

Government of Bombay  
(Transferred Departments)

# Technical and Industrial Education

in the

## Bombay Presidency

Final Report of the Committee appointed  
by Government, 1921-22



[Price—Rs. 1-10-0]

Bombay  
Printed at the Government Central Press  
1923

[~~Printed~~ *Obtainable from the Supdt., Government Printing and Stationery, Poona.*]

OFFICIAL AGENTS FOR THE SALE OF INDIAN  
OFFICIAL PUBLICATIONS.

*IN EUROPE.*

CONSTABLE & Co., 10, Orange Street, Leicester Square, W. C., London.  
GRINDLAY & Co., 54, Parliament Street, S. W., London.  
HENRY S. KING & Co., 65, Cornhill, E. C., London.  
P. S. KING & SON, 2 & 4, Great Smith Street, Westminster, S. W., London.  
KEGAN PAUL, TRENCH TRUBNER & Co., Ltd., 68-74, Carter Lane, E. C., and 39,  
New Oxford Street, London, W. C.  
B. QUARITCH, 11, Grafton Street, New Bond Street, W., London.  
W. THACKER & Co., 2, Creed Lane, London, E. C.  
LUZAC & Co., 46, Great Russel Street, London, W. C.  
B. H. BLACKWELL, 50 & 51, Broad Street, Oxford.  
DRIGHTON BELL & Co., Limited, Cambridge.  
T. FISHER UNWIN, Limited, 1, Adelphi Terrace, London, W. C.  
WHELDON & WESLEY, Limited, 2, 3 & 4, Arthur Street, New Oxford Street  
London, W. C. 2.  
ERNEST LEROUX, 28, Rue Bonaparte, Paris.  
MARTINUS NIJHOFF, The Hague.  
OTTO HARRASSOWITZ, Leipzig.  
FRIEDLANDER AND SOHN, Berlin.

*IN INDIA.*

HIGGINBOTHAM & Co., Madras.  
V. KALYANARAMA IYER & Co., Madras.  
P. R. RAMA IYER & Co., Madras.  
THACKER, SPINK & Co., Calcutta.  
W. NEWMAN & Co., Calcutta.  
S. K. LAHIRI & Co., Calcutta.  
R. CAMBRAY & Co., Calcutta.  
THE ASSOCIATION PRESS, Calcutta.  
THACKER & Co., Limited, Bombay.  
SUPERINTENDENT, GOVERNMENT PRINTING AND STATIONERY, Poona.  
D. B. TARAPOREVALA SONS & Co., Bombay.  
GOPAL NARAYAN & Co., Booksellers, etc., Bombay.  
MRS. RADHABAI ATMARAM SAGOON, Booksellers, etc., Bombay.  
RAMCHANDRA GOVIND & SON, Booksellers, etc., Bombay.  
BOMBAY TRACT AND BOOK SOCIETY, Bombay.  
N. B. MATHUR, N. K. H. PRESS, Allahabad.  
MANAGER, THE 'HITAVADA', Nagpur.  
MANAGER, NYAYASHRAYA PRESS, Poona.  
RAMA KRISHNA & SONS, Lahore.  
SUNDAR PANDURANG (Ramnath Sundar, the Successor), Bombay  
THE PROPRIETOR OF THE NEW KUTABKHANA, Poona.  
KARSANDAS NARANDAS & SONS, Surat.  
N. M. TRIPATHI & Co., Booksellers, etc., Bombay.  
MANGALDAS HARKISANDAS, Bookseller, etc., Surat.  
KING & Co., Bombay.  
MANAGER, SHRI SHANKAR KARNATAKA PUSTAKA BHANDARA, Dharwar.\*

\* For the sale of official Kanarese publications in the Belgaum, Dharwar, Bijapur  
and Kanara districts.

# Technical and Industrial Education Committee, 1921-1922

## LIST OF MEMBERS

- Sir M. VISVESVARAYA, K.C.I.E., M. Inst.C.E., D.Sc. (Chairman).  
R. D. BELL, Esq., C.I.E., M.A., B.Sc., I.C.S.  
RAHIMTOOLA CURRIMBOY EBRAHIM, Esq. (up to 2nd May 1921).  
LESLIE FLATT, Esq., B.Sc. (Lond.), A.M.I.C.E., A.M.I.Mech.E.  
Dewan Bahadur K. R. GODBOLE, M.C.E., M.L.C.  
K. R. KANITKAR, Esq., M.A., B.Sc.  
J. A. KAY, Esq. (from 30th May 1921).  
A. M. MASANI, Esq., M.A., B.Sc.  
F. J. PAGE, Esq., O.B.E., M.I.Mech.E.  
J. C. K. PETERSON, Esq., C.I.E.  
F. POWER, Esq.  
F. O. J. ROOSE, Esq., M.I.Mech.E., M.I.E.E., F.C.S.  
A. J. TURNER, Esq., B.Sc. (Lond.), F.I.C.  
K. H. VAKIL, Esq., M.Sc. Tech. (Manc.), F.I.C., B.A., F.C.S.  
Lt.-Colonel G. H. WILLIS, C.I.E., M.V.O., R.E., President, the  
Institution of Engineers (India), M.I.Mech.E., M.I.E. (Ind.).  
F. W. MARRS, Esq., M.A. (from 10th February to  
5th July 1921; Member only after latter date).  
G. N. GOKHALE, Esq., B.Sc., L.C.E. (from 6th July  
1921. Also Member from 17th August 1921).
- } Member  
and  
Secretary.

