



DEVELOPING A PROJECT CURRICULUM FOR VILLAGE SCHOOLS IN INDIA



PLATE I-A VILLAGE SCHOOL



PLATE II-A "CLOSE TO NATURE" STUDY GROUP

DEVELOPING A PROJECT CURRICULUM FOR VILLAGE SCHOOLS IN INDIA

A Suggestive Method of Procedure

BY WILLIAM J. McKEE, PH.D.

Professor of Education in the University of North Carolina;
Formerly Principal of the Village Teachers'
Training School, Moga

WITH A FOREWORD

BY WILLIAM H. KILPATRICK, Ph.D.

Professor of Education, Teachers College Columbia University



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TO NELL W. AND MARY F. McKee MY WIFE AND MY MOTHER

A FOREWORD

Two raines seem fitting in this foreword, the one a few words of appreciation of the author and of his work during 1920-24 at Moga in the Punjab, the other some reference to the wider significance of the school and of its program as described in the book.

Such is the modesty of Dr. McKee that one need hardly know from his account that his ideal is already a very lively actuality, still less that it has excited an amount of favorable interest and comment seldom accorded to experiments in primary education. But such are the facts. His rural mission school has made for India the very name Moga à symbol of new things, a vision and a hope of the reconstruction of primary village education not only in India but even in remote regions elsewhere. It was with surprise and pleasure that in 1925 I received a visit from the vice-principal of a mission training college in Scotland who journeyed to the United States explicitly to learn more about the "project method" of which such favorable accounts were coming from Moga in India. Up to that time I had hardly heard of Dr. McKee's work, but the corroboration of all this and more has been ample from what has been learned since. The Government of India in 1922, in appreciation of Dr. McKee's services to rural education in that country, decorated him with the silver Kaiser-i-Hind medal (as it has done again in 1928 in the case of Mr. A. E. Harper, Dr. McKee's worthy successor at Moga).

Throughout India, as I myself can say, government officials, Indians, and missionaries know and discuss the work started at Moga. In parts of Africa, as reported by my colleague, Professor Carney, Dr. McKee is the best known American educator, made so by the representations of the British colonial authorities as they have commended the work at Moga. It was a peculiar pleasure to meet in Moga in 1926 the divisional inspector of schools, Mr. S. B. Sardar Bishan Singh, and note his pride in the fact that it was he who had first recognized the worth of the Moga experiment, as it was also to meet Sir George Anderson, Director of Public Instruction in the Punjab, and to learn from him his approving opinion and in particular that he was

organizing a training college in the province to spread the general Moga idea. It would be poor praise to Dr. McKee or Mr. Harper to allow the thought that they count their plan already adequate for the regeneration of the Indian village school; they would be the first to deny it. But that a great and promising step forward has been taken, seems to me, at any rate, an undoubted fact. The grounds for this belief are worthy of further consideration.

The worth and promise of the Moga experiment seem to lie in its astonishing success at securing and co-ordinating a number of contrasted and often warring elements. It is a commonplace of modern education that in order to meet its task the school must, on the one hand, secure a high degree of pupil initiative and self-directed endeavor and, on the other, that it must make for social service. The more usual efforts the world over find it difficult to get both of these at once. Dr. McKee, in the judgment of competent observers, got both and each in a high degree. There is no need to anticipate here how the "project idea" as worked out in his curriculum secures both pupil interest and effort and pertinent individual understanding, on the one hand, and social significance and bearing in what is learned, on the other. But one who has seen will not soon forget the eagerness of the fourth-year market boys, for example, or, still more, that of the hospital group, nor is it possible to doubt the practical value of what they were learning and using. And the two sides were not artificially tied together, they were inherently joined in one unified on-going round of experience. With these boys, living and learning went together, each in remarkable degree helping the other into being. When the market boy ate the radishes and his accounts told the tale, arithmetic was actually at work and public honesty was being taught in a way that promises much.

A second antithesis and opposition which has given particular concern in India has been the difficulty of securing and still more of co-ordinating "book-learning" with a serviceable reconstruction of Indian life. In both lower and upper schools progress in the curriculum has too often meant by just so much the boy's removal from effectual service in actual Indian life into a region of mere selfish wish to be supported at general expense. Dr. McKee's work, however, has, in a remarkable degree given actual

advance in the use of books with a no less definite part in the actual scheme of bringing to India in healthy form the social reconstruction made necessary by contacts with modern science and industry. This point calls for elaboration.

At a famous agricultural school in India the present writer heard an instructor ask in despair, "How can I teach the use and care of agricultural machinery to a boy who, before coming here, has never even had a hammer in his hand?" The question cuts deep into the complexities of the Indian situation and can never be answered in the right way till the school system accustoms the boy, from earliest childhood onward, to join his thinking and his book-learning with actual doing, hand and otherwise, of a kind that enters intimately into Indian life and culture. This Dr. McKee's plan undertakes to do. On no other basis, it would seem, can we reasonably hope to get the needed flexibility of concrete thinking, the indispensable working belief in the superiority of causation over Karma, and the practical willingness to attack actual problems in a commonsense way. One shudders to think of the misery in store for those villagers in India and elsewhere in the world who, when it shall come, as come it must, cannot psychologically make the shift from an old and merely traditional civilization to the moving and changing civilization of modern industry. It is this type of actual thinking about actual affairs in an actual situation that gives to the experiment under consideration perhaps its chiefest interest.

Two other successes at co-ordinating in Dr. McKee's scheme need only be mentioned. Many have seen, from one end of India to the other, the need for "vocational" and other "practical" education, but most efforts have, in effect, taken these as external additions to the ordinary scheme, with the result that the final effect has been slight. It sickens the heart to learn how many students of agriculture in India are preparing merely to teach agriculture, anything but use it themselves in farming. The problem is, to be sure, a very different one in the higher schools from what it is in the primary school, but it seems doubtful if any advanced vocational work can meet wide success in India which has not founded itself on some such unified head-hand-heart program as that herein contemplated.

At this point some will be troubled lest the cultural and other higher spiritual aspects of life are to be overlooked. The argument is too involved for adequate consideration here. Possibly it will suffice to suggest that culture and spirit are not best conceived as separate from the rest of life but as inherent in the whole of life. Let us have done with disparate and separating dualisms. Let Indian children begin their cultural life in actual connection with actual existent Indian culture. On this foundation let them proceed continuously to the highest attainable reaches, but let the process always be continuous, and let the higher be a culture which derives its worth and virtue from its power of return to actual Indian life and from the possibility which it shall possess to lead and inform this life to the highest. This conception of culture is well served by such work as that done at Moga.

Many will wonder and some may smile that so much seems attributed to one rural school experiment. Let there be no misunderstanding. No one could claim that these wider and better things must come. It does, however, seem fair to claim that on some such basis as that herein described our best hopes stand. Let those who doubt think it through. Wherever in the world the old farming village yet remains practically untouched, there is the need and hope of the kind of school which Dr. McKee began at Moga.

WM. H. KILPATRICK

TEACHERS COLLEGE COLUMBIA UNIVERSITY

PREFACE

ONE OF the most vital problems facing India today is that of providing a basic education for its teeming millions of people. It is a problem that has agitated the Government, India's leaders, and private agencies for many years. Government officials have emphasized the urgent need of mass education in order to meet approaching social and political responsibility. As an indication of this, one has but to note the many discussions in the press or on the public platform, the frequent appointments of committees of inquiry and investigation, and the publication of reports and pamphlets on this subject. All over India at present there is a strong conviction of the importance of primary education and the necessity for its extension, if India is to take her rightful place among the nations of the world. Differences of opinion exist, doubtless, as to the type of education to be given and as to the means of extending it, but there is no question as to the urgency of the need.

This attitude is in marked contrast to that of fifteen or twenty years ago. Then, the largest amount of attention and an undue proportion of public funds were devoted to secondary and higher education. This condition was due partly to the indifferent attitude of the masses to education and partly to the mistaken theory held by the Government that education would "filter down" from the educated Indian leaders to the masses. Today, however, both the educated classes and the Government, as well as a gradually increasing number of village people, feel the necessity of widespread educational opportunity and are tackling vigorously the whole problem of primary education.

This change of attitude has been brought about by a number of factors. First and foremost was the pronouncement of his Majesty's Government on August 20, 1917, that "the goal of British rule in India is the progressive realization of responsible government of the kind enjoyed by the self-governing Dominions." All thinking people realize that "responsible government" necessitates at least the fundamental elements of education for as large a proportion of the population as possible.

Another vital factor was the return to the villages of the many Indian soldiers who had fought valiantly in the Great War. These men saw, in the various countries which they visited, the great advantages of even an elementary education, and they returned to their homes as active advocates of education for their fellow villagers.

A third important factor has been the persistent efforts of India's leaders to secure compulsory primary education. They have argued that the progress made by the British in educating India's multitudes has been discouragingly slow and that at the present rate centuries would elapse before India would be literate. In its own defense the Government of India has maintained that financial and administrative reasons of decisive weight. together with the poverty of the people and their inadequate realization of the value of education for their children, have made it inadvisable for them to make education compulsory. Moreover, most of the illiterate people (approximately 86 per cent), live in small, isolated villages—a fact which makes the cost and administration of education a very serious problem. Other hampering influences have been the social and religious attitudes of the people, the scarcity of trained teachers, and the lack of essential educational facilities. Indeed, it is probable that no government has ever before had an educational problem of such magnitude and difficulty. The problem of the education of the Filipinos or of the Japanese or even of the Africans, is not to be compared with the task of providing India with an education which will develop her people and help them to contribute to her national uplift. Only China furnishes a parallel, and even China is not hampered so greatly as India by racial, social, and religious cleavages.

A fourth important factor in the change of attitude toward primary education has been the transference of the Provincial Departments of Education to popular control, under the direction of an Indian Minister. In most cases this has resulted in increased efforts on behalf of primary education and in considerable progress in that field. In several provinces special five-year programs of advance (described on pages 44-50), have been undertaken with considerable success, not only in increasing the number of schools and pupils, but in extending and deepening public interest in education.

Following the memorable pronouncement of August 20, 1917, both the official and non-official members of the legislative

councils of practically all the provinces felt the urgent need of a policy leading to a more widespread primary education, and from 1918 to 1921 the various provinces enacted permissive compulsory primary education acts. Bombay passed the first one in 1918, but it was later repealed and replaced by a more workable act in 1923. Bihar and Orissa, the Punjab, Bengal, and the United Provinces followed with similar measures in 1919, and the Central Provinces and Madras passed their acts in 1920. These acts, while differing in the extent of the areas and the ages covered by compulsion and in certain financial and administrative policies, are all permissive in application and leave the initiative of introducing compulsion with the local bodies.

The progress made in the various provinces under these acts differs greatly. Local authorities, especially in the village areas, have, in general, not shown much eagerness in enforcing the provisions of the acts. The poverty of the village communities, the unwillingness to spare children from gainful work, and the lack of public approval of the present type of education are hindering causes. Many local bodies feel that the initiative in the matter of compulsion should come from the Government. Mr. J. M. Sen, in his study, Primary Education Acts in India, states that he considers two amendments essential before the acts will work effectively: first, the acts should compel the local authority to apply for permission within a stated period to introduce compulsory education in its area; and second. Government should compel the local authority to levy an education cess (tax), and should fix the proportion of expenditure to be borne by Government and by the local authorities. Fundamental measures toward the successful operation of these acts would certainly seem to involve more adequate financial provision, and, what is probably even more fundamental, a change of attitude toward education on the part of the masses.

This change, however, is not likely to manifest itself until primary education is so remodeled that it is vitally related to the people's life and needs. Only when parents are convinced that education makes life more nearly complete and more satisfying are they likely to be willing to send their children to school and keep them there. This relating of the school to the life of the people is considered by many to be the fundamental prob-

lem of rural primary education, and government authorities are keenly aware of the unsatisfactoriness of the existing curriculum. Indian leaders have condemned it in unmeasured terms. In fact, the National Education Movement was, in part, a protest against the foreign character and lack of adaptation of the existing course of study.

These criticisms of present educational conditions indicate how important and urgent is a careful investigation of all necessary factors in order to secure an efficient indigenous primary school curriculum. Up to the present, no such thorough investigation has been made, but it is clear that it is greatly needed before large sums of money are spent upon extending a system of education which has already proved unsatisfactory.

The writer realizes that there are many other large problems connected with rural education besides the fundamental one of determining a satisfactory curriculum and that these problems greatly influence the type of curriculum which can be successfully utilized. Such problems are those of finance, trained teachers, building and equipment, suitable literature, availability of pupils, attitude of parents and community, relation of the rural schools to higher institutions and to the Educational Department. But while all these conditioning factors will be kept in mind throughout this study, the position will be strongly maintained that the best possible type of education will prove the most economical in the end and that there is no reason why India should pass through all the intermediate educational experiences and mistakes of the West before she accepts and utilizes the highest and best educational ideals and practices of the present day.

The purpose of this study, therefore, is to work out a suggestive and practical method of procedure for developing a curriculum which will help toward an effective regal elementary education in the Punjab. By "effective" is meant such an education as will function for the fullest development of the rural child and for the improvement of his home and community.

To accomplish this purpose four distinct investigations have been undertaken, the first dealing with the history of education in India, the second dealing with the educational system of the present, the third dealing with environmental conditions as they affect education, and the fourth dealing with modern social and educational ideals and theories in their relation to India's educational problem.

While the criteria and principles deduced from these investigations may have a general application, the conditions in various parts of India differ so widely that it would be impossible to develop a single curriculum fully adapted to the needs of all sections. This study, therefore, has been confined to a single province, the Punjab. It has also been limited to the rural elementary schools, not because the educational goals for rural schools are different from those of urban schools, but because social conditions vary so widely that the pedagogical method of approach cannot be the same.

This study also includes brief descriptions of outstanding Government, national, and missionary schools which are demonstrating the value of some of the best educational ideals and practices of the present day and whose results, both in the development of pupils and in the improvement of their environment, prove the possibility of India's adopting and benefiting by the best that modern educational theory has to offer.

It is hoped that the procedure utilized in this study and the principles deduced may furnish stimulation and guidance to many educators in India in the improvement of existing rural school curricula and that it may result in much more experimentation and concentrated effort in finding a solution for the difficult and imperative problem of improving, enriching, and enlarging village community life.

If such stimulation and experimentation are outcomes of this study, much credit will be due to the helpful guidance and encouragement of the members of my dissertation committee. To these teachers and advisers, Professors Fannie W. Dunn, Wm. H. Kilpatrick, Frederick G. Bonser, I. L. Kandel, and Wm. F. Russell, I owe a debt of gratitude, not merely for their helpful suggestions and constructive criticisms in connection with this study but also for ideas and inspiration which led to many of the most successful educational activities undertaken at the experimental village school at Moga.

It is also a pleasure to acknowledge my indebtedness to many other educational colleagues in America and India and to the students and staff of the Moga School, especially to the headmaster, the Rev. Samuel Jiwa, for their loyal co-operation and their willingness and desire to try out ideas and plans for the improvement of instruction and the progress of the school.

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WILLIAM J. McKEE

The University of North Carolina September, 1930

CONTENTS

	ed by Professor William H. Kilpatrick	vii xi
	PART I	
A :	Review of Education in India and the Punjab with Reference to Curriculum-Maxing	
Chapter		age
L	Ancient And Early VILLAGE EDUCATION Ancient Education—Objectives of Ancient Education—Evaluation of Ancient Education—Early Village Schools—Pre-British Schools in the Punjab—Inferences for Curriculum-Making.	3
п.	BRITISH EDUCATION, 1813-1835	16
III.	British Education UP to the Great War, 1835- 1918	32
IV.	British-Indian Elementary Education Since 1918. The Five-Year Program, 1918-1923—Results of the Five-Year Program—Adult Education—Education of the Depressed Classes—The Punjab Compulsory Education Act—The Reforms Scheme—Inferences for Curriculum-Making.	. 44

PART II

PRESENT-DAY EDUCATIONAL PRACTICES WITH REFERENCE TO CURRICULUM-MAKING

Chapter		Page
-	THE PRESENT OFFICIAL ELEMENTARY SCHOOL CURRICULUM OF THE PUNJAB Outline of the Course of Study for the Punjab Elementary Schools—Details of the Above Requirements—Additional Facts Concerning the Official Curriculum—Officially Suggested Alterations in the Elementary School Curriculum— Analysis of the Government Curriculum and Its Recently Suggested Alterations—Methods in Use with the Official Course of Study and Their Evaluation—Results Obtained from the Present System —General Summary.	59
VI.	NATIONAL EDUCATION AND OUTSTANDING INDIGENOUS SCHOOLS The Movement for National Education—Dr. Tagore's School, Santiniketan—Agricultural School at Surul—The Gurukula Kangri—A Gurukula for Girls—The National School at Adyar, Madras—The Manual Training Institute at Dornakal—Statements of Indian Leaders—General Summary—Inferences for Curriculum-Making.	79
	THE WORK OF CHRISTIAN MISSIONS IN RUBAL EDUCATION Early Interest in Education—The Unique Contribution of Christian Education—The Short-Comings of Missionary Education—The Village Education Commission—Evaluation of the Commission's Recommendations—The Proposed Vocational Middle School—Evaluation of the Proposed Vocational Middle School—The Moga Conference—Other Conferences.	105

Chanten	e P	age
Chapter VIII.	OUTSTANDING EXPERIMENTAL SCHOOLS CON-	124
IX.	A DAY IN THE SCHOOL AT MOGA. The Approach to Moga—The School Gardens—Basket Making—Rope Making—Brick Making—Book Binding—Preparing a Meal—Early Morning Procedure—The Grounds and Buildings—A House Project—A Cotton Project—A Village Project—A Shop Project—Irrigation and Wood Project—A Dispensary Project—A Thrift and Banking Project—A Program of Village Reconstruction—The Normal Class—The School Farm—Games and Athletics—Evening Devotion, Study, and Recreation—The Panchayat—Results of the Work at Moga.	140
	PART III	
	Social Analysis of Village Life with Reference to Curriculum-Making	
X.	THE PROVINCE AND ITS PEOPLE. The Geographic Environment—Divisions of the Punjab—The People of the Punjab—The Village Child—Inferences for Curriculum-Making.	187
XI.	THE VILLAGE: HOME AND HEALTH. The Village Home—Clothing—Food—Household Sanitation—The Hindu Family—The Work of the Family—Religion in the Home—Recreation in the Home—Family Budgets—Outstanding	201

