 0         | 8 8            |
| Double Disc       | 370 0   | 20 0         | 8 8            |
| Adjustable Breast | 420 0   | ...          | 28 8           |

LEIGHTON & CO., MADRAS.

## CANADIAN HARDWOOD PULLEYS.

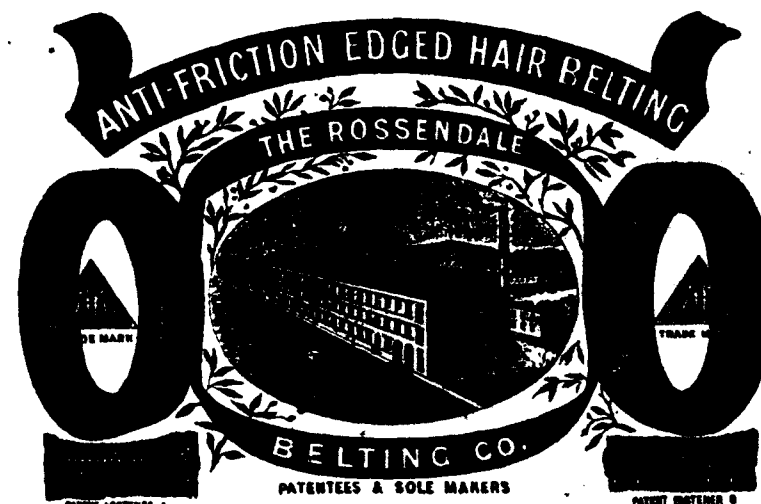


Every Pulley is a split Pulley and is guaranteed to transmit from 25 to 60 per cent. more power than Iron into the same tension of belt. They are 70 per cent. lighter than Iron Pulleys, and can be used on different sizes of shaft. They are in perfect balance and sufficiently strong for the heaviest belts.

| DIAMETER. | FACE.  | RS. A. | DIAMETER. | FACE.  | RS. A. | DIAMETER. | FACE.  | RS. A. |
|-----------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| 8 ins.    | 4 ins. | 7-8    | 16 ins.   | 8 ins. | 16-8   | 26 ins.   | 8 ins. | 29-0   |
| 8 "       | 6 "    | 9-0    | 17 "      | 4 "    | 11-8   | 28 "      | 4 "    | 21-8   |
| 9 "       | 3 "    | 7-8    | 17 "      | 6 "    | 14-8   | 28 "      | 6 "    | 26-0   |
| 9 "       | 4 "    | 8-0    | 18 "      | 4 "    | 12-0   | 28 "      | 8 "    | 31-0   |
| 9 "       | 6 "    | 9-8    | 18 "      | 6 "    | 15-0   | 30 "      | 4 "    | 24-0   |
| 10 "      | 3 "    | 8-0    | 18 "      | 8 "    | 18-8   | 30 "      | 6 "    | 28-0   |
| 10 "      | 4 "    | 8-8    | 18 "      | 10 "   | 21-0   | 30 "      | 8 "    | 34-8   |
| 10 "      | 6 "    | 10-0   | 20 "      | 4 "    | 13-8   | 32 "      | 4 "    | 26-8   |
| 12 "      | 4 "    | 9-0    | 20 "      | 6 "    | 18-0   | 32 "      | 6 "    | 30-0   |
| 12 "      | 6 "    | 10-8   | 20 "      | 8 "    | 21-8   | 32 "      | 8 "    | 38-8   |
| 12 "      | 8 "    | 11-8   | 22 "      | 4 "    | 15-0   | 34 "      | 4 "    | 29-0   |
| 14 "      | 4 "    | 9-8    | 22 "      | 6 "    | 20-8   | 34 "      | 6 "    | 34-8   |
| 14 "      | 6 "    | 12-0   | 24 "      | 4 "    | 16-0   | 34 "      | 8 "    | 43-8   |
| 14 "      | 8 "    | 14-0   | 24 "      | 6 "    | 22-0   | 36 "      | 4 "    | 32-0   |
| 15 "      | 3 "    | 9-0    | 24 "      | 8 "    | 26-8   | 36 "      | 6 "    | 39-0   |
| 15 "      | 6 "    | 13-0   | 26 "      | 4 "    | 19-0   | 36 "      | 10 "   | 57-0   |
| 16 "      | 4 "    | 11-0   | 26 "      | 6 "    | 24-0   |           |        |        |

LEIGHTON & CO., MADRAS.

