

Educational (1902) Department.

ORDINARY MS.

G.O., No 22

DATED 15-1-02

INDEXED.

[Despatch Abstract.]

Coming to the D.P. I progo. P.W.D on letter from
the Govt of India issuing instructions regarding
the submission of papers on professional subjects
to the technical section of that Govt.

BACK PAPERS.

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

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	70990/02						

22 CURRENT NO. 29
BUILDINGS AND ROADS.
CIVIL WORKS.

Government {1901} of Madras. PUBLIC WORKS.

Recd. } 1901.
Regd. 6.1.02

Enclosures (notes).
Spare copies nil

G.O., No. 3432 W., 13th December 1901.

N. P.

DECEMBER.

Papers on Professional Subjects

Letter from the Government of India, issuing instructions regarding the submission of — to the Technical section of that Government, communicated to officers of the Public Works Department.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper :—

From W. L. STRANGE, Esq., Under Secretary to the Government of India, Public Works Department (Civil Works—Miscellaneous), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 18th October 1901, No. 1203 C.W.M.

In continuation of Public Works Department letter No. 1383 C.W.M., dated the 17th December 1900, I am directed to inform you that the Government of India desire that all papers on professional subjects presented for acceptance to the Technical section should be submitted through the ordinary departmental channel to the Chief Engineer of the writer's province.

2. Authors will thus have the benefit of the best professional advice in the construction of their papers, and the contributions will doubtless form more complete additions to the professional literature of the country. Several of the Provincial Governments publish their own professional papers; the Government of India do not desire to interfere with this practice in any way, but I am to suggest that, should the Provincial Government consider that any of the papers so published are of more than local interest and might be acceptable to the Technical section, a proof of the paper with diagrams should be forwarded to the Officer in charge, Technical section, who, on receipt of the same, will at once intimate whether it is proposed to include it in the Technical papers issued by the Government of India and, if so, the number of copies that will be required.

3. The object of this is to avoid double labour in setting up the type and preparing the diagrams, to ensure uniformity in size with other Technical section papers and to record them with a serial number for issue.

4. In Provinces in which professional papers are not published, it is still desirable that they should be presented for acceptance through Chief Engineers. The printing and preparation of diagrams will be undertaken by the Technical section as has been done in the past in the case of papers written by Railway officers.

ORDER—No. 3432 W., dated 13th December 1901.

Communicated to officers of the Public Works Department, for information and guidance, in continuation of G.O., No. 371 W., dated 12th February 1901.

(True Extract.)

S. B. Murray
Under Secretary to Government.

To the Chief Engineer for Irrigation.
„ Superintending Engineers.
„ the Consulting Architect to Government.
„ the Superintendent of Works, Lighthouse Division.
„ Educational Department, with copy of office-notes.

Ekd. T. K. Narayana Aiyangar.



NOTES CONNECTED WITH G.O., No. 3432 W., DATED 13TH DEC. 1901.

PUBLIC WORKS DEPARTMENT.

Under Secretary, P. W. Dept.—

The suggestion in the Government of India letter appears to apply solely to professional papers published by the Public Works Department.

But the College of Engineering also publishes professional papers, and it is a question for consideration whether these also should be included in the scheme.

For orders whether the Educational Department may be asked u.o. to state whether it considers it desirable that the professional papers published by the College of Engineering should also be selected for inclusion in the Government of India series of Technical papers.

Public Works Secretary—

I think so; see list of papers already published.

S. B. MURRAY.
29-11-01.

If the reply is in the affirmative, all such papers must be sent when in type, but before publication, to the Chief Engineer for decision as to whether they are of more than local interest and may go forward to the Government of India, Technical section.

I agree.

W. B. DEWINTON. A
29-11-01.

R. W. LYONS.
23-11-01.

To the Educational Department u.o.

R. W. LYONS.

W. B. DEWINTON.
2-12-01.

EDUCATIONAL DEPARTMENT.