Chapter	1	Page
	Family Traits—Village Health and Sanitation— Lack of Medical Facilities—The Use of Alcohol and Drugs—Vital Statistics—Epidemics—Mala- ria—Smallpox and Vaccination—Other Dis- eases—Unfavorable Individual and Social Atti- tudes—Evaluation of Village Home and Health with Reference to Education.	
XII.	THE VILLAGE: CIVIC AND SOCIAL LIFE Village Organization—Caste—The Position of Women—Marriage—Recreation—Evaluation of Civic and Social Life with Reference to Education.	2 28
XIII.	THE VILLAGE: RELIGIOUS LIFE	250
	THE VILLAGE: ECONOMIC LIFE. Agriculture—Indebtedness—The Money-Lender —The Land-Alienation Act—The Co-operative Credit Movement—Litigation and Other forms of Waste—Village Industries and Mahatma Gandhi's Campaign—Village Artisans and Serv- ants—The Landless Laborer—Communication and Transportation—Increased Interest in Poli- tics and Public Affairs—Other Broadening Fac- tors—Evaluation of Village Economic Life with Reference to Education.	266
	PART IV	
M	ODERN SOCIAL AND EDUCATIONAL IDEALS WITH REFERENCE TO CUBRICULUM-MAKING	
; }	Modern Social Problems and Ideals	305

CONTENTS

Chapter		age
-	nomic Conditions—The Futility of War—Internationalism — Democracy — The Scientific Method—A Rapidly Changing World.	i
XVI.	Modern Educational Ideals and Curriculum Principles The Modern Emphasis—The Learning Process—Types of Activities—Educational Procedures—The Place of the Teacher—Social and Moral Aspects—Modern Principles of Curriculum-Making—General Summary.	337
XVII. .	Summary and Conclusions for Curriculum-Making Weaknesses of Present-day Education in India— Basic Principles for Curriculum-Making—Suggestions for a Graded Method of Procedure— Conclusion.	364
	Appendix	381
	Bibliography	399
	Index	421

LIST OF ILLUSTRATIONS

Plate		
I.	A VILLAGE SCHOOL Frontis	piece
II.	A "CLOSE TO NATURE" STUDY GROUP Frontis	
	Facing	~
III.	INTERESTING, ATTRACTIVE RACIAL TYPES	40
IV.	A CLASS IN A GIBLS' SCHOOL	40
V.	Modeling Words and Sentences	88
VI.	PUPILS AT WORK IN THEIR GARDEN PLOTS	88
VII.	AN OUT-OF-DOORS DISCUSSION GROUP IN RE-	
	LIGIOUS EDUCATION	116
VIII.	A CLASS OF GIRLS IN A MISSION SCHOOL	116
IX.	DEMONSTRATING A NEW PLOW AT MOGA	142
X.	A PRIZE GARDEN OF CAULIFLOWER AT MOGA	142
XI.	A FRIENDLY GAME OF VOLLEY BALL (MOGA	
	TEACHERS VS. PUPILS)	178
XII.	Moga Pupils Cooking Food	178
KIII.	A VILLAGE HOUSE OF THE BETTER TYPE	202
XIV.	A Congested Section of a Punjab Village	202
XV.	THE VILLAGE MEDICINE MAN	292
XVI.	A Modern Ascetic	292
CVII.	RETURNING PROM THE VILLAGE WELL	292

APPENDIX

	I. FAMILY BUDGETS			
1.	AMEUAL FAMILY BUDGET OF A JAT FAMILY (THREE DREW) ¹	ADT	ne, 1	IMO CHII
	(Owns fourteen acres of cultivable land)			_
	Income			Rupees
	Grain crops	_		
	wheat, 58 maunds			
	maize, 19 maunds			
	gram, 10 maunds	. Ks.	50	
				416
	Gur (crude, raw sugar), 32 maunds @	Rs.	8	256
	Cotton, 5 maunds @			65
	Dal (lentils), 20 seers			5
	Fruit sold			8
	Other sources			25
	Total			D. 775
	Espenditures	• • • •		
	Payments to laborers	ъ-	52	
	Land revenue, local cesses and malba			
	Purchase of iron or implements			
	Purchase of cattle (non-recurring)			
	runchase of extue (non-recurring)	. RB.	- 80	
				188
	Foodstuffs produced at home			
	wheat, 46 maunds			
	other foods (gram, maize, gur, and dal)	.Rs.	188	
				418
	Clothing produced at home	_		80
	Food purchased from the market	•		-
	sugar, tea, spices, tobacco			~
	vegetables (in exchange for grain)			21
	Medicines			20
	Repairing house and utensils			. 5
	Education and books	•		, 12
	Social expenses	_		
	giving of neundas (gifts)			
	performance of funeral rites	.Rs	. 125	
			-	165
	Litigation (including bribes)	_		15
	Miscellaneous			20
	Total			Rs. 944
	Deficit for year			
-				

¹ Bhalla, An Koonomic Survey of Bairampur, p. 171.
² A maund is equal to 78 pounds, and a rupee is normally 33 cents.

2.

Norz. The above agrees with the Jat's statement that he had to borrow Rs. 160. In this budget Rs. 165 are devoted to the burden of social custom and Rs. 15 to litigation! The money spent for wheat is rather high and the diet is poorly balanced.

ANNUAL FAMILY BUDGET OF A WEAVER (MAN AND WIF Income	Rs.	A	P
Income from weaving	146	19	8
Income from other sources (fruit, field work)		9	2
Total	164	б	10
Expenditure			
Land revenue and Chaukidara (watchman)	7	5	` 4
Wheat and maize consumed (26 maunds)		2	0
Gur and sugar		11	5
Tobacco		4	6
Dal (pulse)	9	4	б
Mustard oil and spices	2	14	8
Cloth		9	1
Kerosene oil	2	4	7
Miscellaneous		4	7
Total	169	12	8

Note. The standard of the weaver is much lower than the previous landowner, and yet he finds it difficult to make both ends meet. The only hope here is for an increase in earning capacity, for it is difficult to see how expenditures could be reduced. Nothing is included in this budget for implements, medicines, house furnishings, and the diet is simple and meagre. It should be noted how large a proportion of the income is used for food.

10

S. Annual Family Budget of a Chamar (Laborer)⁴ (one man, one woman, and four children)

Income	Ru	pees
Produced as a cultivator		18
Earned as a laborer		
Earned as a reaper in Beas		
Sale of ghi		50
Sale of a cow		80
Earnings of woman at odd jobs		
Earnings of children picking cotton		2-0-0
Earnings from making rope		8-0-0
Total	_ 2	27-8-0
Expenditures		
Wheat (24 maunds), maize, and rice (8)	13	80
Gur, 8 seers		2

Lucas, The Economic Life of a Punjab Village, pp. 112-13. Bhalla, op. cit., p. 171.

APPENDIX

Dal (lentils)	 	 	8
Salt and spices			
obacco			
fedicines	 	 	2
Dil	 	 	3
lothes	 	 	20
Miscellaneous	 	 	10

Norz. This budget indicates how difficult the economic struggle is. Man, woman, and children work, and yet they barely make ends meet. Food is very simple and poorly balanced. Probably some money could be saved by substituting cheaper grains for wheat.

II. INDEBTEDNESS IN THE PUNJAB¹

The total debt of proprietors in the Punjab is about 55 crores (Rs. 550,000,000, or £36,666,667). Many believe that the actual figure is higher than this, as this figure is about twelve times the land revenue, whereas when figured on the basis of mortgage debt, the index works out as $15\frac{1}{2}$. Since land revenue absorbs about one-fifth of the net income of the land, this means that the average proprietor's debt is equal to about three years of his net income.

In a study made by Darling in 1918 of 43,733 Punjabi proprietors, it was found that the average debt per indebted proprietor was Rs. 463. He also found that the larger proprietor is more highly indebted than the smaller, but the latter is more heavily involved. Only 17 per cent of the proprietors of the province are not in debt.

Debt is almost as widespread among tenants as among proprietors; but it is much lower in amount, averaging Rs. 150 per family. Since there are somewhat over a million tenants, farm servants, etc., dependent upon agriculture, it means an additional burden for the province of 15 crores (Rs. 150,000,000). This is about $3\frac{1}{2}$ times the land revenue, giving a total agricultural debt of $15\frac{1}{2}$ plus $3\frac{1}{2}$, or 19 times the land revenue. This equals nearly 90 crores of rupees (£60,000,000). Per cultivated acre this amounts to Rs. 31, and to Rs. 76 per head, counting all those who are supported by agriculture. The annual

² For the following facts I am chiefly indebted to M. L. Darling's excellent book, The Punjab Peasant in Prosperity and Debt, pp. 9-15, 20, 21, 254, 279, and passim.

interest charges on this debt amount to over 13 crores (£8,666,667) or nearly three times the total land revenue of the province.

"Moreover, mainly owing to the inflated value of land and the consequent expansion of credit, this debt is much greater than it was 50 years ago and its rapid increase is depriving the cultivator of much of the benefit he might otherwise derive from the growing prosperity of the province." This debt is also widespread, for probably in no district are more than one-third of the cultivators free from debt and in some the percentage is less than 10 per cent. It also varies considerably in amount in the various districts. In the submontane area the total agricultural debt is 24 times the land revenue (Sialkot, 28; Ambala, 24; Hoshiarpur, 24; Gurdaspur, 20). In the Central Punjab it is 22 times the land revenue, but there are some districts having very heavy indebtedness, such as Amritsar, with a multiple of 30 times the land revenue, and Ferozepur, with 38. In the North Punjab the average multiple is 13 (Rawalpindi, 8; Jhelum, 13; Attock, 18), while in the Southern Punjab the total debt as a multiple of the land revenue is 15 (Gurgaon, 19; Rohtak, 17; Hissar, 15; Karnal, 11). In the Western Punjab the average multiple is 15 (Mianwali, 28; Muzaffargarh, 22; Dera Ismail Khan, 22; Multan, 8). In the Canal Colonies, the total debt is only twice the land revenue. An examination of these figures, together with a knowledge of the fertility of the soil and the amount of irrigation in these districts, shows that debt is allied to prosperity and to poverty alike, and that while its existence is due to poverty, its volume is due to prosperity.

III. SCHOOLS IN WHICH WORK SIMILAR TO THAT OF MOGA IS BEING CARRIED OUT UNDER THE AUSPICES OF CHRISTIAN MISSIONS¹

PUNJAB.—In addition to the American Presbyterian Mission School at Moga, there is, in connection with the same Mission, the beginnings of a farm school for boys and girls at

¹ From "Answers tendered on behalf of the National Christian Council of India, Burma, and Ceylon to the Questionnaire of the Royal Agricultural Commission on Village Education," by Miss E. A. Gordon and Messrs. Paton and Philip.—National Christian Council Review, Pebruary, 1927.

Shahdara (near Lahore). At Sangla Hill, Sialkot, and Pasrur, work of a similar nature is carried on by the American United Presbyterian Mission. [There is also the Methodist Community School at Raiwind.]

UNITED PROVINCES.—The Methodist Episcopal Church has begun such work at Ghaziabad, Lodhipur, and Muttra. At Moradabad the Society for the Propagation of the Gospel is developing community middle schools of rural type. In the same province the Church Missionary Society is about to develop a rural community middle school on new lines.

CENTRAL PROVINCE.—At Dhamtari the American Mennonite Mission is beginning the training of rural teachers and devoting a missionary entirely to this work. The Canadian Mission at Kharwa, in Central India, is developing work along these lines.

BOMBAY.—In Gujerat the Methodist Episcopal Church at Nadiad and Godhra have training work and middle schools on the newer lines. The Irish Presbyterian Mission has a training school for women teachers at Ahmedabad, and one of the most notable pieces of work is that of Ankleswar, under the church of the Brethren. At Manmad the Church Missionary Society has established an important community middle school, with both agricultural and industrial sides. In Ahmednagar the Society for the Propagation of the Gospel is doing progressive work in the training of girls, and in the same town a united teachers' training institute (begun by the American Marathi Mission and now supported by four other societies), is doing work of the highest value.

BENGAL.—At Bhimpore, under the auspices of the American Baptist Mission, most valuable experimental work has been done, to which special reference has been made in the report of the Director of Public Instruction. At Asansol and Pakur, under the Methodist Episcopal Church, schools along modern lines have been established; and in Darjeeling the Church of Scotland proposes to initiate work of this type. At Chapra plans have been formulated for developing a training school for teachers and a rural community middle school for Bengal, through the joint agency of the Church Missionary Society, which already has a middle school there, and the United Free

Church of Scotland [who now have a promising school at Kalna].

BIHAR AND ORISSA.—At Patna, Ranchi, and Hazaribagh, schools are experimenting with modern methods and good results are achieved.

MADRAS.—At Dornakal an important community middle school has been established under the Bishop. At Ongole, and in other parts of the Telugu country, the American Baptist Mission is undertaking rural education on modern lines. At Medak, in connection with the Wesleyan Methodist Mission in Hyderabad State; at Salem, in connection with the London Missionary Society; at Guntur, under the American Lutheran Mission; at Nandyal, under the Society for the Propagation of the Gospel, the new ideas of rural education are being put into action; and at Vellore, where a training school for teachers, begun by the American Arcot Mission, is now supported by three other societies. The school is soon to be removed to a rural centre and developed on new lines.

BURMA.—Both the American Baptist Mission and the Society for the Propagation of the Gospel are renovating their work in the sphere of rural education along new lines.

"Moga has been inspiring not only missions, but also the Government Educational Department, to new ventures in rural education." In the Report on the Progress of Education in the Punjab for the Year 1925-26, we read:

The Punjab is fortunate to possess a most admirable model in the school and training class maintained by the American Presbyterian Mission at Moga, which owes so much to Mr. W. J. McKee and to the present principal, the Rev. A. E. Harper. In the training class young Indian Christians are being trained not merely to be effective teachers, but also to be the mainstays of their community in its battle for progress. Two very important experiments have therefore been started at Gakhar and Gurgaon, very largely in imitation of Moga. The former used to be a training institution of the ordinary type, but its scope of activity has now been expanded very largely by practical training in those matters which should promote the well-being and progress of the Indian village. The School of Rural Economy, Gurgaon, is very similar in its scope, except that its pupils are teachers who have already received their training and have been especially selected for a further training in

community work. It is significant that the students at Gakhar showed the best results in their training examinations, and therefore go to prove that the fuller and wider training is not only good in itself but that it also improves the efficiency of the ordinary training for the teaching profession in a limited sense. Steps are now being taken to extend this form of training to all training institutions.—National Christian Council Review, April, 1927.

IV. BRIEF OUTLINE OF SUGGESTED PROJECT ACTIVITIES OF THE SECOND GRADE

This indicates what might be undertaken in a year in one of the Primary Grades. The pupils at Moga would be 8 or 9 years old. Due to the lack of space only a few of the first activities can be briefly described, the others merely being listed by title. In the same manner aims, objectives, outcomes, materials, content, and procedure should be stated for these activities, but these also, under present exigencies, must be omitted. (All of the above will be included, however, in a series of articles which are to be published soon in the Village Teachers' Journal, Moga.)

A. CENTRAL PROJECT—MAKING A VILLAGE GARDEN OR FARM

- I. Pupils' interest and purpose aroused by visiting a farm; discussing this work; playing farmer; what work does father do; hearing stories and finding pictures about farm work; free activity with implements, tools, seed, etc. When the pupils' interests have been aroused and they want to make a little farm of their own, the following problems (through the teacher's guidance) may arise (see also the investigative activities, p. 389):
- 1. Laying out the garden. Measuring the available land; checking the measurements. Drawing it on paper. How shall we divide it? Shall each pupil have a plot or several work together on one? Decision as to number of plots. Working out the dimensions of each plot. Checking these by plotting on the paper map. Also by measurement on the ground itself. (See activities Nos. 2, 3, and 4.) Marking in the various plots. Have we enough room left for irrigation channels? For places to walk across the plot? Redivision of the plot in the light of these necessary adjustments.
- 2. Running a straight line. How does the surveyor or patwari do this? Inquiry and observation. How can we do it?

Securing three straight sticks and sighting along them until they (placed at considerable distance from each other) are in a straight line. Checking this up with a string or rope. Why does this make a straight line?

3. Making a Measuring Tape five feet long. Examining such a tape. How is it divided? Yard, feet, inches, parts of an inch. Studying these relationships and learning them through use. What material is the tape made of? What type of material must be used? How are the markings made? How checked? How shall we make ours? Discussion and choosing of materials and methods. Arranging to make the tape. Using it to measure our plot. Making other necessary measurements.

Brief titles of other activities are:

- 4. Making a "Builder's Square" (Gunia).
- 5. Observing a farmer plowing a field and getting it ready for sowing.
- 6. Preparing our plot and seed bed.
- 7. Putting in our irrigation channels.
- 8. Keeping a record of our work in making a village farm.
- 9. Selecting the seed.
- 10. Making a seed sowing plan.
- 11. Changes taking place in the seed.
- 12. Cultivating the plants.
- 13. Making supports for our pea and bean plants to climb on.
- 14. Making a collection of seeds of various kinds of vegetables and flowers and labeling these.
- 15. Study of the various gardening and agricultural implements through using them.
- Reading stories to find out what kind of agricultural tools the people in olden times used.
- 17. Harvesting our vegetables.
- 18. Cooking some of these vegetables.
- 19. Making split peas (or dal) from some of these vegetables.
- 20. Making the best use of the stalks of our plants.
- 21. Planning a harvest thanksgiving service.
- 22. Preparing a harvest drama.

- 23. A sand table illustration of a harvest scene in Bible times.
- 24. Planning an exhibit of our work in the garden project.
- II. Valuable Spontaneous Creative Activities Suggested by the Pupils which concern the local environment and its interests should be added.
- III. Investigative or Problem Activities for the Second Grade (suggestive of those which might arise as pupils' interests and purposes in their village garden project):
- 1. What place or site shall we select for our garden? Inquiring as to what sites are available. Need of visiting and examining these before making a choice. What shall we look for and ask about on our observation trip? Nearness to school; possibility of securing water; type of soil; general level of the ground; drainage; protection from wandering animals. Report of the trip; information secured; discussion plan and decision; application and proceedings necessary to secure its uses. What further investigations do we need to make?