## MACHINE BELTING.



### ROSSENDALE COTTON BELTING.

|                                      |                             |                             |
|--------------------------------------|-----------------------------|-----------------------------|
| per foot $1\frac{1}{2}$ in. x 4 ply. | 3 in. x 4 ply.              | $3\frac{1}{2}$ in. x 4 ply. |
| As. 4.                               | As. 7 $\frac{1}{2}$ .       | As. 8 $\frac{1}{2}$ .       |
| per foot 4 in. x 4 ply.              | $4\frac{1}{2}$ in. x 4 ply. | $5\frac{1}{2}$ in. x 4 ply. |
| As. 10.                              | As. 12.                     | Rs. 1-0.                    |
| per foot $2\frac{1}{4}$ in. x 6 ply. | 4 in. x 6 ply.              | $4\frac{1}{2}$ in. x 6 ply. |
| As. 6.                               | As. 14.                     | Rs. 1-0.                    |
| per foot $5\frac{1}{2}$ in. x 6 ply. | 8 in. x 6 ply.              | 6 in. x 8 ply.              |
| Rs. 1-4.                             | Rs. 1-12.                   | Rs. 1-8.                    |

### ROSSENDALE SOLID HAIR BELTING.

|                             |         |                    |
|-----------------------------|---------|--------------------|
| per foot $2\frac{1}{2}$ in. | 3 in.   | $3\frac{1}{2}$ in. |
| As. 9.                      | As. 12. | As. 14.            |

LEIGHTON & CO., MADRAS.

DAVIDSON'S PATENT  
**DOUBLE-CLINGER**  
BELT RIVETS  
Belt Plates Washers  
Jointing Plates  
Patent Holders and Extractors



DAVIDSON & CO BELFAST, IRELAND  
SIROCCO ENGINEERING WORKS  
ALSO AT 45 & 61, LAL BAZAR CALCUTTA  
AND FORBES ROAD, COLOMBO

Rivets, in boxes of one gross each.

Washers, do. do.

Jointing Plates, in boxes of  $\frac{1}{4}$  gross each.

Patent Holders and Extractors.

LEIGHTON & CO., MADRAS.

# THE ANTI-ATTRITION METAL CO., Ltd.,

EMERSON STREET, SOUTHWARK,

THE ANTI-ATTRITION  
METAL CO., Ltd.

Registered Trade Mark.

LONDON, S. E.

THE ANTI-ATTRITION  
METAL CO., Ltd.

Registered Trade Mark.

## SOLE MAKERS OF ANTI-ATTRITION METAL (No. 1)

For **SOLID** Bearings, Bushes, Glands, in place of Gun Metal, &c.

## ANTI-ATTRITION METAL (No. 2)

Specially for **LINING** Purposes.

The General Properties of the Metal are well established, and as follows:—

1. It never scores or injures the Journals.
2. It is at least 75 per cent. more durable than other bearing metals.
3. No hot boxes are experienced under its use.
4. A considerable saving is effected in lubrication.
5. In specific gravity it is 15 per cent. lighter than Gun Metal, and 30 per cent. lighter than Phosphor Bronze, so that 85 bearings and 70 bearings of those two Metals respectively equal 100 bearings of Anti-Attrition Metal.
6. It is the cheapest and best Bearing Metal in the Market.

Agents at Madras—LEIGHTON & CO.

# ALEXANDER CROSS & SONS,

19 HOPE STREET, GLASGOW,

CONTRACTORS FOR THE IMPORTATION AND SALE OF

**Peruvian Guano and Nitrate of Soda,**  
MANUFACTURERS AND EXPORTERS OF

Sulphates of Ammonia and Potash. Slag-  
Phosphat-Meal, Superphosphates, and Sulphuric  
Acid, as well as of Special Fertilisers for the  
Colonies.

DISSOLVED GUANO.

RAW GUANO.

SPECIAL CANE FERTILISERS.

SPECIAL COFFEE FERTILISERS.

SULPHATE OF AMMONIA.

SPECIAL TOBACCO MANURE.

GUANO SUPERPHOSPHATES.

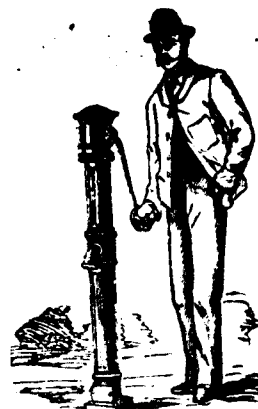
REFINED NITRATE OF SODA.