The Public Works Department may be informed that the professional papers published by the College of Engineering should also be selected for inclusion in the Government of India series of technical papers and that orders as at A will issue on receipt of a copy of these notes. B

P. T. THARYAN.
5-12-01.

A professional paper published by, say, Colonel Love would, under this arrangement, have to receive the *imprimatur* of the Chief Engineer. I don't suppose there would be any objection to this, but can we obtain any of the papers at B? How are they published now?

A. T. PRINGLE.
6-12-01.

Papers 1 and 2 are in the file and these are all, I believe. They are published in Mr. Chatterton's name.

P. T. THARYAN.
6-12-01.

As at B.

A. T. PRINGLE.
7-12-01.

To Public Works Department u.o.

PUBLIC WORKS DEPARTMENT.

The G.O. on C. No. 9177 flagged T may now issue.

W. B. DEWINTON.
11-12-01.

BUILDINGS AND ROADS.
CIVIL WORKS.

Government {1901} of Madras.
PUBLIC WORKS.

Recd.

Regd.

} 1901.

Enclosures

Spare copies

G.O., No. 371 W., 12th February 1901.

FEBRUARY.

Professional Papers

The proposals of the Government of India inviting all Engineers to co-operate in the publication, by the Technical Section of the Government of India, Public Works Secretariat, of — on engineering subjects in all its branches, approved and communicated to officers of the Public Works Department, with remarks.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper:—

From O. C. LEES, Esq., Under Secretary to the Government of India, Public Works Department (Civil Works—Miscellaneous), to the Chief Engineer, Buildings and Roads Branch, Madras, dated Calcutta, 17th December 1900, No. 1333 C.W.—M.

The Technical Section of the Railway Secretariat of the Government of India has, for some years past, published professional papers on subjects connected with Railway Engineering, the issue of which has been confined hitherto almost entirely to Railway officers. It has been suggested, however, that the scope of the section might be enlarged with great advantage so as to include amongst its publications professional papers not only on Railway matters but on Engineering in all its branches.

2. If this proposal is one which commends itself to you, I would invite your co-operation in carrying it into effect, and ask you to be good enough to explain the objects of the Technical Section and to invite contributions from all Engineers in your Province who take an interest in their profession.

Paper should be addressed to—

Officer in charge,

Technical Section,

Government of India, Public Works Department Secretariat,
Calcutta (November—April), Simla (April—November),

and should be written on one side of the page only, in order to facilitate expeditious printing. The Technical Section undertakes the reproduction of maps or diagrams, accompanying papers, from drawings, ferrotypes or tracings to any scale, as may be most convenient to contributors, but tracings of foolscap width are preferred.

3. If you will signify your approval of the proposal, copies of the papers published by the Technical Section will be sent to you in future as soon as they are issued. A list of the papers that have already been issued and of which a limited number of copies are now available is enclosed. Applications for copies of them will be complied with so far as is possible.

ENCLOSURE.

LIST OF TECHNICAL SECTION PUBLICATIONS—A.
PAPERS.

Those printed in italics are not available.

