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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.**Government of Madras.***Public Works* **DEPARTMENT.**

G.O. No. 386	Press ~~Mis.~~
181-82	
Dated 7-2-	1871.

Not to be folded or roughly handled

1 B

*Proceedings of the Madras Government, Public Works Department,
7th February 1871:*

No. 181. Read the following Endorsement of the Deputy Secretary to the Government of India No. 88-R. :—

Read the following letter from the Deputy Secretary to the Government of India, Public Works Department, (Railway,) to the Joint Secretary to the Government of Bengal, Public Works Department, Railway Branch, dated Fort William, 16th January 1871, No. 87-R.

I AM directed to acknowledge the receipt of your letter, No. 2,528-G., dated the 30th December 1870, communicating observations and making inquiries on certain points connected with the question of maximum speed for engines passing through station points.

2. With reference to the general observations by the Government of Bengal contained in the 2nd and 3rd paragraphs of your letter, I am directed to state that the responsibility of Station Masters within the limits of their stations is defined in general rules and regulations, and the Government of India cannot perceive that the wording of Resolution No. 1,895-R. in any way tends to lessen the responsibility which has been already fixed on the Station Master, and which is known to be necessary. That officer should continue, as heretofore, to protect his station by means of the "caution" and "danger" signals which a semaphore is capable of showing, and the normal position of semaphore signals should, as heretofore, indicate "danger."

3. The Government of Bengal believes that the 4th paragraph of the Resolution may possibly be open to misconstruction, and in elucidation of the Lieutenant-Governor's views you give a description of the working of the English block system. The paragraph to which exception is taken, being generally descriptive and containing no order, cannot be misconstrued to any dangerous extent, even if it does not convey so distinctly, as it appears to the Government of India to do, the meaning which it was intended to have. The working of the English block systems, which vary widely on different English Railways, is, no doubt, on many lines in accordance with your description, but I am to observe that the Government of India, in their Resolution, purposely avoided reference to any of the numerous systems of block working, which may be valuable safe-guards and highly desirable in a crowded traffic, but which must be considered apart from the special question relating to the maximum speed to be allowed over points.

4. The object of the Government of India is not to impose new restrictions, but to define on what conditions the existing rule regulating maximum speed of engines over points may be relaxed; and these conditions have been imposed because it is thought desirable, where increased speed is permitted, that every facing point on every line of Railway should be interlocked with a signal or signals, and that no two signals which can conflict with one another should be unprotected with locking gear. The Governor-General in Council sees no reason to alter the terms of the Resolution, and I am, therefore, ordered to reply to your three inquiries as under—

1st.—On single lines, a Railway Company adopting the precaution of locking points immovably before a train is due, will not, in respect of points so fastened, be allowed the privilege defined in paragraph 9 of the

*Proceedings of the Madras Government, Public Works Department,
7th February 1871*

Resolution, unless the conditions mentioned in the Resolution are complied with.

2nd—It will not be considered sufficient to justify the grant of a certificate by the Consulting Engineer if disc signals are fixed to all points that require to be manned while in use, as the Resolution applies to all facing points whether they are manned or not.

3rd—The Resolution also applies to all Railways, whether double or single, and as interlocking apparatus and additional signals are required only at facing points, His Excellency in Council believes that but little expense or inconvenience will be experienced on the double lines of Railway where there are few facing points, while fast traffic, on the single lines, will be much facilitated by that additional speed which may be safely obtained by adherence to the orders contained in the Resolution.

From the Joint-Secretary to the Government of Bengal in the Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, dated 30th December 1870, No. 2,528-G.

With reference to Resolution, No. 1,894-R., dated 30th November 1870, on the subject of the maximum speed for engines passing through station points, I am instructed to request that it may be brought to the notice of the Governor-General in Council that no mention is made in the Resolution of a perfectly efficient precaution which is commonly used in India on single lines, and is admirably adapted to neutralize the inefficiency of Native pointsmen. I allude to the system of fixing the switches to the stock rail immovably by means of a cramp or bolt, or by means of an arc and cotter fitted to the lever box, and securing them in the required position by a padlock before the train is due at the distance signal. Either the points are permanently locked, or else this precaution is in force at all roadside stations, and at most large stations also on the Railways under the control of this Government, where the line is single, and it is obvious that a train may pass to and fro over a pair of points so secured at any convenient rate of speed, or run through them to and fro almost as safely as it could traverse an ordinary curve of the same radius. I am therefore instructed to inquire whether on single lines a Railway Company adopting the precaution of locking points immovably before a train is due will be allowed the privilege defined in paragraph 9 of the Resolution in respect of all points so secured, on a certificate from the Consulting Engineer that the form of fastening is an efficient one.