RECTIFIED VITRIOL.

&c. &c. &c.

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## ABYSSINIAN TUBE WELLS.



These Wells are cheap, portable, rapid  
in their action, simple to drive, and are  
now in extensive use in all parts of the  
world.

The quantity of water obtainable  
depends entirely upon the strength of the  
water-bearing strata, and two or more  
Wells may be connected together.

### PRICES AND PARTICULARS.

|                                                                                   | Rs. | A. |
|-----------------------------------------------------------------------------------|-----|----|
| 1½ ins. Tube well, 30 feet                                                        | 50  | 0  |
| Extra Tubing per foot                                                             | 1   | 4  |
| Hand-driving apparatus                                                            | 200 | 0  |
| Combined driving and withdraw-<br>ing apparatus, with all necessary<br>tools, &c. | 275 | 0  |
| Spare Tube-well points                                                            | 10  | 0  |
| Do. with Sand-strainer                                                            | 20  | 0  |
| Pitcher Spout Pump                                                                | 20  | 0  |
| Field Pump                                                                        | 30  | 0  |
| Home Pump                                                                         | 35  | 0  |

LEIGHTON & CO., MADRAS.

Est. 1791. **Sir John Power & Son** Est. 1791.



**DISTILLERS, DUBLIN.**  
ESTABLISHED A.D. 1791.



**Special Irish Pot Still Whiskey.**  
PERFECT PURITY INSURED.

**ANALYSIS**

By **SIR CHARLES CAMERON**, *Professor of Chemistry and Hygiene, R.C.S., City and Country Analyst, and Chief Medical Officer of Health, Dublin.*

"I have examined the Whiskey supplied by Sir John Power & Son, Distillers, Dublin. I conclude from the result of a very careful analysis:—

- "1st. That this Whiskey has been manufactured from the finest native Malt.
- "2nd. That the Brewery and Distillery processes have been skilfully conducted.
- "3rd. That the Whiskey is quite free from such natural impurities as Aldehyde, Fusel Oil, etc.
- "4th. That it is Old and Mellow.
- "This Whiskey I consider to be the finest sample I have ever examined, possessing good bouquet and excellent flavour.

"CHARLES A. CAMERON."

**CASED WHISKEY BOTTLED AT THE DISTILLERY.**

"ONE SWALLOW."

In Cases of One Dozen Bottles,  
containing two Imperial gallons.

"THREE SWALLOW."

In Cases of One Dozen Bottles,  
containing two Imperial gallons.

Whiskey in Wood supplied in Octaves and Quarters.

N.B.—The Cork, Label, and Case bear the Registered Signature of the Firm.

and Casks the  Trade Mark.

**AGENTS AT MADRAS—LEIGHTON & Co.**

✧ **T. B. HALL & CO.,** ✧

**LIVERPOOL.**

SHIPPERS OF THE

T. B. HALL & CO



**"BOAR'S HEAD" BRAND**

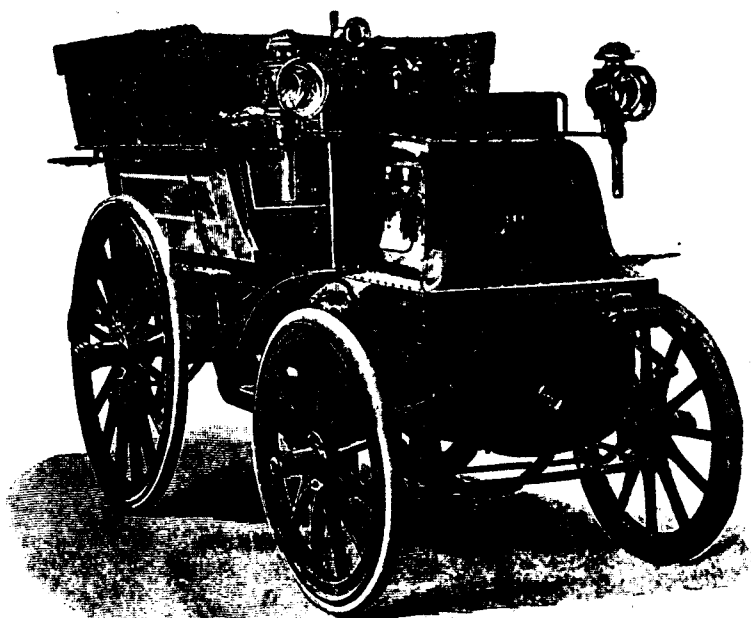
OF

**BASS'S PALE ALE**

AND

**GUINNESS'S STOUT.**

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## MOTOR CARS,

*Driven by Oil or Electricity.*

For particulars and prices, apply to  
LEIGHTON & CO., MADRAS.