Brief titles of other problem activities are:

- 2. What is the best soil for a garden?
- 3. In what direction does the water run with regard to this plot?
- 4. How many sources of irrigation water are there?
- 5. How is a field prepared for sowing?
- 6. Where do most of the farmers secure their seeds?
- 7. What do we need to do to help the seeds grow best?
- What provision is made for these vegetable plants (pea, bean, lauki) to pull themselves upward or along the ground.
- 9. Finding out how the flowers of these three vegetables compare?
- 10. How can we protect our vegetables from destructive insects?
- 11. How can we conserve moisture in the soil?
- 12. Finding out how the farmer harrows his field.
- 18. What work does the sun and rain do in making plants grow?

- 14. What shall we do with our harvested vegetables?
- 15. What does the shopkeeper do with the vegetables he buys?
- 16. Finding out how many different varieties of peas, beans, lauki (pumpkin) are there?
- 17. Why are fresh vegetables better for one's health than dried ones?
- 18. What changes take place in the plant when the growing season is finished?
- 19. What shall we do with the proceeds received from our vegetables?
- 20. What shall we do with the land after the vegetable vines are removed?
- 21. What does the farmer contribute to the home? to the village?
- 22. What does the village owe to the farmer?
- 23. How can cattle be kept out of our plots?
- 24. How many different vegetables are eaten by village people?
- 25. How do people in cold countries secure vegetables during the winter?

IV. Recreative Activities for the Second Grade

Stories told by the teachers. Further stories from "The Treasure Chest," from "The Village Teachers' Journal," from "The Phul," and other children's magazines. Stories secured from the books listed in grades 1 and 2, supplementary books, and also folk tales, geographical and travel stories, hygiene and sanitary stories, nature stories, Bible stories, temperance stories, etc.

Telling of stories by children. There should be a discussion of the interest of the story, standards of why pupils liked or did not like it, something of its quality and literary appeal and judgment of the way it was told. In Christian schools many Bible stories will be emphasized.

Stories read by the pupils. Stories from many different sources including the reading of directions and other information which pupils need for their work.

Indian singing and music. Increasing appreciation of both vocal and instrumental music. Singing simple folk songs and

music for action games. Creative music on Indian instruments (Play level).

Worship and Service. Preparation for periods of worship and for opening exercises. Development of reverence, understanding, praise, and fellowship.

Dramas. Growing understanding, appreciation, and enjoyments of dramatics. Utilization of these in classes, school assembly, and evening worship.

Pictures. Special attention to home and child scenes; the beauties of nature; farming and occupational life; and animal pictures. Building up appreciation of the beautiful and stimulating creative expression in this field.

Social Fellowship. Class discussion regarding interest, ideas, and activities; working and playing together; group organization to accomplish social ends.

Games. These involve indoor and outdoor ones; imitative and advancing movements, folk dances and dramatic expression, breaks, and the working out of a balanced program.

V. Activities to Secure Habits, Skills, and Attitudes

Testing the achievement of each pupil in each subject with reference to his speed and accuracy as these are related to objective standards. Diagnosing of weaknesses and providing such remedial practice exercises as will best assist the pupils to reach the accepted standards.

VI. Subject Matter Outcomes

For those who are fearful that the requirements of the official course of study can not be attained by this activity work, a brief resumé of the possible subject matter learnings is given.

Reading for information to carry on the activity (from books, papers, and the blackboard); reading for pleasure; writing signs, invitations, brief letters and requests. Picture writing description of the work in the book (Our Village Farm), labeling seed envelopes, exhibits, etc.; arithmetic in measuring, dividing up the plot, making a straight line, a right angle and a measuring tape; keeping simple accounts; figuring costs and profits; thrift work; seed problems; construction problems; buying and selling; weighing; use of proceeds received from selling vegetables; related arithmetic problems for other gar-

dens, farms, and markets. Measurements of weight, length, time, and money. Also simple fractions, counting by 2's, 4's, 6's, 12's, counting money and making change (simple). There are also large possibilities for language work in class discussion and telling and retelling of stories. In geography, there is emphasis upon the sources of food, utensils and tools, markets, the local environments; weather conditions and adjustments to them; geographical forms and making plans and ground maps. Nature study is abundantly cared for, and hygiene is emphasized in the selection, preparation and eating of food, bodily cleanliness, pure water, clean surroundings. Besides these, there is emphasis upon Bible study, worship and service, upon industrial and fine arts and upon ideals, attitudes, and appreciations for both individual and social development.

B. FURTHER CREATIVE ACTIVITIES FOR THE SECOND GRADE

- I. Central Project—A cotton and cloth project
- 25. Planning to grow some cotton to make a shirt.
- 26. Selecting the plot and preparing the seed bed.
- 27. Selecting the cotton seed, and sowing it in the best way.
- 28. Careful cultivation of the cotton plant.
- 29. Keeping a record of the development of our plants.
- 30. Gathering the cotton from our plot.
- 31. Removing traces of the pod and plant fiber.
- 32. Cleaning the cotton.
- 33. Fluffing the cotton and preparing it for spinning.
- 34. Hand spinning.
- 35. Hand weaving of cloth.
- 36. Kinds of cotton cloth.
- 37. Dyeing of cloth.
- 38. Observing how a shirt is made,
- 39. Care of our clothing.
- 40. Making a series of charts illustrating the process "From a Cotton Seed to a Khaki Shirt."
- 41. Making a collection of pictures of clothing worn by people in other parts of India.
- 42. Making a booklet for the Class Library on "Cotton Growing and Manufacture in Other Countries."
- 43. Doing some spool knitting.

- 44. Making an exhibit of knitted products.
- 45. Sand table model of a pastural scene. (Representation of "David Watching his Sheep" or "The Parable of the Good Shepherd."
- 46. Observation of a flock of sheep and of the way they are cared for.
- 47. Making a sling shot and a shepherd's crook.
- 48. Washing "raw wool" and dyeing it.
- 49. Learning how to make dyes.
- 50. Making a color chart.
- 51. Getting the wool ready for spinning.
- 52. Twisting a wool sliver into a thread.
- 53. Making a hand loom.
- 54. Making a collection of wood products.
- 55. Making a booklet illustrating "The Story of Wool."
- 56. Making a collection of different kinds of fibers which may be used in weaving various articles.
- 57. Making some thick rope from "san" hemp.
- 58. Making a chart showing the making and use of rope.
- II. Further Investigative or Problem Activities for the Second Grade (for the Cotton and Cloth Project)
 - 26. What is the most suitable soil for cotton?
 - 27. Are there different kinds of cotton seed?
 - . 28. What is the most favorable kind of weather for producing cotton?
 - 29. How is the temperature of a place measured?
 - 80. How can we cause wind?
 - 31. How can we measure the amount of rain which falls?
 - 32. Comparison of different types of cotton plants and contrasting these with fodder or grain plants.
 - 33. What damage does the boll weevil do to cotton?
 - 34. Watching a cotton drill at work.
 - 35. Observing the bullocks which draw this drill.
 - 36. Finding out how bullocks are cared for.
 - 37. How does the smith put iron shoes on a bullock?
 - 88. How is cotton cleaned in our village?
 - 89. How long has cotton been spun and woven in India?
 - 40. How much cotton cloth would it take to make a shirt?

 How much to clothe the people in our family?

- 41. Visiting a weaver at work and learning how he weaves cloth.
- 42. Where is the cotton shipped to from our village?
- 43. What are the different uses of cotton?
- 44. What is done with the cotton seeds?
- 45. What can the flexible cotton branches be used for?
- 46. What was used for clothing before cloth was known?
- 47. Observation of a great natural weaver (the spider).
- 48. Observing how the Heavenly Father clothes the birds, and the fields with grass and flowers.
- 49. Where do birds get their food? What foods do birds like best?
- 50. How is water brought from the canal (river, tank, well) to our cotton fields?
- 51. Observing the habits of a village shepherd's flock of sheep and goats.
- 52. What stories or pictures of sheep have you seen?
- 53. What interesting Bible stories are there about sheep and shepherds.
- 54. How are sheep washed? How is the wool sheared from them?
- 55. Inquiring as to what other materials are secured from sheep.
- 56. Securing the information necessary to make a wool product map of the district.
- 57. Watching someone spinning with a spinning wheel.
- 58. How did the people of olden times utilize sheep's wool in clothing?
- 59. How can we tell woolen cloth from a mixture of wool and cotton?
- 60. How should woolen cloth or garments be washed and cleaned?
- 61. What eats the little holes in woolen goods? How prevent this?
- 62. How should holes in woolen cloth be repaired?
- 63. Examining rugs or woven products to see how this work is done.
- 64. Studying pictures of sheep raising and the shearing of wool in other countries.
- 65. Where is the wool from our village (or district) sent?

- C. FURTHER CREATIVE ACTIVITIES FOR THE SECOND GRADE
 - I. Central Project—A Milk and Dairying Project and Miscellaneous Activities
 - 59. Raising and caring for goats.
 - 60. Testing milk.
 - 61. Boiling some milk.
 - 62. Making some butter or ghi.
 - 63. Making a churn such as is used in the home.
 - 64. Making dahi and lassi. (Curds and whey).
 - 65. Making cottage cheese.
 - 66. Listing the various products of milk.
 - 67. Preparing a drama showing the kind of food a child should eat.
 - 68. Making charts, posters, and pictures to explain the value of milk as a food.
 - 69. Collecting pictures and making an album on "Dairying in Other Lands."
 - 70. Working out a booklet on an Indian farm and pastural scenes.
 - 71. Making a bird chart.
 - 72. Making a product map of the way the land about the village is used.
 - 73. Dramatizing a harvest scene.
 - 74. Building up a class library.
 - 75. Building up a class collection of pictures.
 - 76. Making Christmas cards and greetings.
 - 77. Making a temperature, wind, and weather chart.
 - 78. Making a weather vane to find out the direction of the wind.
 - 79. Making a map of an observation trip the class has taken.
 - 80. Making preparations for celebrating Christmas.
 - 81. Preparing a hygiene drama on "A Small, but Dangerous Enemy" (fly).
 - 82. Constructing a fly swatter.
 - 83. Making a sand table model of the cattle fair visited by the class.
 - 84. Planning and preparing a service of worship to be held out of doors for the whole school.

- 85. Planting a tree near the school to shade our room from the sun.
- 86. Washing our heads and caring for our hair.
- 87. Keeping a health and hygiene record.
- 88. Making a takhti (wooden tablet for writing).
- 89. Making pens in order to have good writing materials.
- 90. Making a bulletin board for the classroom.
- 91. Listing what we have learned of the work which fathers and mothers do. Also what we can do to help them and make home a bright, happy, healthful place.
- II. FURTHER INVESTIGATIVE OR PROBLEM ACTIVITIES FOR THE SECOND GRADE (FOR THE MILK AND DAIBYING PROJECT)
 - 66. Visiting a farmer having a number of cows or goats.
 - 67. Observation of how cows are milked.
 - 68. Finding out whether cow's or goat's milk is better and which is cheaper.
 - 69. Observing what are some of the main differences between cows and goats and which is harder to care for.
 - 70. Why should we drink some milk each day?
 - 71. What are the things we should eat each day in order to grow strong?
 - 72. How should milk be cared for and stored?
 - 73. What other things besides milk does the cow supply for man's use?
 - 74. How many different types of cows are there in our village?
 - 75. What other milk producing animals are there in the village?
 - 76. What are some of the official regulations about milk?
 - 77. What can we do to make our parents and others realize that only pure, unexposed milk should be given to children?
 - 78. How can we secure and sell milk to the pupils at recess?
 - 79. What effect does changes of season have on cultivation about the village?
 - 80. What adjustments should be made in one's clothing to meet changes in temperature?

APPENDIX

- 81. What are the harvest customs of the village?
- 82. How can we help a poor family in the village have a happy Christmas?
- 83. Learning how we can best care for our eyes.
- 84. Finding out what birds are most helpful to the farmer.
- 85. How can we secure some interesting things for our class bulletin board each day.
- 86. Visit to a letter writer.
- 87. Examination of the maps of farm and village lands which the patwari has.
- 88. Visiting a weaver of tape or cloth.
- 89. Finding out how the work of the various village occupations provides us with food and clothes.
- 90. Finding out how we can select really good, interesting books to read out of school hours.

These investigative activities (or rather such of them as are accepted by the pupils) should be supplemented by activities and inquiries which interest pupils and which they actually need. They should also be supplemented by many recreational, expressional and practice projects (See A, IV, V.) As stated previously the pupils of the class along with the teacher are really the makers of the curriculum, and the activities given here are to be considered as suggestions and as guiding posts to the type of pupil interest and activity which has real educational and character forming power.

BIBLIOGRAPHY

I. Indian Life and Thought

- Allan, M. M. Village Education in India (In Christian Education in Africa and the East). London, Student Christian Movement, 1924.
- Andrews, C. F. The Renaissance in India. Madras, Christian Literary Society, 1918.
- ——To the Students.
- Animananda, B. "The Boys' Own Home," The Guardian (Calcutta), Dec. 24, 1925.
- Archer, William. India and the Future. New York, A. A. Knopf, 1918.
- Baden-Powell, B. H. Origin and Growth of Village Communities. London, Allen and Unwin, 1908.
- Basu, S. C. Problems of Primary Education in India. Calcutta, Sen Bros. and Company, 1925.
- Bhalla, R. L. An Economic Survey of Bairampur. Labore, Government Printing Press, 1923.
- Biss, E. E. Report on Primary Education in Bengal. Calcutta, Bengal Secretariat Book Depot, 1921.
- Briggs, Geo. W. The Chamars. London, Oxford University Press, 1921.
- Brown, Francis Yeats. "India's Struggle for Education: Two Phases," II. "From the Standpoint of the British Administration," Current History, XXII (July, 1925), 582-87. See also Metta, V. B.
- Calvert, H. The Wealth and Welfare of the Punjab. Lahore, Civil and Military Gazette Press, 1922.
- Census of India, Actuarial Report, 1911.
- Center of Indian Culture, The. A paper published by the Society for the Promotion of National Education, Madras, 1919.
- Chatterji, S. K. "Educational Ideals," National Christian Council Review (Calcutta).
- Chirol, Sir Valentine. India Old and New. London, Macmillan and Company, Ltd., 1921.
- Christian Education in Africa and the East (Sadler, Oldham, Drake, Allan, Singha, Lenwood). London, Student Christian Movement, 1924.
- Christian Education in China—A Survey. New York, Committee of Reference and Counsel, 1922.

- Chuang, G. H. Tendencies Toward a Democratic System of Education in China. Shanghai, Commercial Press, 1922.
- Civil and Military Gasette (Lahore). Nov. 4, 1928.
- Clark, Alden H. "Is India Dying? A Reply to 'Mother India,' " The Atlantic Monthly, CXLI (Feb., 1928), 275.
- Coatman, J. India in 1926-27. A Statement Prepared for Presentation to Parliament, etc. Calcutta, Government of India, Central Publication Branch, 1928.
- Coomaraswami, A. The Arts and Crafts of India and Ceylon. London, Foulis, 1918.
- Darling, M. L. The Punjab Peasant in Prosperity and Debt. London, Oxford University Press, rev. ed. 1928.
- Dewar, D. Birds of an Indian Village. London, Oxford University Press, rev. ed. 1925.
- Elmhirst, L. K. An Educational Experiment. Surul, Department of Rural Reconstruction.
- The Robbery of the Soil and Rural Reconstruction. Calcutta, Brahmo Mission Press, 1928.
- Farquhar, J. N. The Crown of Hinduism. London, Oxford University Press, 1918, 1917.
- ——Modern Religious Movements in India. New York, The Macmillan Company, 1915.
- Ferosepur Settlement Report, 1853.
- Fisher, F. B., and Williams, G. M. India's Silent Revolution. New York, The Macmillan Company, 1919.
- Fishman, A. T. "Problems of Agricultural Mission Work in India," Village Teachers' Journal (Moga), October, 1928.
- Fleming, D. J. Building With India. New York, Missionary Education Movement, 1922.
- Schools With a Message in India. London, Oxford University Press, 1921.
- -----Whither Bound in Missions? New York, Christian Association Press, 1925.
- Foerster, Freidrich W. "The Essence of the Present Crisis," The Living Age, vol. 318, no. 4129 (August 25, 1923), p. 845.
- Forman, Douglas. "The Ill-Health of Villagers," Village Teachers' Journal (Moga), August-September, 1924.
- Fraser, A. G., et al. Village Education in India. The Report of a Commission of Inquiry. London, Oxford University Press, 2nd ed. 1922.
- Fremantle, S. H. A Policy of Rural Education. Allahabad, Pioneer Press.
- Gandhi, M. K. "An Address to a Missionary Conference," The Guardian (Calcutta), September 8, 1925.

- General Report on the Administration of the Punjab for the Years 1849, 1850.
- Ghose, A. A System of National Education. Madras, Tagore, 1921.
- Gollock, G. A. "New Era of Missionary Coöperation," International Review of Missions, January, 1926.
- Covington, G. A. "Rural Medical Relief," Indian Social Reformer, June 6, 1925.
- Guardian, The (Calcutta), January 11, 1928; January 12, 1928; April 6, 1923.
- Harper, A. E. "Self Help at Moga," Village Teachers' Journal, April, 1926.
- Harvest Field, The (Calcutta). National Christian Council.
- Higginbottom, Sam. The Gospel and the Plow. New York, The Macmillan Company, 1921.
- Holland, W. E. S. The Goal of India. London, United Council for Missionary Education, 1918.
- Indian Constitutional Reforms: The Montagu-Chelmsford Proposals.

 London, J. Murray, 1918.
- Indian Year Book, 1923. Edited by Sir Stanley Reed. Bombay, The Times of India Press; London, Bennett, Coleman and Company.
- Industrial Education in India. Report of a Conference. Allahabad, 1924.
- Informational Service, January 2, 1926. New York, Federal Council of Churches.
- Jack, J. C. The Economic Life of a Bengal District. London, Oxford University Press, 1916.
- Job, G. V. "Indianization of Mission Schools," The Guardian, March 20, 1924.
- Jones, Thomas Jesse. Education in Africa. New York, Phelps Stokes Fund, 1922.
- Education in East Africa. New York, Phelps Stokes Fund, 1924.
- Keay, F. E. Ancient Indian Education. London, Oxford University Press, 1918.
- King, Earl L. Youth and Vocation in India. Pamphlet. Madras, Methodist Publishing House.
- Knowlton. The Teaching of Agriculture in the Schools of the Punjab. Lahore, Gulab Singh and Sons.
- Kuo. The Chinese System of Public Education. New York, Teachers College.
- Lajpat Rai, Lala. The Problems of National Education in India. London, Allen and Unwin, 1920.