2 The precaution here described is not, of course, adapted for a terminus or a junction, or for a large changing station, where many sets of points are in constant use. In such exceptional cases much additional safeguard may be derived, especially in shunting operations, from the use of a disc signal, which will show the driver that a pair of points which are being worked by a Native pointsman are truly set, and at the same time indicate the road which his train must take. But it seems necessary to point out, with reference to paragraph 3 of the Resolution, that the responsibility for the safe working of all lines within his station limits must be fixed on the Station Master alone, and that the true use of a semaphore signal is simply to stop a train. I am therefore instructed to inquire further whether it will be considered sufficient to justify the grant of a certificate by the Consulting Engineer if disc signals are fixed to all points that require to be manned while in use, and provided that the apparatus is capable of being fastened immovably during the passage of a train.

3 To show the sufficiency of the precautions here recommended, I am instructed to add, with reference to paragraph 4 of the Resolution, which may possibly be open to misconstruction, that under the English block system the normal position of all semaphore signals is for "danger"

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7th February 1871.*

When a pointsman in charge of the interlocking apparatus (from whose box several sets of points may be working in connection with the same semaphore) receives the telegraphic notice that a certain train has passed the semaphore station next above, he proceeds to set the points leading to the platform at which, according to working orders, the train is to discharge, and the act of drawing over the lever locks the whole set of points, and lowers the semaphore signal to allow the train to come on. Should he at the last minute find that he is in error and rush to the proper lever, he will find it immovably locked, and the only course open to him is to throw back the lever he originally used, and by so doing set the semaphore at "danger," after which he can work any one of the points under his command. At junctions or termini where several main lines converge, each has its own semaphore, and as all the points are, in such cases, interlocked and in charge of one pointsman, only one through road can be opened at a time, and only the corresponding semaphore lowered, so that if half-a-dozen trains were approaching together, all but one must be arrested. In the English interlocking apparatus, therefore, it is, more correctly speaking, the points which interlock, the semaphore signal being only used to stop the train until a road is opened for it; while auxiliary or disc signals are used for sidings where the point cannot be made to interlock.

4 I am also instructed to inquire whether the Resolution may be understood to refer to single lines only. On the double line, on the Railways under the control of this Government, the points are not facing points, and the counter-weight retains the switch rail clear of the through line when the points are not in use. No special precautions seem necessary in the case of trains passing such points, and the Lieutenant-Governor will be glad to learn that it is only contemplated by the Resolution to restrict the speed of trains passing points on the single line, as otherwise, for instance, the working of the fast mail train through the numerous small stations between Burdwan and Howrah would be seriously impeded.

Copy with copy of the letter to which it is a reply forwarded for information to the Local Governments and Administrations noted in the margin, in continuation of Nos. 1,893—4, and Nos. 1,896—1,902-R., dated the 30th November 1870.

Madras.
Bombay
North-Western Provinces
Punjab
Oudh.
Central Provinces
Mysore.
Hyderabad
Central India.

(Signed) E. C. S. WILLIAMS, Major, R.E.,
Deputy Secretary.

No. 182 ORDER THEREON, 7th February 1871, No. 386.

RAILWAY, No. 26.

COMMUNICATED to the Consulting Engineer for Railways in continuation of G.O., No. 69, dated 10th January 1871.

(True Extract)

Colonel, R.E.,

Secretary to Government.

To the Acting Consulting Engineer for Railways

Exd. E. C. Shunker

Govt. of 1871 Madras.

PUBLIC WORKS.

To

THE ACTING CONSULTING ENGINEER
FOR RAILWAYS.

Dated February 7th.

Recd.

Encl.

G. O., 7th February 1871, No. 386.

FEBRUARY

Nos. 181-182

Engines passing through station points.—
Endorsement of the Deputy Secretary to the Government of India forwarding copy of a reply to a letter addressed to the Government of Bengal on the subject of the maximum speed for engines passing through station points, communicated to the Consulting Engineer for Railways.

All communications
should be addressed to
the Secretary

No. 87 R

GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
RAILWAY.

THE JOINT SECY. TO THE GOVT. OF BENGAL,
IN THE P. W. DEPT, RAILWAY BRANCH

FORT WILLIAM, JANUARY 16, 1871.

SIR,

I am directed to acknowledge the receipt of your letter No. 2528 G, dated the 30th December 1870, communicating observations and making enquiries on certain points connected with the question of maximum speed for engines passing through station points.