ADVERTISEMENTS.

## ACETYLENE GAS.



CALCIUM CARBIDE  
IN AIR-TIGHT DRUMS. Rs.32 PER CWT.  
LEIGHTON & CO., MADRAS.

ADVERTISEMENTS.

## RATNER SAFE CO., LD.,

51, Moorgate Street, E.C.

### GREAT FIRE IN LEEDS.

25, WELLINGTON STREET,  
LEEDS, 1ST JAN., 1869.

DEAR SIRS,

We have great pleasure in informing you that the three Ratner Safes we bought some years since from Messrs. Goodall and Suddick, Cookridge Street, Leeds, preserved their contents to our entire satisfaction, in the great fire which completely destroyed our factory on the evening of the 28th ult.

The large Safe, 46 ins. high, contained the Stock Books of our numerous branches, all our Insurance Policies, and other papers of great value, so you may judge how pleased we were to find it had passed the ordeal satisfactorily. The severe test the Ratner Safes have triumphantly undergone is the more creditable, as the fire was admittedly the fiercest that has ever occurred in this neighbourhood. We thank you for the quick delivery of two new Ratner Safes to-day.

(For Ansell, Limited,)

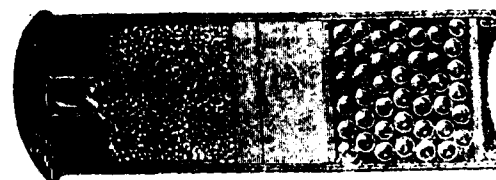
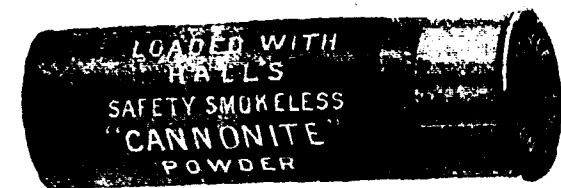
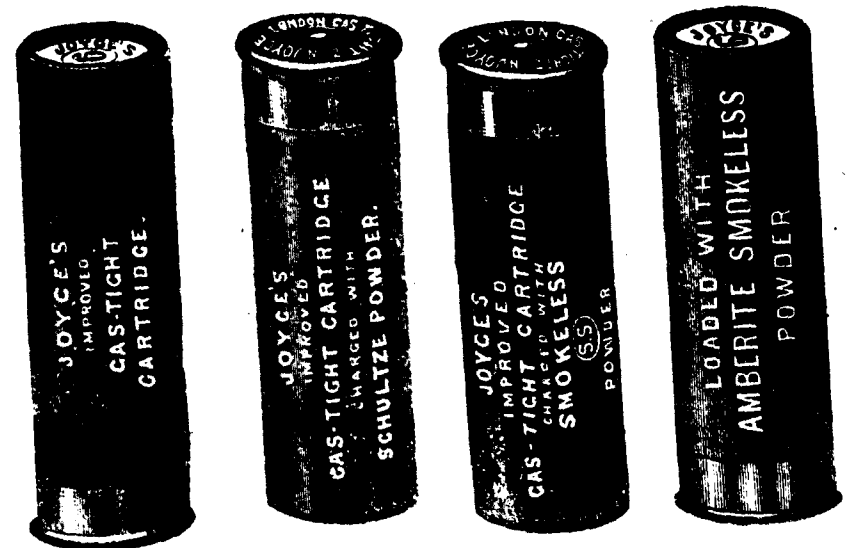
**S. H. ANSELL,**  
*Managing Director.*

N.B.—The contents of nine safes of other makers were destroyed in this fire.

Agents at Madras—LEIGHTON AND CO.

ADVERTISEMENTS.