- Lala Devi Chand. Report of the Educational Work of the Arya Samaj.
- Lancaster and King. Tree Craft for Young India. Jubbulpore, Epworth League.
- Land of the Five Rivers, The. Lahore, Superintendent of Government Printing, Punjab, 1923.
- Loram, C. P. The Education of the South African Native. London, Longmans, Green and Company, 1917.
- Lucas, E. D. The Economic Life of a Punjab Village. Lahore, Civil and Military Gazette Press, 1920.
- MacDonald, J. R. Government of India. New York, The Viking Press, 1920.
- McKee, W. J. "Rural Education in India: An Account of the Community School at Moga," International Review of Missions, July, 1923.
- Teaching of Primary Reading. Madras, Christian Literature Society, 1924.
- McKenzie, John. Hindu Ethics. London, Oxford University Press, 1922.
- Macnicol, N. The Making of Modern India. London, Oxford University Press, 1924.
- Mann, H. H. Land and Labour in a Deccan Village, 2 vols. London, Oxford University Press, 1917.
- Marshall, Alfred. Industry and Trade: A study of Industrial Technique and Business Organizations; and of Their Influence on the Conditions of Various Classes and Nations. London, Macmillan and Company, Ltd., 1919.
- Matthai, J. Agricultural Cooperation in India. Madras, Christian Literature Society, 1925.
- ----Village Government in British India. London, Fisher Unwin, 1915.
- Mazumdar, N. N. A History of Education in Ancient India. Calcutta, Macmillan, 1916.
- Memorial Pamphlet to Rev. R. H. Carter, A. Published by the Village Teachers' Journal, Moga.
- Meston, W. Aspects of Indian Educational Policy. Madras, Christian Literature Society, 1922.
- Metta, Vasuedo B. "India's Struggle for Education: Two Phases,"
 I. "From the Standpoint of an Indian Nationalist," Current
 History, XXII (July, 1925), 576-82. See also Brown, F. Y.
- Monroe, Paul. Survey of the Educational System of the Philippine Islands. New York, Teachers College, 1925.
- Montagu-Chelmsford Report on Constitutional Reforms. See Indian Constitutional Reforms.

- Mookerji, Radhakumud. Local Government in Ancient India. (Mysore University Studies No. 1). Oxford, The Clarendon Press, 1920.
- Moral and Material Progress of India, 1924-25. London, H. M. Stationery Office. Calcutta, Superintendent of Government Printing.
- Morris, E. Village Education, Its Goal. Pamphlet.
- Oak, V. V. England's Educational Policy in India. London, Luzac and Company, 1925. Madras, B. G. Paul and Company.
- Olcott, Mason. Village Schools in India. An Investigation with Suggestions. London, Oxford University Press, 1920; 2nd ed. 1926.
- Oldham, J. H. Christianity and the Race Problem. London, Student Christian Movement, 1924.
- Our Christian Debt to India. Pamphlet. London, Conference of Missionary Societies of Great Britain and Ireland, 1918.
- Paton, Wm. Alexander Duff, Pioneer of Missionary Education. London, Student Christian Movement, 1923.
- "India and Opium," National Christian Council Review, January, 1926.
- ——Social Ideals in India. London, United Council for Missionary Education, 1919.
- Paul, J. T. Adult Education, an Urgent Need of Modern India. Calcutta, Association Press.
- Peabody, F. G. Education for Life, The Story of Hampton Institute. New York, Doubleday, Page and Company (now Doubleday, Doran, and Company), 1918.
- Pearson, W. W. Shantiniketan, the Bolpur School of Rabindranath Tagore. New York, The Macmillan Company, 1916.
- Philip, P. O. Book Review of England's Educational Policy in India (by V. V. Oak), National Christian Council Review.
- "These Little Ones," Village Teachers' Journal, March, 1926.
- Phillips, G. E. The Outcaste's Hope. London, United Council for Missionary Education, 1912.
- Proceedings of Committee on Improvement of Vernacular Education (Punjab). Lahore, Superintendent of Government Printing, Punjab.
- Proceedings of the Punjab Government (Ministry of Education), September 28, 1928; November 6, 1928. Lahore, Superintendent of Government Printing, Punjab.
- Prospectus of the Gurukula Kangri, 1920. Printed and distributed by the school.
- Punjab Census Reports, 1911 and 1921.

- Punjab Coöperative Societies' Report, 1923. Lahore, Superintendent of Government Printing, Punjab.
- "Punjab Education," Civil and Military Gasette, March 14, 1918 (Lahore, Punjab).
- Punjab Educational Code. Lahore, Gulab Singh and Sons, 9th ed. October, 1915.
- · Punjab Income Tax Report, 1922-23.
 - Punjab Quinquennial Report of Education, 1917-22. Lahore, Superintendent of Government Printing, Punjab.
 - Report of Committee Appointed to Consider the Place of English Teaching in Vernacular Middle Schools, April, 1922. Lahore, Superintendent of Government Printing, Punjab.
 - Report of Conference on Rural Education, Ahmednagar, June, 1925.

 Calcutta, National Christian Council.
- Report of Conference on Rural Education in India at Moga, Punjab, December 5-11, 1922.
- Report of the Department of Agriculture, Punjab, 1921-22. Lahore, Superintendent of Government Printing, Punjab.
- Report of Society for Promotion of National Education, 1919.

 National Education Committee, Recommendations and Proceedings. Benares, Kashi Vidhya Pitha, 1923.
- Report on Progress of Education in India, Quinquennium 1912-17.

 Calcutta, Superintendent of Government Printing.
- Report on Progress of Education in the Punjab, 1919-20. Lahore, Superintendent of Government Printing, Punjab.
- Report on Progress of Education in the Punjab, 1923-24. Lahore, Superintendent of Government Printing, Punjab.
- Report on Progress of Education in the Punjab During the Quinquennium Ending 1921-22. Lahore, Superintendent of Government Printing, Punjab.
- Resolution of the National Indian Congress, 1922.
- Resolutions on Indian Educational Policy, 1913. Calcutta, Superintendent of Government Printing.
- Richey, J. A. Manual for Teachers of Primary Schools in India. Macmillan, 1919.
- Roberts, W. and Faulkner, O. T. A Textbook of Punjab Agriculture. Lahore, Civil and Military Gazette Press, 1921.
- Ronaldshay, the Earl of. Address by the Earl of Ronaldshay, Fourth Annual Meeting Indian Students' Union. London, February 12, 1924.
- ——Heart of Aryavarta; a Study of the Psychology of Indian Unrest. London, Constable, 1925.
- ----India; a Bird's-eye View. Boston, Houghton Mifflin Company, 1924.

- Roy, Basanta Koomark. "Tagore and His Model School at Bolpur,"

 The Independent, LXXIX (August 8, 1914), 162-64.
- Rushbrook Williams, L. F. India in 1921-22. Calcutta, Superintendent of Government Printing.
- ——India in 1922-23. Calcutta, Superintendent of Government Printing.
- ——India in 1923-24. Calcutta, Superintendent of Government Printing.
- Sadler Commission Report. 18 vols. Calcutta University Commission Report, 1917-19.
- Sadler. See Christian Education in Africa and the East.
- Sanitary Commissioner's Report, 1917. Calcutta, Superintendent of Government Printing.
- Sen, J. M. A Study of Primary Education Acts in India. Calcutta, Y. M. C. A. Press, 1925.
- Fagore, Rabindranath, Nationalism. New York, The Macmillan Company, 1917.
- "The New Age," The World Tomorrow, November, 1925.
- Van Doren, Alice. Fourteen Experiments in Rural Education. Calcutta, Association Press, 1929.
- Van Tyne, C. H. India in Ferment. London, Appleton, 1928.
- Village Education in India. The Report of a Commission of Inquiry. See Fraser, A. G.
- Visvesvaraya, Sir M. Reconstructing India. London, King and Company, 1920.
- Viswani, T. L. The Aryan Ideal. Madras, Ganesh, 1922.
- Warnshuis, J. H. "Religious Education in India," International Review of Missions.
- Wellock, Wilfred. India's Awakening: Its National and World-Wide Significance. London, Labour Publishing Company, 1922.
- Whitehead, Bishop H. Indian Problems in Religion, Education, Politics. London, Constable, 1924.
- Williams, F. G. "Bringing the Village into the School," Christian Education, Third Quarter, 1925. Also Village Teachers' Journal, April, 1926.
- Williams, Garfield H. "The Last Ten Years in India," International Review of Missions, July, 1928.
- Wilson, Sir James. Recent Economic Developments in the Punjab. 1910.
- Winslow, J. C. Narayan Vamam Tilak, the Christian Poet of Maharashtra (Builders of Modern India). Calcutta, Association Press, 1923.
- Wood, A. Educational Experiments in England. London, Methuen, 1920.

- Wyatt, H. G. Rural School Teachers in the U. S. A. Punjab Government Occasional Reports, No. 11, 1928.
- Young, P. N. F., and Ferrers, Agnes. India in Conflict. New York, The Macmillan Company, 1920.

II. Modern Methods; The Project Method

- Abel, J. F. Major Trends of Education in Other Countries. Bureau of Education Bulletin No. 18, Washington, D. C., 1928.
- Anonymous. A Mother's Letters to a Schoolmaster. New York, A. A. Knopf, 1928.
- Baker, H. J. Characteristic Differences of Bright and Dull Children.
 Public School Publishing Company, 1927.
- Barr, A. S. Characteristic Differences of Good and Poor Teachers.
 Public School Publishing Company, 1929.
- "Making the Course of Study," Journal of Educational Method, May, 1924.
- Benton, R. Bible Play Workshop. New York, Abington Press.
- Bibliography of the Project Method. N. S. S. E. 20th Yearbook, 1921, Part I.
- Bode, B. H. Modern Educational Theories. New York, The Macmillan Company, 1927.
- Bonser, F. G. "The Fundamental Character of the Project Method," Progressive Education, July-September, 1924.
- and Mossman, L. C. Industrial Arts for Elementary Schools. New York, The Macmillan Company, 1923.
- Branom, M. E. The Project Method in Education. Boston, Gorham Press, 1919.
- "Project Problem Method in History," Historical Outlook, XI, 107.
- "Value of the Problem Project Method in Elementary Education," School Journal, XVIII, 618.
- Brim, O. G. Rural Education. New York, The Macmillan Company, 1923.
- Butterfield, K. L. The Farmer and the New Day. New York, The Macmillan Company, 1919.
- Cane, Florence. "How Children Learn to Paint," The Arts, August, 1924.
- Chang, P. C. Education for Modernization in China. New York, Teachers' College, 1923.
- Charters, J. A. "The Problem Method of Teaching Ideals," English Journal, VIII (October, 1919), 461.
- Charters, W. W. The Teaching of Ideals. New York, The Macmillan Company, 1928.
- Cizek, F. "The Child as Artist," The Independent, CXIII, 541.

- Clark, A. B. "Experiment in Problem Teaching," English Journal, VI (1917), 585.
- Classroom Teacher, The, Vols. I-XI. (Sections on the Elementary School). Chicago, The Classroom Teacher, Inc.
- Clouser and Milliken. Kindergarten Primary Activities Based on Community Life. New York, The Macmillan Company, 1929.
- Cobb, S. The New Leaven. New York, John Day Company, 1928.
- Coe, G. A. Law and Freedom in the School. Chicago, The University of Chicago Press, 1924.
- Coleman, S. N. Creative Music for Children. New York, G. P. Putnam's Sons, 1922.
- Collings, Ellsworth. An Experiment with a Project Curriculum.

 New York, The Macmillan Company, 1923.
- ——Project Teaching in the Elementary Schools. New York, The Century Company, 1928.
- Community Projects Bulletin, vol. II, no. 1. Greensboro College for Women, Greensboro, N. C.
- Cook, H. C. The Play Way. New York, Stokes, 1917.
- Cooley, R. B. Homes of the Freed (Story of Penn School). New York, The New Republic, Inc.
- Courtis, S. A. "Teaching Through the Use of Projects," Teachers College Record, XXI (March, 1920), 189.
- Cox, P. W. L. Creative School Control. New York, Lippincott, 1927.
- Dalcroze, E. J. Rhythm, Music, and Education. New York, G. P. Putnam's Sons, 1921.
- De Lima, Agnes. Our Enemy, the Child. New York, The New Republic, Inc., 1925.
- Dewey, Evelyn. New Schools for Old. New York, E. P. Dutton, 1919.
- Dewey, John. Democracy and Education; an Introduction to the Philosophy of Education. New York, The Macmillan Company, 1926.
- Interest and Effort in Education. Boston, Houghton Mifflin Company, 1913.
- ——Moral Principles in Education. Boston, Houghton Mifflin Company, 1909.
- mented by a Statement of the University Elementary School. Chicago, The University of Chicago Press, 1909, rev. ed. 1916.
- and Dewey, Evelyn. Schools of Tomorrow. New York, E. P. Dutton, 1915.
- Dobbs, E. L. Primary Handwork. New York, The Macmillan Company, 1914.

- Dopp, K. E. The Place of Industries in the Elementary School. Chicago, The University of Chicago Press, 1905.
- Dorris, A. V. Visual Instruction in the Public Schools. Boston, Ginn and Company, 1925.
- Dunn and Everett. Four Years in a Country School. New York, Teachers College.
- Dynes, S. A. Socialising the Child. New York, Silver, Burdett, and Company, 1916.
- Elliott and Crow. Projects for the Elementary Schools. New Brunswick, State University of New Jersey.
- Ferriere, A. The Activity School. New York, John Day Company, 1928.
- Flexner, A. A Modern School. New York, General Education Board, 1916.
- Fox, Florence. Major Projects in Elementary Schools; How the World Rides; Main Streets of the Nation; Playgrounds of the Nation; Cycles of Garden and Plant Life. All published by the Bureau of Education, Washington, D. C.
- Francis W. Parker School Yearbooks I-IX, especially II, III, IV, and VIII. Chicago.
- Freeland, G. E. Modern Elementary School Practice. New York, The Macmillan Company, 1919.
- Freeland, Adams, and Hall. Teaching in the Intermediate Grades. Boston, Houghton Mifflin Company, 1927.
- Friend. Folk High Schools of Denmark. Bureau of Education, Washington, D. C., 1914.
- Gates, A. I. "Systematic Vs. Opportunistic Teaching," Teachers College Record, XXIII (April, 1926), 679.
- Goodrich, and Franzen. "Criteria of the Project," Journal of Educational Method, I, 352.
- Hall, J. "The Individual Project Method," Francis W. Parker School Yearbook, 1920.
- Hamaide, A. The Decroley Class. New York, E. P. Dutton, 1924.
- Harper, I. M. Bible Study for Indian Schools. Calcutta, Association Press, 1930.
- Hartman, G. The Child and His School. New York, E. P. Dutton, 1922.
- Home and Community Life. New York, E. P. Dutton, 1928.
- Hatch, R. W. "Teaching Modern History by the Project Method," Teachers College Record, November, 1920.

- Heimey, E. B. Social Science Interests for the First Grade. Kenyon, 1925.
- Henry, J. S. "Problem Method in Teaching," School and Home Education, XXXVI (1917), 162.
- Herring, J. P. "Criteria of Project," Teachers College Record, XXIII, 829.
- "A Bibliography of the Project Method," Teachers College Record, March, 1920.
- Horace Mann Studies in Education. Three pamphlets. New York, Teachers College, 1923.
- Horn, Ernest. "Criteria for Judging the Project Method," Educational Review, February, 1922.
- Hosic, J. F. "Outline of Project Method," English Journal, VII, 599.
- Hosic and Chase. Brief Guide to the Project Method. Yonkers-on-Hudson, N. Y., World Book Company, 1926.
- Hotchkiss, E. A. Project Method in Classroom Work. Boston, Ginn and Company, 1924.
- Hunter, Fred M. "The Project Method," Journal of Educational Method, II (November, 1922), 101.
- Individual Instruction—Bibliography. N. S. S. E. 24th Yearbook, 1925, Part II, p. 288.
- International Missionary Council, Jerusalem Meeting. Vol. II, Religious Education; Vol. VI, Rural Problems. New York and London, International Missionary Council.
- Iowa State Teachers College Bulletin 4, Vol. 28. Cedar Rapids, Iowa.
- Jackson, L. L. "Project—Sinning and Sinned Against," Industrial Arts Magasine, VII (1918), 188.
- Jones, L. R. Piney Woods and Its Story. New York, Revell.
- Judd and Marshall. Lessons in Community and National Life, Series A. B, and C. Washington, D. C. Bureau of Education, 1918.
- Kandel, I. L. Twenty-five Years of American Education. New York, The Macmillan Company, 1924.
- Kilpatrick, W. H. Education for a Changing Civilisation. New York, The Macmillan Company, 1926.
- ---Foundations of Method. New York, The Macmillan Company, 1925.
- "How Shall We Select the Subject Matter of the Elementary School Curriculum," Journal of Educational Method, IV (September, 1924), 8-15.
- "Method and Curriculum" (Concluded), Journal of Educational Method, I (May, 1922), 867-73.

- "The Project Method," Teachers College Record, XIX (September, 1918), 819-85.
- "Subject Matter and the Educative Process," Journal of Educational Method, November, 1922, February and May, 1923.
- "Theories Underlying the Project," Teachers College Record, XX, 99.
- "What is the Educative Process?" Religious Education, XVIII (February, 1928), 88-42.
- Kelty, M. G. Teaching American History in the Middle Grades. Boston, Ginn and Company, 1928.
- King, E. L. Creation of Vital Interests. Madras, Methodist Publishing House, 1922.
- Kitchen, L. C. Articles in National Christian Council Review, January, 1925, and in Village Teachers' Journal, April, 1925.
- Klapper, Paul. Contemporary Education. Its Principles and Practice. New York, Appleton, 1929.
- Knox, Rose B. The Equipment of the Activity School. Boston, Houghton Mifflin Company, 1927.
- Krackowizer, A. Projects in the Primary Grades. New York, Lippincott, 1919.
- La Rue, D. W. The Child's Mind and the Common Branches. New York, The Macmillan Company, 1924.
- Lewis, M. H. An Adventure with Children. New York, The Macmillan Company, 1928.
- Lincoln, L. I. Practical Projects for Elementary Schools. Boston, Ginn and Company, 1924.
- Lincoln School Publications: Field Work; A study of Boats; Vacation. New York, Teachers College, 1927.
- Lott, D. W. "Twenty-Minute Project," General Science Quarterly, I (1927), 122.
- Lull, H. G. "Project Problem Instruction," School and Home Education, XXXVIII (1918), 79.
- "Socializing School Procedure," American Journal of Sociology, XXIV (May, 1919), 681.
- McKee, J. W. Purposeful Handwork. New York, The Macmillan Company, 1923.
- McLaughlin and Troxell. Number Projects for Beginners. New York, Lippincott, 1928.
- McMurry, F. M. Elementary School Standards. Yonkers-on-Hudson, N. Y., World Book Company, 1913.
- Mathias, Margaret. The Beginning of Art in the Public School. New York, Charles Scribner's Sons, 1924.
- Mearns, H. Creative Youth. New York, Doubleday, 1925.

