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Christian
Education

1931

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PICTURES ILLUSTRATING INDIAN ART

Arrangements have been made with the "Modern Review" Press Calcutta, the organ of the Tagore school of thought, to issue a portfolio of colour reproductions of a selected list of pictures which originally appeared in the Chatterjee Picture Albums, published by the same Press. These pictures are copies of paintings by a group of modern Indian artists, some of whom are or have been associated with the School of Art at Santiniketan, Dr. Rabindranath Tagore's School. The contributors include such artists as Nandalal Bose, Principal, School of Art, Santiniketan, Abdur Rahaman and Jalaluddin Chughtai, of Lahore; Samarendranath Gupta, Principal, Mayo School of Art, Lahore; Deviprasad Roychoudhry, Principal, Madras, School of Art; Bireswar Sen, School of Art, Lucknow; and Abanindranath Tagore, Calcutta.

The selections have been made with a view to the use of the pictures in Indian schools. To this end it is planned to include with the sets of sixteen pictures, several pages of notes for the use of the teacher, giving some information as to the artist, and suggesting teaching values of the pictures, with a very brief interpretation of them. The pictures will be printed on art paper, 11 by 8 inches in size, and will be loose-leaf style for more convenient use, contained within a stiff paper portfolio, and all enclosed in a stout envelope.

The object of this venture is to encourage a wider knowledge of Indian Art, and a greater use and appreciation of it in the schools. Many of the pictures, perhaps all of them, will, however, be equally valuable for their general artistic interest, and would make very acceptable gifts. The undertaking is largely a venture of faith, but the enthusiastic response which it has already received encourages one to hope that the faith will be justified and that a sufficient number of orders will be booked in advance to assure the carrying through of the project without financial loss. The sets will cost Rs. 2-4, plus postage. The sets are now available; and may be had from the Oxworth Book Service, Landour, Mussoorie, U.P.

Pictures Selected for Portfolio

NAME OF PICTURE.	ARTIST.
The Passing of Shah Jahan	by Abanindranath Tagore
Griha-Lakshi	„ M. D. Natesan.
Work and Worship	„ Jaminiproskash Ganguli.
The Lamp and the Moon	„ Abdur Rahaman Chughtai.
The Motherless Grandson	„ Bepinchandra Dev.
In Rain and Storm	„ Deviprasad Roychoudhury.
A Sikh Philosopher	„ Jalaluddin Chughtai.
Worship	„ Charuchandra Roy.
At the Window	„ Shudhanshu Choudhury.
Sympathy	„ Bepinchandra Dev.
Age and Youth	„ Abanindranath Tagore.
He makes a Hit	„ Samarendranath Gupta.
Water-Giver	„ Nandalal Bose.
The Toy	„ Abanindranath Tagore.
The Call of the Infinite	„ Narayanparsad Varma.
To Whom Shall we make Our Offerings?	„ Bireswar Sen.

CHRISTIAN EDUCATION

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How the Study of a Geographical Problem Invites Reference to other Concrete Sciences

When dealing with the Cotton Industry of Lancashire, for instance, we cannot help taking account of the following facts and figures:—

- (i) that Lancashire contains 40 per cent. of all the spinning spindles of the world;
- (ii) that in the beginning, Liverpool was the most convenient place for receiving the raw cotton from America;
- (iii) that the cotton industry has been successfully carried on in that district owing to humid atmosphere;
- (iv) that the first cotton was spun and woven *by hand* in the houses; then it was spun and woven by *water-driven machinery*, and the factories were placed at the entrances to the valleys where they had swift water for power behind them, (and level land for traffic in front of them). When *steam-driven machinery* was invented there was plenty of coal in the South Lancashire Coalfield, so that there was no necessity to move mills;
- (v) that in 1773-4 the two towns of Manchester and Salford had only 27,000 people. In 1789, the first cotton mill worked by steam was built in Manchester, and in 1801 the population had increased to 84,000. In 1921, it rose to nearly 1,000,000!
- (vi) that between the years 1880-90 "decadence was stamped upon almost every industry, and all progress was arrested in Manchester and its environment of manufacturing towns. One manufacturer after another moved his works to the sea board, leaving disused factories, empty warehouses, and uninhabited dwellings". Then came Mr. W. H. Hunter, the chief engineer, to the rescue. The Manchester Ship

Canal, thanks to Mr. Hunter and his co-workers, "not only arrested the decline, but averted the decay, and new lines of vigorous growth have shot, and are shooting up on every side";

- (vii) that, by sending raw cotton direct to Manchester instead of putting it on the railway at Liverpool about 7 sh. 8 d. per ton is saved. Manchester received about 350,000 tons of raw cotton every year. The saving on cotton alone, if it all went by the ship canal, can be easily calculated.

No teacher can do justice to the Geography of Lancashire without reference to the *Statistics* in (i), (v), and (vii) to the *historical facts* in (iii), (iv) and (vi); to the *climatic advantage* referred to in (iii); and to the *engineering feat*, whereby a great inland city was, for practical commercial purposes, made a seaport!—a glaring instance of the correlation of Geography with Arithmetic, History and English.

How, in the Study of a Geographical Problem, References to other Sciences are Inevitable

Let those who are averse to admitting the relation of Geography to other sciences like Engineering, Agriculture, Meteorology, History, Literature, Mathematics, Civics and a host of Sciences connected with the welfare of Humanity, just pause to think what the world would be to us if its workshops ceased to work, if locomotives stopped running, if electricity were allowed to remain inert. The Dutchman without a windmill or a dyke would be in the same plight as the peasant of the plains of the Punjab without a plough. The wheat-fields of Manitoba would shrink into small irregular areas without the C. P. Ry., the elevators and the lakes. The volume of traffic now passing through the Panama Canal would never have been heard of but for Dr. Gorgas' fight against Malaria and Yellow Fever; and Col. Goethals' engineering talent in devising a lock-canal, in preference to a dug-out canal—quite unlike DeLessep's "deep ditch"

Oh the thought, that Africa would have remained a Dark Continent for ever, but for Burton, Speke, Stanley and Livingstone—and that the cold north would have remained a sealed book but for Amundsen, Peary and Scott!

"Not for the fame that crowns a gallant deed,
They fixed their fearless eyes on that far goal,
Steadfast of purpose, resolute at need,
To give their lives for toll,—
But in the service of their kind they fared,
To probe the secrets which the jealous earth,
Yields only as the prize of perils dared,
The ways of proven worth."

—*Punch*, in recognition of
the Martyrdom of Capt. Scot and Comrades. 1912.

Living Geography and Science

To have riches near-by, but not to know how to put them to good use is tantamount to wallowing in poverty. Why should the coal mines in China not be as productive as those in Central Europe? Why should the diamond mines in Kimberley not have been managed by Zulus? Battles between brains have changed the course of geographical events to a far greater extent, than have any battles between two belligerent armies to change the history of Nations!

Battles Between Brains

The modern synthetic chemist has the power of entirely revolutionising industry and agriculture. To think of a German chemist who almost completely ruined the indigo industry of India which, in 1895, was worth £3,570,000!—And of another, who put a serious check upon the camphor industry of Japan! There are possibilities of synthesised rubber in Germany tending to lessen the present paramount importance of Para in respect of rubber. Oh the wonderful wand of the wizard who produces wealth from waste! Pulverized coal which was hitherto wasted, is being increasingly used by steamers in place of oil from U. S. America; and herein lies the hope for the British coal trade. Mr. Brandwood of Bury, Lancashire, has produced artificial silk from wood pulp—and this discovery offers endless possibilities for Lancashire, no less than does the production of a new

cellulose fibre which is a good substitute for coarse grades of cotton. The fibre was discovered in British Guiana by Esome nglish scientists, who wondered to see something like cotton in a bird's nest, while no cotton was grown in the region. It was afterwards traced to a plant which has now been acclimatized in England, and is grown in Sussex and Essex, while the mills in Lancashire and Yorkshire have undertaken to accept the out-put. A. Wilmore: "The Changing World" 1929.

The Proper Study in Geography is Man

To conclude, I cannot think of the study of Geography in schools except as it is connected with human experiences—with the physical world as it conditions man's living with the industries of the world which alone make the globe worth inhabiting. The scientist who ministers to the needs of the multitudes of people, (irrespective of the narrow consideration of racial differences) is more than a philanthropist, and an angel, 'Vindicating the ways of God to man'!

Study the Sciences which have Power to Change the Face of the Earth

New discoveries and new inventions are opening new avenues for the movement of population. Problems of irrigating arid regions; of utilizing the heat of the sun to generate power; of making torrents of thundering water-falls yield white coal, are ever engaging the attention of engineers all the world over. They have met with remarkable success on the bank of the Nile, in the neighbourhood of Salt-Lake City in Utah, on the Niagara Falls, and numerous other places. Geography is an all-embracing science—it can never disclaim relationship with other sciences. Even so unworldly a creature as the anchorite in the story, could not do away with the manifold benefits of Nature, and had to maintain a variety of trades for his own needs, immediate or remote. Still less can the Geographist, true to his own science, which studies the Earth in relation to man, turn a deaf ear to the Scientist who is able, like a holy angel, to say with humility—

"Behold, I will do a new thing—
I will even make a way in the wilderness,
And rivers in the desert!"

Superstitions and Fears of Indian School Children

MISS CAROLINE C. NELSON, M.A., *Ajmer*

The Problem and the Method

IN my study of psychology, I have become deeply interested in the importance of the training of the emotional life of children. In the preface to G. F. Morgan's book, "Childhood's Fears", W. H. Maxwell Telling writes, "Fears, particularly repressed fear, is the curse of the modern civilized child. The thread of fear is woven more or less into the pattern of every child". This fact and the fact that the illiterate people of India have very many superstitious fears made it seem well worth-while to investigate the extent to which fears are held by the school children and to discover what some of their fears are. I was also interested in finding out, whether we who are teaching in India had succeeded in somewhat dispelling the fears of the children without having made a direct effort to do so; whether the superstitions "sluffed off" as information was gained.

These quotations from letters of missionaries who work in villages in Northern India indicate how prevalent fears are among the people.

"Evil spirits, and particularly the spirits of the dead hold our Indians in the bonds of terror".

"It has been very hard for me to separate any of their fears from the things they do because their religion requires it. In fact, it seems to me, the Hindu religion as practised among the village people is all superstition and fear. No one ever tells me they have smallpox in their home or village but say, 'Maharani ai'. ('The queen has come'.) The idea is that they must treat the goddess of smallpox with great respect to keep her from being angry with them and coming into their homes."