No.	Name.	Date of issue.	Description.
2a	Waterway and spans for bridges, by J. R. Bell.	February 1891	.. 4 pages on the proportions and dimensions of bridges on alluvial soil.
2b	Bund and apron method of protection, by J. R. Bell.	Do.	.. 2 pages on the protection of the flanks of bridges, with one diagram.
5	Mountain Railways, by W. J. Weightman.	March 1891	.. 7 pages on Mountain railways, with reference to the Kalka-Simla Railway.
6	Compensation for curves on gradients, by E. H. Stone.	Do.	.. 2 pages with 3 diagrams on determining the compensation for curves on gradients. (<i>Diagrams not available.</i>)
7	<i>Safe working stress and wind pressure on bridges, by E. H. Stone.</i>	March 1892	.. 35 pages and 1 diagram, with 43 pages and 2 diagrams illustrating Sir A. Rendel's criticism.
9	Dynamometer car on the Western Railway of France, by the Engineer-in-Chief of that line.	February 1892	.. 7 pages and 1 plate.
	The dynamometer car in India, by W. J. Weightman.	Do.	.. 4 pages on the determination of train resistance of Indian railways.
10	Stresses on cross girders, by C. W. Hodson.	Do.	.. 4 pages.
11	Description of Stone's bridge and culvert tables.	Do.	.. 4 pages, by E. H. Stone.
13a	Rules for the inspection of railway bridges in India.	March 1892	.. 16 pages, giving a memorandum on rules proposed, by E. H. Stone.
13b	Rules for the inspection of railway bridges in India.	Do.	.. 10 pages on the maximum stress for bridges, by E. H. Stone.
14	Creep of rails, by E. W. Stoney	Do.	.. 9 pages and 2 diagrams.
15	Resistance due to curves on railways, by E. H. Stone.	Do.	.. 7 pages with tables of resistance on different gauges.
16	Concrete for native staff quarters, by T. Ker.	April 1892	.. 3 pages and 2 plates.
18a	The preparation of drawings, by E. H. Stone.	Do.	.. 7 pages of rules and 1 diagram.
18b	The preparation of papers, by E. H. Stone.	Do.	.. 1 page of rules.
20	The Trans-Caspian Railway, by L. Weissenbruck.	September 1892	.. 8 pages, translated by J. R. Bell.
21	Working stress for railway bridges in India.	October 1892	.. 37 pages of rules and amendments proposed with 3 diagrams.
22	Further amendments proposed to 21	August 1893	.. 12 pages of 9 further amendments.
23	Size of pins, by Sir Ch. Fox	February 1893	.. 5 pages on the size of pins for connecting flat links.
24	The selection of spans for bridges, by J. R. Bell.	Do.	.. 11 pages and 1 plate on the span of bridges with reference to the spans for the Sher Shah Bridge.
25	The passage of vehicles round curves, by F. Lancrenon and J. Morandiere.	April 1893	.. 30 pages on experiments on resistance on sharp curves.
26	Caissons for well-foundations, by F. J. E. Spring.	April 1893	.. 4 pages on caissons of Kistna bridge, Bezvada, with 6 plates and 2 diagrams. (<i>Diagrams not available.</i>)
27	<i>Report on Railway working, by W. H. Cole, Part I.</i>	October 1893	.. 31 pages and 4 pages preliminary note on interlocking apparatus, safety appliances, signals etc., with 37 plates bound separately (27-A).
27a			
28	Resistance of trains, by M. Desdouts.	August 1893	.. 20 pages and 1 plate on the methods of measuring resistance.
29	Watering station arrangements, by G. Moyle.	Do.	.. 6 pages on the discharge of water columns and method of improving the same.
30	Frankel's deflection meter, by Oskar Lennar.	October 1893	.. 2 pages and 1 plate.
31	<i>English Permanent-way, by W. H. Cole</i>	Do.	.. 6 pages and 1 plate of rail sections.
32	Report on Railway working, by W. H. Cole, Part II.	Do.	.. 45 pages and 1 page of preliminary note on station arrangements and method of working traffic with 11 plates bound separately (32-A).
32a			
33	Requirements of the Board of Trade	August 1893	.. 14 pages of English Board of Trade rules regarding opening of railways.
34	Frankel's recording extensometer, by Oskar Lennar.	October 1893	.. 4 pages and 1 plate.
35	The Chaman extension railway, by G. P. Rose.	May 1894	.. 46 pages and 8 plates on the Chaman railway, with notes on tunnels, Khojak Incline and Petroleum as fuel.
36	<i>Theory of Amster's planimeter, by F. J. E. Spring.</i>	Do.	.. 7 pages and 1 plate.
37	Rolling-stock ferries, by W. R. Haughton, A. E. Ryles and F. E. Robertson.	February 1895	.. 43 pages and 19 plates.
38	Converting old rails into fencing posts, by F. G. Lynde.	May 1894	.. 4 pages and 2 plates.