# MAJORITY REPORT

## CONTENTS

---

	PAGES
Majority Report and appendices .. .. .	1—72
Minority Report .. .. .	73—163
Appendices to the Minority Report .. .. .	164—248

# CONTENTS OF MAJORITY REPORT

PARAS	CHAPTER I	PAGES
1—11.	HISTORICAL .. .. .	1—6
	CHAPTER II	
12—20.	THE PRESENT POSITION .. .. .	7—12
	CHAPTER III	
21—32.	OUTLINE OF SCHEME .. .. .	12—20
	CHAPTER IV	
33—42.	TECHNICAL EDUCATION OF THE UNIVERSITY GRADE .. .. .	20—27
	CHAPTER V	
43—51.	TECHNICAL INSTITUTES .. .. .	27—32
	CHAPTER VI	
52—63.	MIDDLE TECHNICAL AND INDUSTRIAL SCHOOLS ..	32—37
	CHAPTER VII	
64—97.	OTHER GRADES AND TYPES OF TECHNICAL AND INDUSTRIAL EDUCATION .. .. .	38—53
65—68.	I.—Education of half-timers .. .. .	38—39
69—83.	II.—Training of boys and apprentices in large workshops and factories ..	39—46
84—85.	III.—Workshops of the School of Art, Bombay .. .. .	46—48
86—91.	IV.—Other Industrial Schools .. .. .	48—51
92.	V.—Criminal Tribes .. .. .	51
93—96.	VI.—Cottage Industries .. .. .	51—53
97.	VII.—Supplementary .. .. .	53
	CHAPTER VIII	
98—107.	INSTITUTIONS FOR GIRLS AND WOMEN .. .. .	53—58

## CONTENTS

CHAPTER IX		
PARAS		PAGES
108—120.	CONTROL AND ADMINISTRATION .. ..	58—64
CHAPTER X		
121—124.	GENERAL EDUCATION IN RELATION TO TECHNICAL AND INDUSTRIAL TRAINING ..	64—67
CHAPTER XI		
125—130.	SUMMARY OF PROPOSALS .. ..	67—68
APPENDICES		
A.	Extracts from Note by Mr. Leslie Flatt ..	69—71
B.	Note by the Educational Secretary, Y.M.C.A., Bombay .. ..	72

# MINORITY REPORT



# CONTENTS OF MINORITY REPORT

	PARAGRAPHS	PAGES
Introduction .. ..		73—75
<b>SECTION I</b>		
PRELIMINARY AND OUTLINE OF SCHEME		
<b>CHAPTER</b>		
I. Historical .. ..	1—12	76—82
II. The Present Position .. ..	13—28	82—91
III. Outline of Scheme .. ..	29—40	91—97

## SECTION II

### SIX CLASSES OF INSTITUTIONS

IV. Technical Education of the University Grade .. ..	41—51	98—107
V. Technical Institutes .. ..	52—59	107—114
VI. Middle Industrial Schools .. ..	60—70	114—120
VII. Lower Industrial Schools .. ..	71—81	120—124
VIII. Supplementary Classes and Courses .. ..	82—92	124—128
IX. Institutions for Training Girls and Women .. ..	93—101	129—134

## SECTION III

### ORGANIZATION, COST, ETC.

X. Organization and Administration .. ..	102—119	135—142
XI. Complete Cost of Scheme and Stages of Development .. ..	120—125	142—148
XII. General Education in relation to Technical and Industrial Education .. ..	126—132	148—154
XIII. Conclusion .. ..	133—142	154—163

## APPENDICES TO THE MINORITY REPORT

C. Interim Report with Supplementary Statement .. ..	164—173
D. Statistical Statement of Colleges and Schools connected with Technical and Industrial Education for the year 1919-20 .. ..	174—175

## CONTENTS

	PAGES
E. Note by Major G. H. Willis .. .. .	176—181
F. Representation by Mr. Kapilram H. Vakil .	182—190
G. Note by Mr. A. J. Turner .. .. .	191—194
H. Summary of Evidence of Mr. R. S. Cree- Brown on the College of Engineering, Poona .. .. .	195—198
J. Summary of Evidence of Mr. J. G. Mehta on the Ranchhodlal Chhotalal Technical Institute, Ahmedabad .. .. .	199—200
K. The Technical Education Act of Canada, 1919 .. .. .	201—202
L. Extracts from Minutes of Proceedings of the Committee .. .. .	203—248