- Meister, M. The Educational Value of Scientific Toys. New York, Teachers College, 1923.
- Meltzer, H. Children's Social Concepts. New York, Teachers College, 1923.
- Miller, H. L. Creative Learning and Teaching. New York, Charles Scribner's Sons, 1927.
- Miller and Hargreaves. The Self Directed School. New York, Charles Scribner's Sons, 1925.
- Minor, R. Pupil Activities in the Elementary Grades. New York, Lippincott, 1929.
- Monroe, W. S. Projects and the Project Method. University of Illinois Bulletin, No. 43, 1926.
- Moore, A. The Primary School. Boston, Houghton Mifflin Company, 1925.
- Moore, J. C. "Projects," General Science Quarterly, I, 14.
- Morrison, H. C. Practice of Teaching in the Secondary School. Chicago, University of Chicago Press, 1926.
- Mossman, L. C. Teaching and Learning in the Elementary School. Boston, Houghton Mifflin Company, 1929.
- National Education Association, Department of Classroom Teachers, Second and Third Yearbooks, Washington, D. C.
- National Society for the Study of Education, Fourteenth to Twentyninth Yearbooks, passim. 1915-1980.
- National Soap Sculpture Committee, Literature on Creative Sculpture, 80 E. 11th St., New York City, N. Y., 1924.
- Naumburg, M. The Child and His World. New York, Harcourt, 1928.
- New Education in Europe. Progressive Education Reprint, Progressive Education Association, New York, October-December, 1924.
- Oldham, Monroe, and Sadler. Papers on Educational Problems in the Mission Field. International Missionary Council, London.
- Owen, W. B. "The Problem Method," Chicago Schools Journal, I (November-December, 1918), 8-6.
- Parker, E. P. "Partition of Africa (A Geography Project)," Elementary School Journal, XX, 188.
- "Sixth Grade Science Projects," Elementary School Journal, XX, 297.
- Parker, S. C. "Problem Solving or Practice in Thinking," Elementary School Journal, XXI, 16, 174.
- ----Project Teaching. Chicago, University of Chicago Press, 1922.
- Types of Elementary Teaching and Learning. Boston, Ginn and Company, 1928.

- Parker and Temple. Unified Kindergarten and First Grade Teaching. Boston, Ginn and Company.
- Parkhurst, H. Education on the Dalton Plan. New York, E. P. Dutton, 1922.
- Peabody College for Teachers. Type Studies and Lesson Plans. Nashville, Tenn.
- Pennington, J. The Importance of Being Rhythmic. New York, G. P. Putnam's Sons, 1925.
- Peters, C. C. Objectives and Procedures in Civic Education. New York, Longmans, Green and Company, 1930.
- Phillips, C. A. Modern Methods and the Elementary Curriculum. New York, The Century Company, 1923.
- Piaget, J. The Language and Thought of the Child. New York, Harcourt, 1926.
- Pieper and Beauchamp. Everyday Problems in Science. Chicago, Scott, Foresman and Company, 1927.
- Pittman, M. S. Successful Teaching in Rural Schools. New York, American Book Company, 1922.
- Powell, F. A. "Projects for Primary Grades," Primary Education, October-December, 1920.
- Pratt, C., and Wright, L. Experimental Practice in the City and Country School. New York, E. P. Dutton, 1924.
- Pratt and Stanton. Before Books. New York, E. P. Dutton, 1926. Progressive Education Association. Various reprints on the Project Method. Washington.
- ——. Quarterlies for April, 1926, July, 1927, and January, 1928. Washington.
- Raleigh Public Schools. A Suggested List of Activities for Grades I-V. Raleigh, N. C.
- Reed, M. M. "Social Studies in the Kindergarten and First Grades," Teachers College Record, September, 1926.
- Reeder, E. H. Simplifying Teaching. Chicago, Laidlaw Brothers, 1929.
- "What Are Life Situations," Teachers College Record, February, 1928.
- Reeder, R. R. How Two Hundred Children Live and Learn. Charities Publication Company, 1917.
- Rich, F. M. Projects for All the Grades. Chicago, A. Flanagan Company, 1925.
- Robinson, V. P. "Records as an Aid to Understanding Children." Progressive Education, October, 1926.
- Ruch, G. M. "Contributions to the Psychology of the Project," School and Society, March 27, 1920.

- Ruediger, W. C. "Project Tangentials," Educational Review, LXV (April, 1923), 243.
 - ----Vitalized Teaching. Boston, Houghton Mifflin Company.
- Rugg, H. Changing Civilisations in the Modern World. Boston, Ginn and Company, 1980.
- Russell, B. Education and the Good Life. New York, Boni and Liveright, 1926.
- Sloman, L. G. Some Primary Methods. New York, The Macmillan Company, 1927.
- Smith, E. R. Education Moves Ahead. Boston, Atlantic Monthly Press, 1924.
- Some Uses of School Assemblies. New York, Lincoln School, Teachers College, 1922.
- Staff of Ethical Culture School. Children's Primary School Book.

 May be secured from the School, New York.
- Stevenson, J. A. The Project Method of Teaching. New York, The Macmillan Company, 1921.
- Stewart, R. M. "The Project as a Method of Teaching," School Science and Mathematics, XX, 594.
- Stimson, R. W. Vocational Agricultural Education by Home Projects. New York, The Macmillan Company, 1919.
- Stockton, J. L. Project Work in Education. Boston, Houghton Mifflin Company, 1920.
- Storm, G. E. "Project for the Second Grade," Primary Education, November and December, 1920.
- Stormzand and McKee. The Progressive Primary Teacher. Boston, Houghton Mifflin Company, 1928.
- Symposium on the Project Method, Teachers College Record, XXII, no. 4, September, 1921.
- Taylor, W. S. "Project Methods in Teacher Training Courses," School and Society, VIII (October, 1918), 487.
- Tentative Outline of an Adequate System of Rural Education (Committee on Rural Education of the American Country Life Association). Columbus, Ohio, 1924.
- Thayer, V. T. The Passing of the Recitation. Boston, D. C. Heath. Thorndike, E. L. Education for Initiative and Originality. New York, Teachers College, 1919.
- ——Educational Psychology. New York, Teachers College, 1910. Towne, M. E. "Developing a Class Project," Industrial Arts Maga-
- zine, IX (November, 1920), 442. U. S. Bureau of Education, Washington, D. C., I
- U. S. Bureau of Education, Washington, D. C., Publications of. Particularly Bibliography on the Project Method, Library Leaflet, No. 9.

- Village Teachers' Journal, Moga, Punjab. Project numbers, August-September, 1928; February, 1924; June, 1924; March, 1926; March, 1926; April-May, 1925.
- Washburn, C. W. Progressive Tendencies in European Education, Bureau of Education, Washington, D. C. Bulletin No. 87, 1928.
- ——The Winnetka Plan. May be secured from the author, Winnetka, Illinois.
- Washburn and Stearns. Better Schools. New York, John Day Company, 1928.
- New Schools in the Old World. New York, John Day Company, 1926.
- Weller, Mrs. H. F. J. Dramatic Method of Teaching. Boston, Ginn and Company, 1912.
- Welling and Calkins. Social and Industrial Studies for the Elementary Grades. New York, Lippincott, 1928.
- Wells, H. G. The Story of a Great Schoolmaster. New York, The Macmillan Company, 1924.
- Wilson, G. M. Survey of Social and Business Usage of Arithmetic. New York, Teachers College, 1919.
- Wilson, H. B. "Problem Attack in Teaching," Elementary School Journal, XVII, 749.
- Wilson, Kyte, and Lull. Modern Methods of Teaching. New York, Silver, Burdett, and Company, 1929.
- Wilson and Wilson. Motivation of School Work. Boston, Houghton Mifflin Company, 1921.
- Woodhull, J. F. "Projects and Science," Teachers College Record, XVII, 31.
- Yeoman, E. Shackled Youth. Boston, Little Brown and Company, 1921.
- Zachry, C. B. English in the Junior High School (Creative Organization). New York, Lincoln School, Teachers College.

III. CURRICULUM

- Ayers, Leonard. "Differentiation in Courses of Study," American Journal of Education, LXXIX, 817.
- ——Spelling Vocabularies of Personal and Business Letters. New York, Russell Sage Foundation, 1918.
- Barr, A. S. "Making the Course of Study," Journal of Educational Method, May, 1924.
- Bobbitt, J. F. The Curriculum. Boston, Houghton Mifflin Company, 1918.
- -----Curriculum Investigations. Chicago, University of Chicago Press, 1926.

- ——Curriculum Making in Los Angeles. University of Chicago Monograph, No. 20, June, 1922.
- ——How to Make a Curriculum. Boston, Houghton Miffin Company, 1924.
- "The New Technique of Curriculum Making," Elementary School Journal, XXV, 45.
- Bode, B. H. "Why Educational Objectives?" Journal of Educational Research, October, 1924.
- Bonser, F. G. The Elementary School Curriculum. New York, The Macmillan Company, 1920.
- ——The Speyer School Curriculum. New York, Teachers College, 1913.
- Bonser, F. G., and Mossman, L. C. Industrial Arts for Elementary Schools. New York, The Macmillan Company, 1923.
- Briggs, T. H. "A Partial Bibliography on Curriculum," Teachers College Record, November, 1925.
- Burke, A. A Conduct Curriculum for the Kindergarten and First Grade. New York, Charles Scribner's Sons, 1928.
- Burkhard, W. E. Analysis of Education Objectives and Outcomes in the Field of Health Education. Philadelphia, University of Pennsylvania.
- Buswell and Judd. Summary of Investigations Relating to Arithmetic. Chicago, The University of Chicago Press, 1925.
- Caldwell, O. W. "Types and Principles of Curriculum Development," Teachers College Record, XXIV, 826.
- Charters, W. W. Curriculum Construction. New York, The Macmillan Company, 1928.
- ---- The Teaching of Ideals. New York, The Macmillan Company, 1928.
- Charters and Miller. Course of Study in Grammar Based upon Grammatical Errors of School Children. University of Missouri, 1915.
- Clark, M. G. "The Course of Study a Factor in Efficiency Teaching,"

 American Journal of Education, XCII, 298.
- Clark, B. B. Unit Studies in Geography. Yonkers-on-Hudson, N. Y., World Book Company, 1926.
- Collings, Ellsworth. An Experiment with a Project Curriculum.

 New York, The Macmillan Company, 1928.
- Cornell, Coxe, and Orleans. Rating Scale for School Habits. Yonkers-on-Hudson, N. Y., World Book Company.
- Courses of Study for the Public Schools of San Francisco (1924), Trenton, N. J. (1924), Los Angeles (1924), Seattle (1928, 1927), Okmulgee, Okla. (1928), Baltimore (1926), Kalamasoo, Minnesota (state, 1928), Denver (1924).

- Courtis, S. A. "Validation of Objectives," Journal of Educational Research, X, 197.
- Cox, P. W. L. Creative School Control. New York, Lippincott, 1927.
- Dansdill, T. Health Training in Schools. New York, National Tuberculosis Association, 1928.
- Dewey, John. The Child and the Curriculum. Chicago, University of Chicago Press, 1902.
- Dunn, F. W. "The Curriculum of the Rural Elementary School," Teachers College Record, March, 1928.
- Dunn and Everett. Four Years in a Country School. New York, Teachers College.
- Dyer, S. "Objectives in the First Three Grades," Children's Education, April, 1926.
- Ferriere, A. The Activity School. New York, John Day Company, 1928.
- Francis W. Parker School Yearbooks I-IX, especially II, III, IV, VIII. Chicago.
- Gambrill, J. M. "Experimental Curriculum Making in the Social Studies," *Historical Outlook*, December, 1923.
- Glass, J. M. Curriculum Practices in the Junior High School and Grades Five and Six. University of Chicago Monograph 25, 1924.
- Gray, W. S. Summary of Investigations Relating to Reading. Chicago, University of Chicago Press, 1925.
- Guiler, W. S. Objectives and Activities in Arithmetic. New York, Rand McNally and Company, 1926.
- Harap, H. The Education of the Consumer. New York, The Macmillan Company, 1924.
- ——The Technique of Curriculum Making. New York, The Macmillan Company, 1928.
- Herriott, M. E. How to Make a Course of Study in Arithmetic; How to Make a Course of Study in Reading; How to Make a Course of Study in the Social Studies. University of Illinois Bulletins.
- Hockett, J. A. A Determination of the Major Problems of Contemporary American Life. New York, Lincoln School, Teachers College, 1926.
- Hopkins, L. T. Curriculum Principles and Practices. New York, Benj. H. Sanborn, 1929.
- Horace Mann Course of Study, Horace Mann School, New York. Horace Mann Elementary School Curriculum. New York, Teachers College, 1917.
- Horn, E. "Principles of Curriculum Making in History," Teachers College Record, XVI, 88.

- Hudelson, E. Curriculum Making. University of Minnesota Research Bulletin, January, 1924.
- Industrial Arts Cooperative Service (valuable content materials for projects), 579 W. 121st Street, New York City.
- International Kindergarten Union. The Kindergarten Curriculum. Bureau of Education Bulletin, No. 16. Washington, D. C.
- Irwin, E. "Personal Education," The New Republic, November 12, 1924.
- Irwin and Marks. Fitting the School to the Child. New York, The Macmillan Company, 1928.
- Jones, T. J. Four Essentials of Education. New York, Charles Scribner's Sons, 1926.
- Journal of Educational Research, October, 1924. Contains articles on curriculum by Bobbitt, Bode, Charters, Courtis, and Koos.
- Judd, C. H. "Scientific Technique on Curriculum Making," School and Society, January 7, 1920.
- Judd and Marshall. Lessons in Community and National Life, Series A, B, and C. Washington, D. C. Bureau of Education, 1918.
- Keelor, K. L. Curriculum Studies in the Second Grade. New York, Teachers College, 1925.
- Kelty, M. G. Teaching American History in the Middle Grades. Boston, Ginn and Company, 1928.
- Kilpatrick, W. H. Education for a Changing Civilisation. New York, The Macmillan Company, 1926.
- "How Shall We Select the Subject Matter of the Elementary School Curriculum?" Journal of Educational Method, IV (September, 1924), 8-15.
- "Method and Curriculum" (Concluded), Journal of Educational Method, I (May, 1922), 867-73.
- King, Earl L. Let's Play. Madras, Methodist Publishing House, 1922.
- King, Edith B., and Earl L. A Curriculum for the Community Middle School. Madras, Methodist Publishing House, 1922.
- Kyte, G. C. "The Cooperative Development of a Course of Study,"

 Educational Administration and Supervision, IX, 517.
- ——— A Study of Time Allotments in Elementary School Subjects (University of California Curriculum Studies). Berkeley, California, 1925.
- Lyman, R. L. Summary of Investigations Relating to Language. Chicago, University of Chicago Press, 1929.
- McMurry, C. A. How to Organize the Curriculum. New York, The Macmillan Company, 1928.
- Larger Types of American Geography. New York, The Macmillan Company, 1928.

27

- ——Teaching by Projects. New York, The Macmillan Company, 1920.
- McMurry, F. M. "Principles Underlying the Making of School Curricula, Teachers College Record, September, 1915.
- Matthews, E. O. Grade Placement of Curriculum Materials in the Social Studies, New York, Teachers College.
- Meriam, J. L. Child Life and the Curriculum. Yonkers-on-Hudson, N. Y., World Book Company, 1920.
- Moffatt, M. "A Second Grade Curriculum Based on Social Studies,"

 Journal of Educational Method, March, 1926.
- Monroe, W. S. Making a Course of Study. University of Illinois Research Bulletin, No. 85.
- Moore, E. D. Minimum Course of Study. New York, The Macmillan Company.
- Mossman, L. C. "An Analysis of Theories Basic to Curriculum Construction," *Teachers College Record*, XXVI (May, 1925), 784-739.
- Myers, G. C. "Some Factors Affecting Content of the Curriculum,"

 Educational Administration and Supervision, I, 611.
- National Education Association, Research Bulletins on Curriculum, Vol. I, No. 1, Vol. III, Nos. 4 and 5. Washington, D. C.
- National Education Association, Department of Superintendence, Third and Fourth Yearbooks. Washington, D. C.
- National Society for the Study of Education. Fourteenth to Twenty-Ninth Yearbooks, passim, 1915-1930.
- Nesmith, M. E. An Objective Determination of Stories and Poems for the Primary Grades. New York, Teachers College.
- Newlon, J. H. "The Need of a Scientific Curriculum Policy," Educational Administration and Supervision, III, 253.
- Outline for Cleanliness Teaching. Cleanliness Institute, 45 East 17th Street, New York City.
- Pendleton, C. S. The Social Objectives of School English. Published by the author, Nashville, Tennessee.
- Peters, C. C. Objectives and Procedures in Civic Education. New York, Longmans, Green and Company, 1980.
- Phelps, C. L. "Practical Difficulties in Curriculum Making," American Educational Digest, January, 1924.
- Phillips, C. A. Modern Methods and the Elementary Curriculum. New York, The Century Company, 1923.
- Report of Survey, Springfield, Massachusetts, Public Schools, 1923.
- Reynolds, H. M. A Course of Studies in Terms of Children's Activities. Seattle Public Schools, 1928.