In beginning the investigation, I sent letters to people acquainted with the village work in the United Provinces and Rajputana, requesting them to send me lists of fears and omens

common to the village people. The replies contained more items than it was possible to use in the questionnaire, which was prepared for making the investigation among school children. Among the items omitted are the following:

1. "When a child is sick parents take saffron, garlic, chillies, opium and cow-dung in the hand, or tie the mixture in a rag and wave it around the suffering child's head three times. Charitable parents burn the rag so the evil spirit in this may not be carried to another child. Sometimes food is waved about a sick child's head and then given to another child to eat, so that the disease may go into the other child".
2. "If a young child does not digest its milk, it is believed that the evil eye has affected the milk."
3. "All the contagious diseases are of one family. If the wife in a home has a disease the husband may not come too near, for the disease is jealous and will strike him."
4. "Before the birth of a calf the udder and hind quarters of the cow are blackened to ward off evil."
5. "A mad dog is supposed to have an evil spirit. For the bite from a mad dog, the people believe the stomach ought to be treated, because in the bite there are pups. These pups go to the stomach and begin to grow. As they grow older they bark, and it is the bark which has to be treated."
6. "If a girl gets the mumps it is supposed that it is caused by her desire for jewellery, so her family buy or borrow lots of jewellery for her."
7. "It is bad luck to find copper, or to dream about it."
8. "The quivering and throbbing of various parts of the body are considered omens. A quivering sensation in a man's right arm or eye is a good sign, and in his left arm or eye a bad sign."
9. "It is bad luck to have the door of the house to the South."
10. "A week before the wedding, it is a common custom for the bride and the groom to take a bath daily and after the bath not to leave the house without taking with them something made of iron."
11. "If anyone cuts the corner of the veil of an expectant mother she will never have a child after the one coming is born."
12. "It is bad luck to meet a person who is bareheaded."

In order that the questionnaire itself might not prove too suggestive of fear to the children, it included not only a list of common fears but also the names of other objects and some statement of what are considered good omens. Of the eighty-six items used, fifty-three are of possible fears.

During the influenza epidemic, one of our boys had been very ill and after he recovered from his delirium he remarked, "I saw Jesus and I wasn't afraid of Him". He seemed surprised that this should be so. For this reason, I wished to learn the attitudes of the children toward Jesus, so I included His name in the list, and also the names of Mohammed and the chief Hindu gods.

The Questionnaire

School..... Class.....

Religion..... Age.....

Are you a boy or a girl?.....

Are you a hostel resident?.....

This is not a test of any kind. Your name will not be asked for anywhere in the study, so answer freely just what you feel. If you like the thing or person listed in the first column, or if you consider it a good sign, underline "Like".

If you fear the thing or person, or consider it a bad sign, underline "fear".

If you neither like it nor fear it, or consider it no sign at all, underline "neither like nor fear".

Example—bread	...	...	...	like,	fear,	neither	like	nor	fear
1. motor-car	...	...	...	like,	fear,	neither	like	nor	fear
2. sneezing	...	...	...	like,	fear,	neither	like	nor	fear
3. comet	...	...	...	like,	fear,	neither	like	nor	fear
4. black cat	...	...	...	like,	fear,	neither	like	nor	fear
5. howling of jackals during the day	...	...	...	like,	fear,	neither	like	nor	fear
6. cawing of crows during the night	...	...	...	like,	fear,	neither	like	nor	fear
7. falling of a star	...	...	...	like,	fear,	neither	like	nor	fear
8. crowing of cock before mid-night	...	...	...	like,	fear,	neither	like	nor	fear
9. crowing of cock after mid-night	...	...	...	like,	fear,	neither	like	nor	fear
10. itching of left sole of woman	...	...	...	like,	fear,	neither	like	nor	fear
11. itching of left sole of man	...	...	...	like,	fear,	neither	like	nor	fear
12. crying of a partridge	...	...	...	like,	fear,	neither	like	nor	fear

13. porcupine quills	...	...	...	like,	fear,	neither	like	nor	fear
14. peacock feathers	...	...	...	like,	fear,	neither	like	nor	fear
15. the evil eye	...	...	...	like,	fear,	neither	like	nor	fear
16. charms	...	...	...	like,	fear,	neither	like	nor	fear
17. witches	...	...	...	like,	fear,	neither	like	nor	fear
18. curse of a faqir	...	...	...	like,	fear,	neither	like	nor	fear
19. strange women	...	...	...	like,	fear,	neither	like	nor	fear
20. strange men	...	...	...	like,	fear,	neither	like	nor	fear
21. enchantments (jadu)	...	...	...	like,	fear,	neither	like	nor	fear
22. horse-shoe	...	...	...	like,	fear,	neither	like	nor	fear
23. goddess of small-pox	...	...	...	like,	fear,	neither	like	nor	fear
24. to hang bundles of rice on eaves	...	...	...	like,	fear,	neither	like	nor	fear
25. piece of cactus over door	...	...	...	like,	fear,	neither	like	nor	fear
26. ghosts	...	...	...	like,	fear,	neither	like	nor	fear
27. to meet a one-eyed person	...	...	...	like,	fear,	neither	like	nor	fear
28. to meet a dealer in oil	...	...	...	like,	fear,	neither	like	nor	fear
29. to have a fox cross the path	...	...	...	like,	fear,	neither	like	nor	fear
30. to have a jackal cross the path	...	...	...	like,	fear,	neither	like	nor	fear
31. to have a kite (<i>chil</i>) sit on the house	...	...	...	like,	fear,	neither	like	nor	fear
32. hooting of an owl	...	...	...	like,	fear,	neither	like	nor	fear
33. prolonged whine or howl of dog	...	...	...	like,	fear,	neither	like	nor	fear
34. to kill animals	...	...	...	like,	fear,	neither	like	nor	fear
35. to meet a sweeperess with empty basket	...	...	...	like,	fear,	neither	like	nor	fear
36. to meet a sweeperess carrying a full basket	...	...	...	like,	fear,	neither	like	nor	fear
37. to begin a thing on Wednesday	...	...	...	like,	fear,	neither	like	nor	fear
38. cawing of crows early in the morning	...	...	...	like,	fear,	neither	like	nor	fear
39. to meet a snake	...	...	...	like,	fear,	neither	like	nor	fear
40. to have a baby praised	...	...	...	like,	fear,	neither	like	nor	fear
41. to have black on children's eyes	...	...	...	like,	fear,	neither	like	nor	fear
42. the crying of a cat	...	...	...	like,	fear,	neither	like	nor	fear
43. to give a child a beautiful name	...	...	...	like,	fear,	neither	like	nor	fear
44. to show a new baby to one not a close relative	...	...	...	like,	fear,	neither	like	nor	fear
45. eclipse	...	...	...	like,	fear,	neither	like	nor	fear
46. rainbow	...	...	...	like,	fear,	neither	like	nor	fear
47. pipal tree	...	...	...	like,	fear,	neither	like	nor	fear
48. for the married daughter to bake bread	...	...	...	like,	fear,	neither	like	nor	fear
49. to cut the hair before five years of age	...	...	...	like,	fear,	neither	like	nor	fear
50. to cut off the chutiya	...	...	...	like,	fear,	neither	like	nor	fear
51. a squint-eyed person	...	...	...	like,	fear,	neither	like	nor	fear

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52. to meet a bride	...	...	like.	fear.	neither	like	nor	fear
53. to meet a groom	...	...	like.	fear.	neither	like	nor	fear
54. to meet a person with a jar full of water	...	...	like.	fear.	neither	like	nor	fear
55. to put water in milk	...	...	like.	fear.	neither	like	nor	fear
56. to meet a virgin	...	...	like.	fear.	neither	like	nor	fear
57. to go East on Sunday	...	...	like.	fear.	neither	like	nor	fear
58. to go East on Friday	...	...	like.	fear.	neither	like	nor	fear
59. to go West on Thursday	...	...	like.	fear.	neither	like	nor	fear
60. to go West on Saturday	...	...	like.	fear.	neither	like	nor	fear
61. to go North on Saturday, Thursday, Monday	...	...	like.	fear.	neither	like	nor	fear
62. to go South on Friday, Sunday or Tuesday	...	...	like.	fear.	neither	like	nor	fear
63. to travel on Wednesday	...	...	like.	fear.	neither	like	nor	fear
64. an owl in the house	...	...	like.	fear.	neither	like	nor	fear
65. for a man's right palm to itch	...	...	like.	fear.	neither	like	nor	fear
66. for a woman's right palm to itch	...	...	like.	fear.	neither	like	nor	fear
67. to meet a person with an empty water-jar	...	...	like.	fear.	neither	like	nor	fear
68. to meet a person with an empty water-skin	...	...	like.	fear.	neither	like	nor	fear
69. to sweep at night	...	...	like.	fear.	neither	like	nor	fear
70. to blow out a light	...	...	like.	fear.	neither	like	nor	fear
71. for a child to have a black mark on the forehead	...	...	like.	fear.	neither	like	nor	fear
72. to have food praised	...	...	like.	fear.	neither	like	nor	fear
73. to have one's clothes praised	...	...	like.	fear.	neither	like	nor	fear
74. to eat sweets when leaving the house	...	...	like.	fear.	neither	like	nor	fear
75. to meet a quail on the right	...	...	like.	fear.	neither	like	nor	fear
76. to go out after night-fall	...	...	like.	fear.	neither	like	nor	fear
77. of what might happen after death	...	...	like.	fear.	neither	like	nor	fear
78. hell	...	...	like.	fear.	neither	like	nor	fear
79. Ganesh	...	...	like.	fear.	neither	like	nor	fear
80. Mohammed	...	...	like.	fear.	neither	like	nor	fear
81. Vishnu	...	...	like.	fear.	neither	like	nor	fear
82. Ram	...	...	like.	fear.	neither	like	nor	fear
83. Krishna	...	...	like.	fear.	neither	like	nor	fear
84. Hanuman	...	...	like.	fear.	neither	like	nor	fear
85. Jesus	...	...	like.	fear.	neither	like	nor	fear
86. Siva	...	...	like.	fear.	neither	like	nor	fear

Make a list of other things you think are good signs, underscoring like.
 Make a list of other things you think are bad signs, underscoring fear.