## Joyce's Cartridges.



WHOLESALE AGENTS:

**LEIGHTON & CO., MADRAS.**

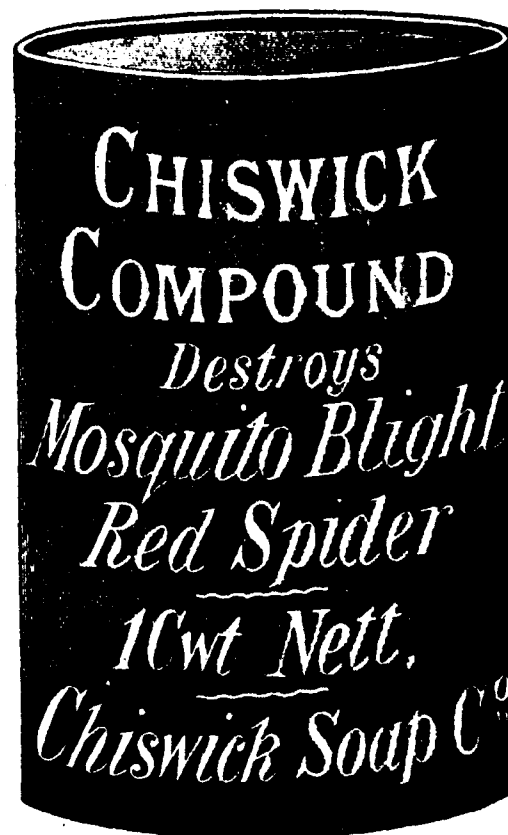
# STEARNS' WINE OF Cod Liver Oil.

The ideal Tonic in all  
wasting diseases, whether  
proceeding from Lung  
trouble or other causes.

**Sold by all Chemists.**

## CHISWICK SOAP COMPANY.

LONDON, W.



THE  
CHISWICK COMPOUND.  
IN DRUMS OF 1 cwt.  
Rs.27 per drum.

Its efficacy  
is now beyond doubt,  
and all planters  
who wish to save  
their crop from the  
ravages of red  
spider, white ants,  
blights, &c, should  
lose no time in  
starting spraying  
operations.

The Agents will be glad to give all  
information.

**The "Chiswick" Knapsack Sprayer,**  
holding three gallons—Rs.50 each.

Agents at Madras: MESSRS. LEIGHTON & CO.

ADVERTISEMENTS.

# PLANTERS' STORES.

|                         |                        |
|-------------------------|------------------------|
| Corrugated Iron         | 'Acme' Tea Chests      |
| Plain Galvanized Sheets | Tea Lead               |
| Continuous Iron         | Estate Tools           |
| Ridging and Guttering   | Chemical Manures       |
| Asphalted Roofing Felt  | Insect Destroyers      |
| Plain Fencing Wire      | Pulleys and Shafting   |
| Barb Wire               | 'Rossendale' Belting   |
| Ditrigon Wire           | Davidson's Belt Rivets |
| Rigid Fencing           | Lubricating Oils       |
| Wire Netting            | Boiler Fittings        |
| Wrought Iron Tubes      | Mica Boiler Covering   |
| Portland Cement         | Asbestos Packing       |
| Asphalte                | India Rubber Sheet     |
| Coal Tar                | Anti-Attrition Metal   |
| Terpentine              | Dynamite               |
| Linseed Oil             | Blasting Powder        |
| Fire Clay               | Manila Rope            |

LEIGHTON AND CO., MADRAS.

# NORWICH UNION FIRE OFFICE

ESTABLISHED 1797.

HEAD OFFICE:  
SURREY STREET, NORWICH.

LONDON OFFICES:

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and 1, Victoria Street, S.W.

|                |              |
|----------------|--------------|
| AMOUNT INSURED | £380,000,000 |
| LOSSES PAID    | £13,000,000  |
| PREMIUM INCOME | £900,000     |

LOWEST RATES OF PREMIUM.  
PROMPT AND LIBERAL SETTLEMENT OF LOSSES.

Prospectuses and every information can be obtained from the  
AGENTS,

LEIGHTON & CO., MADRAS.

# London & Lancashire Life Assurance Company

IMPORTANT TO INVESTORS.

NEW ENDOWMENT SCHEME, combining a Family Provision,  
with a Good Investment, or a Pension for Life.

A Policy taken out under this scheme secures, for an extremely moderate Premium, a fixed Assurance in case of death, and if the Life survive the term, a CASH PAYMENT of the sum Assured. LARGELY INCREASED BY PROFITS, thus giving a fair rate of interest on the amount of Premiums paid. If preferred, the cash payment may be exchanged for an ANNUITY during life; or (subject to the Assured being still in good health) for a LARGE PAID-UP POLICY, payable at death.

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