- Rogers, A. A Tentative Inventory of Habits. New York, Teachers College, 1922.
- Rugg, Earl. Studies in Curriculum Construction in Secondary Schools. State Teachers College, Greeley, Colorado.
- Rugg, Harold. Changing Civilisation in the Modern World. Boston, Ginn and Company, 1930.
- Introduction to American Civilisation. Boston, Ginn and Company, 1926.
- Rugg and Hockett. Objective Studies in Map Locations. S. S. Monograph, No. 1. New York, Lincoln School, Teachers College.
- Salisbury, E. I. An Activity Curriculum. Harr Wagner, 1924.
- --- "The Construction of a Course of Study," Educational Administration and Supervision, VI, 381.
- Principles of Curriculum Making. Board of Education, Berkeley, California.
- Schorling, R. S. A Tentative List of Objectives in the Teaching of High School Mathematics. Ann Arbor, Michigan, George Wahr, 1925.
- Sleight, W. G. The Organization and Curricula of Schools. London, Arnold, 1920.
- Smith, C. O. Garden Clubs in Schools of Englewood, New Jersey. Bureau of Education Bulletin, Washington, D. C.
- Sneddon, D. "Planning Curriculum Research," School and Society, August-September, 1925.
- -----Sociological Determination of Objectives in Education. New York, Lippincott, 1921.
- Stevenson, J. A. "The Project and the Curriculum," School and Home Education, XXXVIII, 146.
- Stott, L. V. Adventuring with Twelve-Year-Olds. New York, Greenberg, 1928.
- Eight-Year-Old Merchants. New York, Greenberg, 1928.
- Stratemeyer and Brunner. Rating Elementary School Courses of Study. New York, Teachers College, 1926.
- "Symposium on Radical Changes in Curriculum" (1,875 judgments),

 American Educational Digest, January, 1924.
- Tanner, J. R. A Game Program in Physical Education. Boston, Ginn and Company, 1929.
- Threlkeld, A. L. "Curriculum Revision," Elementary School Journal, April, 1925.
- Tippett, J. Curriculum Making in an Elementary School. Boston, Ginn and Company, 1928.
- Uhl, W. L. Scientific Determination of Content of Course in Reading. Madison, University of Wisconsin, 1921.

- U. S. Bureau of Education. Cardinal Principles of Secondary Education. Bulletin No. 85. Washington, D. C., 1918.
- University of California (Southern Branch). An Activity Curriculum. Los Angeles, 1924.
- Upton and Chassell. "A Scale for Measuring the Importance of Good Habits," Teachers College Record, January, 1919.
- Van Buskirk and Smith. Science of Everyday Life. Boston, Houghton Mifflin Company, 1919.
- Vandewalker, N. C. A Kindergarten First Grade Curriculum. Washington, D. C. Bureau of Education, 1922.
- Waples and Tyler. Research Methods and Teachers' Problems. New York, The Macmillan Company, 1980.
- Welling and Calkins. Social and Industrial Studies for the Elementary Grades. New York, Lippincott, 1923.
- Wells, M. E. A Project Curriculum. New York, Lippincott, 1921.
- Whitford, W. G. "Curriculum Building in Art," Elementary School Journal, XXI, 281.
- Wiecking, A. Education Through Manual Activities. Boston, Ginn and Company, 1928.
- Wilson, H. B. The Course of Study in the Work of the Modern School. Monographs 1-5, Berkeley, California.
- "The Community and the Development of the Course of Study," School and Home Education, XXXI, 97.
- Wilson, M. G. "Reorganization of Courses of Study for Modern Rural Life," School and Home Education, XXXIX, 26.
- Wood and Strong. Tentative Course of Study in Health Education. New York, Teachers College.

INDEX

Accounting, at Moga, 197, 143ff.; in the family, 209; rarely used by farmers, 271. Act, of 1813, 16; of March, 1919 (Punjab), 53. Activities, of best curricula for India, 371; types of, 343, 344. Activity of child in learning process, 13, 72, 83ff., 107n., 340-48. Adult education, 50, 51, 55, 99, 113; growing interest in, 287. Adyar, National School at, 94-96. After-care of students, 121, 122, 131, 182ff. Age of Consent See Government Age of Consent Committee. Agnihotra, Hindu ceremony scribed, 91, 92. Agra, Sanskrit college at, 17. Agricultural implements, 48, 267ff. Agricultural school at Surul, 88, 89. Agricultural wastes, 268-78, 289. Agriculture, teaching of first introduced in schools, 47; at Surul, 88, 89; no place for in primary schools on trade basis, 113; importance of in India, 114, 115; increase in cultivated acreage, 296n.; increase in land value, 296; at Moga, 177ff.; in village life, 266-78. Ahimsa (harmlessness), 255ff. Ahirs, tribe of Indians, 193, 199, 242 Conference Report, Ahmednagar 127. Aims, educational. See Objectives. Akalis, leader of Singhs, 259. Akbar, mentioned, 94. Alcohol, use of, 213, 214; prohibition part of Gandhi's campaign, 297. Aligarh, Mohammedan Anglo-Oriental University at, 82. Alian, M. M., 9n., 108n. Alwar, Maharaja of, 29n. Amritsar, religious center of Sikhs, 259. Anderson, Sir George, 45. Andrews, C. F., 24n., 87. Animananda, B., 100. Animism, 251ff. Annual Educational Conference at

Madras, May, 1921, 79.

Arabic, in (Moslem) pre-British

schools, 11; to be encouraged, 16; books in, 17; merits of, 18.

Arains, tribe of Indians, 193, 199, 242, 268, 269. Archer, William, 286. Architecture, of schools, 129; finest examples of Indian, 204. See Buildings. Arithmetic, in present official course of study, 74; how taught at Bhimpore, 125; how taught at Moga, 144ff. See Three R's; Curriculum; Subjects of Study. Arjann, fifth guru of Sikhs, 259. Aroras, Hindu money-lending caste. 281. Arrest for debt, 283. Art, industrial, 146ff.; at Bhimpore, 125. Artificial education, 79. Artisans, place of in village life, 291, Arts and Crafts Depot at Lahore, Arya Samaj, 89, 93, 94n., 235, 258. Aryan ideal of education, 100. See Education, ancient. Aryans, 230; role of caste in preservation of, 248. Asceticism, in ancient education, 6, 8; practice of, 246; in Indian religions, 250-65; in Hinduism, 255ff. Ashabaree Community School, 127. Asram (early forest school), Sff., 84ff. Athens, mentioned, 87. Athletics at Moga, 178ff. Attendance Committee, school, 52. Aukland, Lord, 32. Aurangseb, mentioned, 11. Authority, reverence for in ancient schools, 6; revolt against, 308; challenged by democracy, 329. Ayurvedic (indigenous system of medicine among Hindus, 225. Azariah, Rt. Rev. V. S., 96-98.

Baba Farid, and Islamism in Western Punjab, 262. Baba Nanak, founder of Sikhism, 258ff. Babington, Thomas (Lord Macaulay), 18ff. Bachelorhood, on account of high prices of brides, 244, 245.

Boycott, 99; part of Gandhi's cam-

Boys' Own Home in Calcutta, 100.

paign, 297.

Backward schools, 108. Brahma (first member of the Hindu Triad, 233, 250. Backward students, 108, 131-33. Baghavad Gita, source of inspiration Brahmacharya, 90. for Nationalist movement in India. Brahman (the Absolute), 8, 6ff., 250, 251, 256. 311. Baha-ul-Haqq, and Islamism Brahman Caste, 283ff. in Western Punjab, 262. Brahmanas, knowledge of as quali-Balfour, Dr. M. I., 240. fication for membership on early Balochis, tribe of Indians, 194. village committee, 229. Banerji, Pramathanath, 26n. Brahmans, 4, 242, 252, 256. Banias, Hindu money-lending caste, Breakfast at Moga, prepared by 281. students, 149, 150. Banking, student, 127, 128; at Moga, Brick making at Moga, 147. 169, 170; in the Punjab, 280-83; Bride purchase, 244n. co-operative, 285. Bridegroom, purchase of, 245. Barker, Dr. Ernest, on the moral British defeat Sikhs, 259. control of scientific technique, 334. British Empire, demands of Nationalism in India, 309. Basha script, in pre-British schools, British Parliament, 16. Basket making at Moga, 145. British rule, effect on money-lender, Beds of string, 201. 281. Benares, Central Hindu University Brown, F. Y., 79. Budget of family, 209, 381-83. at, 82. Bentinck, Lord William, 19, 20, 28. Building a house at Moga, 155ff. Besant, Mrs. Annie, 80. Building of storeroom by students Bhakti, devotion to God, in the at Bhimpore, 125. Hindu religion, 265ff. Buildings, school, in pre-British Bhalla, R. L., study of plowing difeducation, 12, 15; unsanitary, 85; ferences of Jats and Rajputs, 268, better recommended, 40; new 269; quoted, 206n., 245, 270n., 271, buildings since 1918, 46; present, 275n., 276n., 278, 381n., 382n. 65; at Santiniketan, 87; at Adyar, Bhattis, tribe of Indians, 192. 94; of missions, 108; at Moga, Bhimpore Rural School, 124-26. 147ff. Bible study at Moga, 150, 173ff. See Burke, mentioned, \$11. Butler, N. M., 827n. Scriptures. Butterfield, K. L., 330n. Bilingualism, effects of on thinking, Byron, mentioned, 311. 199. Birthrate in Punjab, 215. Biss, E. E., 20, 32n. actus fibre, study and utilization Blacksmith shop at Ashabaree, 128, of, 125. Bobbitt, Franklin, on curriculum Calcutta Conference, 1924, 122. making, 351; on curriculum ob-Calcutta Hindu College, 17. jectives, 359. Calcutta Missionary Conference, Sn., Bonser, F. G., 337ff., 346n.; on cur-7n. riculum making, 353, 354; on cur-Calcutta Sanscrit College, 17. riculum objectives, 359; on im-Calcutta University, 40. portance of the curriculum, 379. Calcutta University Commission, Book binding at Moga, 148. 26n. Bookkeeping at Moga, 144ff. See Ac-Calvert, H., 272, 274n., 296n. counting. Cambridge, 108n. Books. See Textbooks. Canal system, 295. Bose, Sir J. C., on unity of science, Carey, William, 17, 18. **335.** Carpenter shop at Ashabarce, 128. Boy babies, 241. Carpentering, 87, 96, 99.

Caste, 4, 9, 80, 92, 190-95; and smoking, 201; and water supply,

211; rules of eating and drinking,

224. 225: in Punjab, 233-39; infanticide on account of, 245; evaluation of, 248; occupations of Brahmans, religious and pedagogical, 254; and Hinduism, 254ff.; condemned by Arya Samaj, 258; and Sikhism, 258-60; condemned by Moslem religion, 261; debars cultivator from market-gardening and cattle breeding, 272; moneylending (Hindu), 281; effect of in limiting work of group, 289.

Cataract, one of eye diseases in Punjab, 219.

Cattle and sanitation, 201ff.

Cattle-breeding, attitude of higher castes toward, 285, 272; forbidden by Hindu religion, 277; societies for promotion of, 287.

Census on age of marriage, 248n.

Census Report, 1921, S6.

Central Department of Education. **89, 48, 49**.

Central Hindu University at Benares, 82.

Ceremonial laws and regulations of Hindus (Dharma), 252, 254ff.

Ceremonialism, revolt against led by Sikhs, 258-60.

Ceremonials in Moslem religion, 260-

Ceremonies, as cause of debt, 288, 289; in preservation of caste, 234ff.

Ceylon, Indian School population compared with, 41.

Chand, Lala Devi, 94n.

Change in the modern world rapid, 334-36.

Charters, W. W., on curriculummaking, 352, 353.

Child nature, 75.

Child psychology, 338ff.

Child study needed, 199.

Chittoor (Madras) Girls' School, 129, 130.

Chirol, Sir V., 25n., 27n., 84, 81n. Cholera, one of the prevalent diseases of India, 217.

Christ as source of inspiration for Nationalist movement in India. 311.

Christian education, 17, 18, 105-39.

Christian Missions, importance of. 105ff.; contributions of, 106; failures of, 107; work of, 105-39; school at Dornakal, 96-99; outstanding experimental schools, 124-184, 140-84, 384-86. See Mission Schools.

Circumcision among Moslems, 262. Civil Veterinary Department of the Punjab, 278.

Clark, Alden H., 243n.

Classical languages, use of, 11, 12, 15, 16, 32, 91. See Bilingualism: Language; and names of different languages.

Classroom environment and Procedure, proposed for India, 871-78.

Climate of Punjab, 188.

Clothing, of students at Santiniketan, 87; at Gurukula Kangri, 90; at Adyar, 95; at Moga, 142, 183; of people of Punjab, 204.

Coe, Dr. George A., on curriculum-

making, 355.

at Dornakal, Co-education, recommended by Commission of Inquiry, 111, 113; recommended by Conference at Jubbelpore, 121. See Girls.

Colleges, first missionary at Scrampore, 1818, 17.

Collings, E., on types of purposeful activities. 344.

Columbus, and the advance of the spirit of inquiry, SS1.

Commerce and nationalism, 314.

Commission of Inquiry, 108ff. Commissions, educational, 122n.

Commission on the Reorganization of Secondary Education, report on curriculum objectives, 360.

Committee of Public Instruction, 17ff.

Committees, in government of early village, 228ff.; on curriculum objectives, 359-60.

Communal organization, 228ff. See village organization.

Communal ownership, 229, 230, 247. Communication, modes of, 296, 297. Community center, school proposed as, 109ff.; school at Moga used as, 137.

Community middle school. See Education, secondary.

Community spirit, 127.

Compulsory education, 39, 44, 48, 51-53, 99,

Conferences on education, 121, 188n. See Reform.

Consolidation of schools, 48.

Constitution of early village, 228.

Control of schools. See Schools, management.

Cooking at Moga, 148ff.

Co-operation, among nations necessary, 305, 306; of all for common good as ideal in a democracy, 322, 330.

Co-operative Consolidation of Holding Societies, 276.

Co-operative credit movement, 284-287.

Co-operative Credit Society, at Moga, 169, 170; in village life, 276. Co-operative selling, 277.

Co-operative stores, school, 127. Copernicus, and the increase of the

spirit of inquiry, 331. Cost per pupil in Gurukulas, 94n.

Costs in farming, 271, 272.

Cottage plan in girls' school at Chittoor, 129, 130.

Cotton project at Moga, 158ff.

Course of study. See Curriculum; Subjects of study.

Cousins, Mrs. Margaret E., 248n. Courtis, Dr. S. A., on curriculum-

making, 355.

Cow, sacred in Hindu religion, 256ff. Cow-dung, used as floor wash, 202, 203; used as fuel, 268, 277, 291.

Creative work in experimental schools, 85-104.

Crops in Punjab, 266.

Crores (100 lakhs or 10 million rupees), 285.

Culture, of East and West contrasted, 29, 317, 318; Indian not used in schools, 21ff., 74; value of use of indigenous stressed, 80, 83; of ancient India emphasized in Nationalist movement, 310.

Curriculum, inferences, 13, 30, 31, 42, 54, 55, 103, 104, 198; out of date, 35; more practical attempted, 36, 37, 47, 48; subjects expanded, 40; unimproved, 41; more changes, 47; need of study, 53-55; functional, 54-59; criticisms of, 59, 60, 66-78; present elementary official, 59-78; in experimental schools, 63-104; recommendations of Commission of Inquiry, 109-11; evaluation of these recommendations, 111-19.

Curriculum-making, conclusions, 364-379; principles, 347-62, 367-74.

Curriculum objectives, stated by prominent educational leaders, 359, 360.

Curzon, Lord, 88, 809.

Customs, racial, as source of friction, 318, 319. See Caste; Races; Tribes.

Daily procedure, at Gurukula Kangri, 91; at Adyar, 96; at Dornakal, 98; at Moga, 150ff.

Dalhousie, Lord, 34.

Darling, M. L., 190n., 198n., 194, 214n., 216, 239, 244n., 267n., 278n., 275n., 276n., 278n., 279, 284n., 296n., 383, 384.

Das, Dr. Mathra, cataract operations by, 141, 166.

Dass, C. R., 23, 25, 316.

Datta, Bibhutibhusan, 26n.

Dayanand Anglo Vernacular College, 81, 82.

Death rate in Punjab, 215, 216. Debt, of villagers, 172; causes of, 288, 289. See Indebtedness.

Delhi, Sanskrit College at, 17.

Democracy, in village government, 290ff.; a modern ideal, 327.

Demonaltry, 251ff.

Demonstration work among farmers, 131. See Extension; Schools, demonstration.

Department of Education. See Central Department of Education.

Department of Public Instruction, 33, 35, 36, 48, 49.

Depressed classes, education for, 51, 54. See Caste.

Deputations. See Reports; Committees; Commissions.

Dewey, John, 330n., 337ff.

Devidasis, 243.

Dharma, 254ff.

Dialects of the Punjab. See Vernaculars.

Diet, of students at Santiniketan, 87; at Gurukula Kangri, 90, 91; at Adyar, 95; in home, 224.

Dignity of labor. See Manual work. Director of Public Health, 212.

Director of Public Instruction, 45; in the Punjab, 53; statement of aims, 69.

Discipline in schools, 65, 90, 95, 168.

Discrimination between Indian and Government teachers, 37.

Diseases, among people of the Punjab, 219-21.

Diseases of plants, 269, 270.

Dispatch of 1854, 33, 34.

Dispatch of 1882, 35.

Dispensary project at Moga, 165-67. Dissipation, among people of the Punjab, 279ff. See Alcohol; Drugs. District Board Schools, 37, 40-45. Dogars, a tribe of Indians, 192. Dornakal, Manual Training Institute, 96-99. Drainage, in villages, 210-12. Dramatics, 88, 89; for backward students at Medak, 132. Drawing, 87. Dress of students. See Clothing. Drugs, use of, 213, 214. Duff, Alexander, 17, 18, 105. Duration of life, twenty-two years, 221. See Death rate. Dyer, Brigadier General, in command of British troops which fired on defenseless crowd, 312n. Dynamic sociology needed in education, 337. Last India Company, 16-18. Eating customs, 242. Economic bondage, 280-83. Economic ideals, 321-23. Economic reform, agriculture, 274, 275. See Reform.