From fifty to one hundred copies of the questionnaire were sent to each of twelve city schools in the United Provinces and Rajputana. Because of the limited time it was impossible to get returns from villages. In the letter to the superintendents of the schools, returns from Standards* I, IV, VI, VIII and XII were requested. However, some schools sent returns from all classes, and those of the Kindergarten, and Standards II and XI have been used in this investigation. The questionnaire reached the schools at the time of school closing. The Government examinations for Standard XII had already taken place, and promotions had not been made. This accounts for the few returns from Standard XII. The data of Standard XI is grouped with that of Standard XII. The returns from the lower classes were marked by teachers, as the children gave oral responses, so few responses from these Standards have been recorded. Replies from the Kindergarten and Standard II have been grouped with those from Standard I. The work in the upper classes was done by the group method under the supervision of teachers.

Returns came from one Government School and seven Mission Schools. Data for Standards III, V, VII and VIII have not been used. Five papers were not counted, as they had been marked incorrectly, two or three items in every line being underscored. Two papers from subjects over twenty-one years of age in Standard VIII were likewise omitted from the findings. Because of a misinterpretation in the translation, thirteen items could not be considered. They were numbers 3, 10, 11, 13, 19, 20, 40, 43, 44, 51, 68, 70, and 71. In a few cases omissions were made, or two items underscored. These items have been counted as mistakes, and not considered.

* In the United Provinces the classes are styled, A, B, I, II, III, IV, etc. In this article, the equivalent for A and B would be Standards I and II and so on.—The Editors.

The distribution of the children whose papers have been used in this investigation is as follows :

TABLE I
DISTRIBUTION OF THE CHILDREN

Standard	Kg. I, II	IV	VI	VIII	XI, XII	Total
Male ...	19	27	90	53	48	237
Female ...	13	43	40	16	5	117
Christians ...	23	66	64	25	17	195
Others ...	9	4	66	44	36	159
Living at Home ...	29	17	84	49	35	214
Living in Hostel ...	3	53	46	20	18	140
Total in Grade ...	32	70	130	69	53	354

Responses of Primary Standards

There are returns from thirty-two children in the Kindergarten and Standards I and II. They represent three schools. Only three of these children are hostel residents. The ages of the children range from five years to twelve years, with an average of seven and six-tenths years. There are thirteen Christian girls, ten Christian boys and nine boys of other religious communities. The number of fears of these children ranges from 0 to 37, with an average of 15.5. Where the proportion of Christians and others is different, this average would probably be different.

A majority of this group have the following fears, ranking in the order named: witches, to go out after night-fall, hell, to meet a snake, ghosts, of what might happen after death, the curse of a faqir, the evil eye, falling of a star and a black cat.

In Southern India to meet a snake is an evil omen, but in the North it is considered a sign of good luck. Either the children have not learned this, or they do not believe it. Fear of the evil eye is prevalent among the masses throughout India,

In his book, "Omens and Superstitions of Southern India," Edgar Thurston has a chapter devoted to the subject of the evil eye. In this he says, "The objection which a high caste Brahman has to being seen by a low caste man when he is eating his food is based on a belief allied to that of the evil eye. Charms are worn to avoid the baneful influence of the evil eye. The indecent figures carved on temple cars are intended to avert the evil eye. The sudden illness of children is often attributed to the evil eye."

Painting the eyelids black with lamp black paste is supposed to avert the evil eye. The children's liking of this is consistent with their fear of the evil eye.

It is interesting to note that in these grades, with the Christian children, the fear of hell ranks first, while with the others it ranks eleventh. Other fears which the Christian group have to a greater extent than the others are the fear of ghosts and the falling of a star.

The others fear the following evil omens more than do the Christians :

- a black cat,
- cawing of crows during the night,
- crowing of a cock before midnight,
- to sweep at night,
- and an owl in the house.

From Table II it will be seen that the average number of fears of the two groups varies but little, but the small number of cases in each group makes the averages and the differences unreliable.

The good omens these children believe in are :

- the crying of a partridge,
- horse shoe,
- to meet a person carrying a jar full of water,
- cawing of crows early in the morning,
- to meet a groom,
- crowing of cock after midnight,
- for a man's right palm to itch.

For travelling, the following are auspicious days :

- to go East—Friday or Sunday
- to go South—Friday, Sunday or Tuesday,
- to go North—Saturday, Thursday or Monday.

TABLE II
DISTRIBUTION OF RESPONSES OF KINDERGARTEN AND STANDARDS I AND II

	Number of Children	Age		Fears		Things Liked	
		Range	Average	Number	Range	Number	Average
LIVING AT HOME:—							
Christian Boys	8	7-10	8.6	131	4-31	252	16.4
Girls	13	5-7	6.3	174	0-26	295	14.5
Other Boys	9	7-12	8.4	136	7-22	250	15.1
Girls	17	7-12	8.5	367	4-31	511	15.7
Total Boys	12	5-7	6.3	174	0-26	295	14.5
Christian	20	5-10	7.3	305	0-31	547	15.3
Others	9	7-12	8.4	136	7-22	259	15.1
at Home	29	5-12	7.6	441	0-31	806	15.2
LIVING IN HOSTELS:—							
Christian Boys	2	5-9	7.0	55	18-37	72	27.5
Girls	1	9	9.0	1	1	20	1.0
Other Boys	2	5-9	7.0	55	18-37	72	27.5
Girls	1	9	9.0	1	1	20	1.0
Total Boys	3	5-9	7.7	56	1-37	92	18.7
Christian	3	5-9	7.7	56	1-37	92	18.7
Others	3	5-9	7.7	56	1-37	92	18.7
in Hostels	3	5-9	7.7	56	1-37	92	18.7
TOTAL LIVING AT HOME AND IN HOSTELS:—							
Christian Boys	10	5-10	8.3	186	4-37	324	18.6
Girls	13	5-9	6.5	175	0-26	315	13.5
Other Boys	9	7-12	8.4	136	7-22	259	15.1
Girls	19	5-12	8.4	322	4-37	583	17.0
Total Boys	13	5-9	6.5	175	0-26	315	13.5
Christian	23	5-10	7.3	361	0-37	639	15.7
Others	9	7-12	8.4	136	7-22	259	15.1
Total in Kindergarten and Grades I and II	32	5-12	7.6	497	0-37	898	15.5±1.1

The responses of the children to things liked indicate that many of the evil omens have not yet been learned. For instance, they like the following evil omens:

to have food praised,
to have one's clothes praised,
to eat sweets when leaving the house,
and for the unmarried daughter to bake bread.

The superstition is that it is bad luck for parents to eat bread cooked by the daughter, who is not yet married. If they do, either her marriage will never take place, or if she marries, her husband will die soon. The children also like the *pipal* tree. This is sacred to the Hindus. It is supposed to have a devil in it, and people fear to go near it at night.

The only noticeable differences in the responses of the groups to things liked are in regard to Mohammed and the Hindu gods. The Christian children are indifferent to these, while the others like them. All of the children responded that they like Jesus. The fact that they attend Mission schools will account for this.

Responses of Standard IV

Five schools are represented by the seventy children of Standard IV. The fifty-three hostel residents and all except four of those living at home belong to the Christian community. Some of those living in hostels are probably orphans. The parents of others may live in a village or in a part of the city too distant from the school for the children to attend as day-pupils. There are forty-three girls and twenty-seven boys in this standard. Their ages range from seven to fourteen, with an average age of ten years. The average number of fears is 16.3, an increase of .8 over that of the preceding classes. As was previously stated, where the proportion of Christians and others varies, this average would probably vary. The average number of fears of the Christian group, 15.3, has a probable error of .91, so this average is very reliable.

The things feared by this standard are very similar to the fears of the group written about in the preceding section but the fears rank somewhat differently. To meet a snake is feared by more of the children than any other one thing. Fear of hell ranks second instead of third. The fear of witches, instead of

ranking first, now ranks fifth. To go out after night-fall, the evil eye, a falling star and a black cat are feared by less than a majority in this grade. But most of the children fear the cutting off of the *chutiya*, the sacred lock. The Hindu belief is that a lock of the boy's hair must be left uncut. This is sacred to the gods.

As will be seen by Table III, the boys average more fears than the girls. Because there are so few non-Christians, comparison has been made between the Christian girls and the Christian boys only. The Christian boys' average is 19.6 ± 1.64 . The Christian girls' average is 12.8 ± 1.35 . The probable error of the difference of these averages is 1.35. Since the actual difference is more than four times as great as the probable error, the probability is great, that Christian boys of Standard IV have more fears than Christian girls of the same standard. The greatest fear of the girls is to meet a snake, while that of the boys is of what might happen after death.

Other things feared by the boys more than by the girls are :

the curse of a faqir,
the hooting of an owl,
enchantment,
the prolonged whine of a dog,
and an owl in the house.

The children of this standard expressed a liking for many of the same good omens as the first group. Their liking for having black on children's eyes is hardly consistent with the decrease in their fears of the evil eye. They also like some evil omens, which may mean either that they have not learned that these are evil omens, or they do not believe them to be such.

They like an eclipse. The tradition common in India is that when an eclipse takes place, Rahu, the huge serpent, is devouring the sun or the moon as the case may be. When the monster spits out the body, the eclipse is over. In Southern India to sneeze once is a good sign, to sneeze twice a bad sign. The superstition in the North is that if one starts a piece of work, or starts to eat, and another person sneezes, then one must stop working or eating at once. The children of Standard IV are not afraid of sneezing. They like meeting a bride, which is supposed to bring good luck.

