

THE PROCEEDINGS

OF THE

FIRST

ALLINDIA SANITARY CONFERENCES

HELD AT

BOMBAY

13TH AND 14TH NOVEMBER 1911.



CALCUTTA
UPERINTENDENT GOVERNMENT PRINTING, INDIA
1912

THE PROCEEDINGS

OF THE

FIRST

ALL-INDIA SANITARY CONFERENCE

HELD AT

BOMBAY

0N

13TH AND 14TH NOVEMBER 1911.



CALCUTTA'
SUPERINTENDENT GOVERNMENT PRINTING, INDIA'
1912

L:55p231, NII

15788

TABLE OF CONTENTS.

	PAGE.
The names and designations of delegates present at the conference ,	ıii
First Day's Proceedings.	
Speech by the President	1
Resolution regarding the death of the late Lieutenant-Colonel J. T. W. Leslie, C I.E., M B., D P.H., I M S.	3
Discussions on:	
General Sanitation-	
(a) Urban Sanitation	3
(b) Congested Areas and Town-planning	4
(c) Water-supply, Conservancy and Dramage	6
Rural Samitation	9
Second Day's Proceedings.	
Discussions on	
Special Sanitation—	
(a) Food Supplies	10
(b) Adulteration of Food and Drugs	11
Registration of Vital Statistics	11
Scientific Enquiries—	
(a) Standards for Water Analyses	12
(b) Infantile Mortality	13
(c) Plague	14
(d) Other Epidemic Diseases	17
'Appendices,	
1. Schemes of Urban Sanitation	21
2. Note by Mr N Belvadi, Sanitary Engineer, Bombay, on municipal water- supply and drainage schemes in the Bombay Presidency including Sind	21
but excluding Bombay City and Aden	61
3 Paper by Captain W A. Justice, I.M.S., on the opening of congested areas with model rules for new town extension sites and buildings.	70
4 Note by Mr. E. G. Turner, I C.S., on town-planning in Salsette Island .	72
 Note by Mr. E. G. Turner, I C.S., on redistribution of plots and calculation of development tax in town-planning schemes 	73,
6. Note by the Hon'ble Mr. L C Porter, CIE, I.CS, on town-planning.	77
7. Paper by Major W. W Clemesha, I.M S, on the uses and limitations of small models of septic tanks.	83
8. Paper by Mr W. Hutton, Sanitary Engineer, Madras, on water-supply and drainage works in the Madras Presidency	84
9. Paper by Captain W. A Justice, I M.S., on village sanitation	97
10. Note by Lieutenant-Colonel E Wilkinson, I.M S., on the milk-supply of large towns in India	100
11. Paper by Major W H. Kenrick, I.M.S, on the improvement in the agency for the registration of vital statistics	103
12. Note by Lieutenant-Colonel E Wilkinson, I.M.S., on the verification of vital statistics.	104
13. Paper by Major J C. Robertson, I M.S., on the registration of vital	105

		PAGE
14.	Paper by Major W W. Clemesha, I M.S., on the necessity for a uniform method of water analysis in India and a uniform nomenclature of fæcal	
	organisms	107
15	Paper by Major J C Robertson, I M.S., on infantile mortality	112
16.	Paper by Major W. G Liston, I.M S., on recent researches in connection	
	with plague in India	113
17.	Paper by Captain W. A. Justice, I M S., on passporting of grain and grain gunny bags from localities infected with plague	123
18.	Paper by Captain W. D. H. Stevenson, I.M.S., on the action of hydrocyanic acid gas on grains and other food-stuffs	125
19	Memorandum by Captain W. A. Justice, I M.S., on the manufacture of glycerinated calf lymph and lanoline vaccine	127
20.	Note by Captain W S Patton, I M.S., on the cultivation and preservation of cow-pox vaccine as practised at the King Institute, Guindy, Madras.	131
21	Paper by Rai Kailas Chandra Bose Bahadur, C.I E., L M.S., on the spread of Tuberculosis in Calcutta	133
22,	Paper by Rai Kailas Chandra Bose Bahadur, C I E., L.M S, on Epidemic Dropsy or Bern-Bern	138
23.	Note by Major T. S. Ross, I.M S., on Education and Public Health	145

The names and designations of delegates present at the First All-India Sanitary Conference.