Education, adult, 50, 51, 55; ancient, Sff.; British, 16-55; in Canal Colonies, 298; Christian, 105-84; and co-operative credit, 284-87; criticism of present elementary, 71ff.; and democracy, S64-67; early, village, 9ff.; and economic life of o village, 299-S01; in Ferozepur, 278; first missionary college, 17; free and compulsory first proposed, 39; and Gandhi's campaign, 290, 297; in Lyallpur, 278; among Moslems of Western Punjab, 262; and Nationalism, 315; Nationalist, 79-104; pre-British, 11ff.; and religion, 264-65; and transportation and communication, 294-97; unsuited to needs of people, 59; and village home, 247-49; and war prevention, 324, 325; weaknesses of in India today, S64-67. See Reform: Schools; Curriculum.

Elementary education. See Schools, primary.

Elmhirst, L. K., 89.

Emergency education at Medak, 132, 133.

England, Indian school population compared with, 41.

English, taught in schools, 16ff.; language of courts, 21; limited teaching, 63; at Gurukula Kangri, 91; at Adyar, 95; in Visvesvaraya's program, 99; in vocational middle school, 116; period of instruction necessary, 119; required of students going beyond Middle Standard, 199.

Enrollment in schools, boys, 36-38, 41, 47, 49, 50; girls, 36n., 37n., 41, 49; adults, 50.

Enrollment in classes, 76.

Entertainments of villagers, 245-47. Environment, importance of in education of child, SS8, SS9.

Environmental effects of democratic organization of classroom on pupils, 346, 347.

Epidemics, 212, 216ff.

Equalization of education in backward communities. See Government aid; Grants-in-aid.

Equipment of schools, 65; at Santiniketan, 87; at Adyar, 95; of mission schools, 108.

Ewing brothers in Lahore and Allahabad, 105.

Examinations, official, 65, 73ff.; opposed at Gurukula Kangri, 91; influence of on experimental schools, 101; at Moga, 171, 182.

Experience in educating the child, SS9, S40. See Experimental Schools. Experiments, in education, 88-104; need of more, 123; need of on problems of moral development, SS3.

Experimental rural schools, 121; rural mission schools, 124-39.

Experimental technique developed by modern science, 832.

Exports, increase of, 296n.

Extension work of schools, 131; work of Moga school, 182ff.

Extravagance in the Punjab, 278ff. Eye and Ear diseases, 219.

Pairy stories, 88. Fairs, local, 246.

Family, Hindu, 206; budgets, 209, 381-83.

Farming, at Ashabaree, 128; methods improved, 131; at Moga, 176-78. See Agriculture; Gardening.

Farms, split up due to laws of inheritance, 275, 276.

Farquhar, J. N., 288n.

Fasting, among Moslems, 261. Bee Asceticism.

Fatalism, in family life, 210; effect of on health, 221, 222; in Hinduism, 262ff.; in Moslem religion, 260ff.

Fees, in ancient schools; first in British schools (1860), 35; raised, 38; abolition, 39; paid by students at Jalna, 127.

Female education. See Girls.

Fergusson College, Poona, 82.

Ferozepur, effect of prosperity, 278.

Ferrers, Agnes, 74.

Fertilizers, used in the Punjab, 268; use of leguminous crops, 270.

Finance of schools. See School funds. Fisher, F. B., 60.

Fish net, making of, 125.

Five-Year Program, 1918-1923, 44; results of, 48-50; aims of, 70.

Fleming, D. J., 91, 98, 105n., 107, 108n., 122, 133, 222.

Flies, dangerous menace to village health, 211, 212.

Foerster, F. W., 808n.

Folk dances, 89, 133.

Food, eaten in Punjab villages, 204, 205; evaluation of average diet,

Forest schools (asrams), Sff.

Formal education, criticised, 70-78, 111-19. See Curriculum inferences: Traditional education; Reform.

Forman, Dr. Douglas, 220.

Four-year primary course, inadequate, 66.

Franchise, extension of to women. 243.

Fraser, A. G., 108n., 109n., 116.

Free education, S9, 52.

Freedom, in schools, 7, 8, 14, 65, 84ff., 107ff.; and social responsibility 308, 328, 345.

Functional knowledge needed, 139. Funds, public. See School funds.

Funerals, feast, 194; cause of debt, 289.

Names, at Moga, 154, 178ff., in villages, 245-47.

Gandhi, Mahatma, 51, 81; mentioned, 213; campaign against untouchability, 234ff., 238, 239; arrest of, 243; campaign of, 289, 290; effect in stimulating interest in public affairs, 297; mentioned, 311, 316n; program of, 312, 313; opinion on extreme nationalism, 315.

Ganges River. 89.

Gardening, 47, 55. See Agriculture: Farming.

Garibaldi, mentioned, 311.

General Assembly in Girls' School at Chittoor, 180.

Geography in curriculum, 61-64; at Bhimpore, 125. See Curriculum; Experimental Schools; Moga.

Geography of the Punjab, 187.

Ghi (clarified butter), 277.

Ginning at Moga, 154, 158ff.

Girl babies not welcomed, 241.

Girls, excluded from ancient schools, 4; in pre-British schools, 12, 14; importance of education for, stressed, S4, 54, 83, 99; enrollment in schools, 36n., 37, 41, 49; Gurukula at Delhi, 93, 94; first schools started by missionaries, 105; recommendations of Commission of Inquiry concerning education of, 109, 111, 113, 117. See Enrollment.

Girls' School at Chittoor (Madras), 129. 130.

God, Moslem ideas of, 260.

Gokhale, G. K., 39.

Gollock, G. A., 823n.

Government, Age of Consent Committee, 240.

Government aid, to backward areas. 46; to farmers, 271.

Government, appealed to on question of language, 18; service, 21, 34, 37; control of over schools increased, 34, 38; control of over schools diminished, S5; Textbook Committee, 64, 65; schools contrasted with national, 81; system, influence of, 101; supervision, 127; financial aid to Moga, 154; lands occupied by tenants, 273-74.

Government Cattle Farm, 278.

Government Central Vaccine Institute at Lahore, 219.

Government examinations at Moga, 171, 182,

Govind Singh, 259.

Grain-broker as money-lender, 280-283.

Grant-in-aid, rules revised, 35: in present school code, 64.

Granth (Sikh scriptures), in pre-British schools, 11; mentioned, 259.

Greece, democratic city-states developed from early Indian village, 229.
Guilds, 228.
Gujars, a tribe of Indians, 192, 280.
Gurdwara Movement, 297.
Gurmukhi (Sikh), in pre-British schools, II; use optional, 35.
Guru, 3ff., 14. 800 Teacher, ancient.
Gurukula Kangri, 89-92.
Gurukula at Delhi for Hindu girls, 93, 94.

Haiderbad, 126. Hampton Institute, 114. Harap, Dr. Henry, on curriculum making, 355. Hardinge, Sir Henry, 21, 32. Hardwar, 93. Hare, David, 17. Harmlessness (ahimsa), 255. See Hinduism. Harper, A. E., 187. Hartals, 312. Hastings, Warren, 16. Health and ignorance, 221-23. High prices for agricultural products, 273. Himalayas, 89. Hindi, in (Hindu) pre-British schools, 11; use optional, 35, 61, 62; medium of instruction at Gurukula Kangri, 91; used at Kanya Gurukula, 93. Hindus, schools of, 11, 89-94; and o tribes of the Punjab, 190, 191; attitude of toward life, 198; Hindu family, 206; vaccination forbidden by religion, 219; religion and caste. 283-39; Mahasabha, Calcutta, 243; temples, 252; Hindu ceremonies observed by Moslems in eastern Punjab, 261, 262. Hindu-Moslem, differences, 261, 263; unity, 80, 238, 239, 250, 258, 297. Hinduism, 250-58; function of caste in preservation of, 248. Hindustan, 12, 34. History, project at Moga, 165; and teaching of sound nationalism, Holidays, celebration of, 245. Home, description of, 201-04. Hookworm, 212, 220. Hospital student, 127, 128. Hospitality, 209, 210. Houghton, Bernard, 313.

House furnishings, 202; utensils, 203. Housing in the Punjab, 201-04. Huqqa (water tobacco pipe), 201, 207, 231, 268. Human nature, needs of, 75. Hygiene, 55, 89; attitudes toward, 226, 227.

I deals, modern, educational, 305-36. Idol worship and Sikhism, 258-60. Idolatry, forbidden by Moslem re-ligion, 260. Illiteracy, 21, 32, 36, 41n., 44, 45, 50, 51, 60, 70, 76, 96-99, 108, 121, 131-133; among women, 242; effect on farming, 269, 270; school for illiterate farmers, 131, 132; letterwriter in village for services of illiterates, 296. Imitative education, 79. Imperial Legislative Council, 39. Implements. See Agricultural implements. Imports, increase of, 296n. Indebtedness, in Punjab, 188ff.; 278-280, 383, 384; among Moslems of Western Punjab, 262; increases with good roads and prosperity, Indian Ideals of education, 83ff. See Nationalist movement; Reform. Indo-Aryan gods, 250. Industrial art work at Moga, 145, 146. Industrial training, need of, 114; inclusion with scademic studies criticised, 117-19. Infant mortality, 213. Infanticide, 245. Influenza, 216ff. Initiative of student, 89, 99. Inspection, of schools, 84, 35, 48, 64, 65; inadequate in mission schools, 108, 109ff.; in proposed vocational middle school, 116; mentioned, 127. Institutes, teachers, 121. Interest rates, 282-84. Interests of children, 134, 135. International Missionary Council. 108ff. Internationalism, 305, 306, 325-27;

and Moslem religion, 261.

Irrigation project at Moga, 164, 165.

Islam, attitude toward intoxicating

liquors, 21S; in the Punjab, 235;

Intestinal diseases, 220.

described, 260-64. See Mohammedans: Moslems.

Iyengar, S. Srinivasa, 79.

Jallianwala Bagh, military violence at, 312n.

Jalna part-time boarding schools. 126, 127,

Japan, mentioned, 41, 108n.

Jats, tribe of the Punjab, 190, 191, 199, 230, 241, 245, 268, 269, 381-83. Job, J. V., 73.

Joint family, 206.

Jones, Dr. Thomas Jesse, on curriculum objectives. 359.

Jnana, 256ff.

Jubbulpore Conference, 1924, 121. Jullander division, backward in com-

pulsory education, 52, Jullundur Brigade, fires on defenseless crowd, 312n.

Jute, raised by students at Bhimpore, 124.

Kabir, 258. Kanya Gurukula, 93, 94. Karma, 89n., 248, 251ff. Khaddar, Gandhi's campaign for wearing of, 80, 290, 297, Khatris, Hindu money-lending caste. 281.

Kilpatrick, William H., 323n., 832n., SSSn., SS7ff.; on the educational process in the child, 339, 340n.; on the project method, 343, 344, 347n.: on curriculum making, 255, 256.

King-Emperor, pronouncement on education, 40; promise of responsible government, August, 1917. 311.

Kitchen, L. C., 107, 126.

Knowlton, 73.

Kolanes, conventional figures, 129. Koran, in (Moslem) pre-British schools, II; instruction in under Sikh rule, 32, 260-63.

Kshatriyas, 4, 233ff.

⊿abor, demand for cheap, 321. Lahore, Christian school established 1849, 32; Dayanand Anglo Vernacular College, 81. Lajpat Rai, Lala, 28n., 74, 75, 81, 82n., 99; on caste, 237, 243. Lambardar, 230ff.

Land Alienation Act of 1901, 288, Land holdings, consolidation of, 286, 287. Land, increase in cultivated acreage. 296n.; increase in value, 296. Language, used in early village schools, 10; in pre-British schools, 11; in better curriculum, 15. 800 English; Vernaculars. Lankester, Dr., 220. Laws in a democracy, 329. Laws of inheritance, effect in splitting up land, 275, 276. Laws of learning, 341, 342. Lawsuits. See Litigation. Laziness among farmers, 272. League of Nations, and drug consumption in the Punjab, 214; and prevention of war, 824. Learning by doing, 72; at Santinike-tan, 83-88; at Surul, 88, 89; in proposed vocational middle school. 114-17, 119; at Moga, 140-84; principles of, 841-42. Learning defined, 72. Learning process, 840-43. Legislative Council, 49, 53. Liberty in democracy, 328, 329. Lincoln, mentioned, 311; definition of democracy, 327. Literacy. See Illiteracy. Litigation, expense of, 278ff.; societies for local arbitration, 287. Living conditions of workers, neglected, 321. Local gods, 252ff. Londas, in (Hindu) pre-British schools, 11. Lucas, E. D., 12, 206n., 239, 270n., 271ff., 282n. Lucknow, 105. Lukis, Sir Pardey, 225. Luxury, teaching to abstain from, 5; simple and noble living stressed by Indians, 83ff., 90. Lyallpur Agricultural College, 47. Lyallpur Canal Colony, 270ff.; effect of prosperity, 278.

Macaulay Plan, 18ff.; evaluation of, 21ff.: results of, 24ff., 80. MacDonald, J. Ramsay, 11n., 23n., 24n., 27. MacLean, J. H., 108n. Madigas, one of the lowest castes, 96.

Madras, 94. Magazines, student, at Santiniketan, 85; at Surul, 69. Mahtons, members of an Indian tribe, 193. Maktaba, indigenous religious schools, 101. Malaria, 89, 218. Malas, one of the lowest castes, 96. Mantras, ritualistic formulas of the Vedas, 229, 256, 257. Manu, 242, Manual work, 4, 5, 7, 14, 42, 47, 61-64, 68, 88, 89, 96-104, 110, 113, 114-19, 127, 128; at Moga, 142; attitude of higher castes toward, 236; urged by Gandhi as qualification for franchise, 290. Manual training Institute at Dornakal, 96-99. Manure, See Fertilizers. Markets, for village products through the Arts and Crafts Depot at Lahore, 289; made available by development of transportation, 295; demand for wider, 321. Marriage, education to prevent too early, 93, 207; early, 216, 239-45,

261; too early contributing cause of tuberculosis, 220; religious duty, 244, 245; expense of, 244, 245, 278, 288; as social event, 247. Marshman, 17.

Mass Movement Committee, 115. Materialism exalted above ethical and spiritual values, 322.

Maternal mortality, 213.

Matthai, J., 9n.

Maund (82.28 lbs.), 282.

Maynard, Sir John, 49.

Mazzini, mentioned, 311, definition of democracy, 327.

Mecca, 261.

Medical care, attitudes toward, 225.

Medical facilities, 212, 213; in the
Punjab, 216ff.

Medical knowledge of the Part, 225.

Medical knowledge of the East, 225. Meeting place of villagers, 246, 247. Melas, 246.

Memorizing, 12, 15, 26, 38, 74ff., 197.

See Methods of Teaching; Traditional education.

Meos, tribe of Indians, 193.

Meriam, J. L., on types of purposeful activities, 344; on curriculummaking, 354, 355.

Methods of farming in Punjab, 266. 278.

Methods of teaching, ancient, Sff.; in early village schools, 10ff.; in pre-British schools, 12, 15; under British rule, 26; under present official course of study, 65, 70ff.; in experimental schools, 83-104; in mission schools, 107-98; proposed by Village Education Commission, 108-11, 114-17; at Moga, 143ff., 155ff.

Miller, William, 105.
Mills, mentioned, 311.
Minister of Education, Indian, office created, 53, 65, 66.
Minute of 1835, 18ff.

Minute of Lord Moirs, 1815, 16. Mission Board in America, financial

aid to Moga, 154.

Mission schools, first college at Serampore, 1818, 17; establishment of schools, 1849, 32, 37; in rural education, 105-84; criticisms of, 188; carrying on work similar to that at Moga, S84-97. See Christian Missions.

Missionaries, services of to education, 105ff.

Model village, school built like, 127; school at Moga, 152ff.

Moga, a day in the school, 140-84. Moga, special training course at, 123.

Moga Conference, 120.

Mohammed, prophet of God, 260-63.

Mohammedan Anglo-Oriental Uni-

versity at Aligarh, 82.

Mohammedans, pay for bride, 244n.

See Moslems.

Moira, Lord, 16.

Money-lender, 276, 280-83; legislation to keep him in check, 288, 284. Money-order system, 296.

Monitorial system, 10, 11, 14. Monkeys, damage wrought by, 89.

Monotheism, in Sikhism, 258; in Islamism, 260.

Montagu-Chelmaford Reforms, 58. Montagu-Chelmaford Report, 25. Montgomery Canal Colony, 270ff.

Mookerji, Dr. Radhakumud, 228. (Variation in spelling of Mukerji, which see).

Moral conduct, emphasis laid on by Sikhs, 258-60.

Moral force superior to physical, 812.

Moral instruction, in ancient education, 6; at Gurukula Kangri, 91; in Indianization program, 100; at Moga, 175.

Morals, in Hindu religion, 256ff. Moslem-Hindu differences, 263.

Moslem, schools of, 11; procedure, 17; mentioned, 21; pictures forbidden, 203; observe Purdah, 241; usually in debt to Hindus, 263; religion does not forbid cattle breeding as does Hindu, 277.

Mosquitoes, dangerous pests, 211.

Mossman, L. C., 348.

Motor transportation, still undeveloped, 296.

Mukerji, 195. (Variation in spelling of Mookerji, which see).

Multan, and Islamism in western Punjab, 262.

Mumtaz-i-Mahal, 241.

Music, 85, 88, 89, 119; for backward students at Medak, 182, 183.

Mutual distrust among Indians, 89.

Naidu, Mrs. Sarojini, 243. Natarajan, K., 83. National Christian Council, 59, 109, 120. National Council of Education in

Bengal, 99.

National Education Association, report to by Dr. F. G. Bonser, 854.
National education movement, 79, 100; criticisms of, 101-4.

National Indian Congress, 80; of 1885, 809, 243.

National movement and Hindu-Moslem differences, 263.

National school at Adyar, Madras, 94-96.

National schools, 79-83, 94-96; contrasted with government schools, 81; criticisms of, 101-4; number of, 101n.

National Social Conference in Belgaum, resolution on castes, 237.

National Society for the Study of Education, statement on curriculum making, 356-58.

Nationalism, rise of, 79-83; and castes, 234, 237; reviewed, 308-13; in the West, 313-16.

Nature study, in ancient schools, 3ff., 13; in modern schools, 55, 61-64; importance of stressed by Indians, 83ff.; at Gurukula Kangri, 92; recommended by Commission of Inquiry, 110; at Bhimpore, 125;

at Moga, 142ff.; attitude of child toward, 198.

Near East Relief Fund, student contributions to at Moga, 145.