TABLE III
DISTRIBUTION OF RESPONSES OF STANDARD IV

	Number of Children	Age		Fears			Things Liked		
		Range	Average	Number	Range	Average	Number	Range	Average
LIVING AT HOME—									
Christian Boys	9	8-12	10	233	4-44	25.9	212	11-30	23.6
Girls	4	9-11	10	70	5-43	17.5	62	9-30	15.5
Other Boys	2	9-11	10	76	32-44	38.0	55	20-29	27.5
Girls	2	12	12	50	21-29	25.0	51	21-30	25.5
Total Boys	11	8-12	10	309	4-44	30.3	267	11-30	24.3
Girls	6	9-12	10.7	120	5-43	20.0	113	9-30	18.8
Christians	13	8-12	10	303	4-44	23.3	274	9-31	21.0
Others	4	9-12	11	126	21-44	31.5	106	21-30	26.5
at Home	17	8-12	10.3	429	4-44	25.2	380	9-30	22.4
LIVING IN HOSTELS—									
Christian Boys	16	8-13	9.9	256	0-38	16.0	373	10-45	23.3
Girls	37	7-14	10	454	0-36	12.3	757	9-55	20.5
Other Boys	...	...	...	...	...	...	...	...	...
Girls	...	...	...	...	...	...	...	...	...
Total Boys	16	8-13	9.9	256	0-38	16.0	373	10-45	23.3
Girls	37	7-14	10	454	0-36	12.3	757	9-55	20.5
Christians	53	7-14	10	710	0-38	13.4	1180	9-55	21.3
Others	...	...	...	...	...	...	...	...	...
in Hostels	53	7-14	10	710	0-38	13.4	1180	9-55	21.3
TOTAL LIVING AT HOME AND IN HOSTELS—									
Christian Boys	25	8-13	10	489	0-44	19.6 $\pm$ 1.64	585	10-45	23.4
Girls	41	7-14	10	524	0-43	12.8 $\pm$ 1.35	819	9-55	20.0
Other Boys	2	9-11	10	76	32-44	38.0	55	20-29	27.5
Girls	2	12	12	50	21-29	25.0	51	21-30	25.5
Total Boys	27	8-13	10	565	0-44	20.9	640	10-45	23.7
Girls	43	7-14	10.1	574	0-43	13.3	870	9-55	20.2
Christians	66	7-14	10	1013	0-44	15.3 $\pm$.92	1404	9-55	21.3
Others	4	9-12	11	126	21-44	3.5	106	21-29	26.5
Total in Grade IV	70	7-14	10	1139	0-44	16.3	1510	9-55	21.6

Response of Standard VI

One hundred and thirty children from eight schools sent in returns for the Sixth Standard. This is the most representative of all the groups, as there are sixty-four Christian and sixty-six children from other communities. Of the Christians, thirty-one are girls and thirty-three are boys. Of the others, only nine are girls. The ages of the children range from nine to seventeen, the average age being twelve and six-tenths years.

The number of fears ranges from zero to fifty-four, the average being $22.4 \pm .89$. This average is the highest of any of the grades whose returns were used in this study. This corroborates the findings of others that the early teens is the period when people are the most superstitious.

Many of the fears of this grade are the same as those of the lower grades. As in the first group studied, the fear of witches ranks first. A majority of the children also fear

to have a jackal cross the path,
howling of jackals during the day,
of what might happen after death,
the curse of a faqir,
the falling of a star,
the crying of a cat,
the hooting of an owl,
to go out after night fall,
to sweep at night,
enchantment,
ghosts,
hell,
a black cat,
an owl in the house.
the evil eye,
to meet a snake,
charms.

The word charms was translated "*mantar*". These are consecrated formulae, supposed to be very powerful. It is believed that an enemy may cause one's death by a *mantram*. On the other hand, some wear metal *mantrams* for protection. The goddess of small-pox is feared by half of the Christians, by slightly less than half of the others. In addition to the above the non-Christian group fear to meet a one-eyed person, a kite (the

bird) on the house, cawing of crows during the night, and to kill animals. This latter is considered a sin by Jains and Hindus, although the latter do it in making sacrifices.

Table IV shows that the average number of fears of the Christians is $17.6 \pm .97$. The average number of fears of the others is 26.1 ± 1.38 . The probable error of the difference of these averages is 1.68. Since this is less than one-fourth of the actual differences, the probability is that non-Christian children of Standard VI have more fears than Christian children of the same standard. There is little difference in the things feared by boys and girls, but the greatest fears of the boys are witches and ghosts, while those of the girls are the curse of a faqir and to meet a snake.

The average number of fears of the Christian boys is 16.6 ± 1.54 ; that of the Christian girls is 18.7 ± 1.11 . The girls' average is 2.1 greater than that of the boys', but the probable error of this difference is 1.89, nearly as great as the difference itself, so the difference is not reliable. The average number of fears of the boys of other religious communities is 25.6 ± 1.56 . This is 9 greater than the average of the Christian boys. The probable error of the difference is 2.19, less than one-fourth the actual difference, so the probability is great that Indian Christian boys in the Sixth Standard have fewer fears than other boys.

The average number of things liked by this standard is twenty-five, but of this number only ten are good omens. Most of the children like the following:

to have black on children's eyes,
to meet a bride,
cawing of crows early in the morning,
to go South on Friday, Sunday or Tuesday,
to go North on Saturday, Thursday or Monday,
and Ram. Just as the Mohammedans call God, Allah,
so many consider Ram but one name for God.

The Christians like the crowing of a cock before midnight and the crying of a partridge. The others like

to go West on Saturday or Thursday,
to meet a person with a jar full of water,
and to meet a sweeperess carrying a full basket on her head.

TABLE IV
DISTRIBUTION OF RESPONSES OF STANDARD VI

	Number of Children	Age		Fears		Things Liked	
		Range	Average	Number	Range	Average	Number
LIVING AT HOME—							
Christian Boys	15	11-13	12.2	322	0-36	21.5	373
Girls	3	12-16	13.3	33	10-12	11.0	72
Other Boys	57	10-15	12.6	1462	0-34	25.6	1422
Girls	9	9-15	12.2	322	21-41	35.8	319
Total Boys	72	10-15	12.5	1784	0-54	24.8	1795
Girls	13	9-16	12	355	10-41	20.6	391
Christians	18	11-16	12.4	355	0-36	19.7	445
Others	66	9-15	12.5	1784	0-54	26.1	1741
at Home	84	9-16	12.5	2139	0-54	25.5	2186
LIVING IN HOSTELS—							
Christian Boys	18	10-14	12.2	225	0-40	12.5	464
Girls	28	10-17	13.4	546	7-41	19.5	654
Other Boys	...	...	...	...	...	...	...
Girls	...	...	...	...	...	...	...
Total Boys	18	10-14	12.2	225	0-40	12.5	464
Girls	28	10-17	13.4	546	7-41	19.5	654
Christians	46	10-17	12.9	771	0-41	16.8	1118
Others	...	...	...	...	...	...	...
in Hostels	46	10-17	12.9	771	0-41	16.8	1118
TOTAL LIVING AT HOME AND IN HOSTELS—							
Christian Boys	33	10-14	12.2	547	0-40	16.6±1.54	837
Girls	31	10-17	13.4	579	7-41	18.7±1.11	726
Other Boys	57	10-15	12.6	1462	0-54	25.6±1.56	1422
Girls	9	9-15	12.2	322	31-41	35.8	319
Total Boys	90	10-15	12.4	2009	0-54	22.3	2259
Girls	40	9-17	13.1	901	7-52	23.5	1045
Christians	64	10-17	12.8	1126	0-52	17.6±.97	1563
Others	66	9-15	12.5	1784	0-54	26.1±1.38	1741
Total in Grade VI	130	9-17	12.6	2910	0-54	22.4±.89	3304

Comparing the boys and the girls, we find that the boys believe in eleven good omens, the girls in six. A majority of the girls have not learned or do not believe in these evil omens:

to eat sweets when leaving the house,
to meet a virgin,
an eclipse,
for the unmarried daughter to bake bread,
and to travel on Wednesday.

The boys like the special days auspicious for travelling in certain directions, to meet a groom, and Siva, Krishna Vishnu, Hanuman and Mohammed. As in the other groups most of the children like Jesus.

Responses of Standard VIII

Returns of Eighth Standard children came from six schools. There are twenty-five Christians in the group of sixty-nine. The small percentage of girls in the upper classes in India is clearly indicated by the fact that responses came from only sixteen girls in this standard. The age range of the girls is from twelve to eighteen with an average of thirteen and eight-tenths years. The boys' ages range from eleven to eighteen, averaging fourteen and two-tenths years. The average age of all the children is fourteen and one-tenth years. The distribution of the responses is found in Table V.

The average number of fears of this standard is $10.9 \pm .65$. This is less than half the average number of fears in the Sixth Standard, which is $22.4 \pm .89$. The difference, noticeable in every group, is shown in Table VI.

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(Read article by Miss Edna Pearl Baker, page 174)

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TABLE V
DISTRIBUTION OF RESPONSES OF STANDARD VIII

	Number of Children	Age		Fears		Things Liked	
		Range	Average	Number	Range	Average	Number
LIVING AT HOME—							
Christian Boys	4	12-15	13.8	33	2-15	8.3	93
Girls	3	12-15	13.7	49	10-23	16.3	77
Other Boys	37	11-17	14.0	457	0-31	12.4	835
Girls	5	12-18	14.6	25	0-17	5.0	116
Total Boys	41	11-17	14.0	490	0-31	11.9	928
Girls	8	12-18	13.9	74	0-23	9.3	193
Christians	7	12-15	13.3	82	2-23	11.7	170
Others	42	11-18	14.0	482	0-31	11.5	951
at Home	49	11-18	14.0	564	0-31	11.5	1121
LIVING IN HOSTELS—							
Christian Boys	10	12-18	15.0	99	1-25	9.9	262
Girls	8	12-15	13.8	59	0-25	7.4	219
Other Boys	2	16	15.0	26	3-23	13.0	44
Girls	12	12-18	15.0	125	1-25	10.4	306
Total Boys	8	12-15	13.8	59	0-25	7.4	219
Girls	18	12-18	14.4	158	0-25	8.8	481
Christians	2	15	15.0	26	2-23	13.0	44
Others	20	12-18	14.5	184	0-25	9.2	525
in Hostels							
TOTAL LIVING AT HOME AND IN HOSTELS—							
Christian Boys	14	11-18	14.6	132	1-25	9.4	355
Girls	11	12-15	13.4	108	0-25	9.8	296
Other Boys	39	11-17	14.0	483	0-31	12.4	879
Girls	5	12-18	14.6	25	0-17	5.0	116
Total Boys	53	11-18	14.2	615	0-31	11.6	1234
Girls	16	12-18	13.8	133	0-25	8.3	412
Christians	25	11-18	14.1	240	0-25	9.6±.39	651
Others	44	11-18	14.1	508	0-31	11.5±.84	995
Total in Grade VIII	69	11-18	14.1	748	0-31	10.8±.65	1646

TABLE VI
AVERAGE NUMBER OF FEARS IN STANDARDS VI AND VIII

	Grade VI	Grade VIII	Difference
Christian Boys	16.6±1.54	9.4	7.2
Christian Girls	18.7±1.11	9.8	8.9
Other Boys	25.6±1.56	12.4	13.2
Other Girls	35.8	5.0	30.0
Total Boys	22.3	11.6	10.7
Total Girls	22.5	8.3	14.2
Total Christians	17.6±.97	9.6±.99	8.0±1.39
Total Others	26.1±1.38	11.5±.84	14.6±1.62
Total living at Home	25.5	11.5	14.0
Total living in Hostels	16.8	9.2	7.6
Total in Grade	22.4±.89	10.8±.65	11.6±1.1

Although some of these groups have but a few cases, the tendency is the same in all, and for the groups of Christians, others, and the standard as a whole, the probable error of the difference is less than one-fourth of the difference in each instance. So the evidence is conclusive, that the fears of children in the Eighth Standard are less than the fears of children in the Sixth Standard.