2. With reference to the general observations by the Government of Bengal contained in the second and third paragraphs of your letter, I am directed to state that the responsibility of Station Masters within the limits of their stations is defined in general rules and regulations, and the Government of India cannot perceive that the wording of Resolution No. 1895 R in any way tends to lessen the responsibility which has been already fixed on the Station Master, and which is known to be necessary. That Officer should continue, as heretofore, to protect his station by means of the "caution" and "danger" signals which a semaphore is capable of showing, and the normal position of semaphore signals should, as heretofore, indicate "danger."

3 The Government of Bengal believes that the fourth paragraph of the Resolution may possibly be open to misconstruction, and in elucidation of the Lieutenant Governor's views you give a description of the working of the English block system. The paragraph to which exception is taken, being generally descriptive and containing no order, cannot be misconstrued to any dangerous extent, even if it does not convey so distinctly, as it appears to the Government of India to do, the meaning which it was intended to have. The working of the English Block systems, which vary widely on different English Railways, is, no doubt, on many lines in accordance with your description, but I am to observe that the Government of India, in their Resolution, purposely avoided reference to any of the numerous systems of block working, which may be valuable safe-guards and highly desirable in a crowded traffic, but, which must be considered apart from the special question relating to the maximum speed to be allowed over points.

4. The object of the Government of India is not to impose new restrictions, but to define on what conditions the existing rule regulating maximum speed of engines over points may be relaxed; and these conditions have been imposed because it is thought desirable, where

increased speed is permitted, that every facing point on every line of Railway should be interlocked with a signal or signals, and that no two signals which can conflict with one another should be unprotected with locking gear. The Governor General in Council sees no reason to alter the terms of the Resolution, and I am, therefore, ordered to reply to your three enquiries as under—

1st.—On single lines, a Railway Company adopting the precaution of locking points immovably before a train is due, will not, in respect of points so fastened, be allowed the privilege defined in para. 9 of the Resolution, unless the conditions mentioned in the Resolution are complied with.

2nd.—It will not be considered sufficient, to justify the grant of a certificate by the Consulting Engineer, if disc signals are fixed to all points that require to be manned while in use, as the Resolution applies to all facing points, whether they are manned or not.

3rd.—The Resolution also applies to all Railways, whether double or single, and as interlocking apparatus and additional signals are required only at facing points, His Excellency in Council believes that but little expense or inconvenience will be experienced on the double lines of Railway where there are few facing points, while fast traffic, on the single lines, will be much facilitated by that additional speed which may be safely obtained by adherence to the orders contained in the Resolution.

I have the honour to be,

SIR,

Your most obedient Servant,

E. C. S. WILLIAMS, *Major, R. E.,*
Deputy Secretary.

No. 88 R.

Copy, with copy of the letter to which it is a reply, forwarded for information to the Local Governments and Administrations noted in the margin, in continuation of Nos. 1893—4, and

Madras.
Bombay
N W P
Punjab

Oudh.
Central Provinces.
Mysore.
Hyderabad.
Central India.

Nos. 1896—1902 R, dated the 30th November 1870.

E. C. S. Williams
Major, R. E.,
Deputy Secretary.

To the Secretary to the Govt. of Madras
P. N. Dept. (Railway)

1871 Dept
(16) No 375

GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
RAILWAY.

To
THE JOINT SECY TO THE GOVT. OF BENGAL,
IN THE P. W. DEPT, RY BRANCH

No. 87 R:

Dated January 16, 1871.

Received 26th Jan'y 71

Enc. 1.

Replies to the enquiries made in its
No 2528 G, dated 30th December last, on
certain points connected with the question
of maximum speed for engines passing
through station points

P. W. D. Press—16-1 71—72

No 386 - 9th Feby 71
With an order

Commenced to the Consulting Engineer for
Railways in confirmation of H. O. to 19 of 10th Jan'y 71
J. S. Smith George
1st Feby 71
Can say for Railway
Recd 26/71
N.
W.

5B

Pro-10 January/71 No 139-140

No 375

Govt. of Madras.

PUBLIC WORKS.

To
The Acting Consulting
Eng^r for Railways

Dated

Recd

End

G O. 7 Feb 1871, No 386.

Nos. 181-182

Engines passing through station
points. Packet from the
Govt of India forwarding copy
of a ~~reply~~ ^{reply} letter addressed to
the Govt of Bengal on the
subject of the maximum
speed for engines passing
through station points, &c.
to the Eng^r for Railways.