No.	Name.	Date of issue.	Description.
39	Railways and harbours in Mexico, by R. A. Way.	February 1895 ..	9 pages.
40	Sardab pontoon bridge, by E. A. Neville.	Do. ..	11 pages and 3 plates.
41	Mountain railways by W. G. Gilchrist.	Do. ..	33 pages and 3 plates.
42	Cost of perishable articles ..	September 1894 ..	3 pages with tables.
43	Supplement to above ..	January 1900 ..	2 pages.
43	Permanent-way and station machinery.	February 1895 ..	15 pages, opinions of Conference at Strazbourg.
44	Effect of wind pressure on bridges ..	September 1894 ..	4 pages and 1 plate.
44a	Effect of wind pressure on bridges ..	February 1895 ..	3 pages giving rules proposed.
45	Dynamic effect of rolling loads on bridges, by J. Melan.	May 1895 ..	16 pages.
46	Rational design of columns, by Professor M. Merriman.	February 1895 ..	8 pages with diagrams.
47	Steel sleepers on Mexican Railways ..	May 1895 ..	4 pages with note, by Sir A. M. Rendel.
48	Wear of rails on the Sind-Peshin Railway, by C. W. Hodson.	August 1895 ..	8 pages with diagrams.
49	Erection of 100 foot girders, Anas bridge, by H. H. Deane.	May 1895 ..	3 pages and 2 plates.
50	Treatment of spill bridges, by J. R. Bell.	Do. ..	2 pages.
51	Stress permissible in girder bridges, by J. R. Bell.	August 1895 ..	22 pages with extract illustrating modern practice.
52	Wind pressure in engineering construction, by W. H. Bixby.	Do. ..	43 pages report of U.S.A. Commission.
53	Strength of columns, by C. F. Finlay.	June 1896 ..	16 pages.
54	Arrangement of stations on fast lines, by M. A. Flamache.	Do. ..	18 pages and 3 plates, translated, with note on Indian Stations, by W. H. Cole.
55	An instrument for measuring earthwork, by G. E. Lillie.	June 1896 ..	6 pages and 1 plate.
56	Resistance and wear on curves, by F. W. Dod.	Do. ..	24 pages, with appendix (tables and diagrams) and 1 plate.
57	The life of an iron rail-road bridge, by J. E. Greiner.	November 1896 ..	24 pages, reprinted from transactions, Am. Soc. C.E.
58	The Barsi Light and the Darjeeling-Himalayan Railways.	May 1898 ..	7 pages and 13 diagrams.
58a	Narrow gauge railways, by F. J. E. Spring.	January 1899 ..	8 pages.
58b	Note on Howrah-Amta Steam Tramway by A. E. Adie.	Do. ..	2 pages and 6 diagrams.
58c	Note on the Morvi (Light) Railway, by C. P. White.	Do. ..	8 pages and 15 diagrams.
59	Report on sand-pump dredgers, by W. R. Haughton.	Do. ..	10 pages and 2 diagrams.
60	Contractors' Plant—Working sketches, by F. R. Upcott.	Do. ..	22 sketches.
61	Table of drainage areas, by R. C. Anderson.	September 1899 ..	7 pages and 1 diagram.
62	Method of pneumatic well sinking—Mari-Attock Railway, by G. Deuchars.	July 1899 ..	7 pages and 9 diagrams.
63	North-Western Railway, interlocking for road-side stations, by G. H. List and A. Morse.	Do. ..	6 pages and 2 plates.
63a	Working drawings of North-Western Railway (List and Morse) interlocking apparatus.	Do. ..	7 plates.
63b	Angle-iron connections in interlocking arrangements: and the North-Western Railway Standard Locking Frame.	September 1899 ..	2 pages and 3 plates.
64	Engineering rules and instructions—Northern Pacific Railway, by E. H. McHenry.	October 1900 ..	47 pages and 3 plates.
65	The Lidgerwood Cableway—Sohan bridge, Mari-Attock Railway, by E. H. S. Napier.	September 1899 ..	7 pages and 3 plates.
66	Reburning cement, by R. W. Egerton.	May 1900 ..	4 pages and 3 plates.
67	Safety sidings on Indian single lines of railway, by F. J. E. Spring.	January 1900 ..	7 pages.
68	Well sinking by pneumatic process—Indus bridge, Kotri, by W. Chadwick.	.....	.....
69	Failure of Birs Bridge, Switzerland, by J. Graham.	May 1900 ..	6 pages and 5 diagrams.
70	Note on the Tezpur-Ballipara Light Railway, by J. W. deTivoli.	....	....
71	The Kistna and the Sher Shah Bridges, by F. J. E. Spring.	....	....
72	Notes on the design of well foundations for bridges.	....	18 pages and 1 plate.
73	Fixed switch, Kistna bridge, by J. E. Eaglesome.	August 1900 ..	3 pages and 2 plates.