Comparing the Eighth Standard children with those of the primary standards, we find a striking similarity in their fears. Fear of the following has been retained: the curse of a faqir, hell, witches, what might happen after death, and meeting a snake. Children of the Eighth Standard also fear enchantment. Other fears mentioned in lower standards are no longer in evidence.

With both boys and girls, the curse of a faqir is feared above everything else. This is also true of both Christians and others, and of the group living at home. With the hostel group fear of hell ranks first. A greater percentage of the girls than of the boys are afraid of meeting a snake and of what might happen after death, while the boys are more afraid of ghosts.

There are five good omens in which the Eighth Standard children believe. They are the same as some of those of lower standards, viz :

- to have black on the eyes,
- to meet a bride,
- to meet a person carrying a jar full of water,
- the crying of a partridge,
- and the crowing of a cock after midnight.

Perhaps the liking for having black on the children's eyes (which, we see, persists after fear of the evil eye has disappeared) may be due only to the fact that this is a custom of the country. Many of the children still believe in certain days of the week being auspicious for travelling in certain directions. The Christian girls are the only group of which a majority like a horse-shoe. Most of the Christians like the cawing of crows early in the morning. The others like the Hindu gods and Mohammed, and in common with the Christians, also express a liking for Jesus.

Responses of Standards XI and XII

As was previously indicated, the returns from Standard XI have been grouped with those from Standard XII, because there were so few of the latter. Five Schools are represented by these standards. The responses are from five Christian girls, twelve Christian boys and forty-eight other boys, a total of fifty-three pupils. The girls did not give their ages, so one cannot tell the average age of the group, but it is probably, approximately, the same as that of the boys which is seventeen. The average number of fears of the group is $13.5 \pm .96$. The distribution of the responses is found in Table VII.

TABLE VII
DISTRIBUTION OF RESPONSES OF STANDARDS XI AND XII

	Number of Children	Age		Fears			Things Liked		
		Range	Average	Number	Range	Average	Number	Range	Average
LIVING AT HOME—									
Christian Boys	5	13-19	16.6	57	2-20	11.4	139	8-71	27.8
Girls	...	...	...	...	...	...	...	...	...
Other Boys	30	13-20	17	472	1-53	15.7	616	13-35	20.5
Girls	...	...	...	...	...	...	...	...	...
Total Boys	35	13-20	16.9	529	1-53	15.1	755	8-71	21.6
Girls	...	...	...	...	...	...	...	...	...
Christians	5	13-19	16.6	57	2-20	11.4	139	8-71	27.8
Others	30	13-20	17	472	1-53	15.7	616	13-35	20.5
at Home	35	13-20	16.9	529	1-53	15.1	755	8-71	21.6
LIVING IN HOSTELS—									
Christian Boys	7	14-20	17.6	64	1-15	9.1	133	10-31	19.0
Girls	5	...	...	28	1-10	5.6	107	16-37	21.4
Other Boys	6	15-18	16.7	97	1-32	16.1	136	9-31	23.7
Girls	...	...	...	...	...	...	...	...	...
Total Boys	13	14-20	17.1	161	1-32	12.4	269	9-31	20.7
Girls	5	...	...	28	1-10	5.6	107	16-37	21.4
Christians	12	...	...	93	1-15	7.7	240	10-37	20.0
Others	6	15-18	16.7	97	1-32	16.1	136	9-31	22.7
in Hostels	18	...	...	189	1-32	10.5	376	9-37	20.9
TOTAL LIVING AT HOME AND IN HOSTELS—									
Christian Boys	12	13-20	17.2	121	1-20	10.0	272	8-71	22.7
Girls	5	...	...	28	1-10	5.6	107	16-37	21.4
Other Boys	36	13-20	16.9	569	1-53	15.8	752	9-35	20.9
Girls	...	...	...	...	...	...	...	...	...
Total Boys	48	13-20	17	690	1-53	14.6	1024	8-71	20.9
Girls	5	...	...	28	1-10	5.6	107	16-37	21.4
Christians	17	...	...	149	1-20	8.8 ± .96	379	8-71	22.3
Others	36	13-20	16.9	569	1-53	15.8 ± 1.28	752	9-35	20.9
Total in Grades XI and XII	55	...	...	718	1-53	13.5 ± .96	1131	8-71	21.5

The average in the number of fears shows an increase over the average of Standard VIII. By comparing the figures of the two groups, we find that this increase is due to the increase in the averages of other boys, and of the Christian boys who live at home. This comparison is shown by Table VIII.

TABLE VIII

COMPARISON OF AVERAGE NUMBER OF FEARS OF STANDARD VIII
WITH THAT OF STANDARDS XI, XII

	Standard VIII	Standards XI, XII	Increase	Decrease
Other Boys	12.4±.88	15.8±1.28	4.2±1.55	...
Christian Boys Living at Home ...	8.3	11.4	3.1	...
Christian Boys Living in Hostels ...	9.9	9.1	...	.8
Christian Girls	9.8	5.6	...	4.2
Total Christians	9.6±.99	8.8±.96	...	.8±1.38
Total Others	11.5±.84	15.8±1.28	...	4.3±1.53
Total in Grades	10.8±.65	13.5±.96	2.7±1.16	...

Since the differences are in no case four times as great as their probable errors, and since the tendency is not always in the same direction, the differences in the average number of fears of Standards VIII and XI, XII are not reliable. Therefore, we are probably justified in saying, that there is but little difference in the average number of fears of the two groups.

A majority of the boys in these upper standards fear the following: hell, the curse of a faqir, the prolonged whine of a dog and the hooting of an owl. The girls, as well as most of the boys, fear an owl in the house and to meet a snake. Three of the girls fear to go out after night-fall. The fears of Christians and those of others are practically the same except that the latter also fear the falling of a star, and to sweep at night.

The good omens liked by most of the pupils are the crying of a partridge, to meet a bride and to meet a person with a jar full of water. Most of the boys like the crowing of a cock after midnight. Most of the Christians like a horse-shoe. The Christian boys like the cawing of crows early in the morning. The other boys like black on children's eyes, and for a man's right palm to itch. The other boys also like Mohammed, and the Hindu Gods, Siva, Vishnu, Krishna, Ganesh, and the monkey god, Hanuman. As in other standards, most of the pupils like Ram and Jesus. They also like to have food praised, to have one's clothes praised and the *pipal* tree, which, as was previously said, are feared by many of the illiterate.

Results in General

An interesting fact brought to light by this investigation is that the children studied are of approximately the same age as children of corresponding standards in the United States. This is shown in Table IX.

TABLE IX

AVERAGE AGE OF CHILDREN IN STANDARDS

Standards	Indian	Terman's Classification, U. S. America
I, II	7.9	7.5
IV	10	10
VI	12.6	12
VIII	14.1	14
XI, XII	(Boys) 17	17.5

A summarized distribution of responses is found in Table X. Of the 354 returns, 94 came from Christian boys, 101 from Christian girls, 143 from other boys, and 16 from other girls. As a rule, the hostel groups have less fears than do the corresponding groups living at home.

TABLE X
SUMMARIZED DISTRIBUTION OF RESPONSES

	Number of Children	Age		Fears		Things Liked	
		Range	Average	Number	Range	Number	Average
LIVING AT HOME—							
Christian Boys	41	7-19	11.7	776	0-44	1069	26.1
Girls	32	5-16	9.8	326	0-43	506	23.0
Other Boys	135	7-20	13.6	2603	0-54	3187	23.6
Girls	16	9-18	12.9	397	0-41	486	30.4
Total Boys	176	7-20	13.2	3379	0-54	4256	24.2
Girls	38	5-18	11.1	723	0-43	992	26.1
Christians	53	5-19	11.0	1102	0-44	1575	25.0
Others	151	7-20	13.5	3000	0-54	2673	24.3
at Home	214	5-20	12.8	4102	0-54	5348	24.5
LIVING IN HOSTELS—							
Christian Boys	53	5-20	12.6	699	0-40	1304	24.6
Girls	79	7-?	?	1088	0-41	1757	22.2
Other Boys	8	15-18	16.3	123	1-32	180	22.5
Girls	61	5-20	13.0	822	...	1484	24.3
Total Boys	79	7-?	?	1088	0-41	1757	22.2
Girls	132	5-?	?	1787	0-41	3061	23.2
Christians	8	5-18	16.3	123	1-32	180	22.5
Others	140	5-?	?	1910	0-41	2941	23.2
TOTAL LIVING AT HOME AND IN HOSTELS—							
Christian Boys	94	5-20	11.1	1475	0-44	2373	25.2
Girls	101	5-?	?	1414	0-43	2363	22.4
Other Boys	143	7-20	13.8	2726	0-54	3367	23.5
Girls	16	9-18	12.9	397	0-41	486	30.4
Total Boys	237	5-20	13.1	4301	0-54	5740	24.2
Girls	117	5-?	?	1811	0-43	2749	23.5
Christians	196	5-?	?	2889	0-44	4636	23.8
Others	159	7-20	13.7	3123	0-54	3853	25.8
Grand Total	384	5-?	?	6012	0-54	8459	24.0

Tables XI and XII present summarised returns of fear responses.

TABLE XI
SUMMARIZED DISTRIBUTION OF FEAR RESPONSES BY
CHRISTIANS AND OTHERS

	Number of Children	Fears	
		Range	Average
Christians—			
Kindergarten, I, II	23	0-37	15.7±1.10
IV	66	0-44	15.3±.92
VI	64	0-52	17.6±.97
VIII	25	0-25	9.6±.99
XI, XII	17	1-20	8.8±.96
Others—			
Kindergarten, I, II	9	7-22	15.1
IV	4	21-44	31.5
VI	66	0-54	26.1±1.58
VIII	44	0-31	11.5±.84
XI, XII	36	1-53	15.8±1.28
Total—			
Kindergarten, I, II	32	0-37	15.5±1.10
IV	70	0-44	16.3±.98
VI	130	0-54	22.4±.89
VIII	69	0-31	10.8±.64
XI, XII	53	1-53	13.5±.96

TABLE XII

SUMMARIZED DISTRIBUTION OF FEAR RESPONSES BY
CHRISTIAN GIRLS, CHRISTIAN BOYS AND OTHER BOYS

	Number of Children	Fears	
		Range	Average
Christian Girls—			
Kindergarten, I, II	13	0-26	13.5
IV	41	0-43	12.6±1.35
VI	31	7-41	18.7±1.11
VIII	11	0-25	9.8
XI, XII	5	1-10	5.6
Christian Boys—			
Kindergarten, I, II	10	4-37	18.6
IV	25	0-44	19.6±1.64
VI	33	0-40	16.6±1.54
VIII	14	1-25	9.4±.88
XI, XII	12	1-20	10.9
Other Boys—			
Kindergarten, I, II	9	7-32	15.1
IV	2	32-44	38.0
VI	57	0-54	25.6±1.56
VIII	39	0-31	12.4±.88
XI, XII	36	1-53	15.8±1.28

In the primary standards the boys' average age is almost two years more than that of the girls, so they have had more opportunity to learn fears. This may account for the difference in their averages in these standards. In Standard IV nearly all the girls are hostel residents, and, as was stated before, hostel residents in general have fewer fears than do those who live at home.