Non-co-operation, 45, 79, 80, 81, 213; led by Mrs. Sarojini Naidu, 243; advocated by Gandhi, 297; mentioned, 311; gains in strength, 312. Non-resistance, 311. See Non-violence.

Non-violence, 312; advocated by Gandhi, 297. See Hinduism. Normal class at Moga, 171-76.

bjectives, of ancient education, 5; of modern education, 69ff.; set up by Indians as ideal, 89; set up by Christian missions, 106ff.; at Moga, 133, 164; teaching international good will and co-operation, worthy objectives, 305-6; summary of educational objectives, 387-63; summary of curriculum

objectives, 859, 860, 869. Officials of village, 232ff. Oldham, J. H., 120, 326.

Opium, use of in the Punjab, 214. Opportunity schools, 131-33.

Orientalists, oppose English in schools, 18.

Outcastes, excluded from ancient schools, 4, 5; from early village schools, 9; education for, 51; in Nationalist program, 80; religion of, 251ff.; 234ff. See Caste.

Out-of-door schools, importance of stressed by Indians, 83ff. 800 Education.

Ox-cart, chief mode of village transportation, 296.

Painting, in curriculum at Santiniketan, 88.

Panchamas (outcastes), 235. See Outcastes.

Panchayet, 43, 130, 136, 228, 231; at Moga, 180, 181; Act of 1912, 231; National to settle Hindu-Moslem disputes, 238; values of, 248.

Pannikar, K. M., 25.
Paranjype, Dr. R. P., 240.
Pathans, tribe of Indians, 194.
Paton, William, 17n., 59, 121, 214n.
Patriotic fervor of Indians, 25, 99;
in Nationalist movement, 310.
Patriotism perverted, 313-16.

Patshalas (pathshalas), pre-British Hindu schools, 11, 10L

Patwari, 232ff. Paul, K. T., 73, 108n.

Payment of servants in produce, 292-

"Payment by results," 35, 38.

Pearson, H. C., on curriculummaking, 355.

Pearson, W. W., 85.

Pentland, Lord, 225.

Permanent Court of International Justice and the prevention of war,

Persian, merits of, 18; English substituted for in courts, 21; classics under Sikh rule, 32; script used in the Punjab, 35.

Personality, and quantity production, 321; difficulty of preserving in modern world, 307.

Pessimism, 253. See Fatalism.

Pests, plant, 269, 270.

Philanthropy of students at Moga, 145.

Philip, P. O., 77n., 107n.

Philippines, mentioned, 108n.

Philosophy, in ancient schools, 34,

Physical culture, in Nationalist program, 80; in Mission schools, 109ff.; at Moga, 154, 178ff.

Pilgrimages, 246; in Moslem religion, **261.**

Plague, 212, 217.

Plant diseases, 269-70.

Plato, mentioned, 87.

Plowing, 268, 269,

Pneumonia, 220.

Policies, British educational, 16ff., 18-55, 77; in nationalist schools, 79ff.; in mission schools, 105ff.

Political divisions of the Punjab, 188, 190,

Politics, in national education movement, 79-83; increased interest in, 297. See Gandhi,

Polyandry, 245.

Poons, Fergusson College at, 82. Post Office, in school, 127, 128; system, 296, 297.

Poultry department at Ashabaree,

Practical education at Medak, 133. Practice teaching, at Moga, 172. See Schools, demonstration; Training for teachers.

Press in India, in Nationalist movement, 309.

Primary education. See Schools, primary.

Problems, modern social, 305-36.

Procedure suggested for introducing project method in India, 374-78.

Profits, from farming, 271, 272; from money-lending, 281, 282.

Progress, some signs of, 306, 307. Project-activities, suggested

second grade, 387-97.

Project method, in educational experiments, 121; at Bhimpore, 124; at Moga, 133-38, 142ff., 155; principles of, 343; problem projects and specific learning, 345; suggestions for a graded method of procedure, 374ff.

Property qualification for membership in early village assembly, 228. Provincial Board of Communication. 295.

Provincial Christian Councils, 109. Psychology, needed in education, 337. Public affairs, increased interest in.

Public opinion, 51, 53, 77; against first women's schools, 105.

Punjab schools, Compulsory Education Act, March, 1919, 52; Department of Public Instruction, 33: difficulties of administration, 34; educational program should be enlarged, 77; efforts to improve indigenous schools fails, 37; extension of primary education, 44ff.; increase in number of schools, 49; methods in, 12; Mission schools in, 105ff.; and the National Movement, 79ff.; National schools in. 101n.; Persian script used in 35; prior to 1854.

Punjabi, 35, 61, 62; most common colloquial language of the Punjab, 194, 199.

Purdah, 191, contributing cause of tuberculosis, 220, 240ff.; now less rigid, 243.

Purpose in play and life, \$40-43. Purposeful activity at Bhimpore, 125

Pyorrhea, 220.

Qualifications for membership in early village assembly and committees of village, 228, 229.

Quantity production and disregard for personality, 807.

 $oldsymbol{\Pi}$ ace question in India, 816-21. Races in Punjab, 190-95. Railways, 295. Rainfall in the Punjab, 266, 267. Rajputs, 191, 192; observe Purdah, 241; infanticide on account of caste, 245.

Rang Mahal, 32.

Rats, 212.

Reading. See Three R's; Curriculum: Subjects of Study.

Recreation, in the home, 208; in villages, 245-47.

Reform, attitude toward among Moslems, 263; attitudes toward race, 316-21. Bee Caste; Marriage; Illiteracy; Girls; Fatalism.

Reform, educational, church deputstions to study, 122; conference at Allahabad, March, 1924, 118; curriculum reform advocated by educational leaders, 337-63; dispatch of 1854, 33, 34; dispatch of 1882, 35; experimental schools, 83-104, 124-39; Macaulay Plan, 18ff.: Minute of 1815, 16; Minute of 1835 (Macaulay's), 18ff.; Moga Conference, 119-21; Montagu-Chelmsford Report, 25; other conferences, 121-23; suggested procedure for introducing project method, 274-78; survey of schools. 17, 35, 37, 38, 45, 65, 108; Village Commission, 108-11. Education 114-17; vocational middle school. 114-19.

Religion, in ancient schools, 8ff., 13. 14; in child's nature, 197, 198; conflicts between Sikhs and Singhs caused by, 259; and health, 222; in the home, 208; in life of Punjab, 250-65; in mission schools, 106-7; in modern experimental schools, 83ff., 90ff., 101-4; at Moga, 173ff... 179ff.; and nationalism, Sl5: and recreation, 245-47; in vocational middle school (proposed), 116; women's position as influenced by, 242; women's schools opposed by, 105. See Hinduism; Islam: Sikhism: Arya Samaj.

Repair work at Moga, 175, 176. Report, Sadler Commission, 33n.; of the Commission of Inquiry, 108ff.;

of a Conference at Allahabad, March, 1924, 118; of church deputations, 122; miscellaneous, 139n.; See Reform; Survey of Schools. Resolution, of 1904, 87, 88; of February 21, 1913, 40. Responsibility of student, 89, 107. Retardation of students, 121. See Backward students. Richey, J. S., 45, 69. Ripon, Lord, 35. Ritual. See Ceremonial, etc. Roads, 294-96. Ronaldshay, Earl of, 23n., 25n., 26ff., 79n., 92, 102, 313n. Rotation of crops, 127, 270. Rowlatt Act, aimed at prevention of political agitation, 311, 312. Roy, B. K., 84. Roy, Rajah Ram Mohan, 17. Rural Community Middle School, 121, 122. See Schools, secondary. Rural Community School at Moga, 133 - 38Rural schools, proposals for improvement, 109; at Bhimpore, Bengal, 124-26.Rural education, 73. See Education; Schools; Reform. Rural education training course, 123.

Dacraments, domestic, of Hindus, 233. Sacred books, use of, 11, 12. Sadler Commission Report, 33n. Salary, teacher, 35. See Fees; School funds. Salvation, Hindu conception of, 256. Sandhya, 91, 92. Sanitation, taught in present official course of study, 63, 64; taught in experimental schools, 89; taught in mission schools, 109ff.; taught at Moga, 161; in villages, 203, 205, 206, 210, 216ff.; attitudes toward, 226, 227, Sanskrit, 16; books, 17; merits of, 18; use of, 22, 90ff.

Sarasvati, Dayananda, 89n. Sarda Marriage Bill, 240. Scenery of the Punjab, 188. School code, 64. School funds, 83-41, 45ff., 51, 53, 77,

Santiniketan, 83-88.

Schoolhouse. Bee Buildings, school. Schoolmaster. See Teacher.

Schools, ancient, Sff.; co-educational, 98, 111, 113, 121; demonstration, 35, 47; early village, 9ff.; experimental, 60, 83-104; government, 33-38, 101; higher, 20, 24, 34, 36, 38, 47, 81-83; Indian control in 1921, 53; management, 34, 35, 38, 42, 51, 52; middle, see secondary; missionary, see Mission schools; normal, 46, 116; pre-British, 11ff.; primary, 20, 24, 82, 84 44, 49, 53, 59-78; private, 33, 34, 35, 36, 37, 41, 52; secondary, S6, 40, 41n., 47, 54, 70, 115, 116; vocational, 54, 55; women's first started, 105; samindari. 37.

Sciences, absent from pre-British curriculum, 12n., 25; ambiguous mention in Act of 1813, 16; in present official course of study, 61-64.

Scientific method, 331-34.

Scientific study of child needed, 199. Scriptures, instruction in, 98. See Bible.

Seclusion of women. See Purdah. Seeds, improved, 48; in Punjab farming, 270, 271.

Segregation of girls, practised at Kanya Gurukula, 98. See Purdah. Self-defense, in Nationalist program, 80.

Self-expression, demand of people for. 806.

Self-government, political, 44; in Nationalist program, 79ff.; more promised by King-Emperor, 311.

Self-government student, in girls' school at Chittoor, 180; at Moga, 194, 196.

Self-restraint and control, aim of ancient education, 5, 6; teaching of Gandhi on, 80, 86ff.

Self-support of students, at Surul, 88; at Dornakal, 97; in proposed vocational middle school, 114-19; at Bhimpore, 126; at Ashabaree, 128; at Moga, 186, 137, 146ff.

Sen, J. M., 89n.

Serampore, first missionary college, 17.

Servants, in village, 291, 292. Sewage, 210-12.

Shaftesbury, mentioned, 311.

Shankaracharya, 94.

Shop-keeper as money-lender, 280-283.

Shop project at Moga, 162.

Sikhs, schools of, 11; rule of, 132, 190ff., 258ff. See Religion; Singhs. Sikh Jat, payment for bride, 244n. Sikhism, 235, 258-60.

Singhs, religious reform party, branch of Sikhs, 259.

Singing, 88, 247.

Sita, 241.

Siva, 250ff. Sivaji, 94.

Smallpox, 219; earliest practise of vaccination by Moslems, 225.

Social progress and science, 332, Social reform, castes, 237-39; health and sanitation, 212, 219, 221-27; marriage, 239-45; religion (Arya Samaj), 258, 264, 265; Sikhism,

258ff.; women's position, 239-44. Social responsibility and individual freedom, 308.

Social service, 85.

Societies, literary and debating, at Gurukula Kangri, 91; miscellaneous, for promotion of public welfare, 287.

Society for Promotion of National Education, 23.

Soils in Punjab, 266.

Speyer School Curriculum, 353, 354. Spinning, 80, 87, 99, 154, 158, 297. See Gandhi.

Standard IV, 124.

Standardization and the preservation of personality, 807.

Story and Song, in curriculum, 110, 119. See Fairy stories; Folk dances.

Student Council at Moga, 150, 180, 181.

Student government, 86ff.

Students, in ancient schools, 4ff.; personal relationship with teacher, 4, 8, 13, 14, 83; in early village schools, 9ff.; enrollment in schools, 86-41, 47, 49, 50. See Girls; Enrollment; Backward students.

Study of educational needs necessary, 123.

Subject matter, proposed for Indian schools, 373, 374.

Subjects of study, agriculture and gardening included in, 47, 55; in ancient schools, 4ff.; in British schools, 35-37, 40; criticisms of, 42, 43, 59, 60, 66-67, 81, 101-4; desired by Indian leaders, 99-101; in early village schools, 10; in experimental schools, 83-89; in

national schools, 80-83; in pre-British schools, 11; present elementary official, 59-78.

Sudra caste, excluded from ancient schools, 4; excluded from early village schools, 9; 233ff. See Caste; Reform.

Sun dial, making of, 125.

Sunyasi, 247.

Superstition, and cattle breeding, 278; in Hindu religion, 257. See Religion; Hinduism.

Supervision of teaching, 109ff., 121, 122. See Inspection.

Surul, Agricultural School at, 88, 89. Survey of schools, 17, 35, 37, 38, 45,

Survey of schools, 17, 35, 37, 38, 45, 65, 108ff.

Swadeshi, 99, 309.

Swarajya Party, 23.

Swimming tank at Moga, 153, 154.

Tagore, Rabindranath, 75, 83-88, 89, 237; on extreme nationalism, 316; on internationalism, 326.
Taj Mahal, mentioned, 41.

Tamil, vernacular used at Adyar, 95. Tariff policy, effect of on weaving, 289.

Tax, 33, 52, 230, 232. See School funds.

Teacher, ancient (see guru), Sff.; Indian teacher discriminated against, 37; low status of, 11; pay of, 4, 9, 12; personal relation of with students, 4, 8; place of, 345, 346; priest as, 9; status in early village schools, 9; supply of, 66, 86; thrift societies, 47; training of, 19, 109, 111, 116; untrained in mission schools, women at Kanya Gurukula, 93.

Teachers' Institute at Moga, 137. Telegraph system, 296, 297.

Telugu, medium of instruction at Dornakal, 98.

Tenancy in the Punjab, 273-75.

Textbooks, approval of, 64, 65; dominance of, 74, 77; recommendations of Commission of Inquiry, 109ff.
Thoburn, Isabella, at Lucknow, 105.

Thoburn, Isabella, at Luckner Thomasson, 32.

Thorndike, E. L., 337ff.

Three R's, in ancient and early education, 11; in British education, 97, 40, 53; in present official elementary school curriculum, 59, 61-64, 66, 67, 71, 110; criticised, 111-18, 116; at Moga, 156ff.

Thrift societies, 47; at Moga, 169, 170; promoted by co-operative societies, 286.

Tilak, Narayan, poet of India expresses love for India, 310.

Time, subject of study, 125.

Tols, indigenous religious schools, 101.

Tools, farming, 267ff.

Trades, testing of in order to determine preference of student, 118.

Traditional education criticized, 70-78, 111-13. See Curriculum, inferences.

"Traditions," Moslem, 260-63.

Tradition in farming, 266, 278. Training course at Moga, 123.

Training for teachers, 19, 40, 42, 46-48, 68, 108ff., 116. See Teachers. Transmigration, 252, 253. See Hinduism.

Transportation, facilities improved in recent years, 294-96.

Tribal ties and caste divisions, 235. Tribes in the Punjab, 190-95.

Trinity College, 108n. Tuberculosis, 220.

Tuka Ram, 94. Tuskegee, 114.

Unani, indigenous system of medicine among Moslems, 225.
Under-Secretary, Director of Public Instruction in Punjab, 53.
Under-Secretary of State for India,
41.

Union Seminary, 108n.

United Provinces, 32, 49, 115.

United States, mentioned, 41, 108n. Unity Conference at Delhi, October, 1923, 236, 239.

University system, 34. See Schools, higher.

Untouchability, 233ff.; campaign against, 238, 239; opposed by Gandhi, 297. 866 Caste.

Upper India educational movement, 99.

Urdu, 35, 61, 62; most popular literary language, 194, 199. Usury, 280-83.

Vaccination, 219. Vaishya Caste, 4, 233ff. Van Doren, Alice, 124, 129. Wales, Indian school population Van Tyne, C. H., 29n., 316n. Veblen, T., 333n. Vedangas. 7. Vedas, 7, 8, 89n., 253ff., 258. Vedic religion, 90ff. Vezetarian diet. 87, 90, 91, 95, 277. Vernacular Middle School, 70. Bee Schools, secondary. Vernacular in schools, 11, 16ff., 32, 33, 42, 44, 47, 49, 54, 61-65, 83-104, 110, 115, 116. Vernaculars, Hindi, 11, 35, 61, 62, 91, 93; Punjabi, S5, 61, 62; Tamil, 95; Telugu, 89; Urdu, 85, 61, 62. Vidhya Vivah Sahaik Sabha, 244. Village assembly, 228ff. Village child, 195-98. Village economic life, 266-301. Village Educational Commission. 108-19, 120. Village gods, 252ff. Village home, 201-4 Village industries, 289, 290. Village officials, 232. Village organization, 228-33. Village planning project, 160ff. Village primary school, 109ff., 122. See Schools, primary. Village reconstruction, 89; program at Moga, 171. Village Schools. See Schools. Village tank, 210-12. Village Teachers' Journal, published at Moga, 137, 182. Vishnu, 250ff. Visvesvaraya, Sir M., 26n., 81n., 99, 100. Vital statistics, 214–16. Vocational middle school, 109ff, 114-

ages, of artisans and servants, 291, 294; of labor, and profits of capital, disproportionate, 321.

Vocational training, 99. See Manual

work.

compared with, 41. War, enemy of mankind, 323; of 1914-18, 298, 299, 311... Warnshuis, J. H., 71. Ward, 17. Waste in economic life, in borrowing, 278-83; in ceremonics, 288-89; in farming, 268-78, 289; in litigation, 287, 288, Water supply, 210-12; at Moga, 153. Wealth, science and the increase of. 333. Weaving, 87, 96, 99, 158ff., 289, 290, 297. Wellock, W., 313n. Wheat market at Moga, 141. White race and racial hatreds, 317. Widow marriage associations, 241. Widowhood, enforced, 240, 241, Williams, F. G., 128. Williams, Garfield H., 77n. Williams, Rushbrook, 36n., 4In., 45n., 46, 60n., 70n., 81n. Wilson of Bombay, 105. Wilson, Sir James, 275n. Winslow, J. C., 310n. Women in legislative bodies, 243. Women leaders in India, 243. Women, position of, 239-244; number in Punjab, 244ff. Women's Indian Association, 243n. Women's Schools. See Girls. Wood, Sir Charles, 34, Wood project at Moga, 164, 165. Work of family, 207, 208. Work of women, 241, 242. Writing. See Three R's; Curriculum: Subjects of Study.

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