PRESIDENT.

The Hon'ble Mr. S. H. BUTLER, C.S.I., C.I.E., I C S.

DELEGATES.

1. The Hon'ble Mr. L. C PORTER, I.C.S.,

Secretary to the Government of India,

Department of Education.

2. The Hon'ble Surgeon-General C. P. Lukis, C.S I., M D, F.R C S., I.M S,

Sanitary Commissioner with the Government of India.

3. *Lieutenant-Colonel Sir David Semple, Kt., M.D., R.A.M.C (Retired)

Director of the Central Research Institute, Kasauli.

4. Kunwar Maharaj Singh, M.A., Bar.-at-Law,

Assistant Secretary to the Government of India,

Department of Education.

5. Captain A. G. McKendrick, M.B., I.M.S.,

Officiating Statistical Officer to the Government

of India in the Sanitary and Medical Departments

Ceylon .

1 6. Dr. G. J. RUTHERFORD,

Assistant Principal Civil Medical Officer, Ceylon.

- 7. Surgeon-General W. B BANNEEMAN, M.D., D Sc (P.H.). I.M S, Surgeon-General, Madras.
- 8. Captain W. A Justice, M.B., D.P.H., I.M S.,
 Officiating Sanitary Commissioner, Madras.
- 9. Mr. W. HUTTON, A.M.I.C.E,

 Sanitary Engineer, Mad

Santary Engineer, Madras.

10. Captain W. S. Patton, I M.S.,

Officiating Director of the King Institute, Madras.

 Major T. S. Ross, L R C.P., L.R.C S., D.P.H., I.M.S, Professor of Hygrene and Bacteriology, Medical College, Madras.

(12. *The Hon'ble Colonel R. W. S. Lyons, M D, I.M S.,
Offg. Surgeon-General with the Government of Bombay

13. The Hon'ble Mr J. P. Onn, B.A., I C S.,

Chairman, City of Bombay Improvement Trust.

 Lieutenant-Colonel T. E. Dyson, M.B., C M., D P.H., I.M.S., Sanitary Commissioner, Bombay.

Mr. E. G. TURNER, M.A., I.C.S.,
 Officer on special duty in connection with
 the development of Salsette.

16. Major W. G. Liston, M B., I.M.S.,
Director, Bactoriological Laboratory, Bombay.

17. Mr. C. Mandy, C.E.,
Sanitary Engineer, Bombay

18. Mr. NANJUNDAYYA BELVADI, B.A., L.C.E., Santary Engineer, Bombay.

India

Mades

Bombay .

^{*} Attended on the 14th November only.

```
19. Major W. W. CLEMESHA, M D., D.P.H., I M S.,
                              Sanitary Commissioner, Bengal.
                8 20. Mr. G. B WILLIAMS,
                              Samtary Engineer, Bengal.
                  21. RAI KAILAS CHANDRA BOSE BAHADUR, C.I.E., L.M.S.
United Provinces 1 22. *Major J. C ROBERTSON, I.M.S,
                              Santary Commissioner, United Provinces.
                  [23 Lieutenant-Colonel E Wilkinson, F.R.C.S, DPH., I.MS,
             Sanitary Commissioner, Punjab.

24. Lieutenant-Colonel S. Browning-Smith, I.M.S.,

Chief Plague Medical Officer, Punjab.
              . 1 25. Major N. P. O'GORMAN LALOR, I.M S.,
Burma
                              Deputy Sanitary Commissioner, Burma
                   (26. Lieutenant-Colonel E. C. HARE, I M S.,
                              Sanitary Commissioner, Eastern Bengal and Assam.
Eastern Bengal and 27 Mr C. A. BENTLEY, M B., D.P.H., D T.M. & H.,
                              Deputy Santary Commissioner, Eastern Bengal
                                                                         and Assam.
                   (28. Major T. G N. STOKES, I M S,
                              Sanitary Commissioner, Central Provinces.
Central Provinces 2
                    29 Major W. H KENRICK, I.M.S.,
                              Officiating Sanitary Commissioner, Central Provinces.
                         * Attended on the 14th November only.
```