There are seven things feared by a majority of all the children. These are listed in order of rank in Table XIII. A majority of the Christians, of the girls and of the hostel group fear only the first six. A larger per cent of the Christians than of the others fear hell, meeting a snake, witches and what might happen after death. But this is true only in the lower standards. A larger per cent of the others fear the curse of a faqir, and ghosts. More than a majority of them also fear

enchantment,
the hooting of an owl,
an owl in the house,
and the falling of a star.

TABLE XIII

SUMMARIZED DISTRIBUTION OF RESPONSES CONCERNING THINGS FEARED BY A MAJORITY

	Christians 195		Others 159		Boys 237		Girls 117		Home 314		Hostel 140		Total 364	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
1. Hell	136	69.7	110	69.2	166	70	80	68.4	154	72.0	92	65.7	246	69.5
2. Meeting a snake	136	69.7	97	60.4	135	57	98	83.8	140	65.4	93	66.4	233	65.8
3. The curse of a faqir	114	58.5	115	72.3	155	65.4	74	63.2	151	72.0	75	53.6	229	64.7
4. Witches	120	61.5	95	59.7	137	57.8	78	66.7	130	65.0	76	54.3	215	60.7
5. Ghosts	112	57.4	92	57.9	132	55.7	72	61.5	132	61.7	72	51.4	204	57.6
6. What might happen after death	114	58.5	78	49.1	123	51.9	69	59.0	119	55.6	73	52.1	192	43.2
7. Enchantment	...	...	87	54.7	119	50.0	...	...	121	56.5	...	...	177	50.0
8. The hooting of an owl	...	...	82	51.6	...	...	...	...	112	52.3	...	...	...	...
9. An owl in the house	...	...	89	56.0	119	50.0	...	...	116	54.2	...	...	...	...
10. The falling of a star	...	...	86	54.1	...	...	...	...	116	54.2	...	...	...	...

Considering the prevalence of the Cobra and the Karait in the United Provinces and Rajputana, the fear of meeting a snake may be considered a wholesome fear.

Tables XIV-XIX present summarised returns of the Christians and others concerning the major fears.

TABLE XIV

RETURNS OF CHRISTIANS AND OTHERS CONCERNING
FEAR OF HELL

Standard	Christians		Others	
	No.	Per cent	No.	Per cent
Kindergarten, I, II	19	82.6	4	44.4
IV	52	78.3	3	75.0
VI	38	59.4	48	72.7
VIII	17	68.0	26	59.1
XI, XII	10	58.8	29	80.6

TABLE XV

RETURNS OF CHRISTIANS AND OTHERS CONCERNING FEAR
OF MEETING A SNAKE

Standard	Christians		Others	
	No.	Per cent	No.	Per cent
Kindergarten, I, II	17	73.9	6	66.7
IV	52	78.8	4	100.0
VI	46	71.9	51	77.3
VIII	12	48.0	16	36.4
XI, XII	9	52.0	20	55.6

TABLE XVI

SUMMARIZED RETURNS OF CHRISTIANS AND OTHERS
CONCERNING THE CURSE OF A FAQIR

Standard	Christians		Others	
	No.	Per cent	No.	Per cent
Kindergarten, I, II	15	65.2	5	55.6
IV	30	45.5	3	75.0
VI	45	70.3	51	77.3
VIII	17	68.0	32	72.7
XI, XII	7	41.2	24	66.7

TABLE XVII

RETURNS OF CHRISTIANS AND OTHERS CONCERNING
FEAR OF WITCHES

Standard	Christians		Others	
	No.	Per cent	No.	Per cent
Kindergarten, I, II	17	73.9	8	88.9
IV	40	60.6	2	50.0
VI	45	70.3	54	81.8
VIII	13	52.0	20	45.5
XI, XII	5	29.4	11	30.6

TABLE XVIII

RETURNS OF CHRISTIANS AND OTHERS CONCERNING
FEAR OF GHOSTS

Standard	Christians		Others	
	No.	Per cent	No.	Per cent
Kindergarten, I, II	18	78.3	4	44.4
IV	40	60.6	4	100.0
VI	41	64.1	53	80.3
VIII	11	44.0	21	47.7
XI, XII	2	11.3	10	27.8

TABLE XIX

RETURNS OF CHRISTIANS AND OTHERS CONCERNING
FEAR OF WHAT MIGHT HAPPEN AFTER DEATH

Standard	Christians		Others	
	No.	Per cent	No.	Per cent
Kindergarten, I, II	16	96.6	5	55.6
IV	44	66.7	3	75.0
VI	36	56.3	42	87.5
VIII	14	56.0	13	50.0
XI, XII	4	23.5	15	51.7

The following is a list of what is liked by a majority of both Christian and other children :

peacock feathers,
to have food praised.
Jesus,
motor car,
rainbow,
to have one's clothes praised,
to have black on children's eyes,
the *pipal* tree,
to meet a bride,
the crowing of a cock after midnight,
Ram.

Most of the Christians, also, like,

the crying of a partridge,
a horse-shoe,
cawing of crows early in the morning,
eclipse.

Besides the things liked by most of the children, a majority of the "Others" like

to begin a thing on Wednesday,
Ganesh, (the elephant god),
Mohammed,
Vishnu,
Krishna,
Hanuman, (the monkey god),
Siva.

From what has been previously stated, some of the things liked by the children are supposed to be evil omens, such as

having food and clothes praised ; and an eclipse. Only six of the children replied that they feared Jesus. A few made no response, and some were indifferent, but three hundred of them replied that they liked Jesus.

Summary and Conclusion

The purpose of this study was to find out to what extent fears are held by the school children in India, and to discover what some of their fears are. For making the investigation a questionnaire was prepared, containing a list of fears common in the United Provinces and Rajputana. Lest this prove too suggestive to the children, the names of other things were also used. The questionnaire was translated and printed, and from fifty to one hundred copies were sent to each of twelve city schools in the United Provinces and Rajputana. Because of the limited time, no attempt was made to get returns from village schools.

Returns were received from eight schools. The original intention had been to use data only from Standards I, IV, VI, VIII and XII. But as some of the schools sent returns from all the standards, and there were but few representatives of Standards I and XII, the returns of the Kindergarten and Standard II were grouped with those of Standard I, and the returns of Standard XI were grouped with those of Standard XII.

The data used is that of 94 Christian boys, 101 Christian girls, 143 other boys and 16 other girls, a total of 195 Christians and 150 others, making a grand total of 354 children.

The average number of things feared by the children is less than might have been expected. Certain groups have more fears than others. As a rule, those living in hostels have fewer fears than do those living at home. In the primary standards the Christian children have more fears than the others, but their fears decrease more rapidly, and in Standards XI and XII their average is less than that of the others.

A majority of the children, both Christians and others, fear these things :

hell,
to meet a snake,
the curse of a faqir,
witches,
ghosts,

A majority of the Christians, and slightly less than a majority of the others, also fear what might happen after death. Most of the others also fear

enchantment,
the hooting of an owl,
an owl in the house,
and the falling of a star.

Most of the children, both Christians and others, like the following good omens:

to have black on children's eyes,
to meet a bride,
the crowing of a cock after midnight.

Most of the Christians like also

the crying of a partridge,
horse-shoe,
cawing of crows early in the morning.

A majority of the others like to begin a thing on Wednesday. They also like Mohammed and the various Hindu gods. Most of the children, also, like the following:

peacock feathers,
motor car,
rainbow,
the *pīpal* tree,
to have food praised,
to have one's clothes praised,
Ram, and
Jesus.

The name of Jesus had been inserted in the questionnaire, as I had wondered whether or not the children might fear Him. Only six replied that they feared Him, while three hundred replied that they liked Him.

Considering the results of this study, the conclusion seems evident that the schools have accomplished much in the way of eradicating or of preventing superstitions and fears among the pupils. Now, that some of the major fears have been found, definite plans for helping the children get rid of these fears may be made. Opinion will differ as to whether or not a direct attack on these fears should be made. The fear of snakes will

no doubt eventually lead to the extermination of the Cobra and the Karait, but for the present, the objection of Hindus and Jains to killing anything proves a hindrance.

BIBLIOGRAPHY

- Morton, G. P. ... "Childhood's Fears".
This book emphasizes the importance of recognizing fear in childhood education.
- Thurston, Edgar ... "Omens and Superstitions of Southern India".
Many of the omens and superstitions mentioned in this book are common in Northern India, also.