No.	Name.	Date of issue.	Description.
74	Report on working of Wells' Lightning Painter, by E. H. S. Napier.	May 1900 ..	2 pages and 1 plate.
75	Manufacture of wire net protective works, by J. J. Henderson.	August 1900 ..	5 pages.
76	Report on testing of Cylinders containing carbonic acid gas.	....	....
77	Rail sawing machine ..	....	....
78	Proportion of locomotives ..	August 1900 ..	9 pages.
79	Manufacture of Soorkhi, by E. N. Manley, R.E.	Ditto. ..	10 pages and 2 plates.
80 & 80-A	The derailment of railway carriages, by G. Stockhammer. Unaccountable derailments, by J. Rickie.	May 1900 ..	11 pages.
81	Note on gravity and sanded catch sidings.	....	....
82	Painting iron-work ..	October 1900.	....
83	Expansion joints for Railway bridges.	....	....
84	Moment of resistance of types of rails (North-Western Railway), by G. Humphress.	....	....
85	Light Railway Ash pits ..	....	....
86	Curve resistance, Upper Bolan ..	....	....
87	Classification of engines ..	....	....
88	Bouré system of key interlocking ..	....	....
89	Tilting of F. F. rails ..	....	....
90	The Gôdâvari bridge—Rajahmundry, by F. T. G. Walton.	....	....
91	The Ferry over the Gôdâvari, by J. E. Eaglesome.	....	....
92	Joint chairs and other devices for preventing creep. The Torsa bridge, Eastern Bengal State Railway, by G. Moyle.	October 1900.	....

ORDER—No. 371 W., dated 12th February 1901.

The proposals are approved and communicated to officers of the Public Works Department, who are invited to send contributions, as suggested in paragraph 2 of the letter of the Government of India, the fact being notified in each case to the Chief Engineer, Public Works Department. Meanwhile, an application will be made for such of the papers already published as the Chief Engineer may consider necessary. Superintending Engineers are also requested to specify the publications they desire to receive, and the number of copies of each.

[Here enter No. 372 W., dated 12th February 1901.]

(True Extract.)

(Signed) W. B. DEWINTON,
Secretary to Government.

To the Chief Engineer for Irrigation.
„ Superintending Engineers.
„ the Consulting Architect to Government.
„ the Superintendent of Works, Lighthouse Division.

Etd. P. Seetharam.

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C. No. 29, From the P. B. D., No. 3432 dated 13th Dec. 1901

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Mis.

Communicated to the D.P.S.

2. ~~The~~ Professional papers published by the college of Engineering should in future be submitted in proof to the Chief Engineer for decision ^{one of more than} where then they ~~should be forwarded~~ local interest & should be forwarded ~~sent~~ to the Govt. of India.

~~technical section.~~

1570/2

10.1.2

20. The D. P. I.
in the copy of Genl. 371 W of
12-2-01

" P. W. D. *[Signature]*
16/1

• To phone *HP* 11/2

When given for copying _____
 When copied _____ } 190
 When examined _____
 When signed _____

READ AGAIN G.O., No. _____, DATED
 190 .

CURRENT No.

ENCLOSURES TO C. No.

ORDER OF GOVERNMENT

A A A A A A A

LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH
 IN ORIGINAL.

N.B.—

- A = Copy in full.
- B = Not to be copied.
- C = Copy abstract only.
- D = Copy heading only.

*Communicated to the D.O.
 2. The Professorial papers
 for checked by the college of
 engineering should in future be
 in form that in form to the
 chief engineer for decision
 etc. then they should be forward
 to the part of order
 technical section*

93

100