Septic Tanks in Ushagram

REV. FREDERICK G. WILLIAMS, M.A., *Ushagram, Asansol*

I. Foreword.

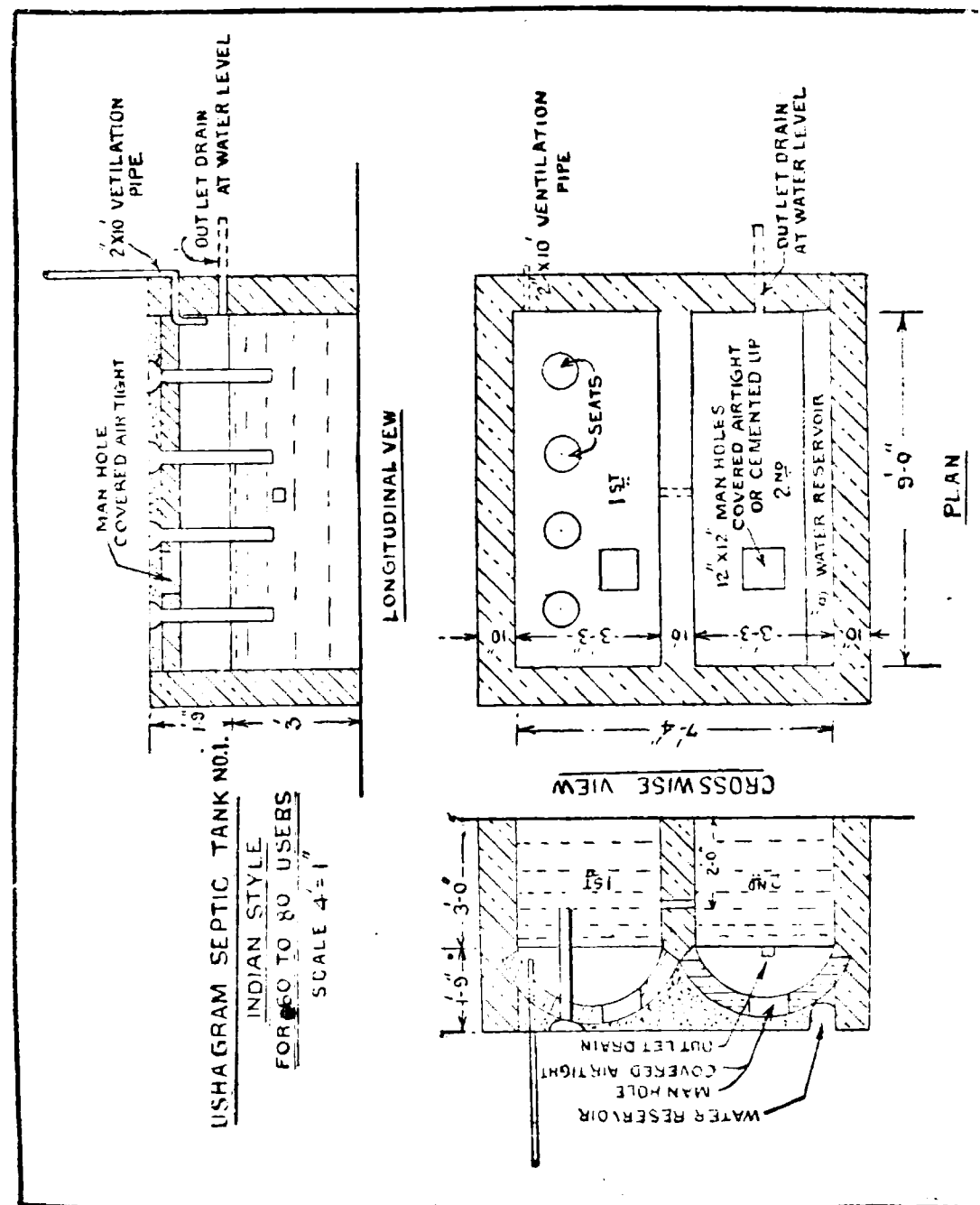
IN looking forward to a policy of replacing the sweeper by septic tanks, there are several fundamental principles to keep in mind, each of which is essential, at least so far as a policy in Ushagram is concerned.

(1) The septic tank should be inexpensive, so that an ordinary village resident with his limited means can reproduce it.

It. I have visited the homes of missionaries and have been amazed at the beauty and completeness of their sanitary equipment. Silent flush toilets, which alone cost not less than Rs. 140 and a complete layout for one small family which would perhaps run up to Rs. 300, and the most amazing thing was that the missionary didn't blush as he told of the expenditure! Our idea, in Ushagram, is to do the thing which the folks round about us can copy. I visited a Mission school some time ago, and was shown the new septic tank in process of construction. The missionary in charge didn't know anything about septic tanks, and the plans had been drawn up and supervised by long distance. The tank was for about 80 users, I believe; and the cost was to be over Rs. 1,000! Ushagram has installed two large septic tanks, one for 100 users, and another for 60 users, the former at a total cost of Rs. 150 and the latter at a total cost of Rs. 75. Smaller septic tanks for 8 or 10 users are installed complete for as low as Rs. 35; and the sanitary equipment of the missionary bungalow cost within Rs. 65 complete.

(2) The septic tank must work satisfactorily.

Our tanks are built on the experience of others, and upon the scientific advice of experts who should know. We are indebted to Col. G. M. Oldham, an engineer on a visit to India, for the following notes on septic tanks. Col. Oldham visited Ushagram and *okeyed* our type of tank.

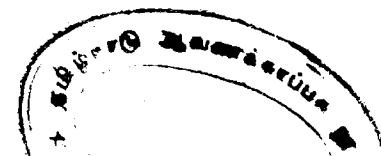


"The septic tank is not in itself a purifier of sewage. It breaks down the organic matter into more stable and less obnoxious forms. This is effected by aerobic bacteria which function in absence of light and oxygen, hence the sealed chamber. The purification of the affluent is done by aerobic organisms which want oxygen. This is the process effected by nature, in disposing of putrefactive matter. The bacteria are in the soil, the particles of which act as a filter spreading out the liquid and exposing each drop to the air that is in the soil. Therefore, you can discharge the affluent from the septic tank into the ground straight away as long as the quantity is not greater than the particular soil can absorb. Where the affluent is greater than the ground in the immediate neighborhood can absorb, either the natural action must be helped by distributing the affluent over a wider area of ground by means of artificial channels of soak-away pits, or (where, for instance, the ground is waterlogged or occupied by buildings) the aeration can be artificially provided by passing the affluent through one or more filters till a pure liquid is obtained.

"The purpose of the septic tank is to break down the organic matter and prepare it in a condition with which the filtering or absorbing materials can deal. Speaking broadly, the perfect septic tank produces some gas, carbon dioxide; a solid sludge that should be inert and inoffensive; and a liquid free from all undigested organic matter.

"Experimental research and examination of various working installations indicate that the best size for a septic tank is that which allows 2 to 2½ cubic feet per user, and this holds good where the discharge of sewage into the tank may range from 5 to 40 gallons per user. In America, the average capacity of a number of septic tanks worked out at 3.5 cubic feet per user, but in these installations, the sewage was more dilute, and the larger accommodation was doubtless given to ensure the organic matter remaining long enough in the tank to get broken up. At the same time, too large a tank may lead to fermentation or 'over septicisation', and the sludge gives trouble."

(3) The septic tank must be simple in construction, so simple that the ordinary laymen unskilled in sanitary engineering can build it.



receptacles for any kind of rubbish that comes along. I dare say many of you can remember the humiliating experience of being told by our mother to turn out our pockets and show what we had stuffed them full with; and how ashamed we felt of the resulting heap—perhaps, strings, and old stumps of pencil, and stale sweets and a dirty, ragged handkerchief and other useless odds and ends that had taken our fancy. I wonder how we should feel if we were compelled to turn out our minds. It is bad enough to display our ignorance before an examiner. What a horrible business it would be if, instead of mere ignorance, he were able to extract from us all the heterogeneous stuff with which our minds have become stored!

No, we are not distinguished for consideration of our mental powers. The majority of men pay far more attention to mere external things, such as clothes or houses or gardens or motor cars. We think much more about our bodies than about our minds. We like to wash and keep them clean; we take exercise to keep them fit. We care far more about what we eat—what we put into our stomachs, than about what we put into our minds. The mind is neglected—the Cinderella of the party. Fit for the company of princes, deserving to be housed in gold and fed on nectar and ambrosia, sometimes it is starved, sometimes it is fed on poison or garbage, in most cases, it receives from us the scantiest attention of all.

Surely, it is a pity that having been given so wonderful an instrument as the mind, so delicate and sensitive, we do not know how to treat it better. We seem to regard it as incapable of being injured—as a kind of football that will stand any amount of kicking and abuse, and will still be as good as ever when we want to use it for some better purpose. That is a very great mistake. We can injure our minds beyond recovery. Some men suffer this misfortune in their youth; they ruin their minds and are the poorer all their lives. None of us wholly escape from damaging them and in consequence do not reap the harvest of good things that we should. The picture in the poem of that mother's beautiful mind whose thoughts were as white-fleeced sheep, beautiful and innocent and ever under her control, is far from being the picture of our minds. The list I read of the kind of thoughts that should fill our mind is very unlike the list that anyone could write who read our hearts to-day.

Think of the mind in any light you will—as a treasure-house of memories, as an instrument for acquiring knowledge of the outer world or for the perception of beauty, as a creative fountain of joy and moral excellence—surely, it should be reserved for these purposes, given a chance to function and to flower, saved from being the stamping ground of coarse feet, the dumping ground for triviality or filth or the hard, false and stupid ideas of the world at large.

But, how is it to be done? How are we to guard our minds from the intrusion of thoughts that are unworthy of finding lodging in them? The difficulties in the way seem enormous. I cannot empty my mind at will; neither can I decide what thoughts shall be refused entrance and so guard it from contamination. If I could move my thoughts as I can move my arm, pointing them wherever I wish, it would be easy. But thoughts come suddenly I hardly know whence. They take possession of my mind, unasked, uncalled for. If, lying awake in the midnight hours, I bid them begone, like a flock of pigeons in the grain market they only flutter away a short distance and are back again. If I say I *will not* think of this or that, before I know what I am doing I am thinking of it harder than ever. What is the use of calling them a flock of sheep? They are more like wild, undisciplined young colts. They leap at us from the events of the hour; they peer at us from the recesses of memory; they are shaped by our temperament, our mood, our physical condition. And what restless, rebellious, compelling creatures they are! They drive us; they excite us; they fill us with glee or they fill us with gloom; they rouse us to fury or shake us with laughter. At the best they are disobedient servants; at the worst they can be cruel and tyrannical masters.

And yet—let us imagine for a little—what a good time we could have with our minds if we knew better how to control them! If we had our thoughts in hand like a disciplined army, to send and use as we wished, to serve us as we ordered, how much simpler and pleasanter and more successful our lives would be! Why should we allow wretched trifles to depress our spirits when we might just as well be contemplating happy things? Why brood over insults and slights and injuries when it would be far better to forget them altogether? Why worry ourselves

Christian Education

The Care of the Mind *

REV. GEORGE CARSTAIRS, B.D., *Nasirabad, Rajputana*

She walks—the lady of my delight—
A shepherdess of sheep,
Her flocks are thoughts. She keeps them white,
She guards them from the steep.
She feeds them on the fragrant height
And folds them in for sleep.

She holds her little thoughts in sight,
Though gay they run and leap.
She is so circumspect and right ;
She has her soul to keep.
She walks, the lady of my delight,
A shepherdess of sheep.

The Lady of the Lambs.

* * * *

Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue, if there be any praise, think on these things.

St. Paul.

THE two selections which I have read to you have this in common that both are concerned with the care or control of the mind. Strange to say, though our minds are, beyond comparison, the most valuable of our possessions, we seldom give them the respect and the attention which they deserve. Most people use their minds much as small boys use their pockets, making them

* An address delivered at the Training College for Men, Ajmer.

After installing eight septic tanks in Ushagram, and trying to make each more simple than the last, we feel we have a tank which anyone, with the help of a local mason, can build. All that it needed is brick and mortar, some cement, a few lengths of tile pipe, a one-inch gas pipe and a porcelain toilet seat.

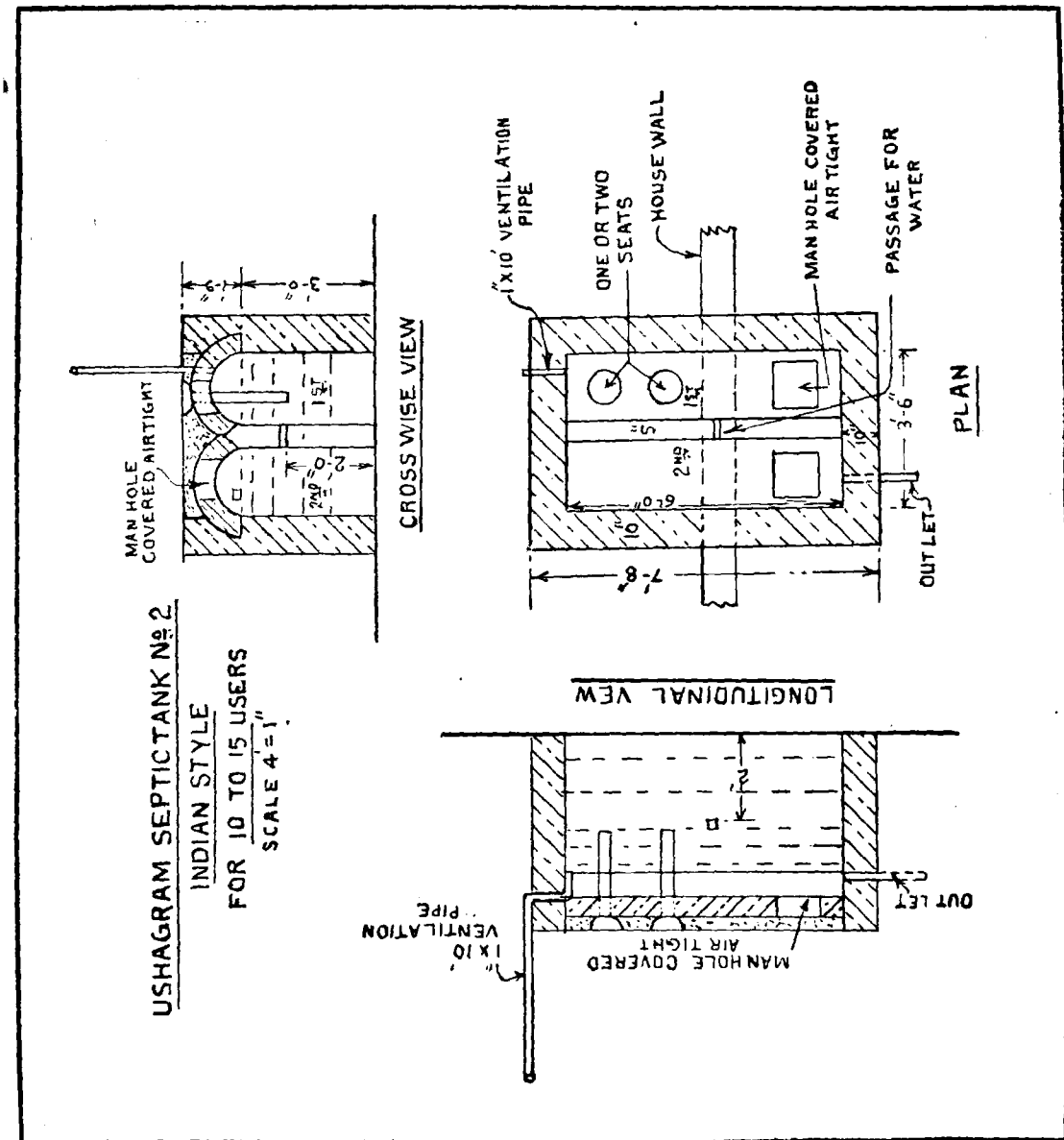
(4) The septic tank should be so arranged as to use the least possible amount of water, because in many situations the scarcity of water at certain seasons offers a problem. A flush box will take three gallons of water with each using, while if a small trap, or better, if no trap is used, a quart or so of water is sufficient.

II. Constructing the Septic Tank.

The Ushagram septic tank is a two-compartment type. The seats are connected with the 1st compartment, the pipe from the seat going a foot below the level of the water so that the surface of the tank may not be disturbed at time of flushing. The solids go into this compartment, falling to the bottom and then rising to the surface of the water, there to be acted upon by the bacteria. From above the water level of the 1st compartment, a ventilation pipe leads the gas into the air. There is a connecting opening between the 1st and 2nd compartments about 2 feet from the bottom of the tank, through which the affluent passes freely from the 1st to the 2nd compartment, and from thence through the outlet into the soaking pits or trenches. The 1st compartment is sealed except for the ventilation pipe, and no odour can pass into the 2nd compartment. We have kept this outlet pipe open for weeks and have found that practically no odour comes out with the clear affluent from this 2nd compartment.

(1) Computing the size of the Septic Tank.

Let four-foot depth remain constant except in the case of very large tanks for 100 or more users in which case the depth should be increased to six feet. You want an inside measurement of 4 feet in your tank. This will give you about 3 feet of water (up to the arches) and will make your tank work out in cubic at 3 cu. ft. per person. With this 4-foot constant, the number



of users gives you the number of square feet surface in your tank. For instance, if you want a tank for 8 users, then you want 8 sq. ft. of water surface. The best measurements would be $1\frac{1}{2}$ feet by 6 feet which means that each of the two compartments will be $1\frac{1}{2}$ feet by 3 feet. On to make it even more simple. Divide the number of users by two. The quotient will give you the number of square feet in each of the two compartments. You want a tank for 20 users. Divide 20 by 2 and you have 10 as the number of sq. ft. in each compartment. That means that each compartment will be 5 feet by 2 feet or 6 feet by $1\frac{3}{4}$ feet.

(2) Making the Excavation.

Make the excavation about two feet more on each measurement than you want as the inner size of the tank. That is, if your cubic measurement comes to 5 feet by 4 feet by 4 feet (both compartments, as in the case of a tank for 20 users), then make the size of the excavation 7 feet by 6 feet by 6 feet. This is necessary because you need 10 inches outer walls and 5 inches wall between the compartments, and space for arching. If the tank is being put in a new house (one which is being built), plan No. 2 can be used, half of the tank being under the floor of the bath-room. If it is being installed in a house already built, the easiest way is to follow plan No. 3 and place the entire tank outside the wall.

(3) Constructing the Tank

The walls should be 10 inches thick (length of one brick) with the exception of the floor and the wall between the compartments, which may be 5 inches (one brick wide). Lime and sand plaster should be used, and a finishing cement plaster over the whole inside to make the tank water-tight. It will be found that arching is easiest at widths of $1\frac{1}{2}$ feet to 3 feet.

It is necessary to leave a *manhole* in each compartment for use when cleaning the tank. This opening may be 1 foot square and covered air-tight by a plate, stone or some other arrangements. We usually lay two or three old iron rods, covered with an old piece of corrugated iron and a thin layer of concrete.

We have used this trap satisfactorily in some of our tanks. Wooden *seat covers* for use in the European style cost Rs. 8 and can be set in the cement. This equipment may be procured from many shops. One dealer who has given us satisfactory service is the Standard Sanitary Agency, 264B, Bowbazaar Street, Calcutta.

(5) The Drain and Soaking Trenches

The glazed pipe should lead the overflow for a distance of 25 feet from the tank, and should empty into a long deep trench. For a small tank, we dig the trench about 30 feet long by 2 feet wide by 3 feet deep. We fill this up with broken brick and small stones for $1\frac{1}{2}$ feet, then put a foot of rubbish over that, and finally six inches of earth on top. For larger tanks we run the drain into a series of ditches longer and deeper. This all depends upon the nature of the soil, and can be best learned from experience. In the case of our largest septic tank, the ditch we prepared was not able to absorb the overflow, the ground became waterlogged and offensive. We opened it up, carried the pipe another ten feet, and ran it into three soaking trenches instead of one. We have had no trouble since.

(6) Putting the Septic Tank into Operation

Before closing up the manholes, the tank should be filled with water and left for a week or so to discover whether or not the walls leak. The walls will soak up a certain amount of water, and a small lowering in the water level should not be construed as a leak. If it does leak, the water must be lifted out and another thin coat of cement plaster applied. If it holds water, close up the manholes and the tank is ready for use.

(7) A Water System for your Septic Tank

Just outside the wall of the bathroom, erect an old steel oil barrel (cost Rs. 3-8 in Asansol) with steps to it. The water carrier can keep this barrel full of water. A half-inch pipe will lead the water into the bath-room connecting with the toilet seat for a flush. Such an arrangement has cost within Rs. 10 in Ushagram.

(8) A sample account of the complete cost of a Septic Tank for six persons, just completed in Ushagram.

Size of excavation $3\frac{1}{2}$ feet by 6 feet by 6 feet.

Items	Asansol rates	Cost		
		Rs.	A.	P.
1. Excavation 128 cuft	Rs. 5 per 1,000	...	0	10 0
2. 500 bricks (2nd class)	Rs. 12 per 1,000	...	6	0 0
3. 2 mds. lime	As. 9 per md.	...	1	2 0
4. 1 bag cement	Rs. 2-13-0	...	2	13 0
5. 1 load of sand	Rs. 2-0-0	...	2	0 0
6. Labour (contract for whole job) ...	Mason Re. 1 per day. coolie As. 8 & women As. 6	...	7	12 0
7. One 4" glazed pipe (2nd class) ...	As. 11 each	...	0	11 0
8. Twelve 2" glazed pipes (2ndclass).	As. 0-7-6 each	...	5	10 0
9. Gas pipe 10' x 1"	As. 0-3-3 per foot	...	2	0 6
10. One porcelain "Purdah pan" ...	Rs. 5-8-0 each	...	5	8 0
Packing and freight on same ...			1	0 0
Total ...		35	2	6

Department of Educational Psychology

THE PRINCIPLES OF CHILD-CENTRIC EDUCATION APPLIED TO SOME PROGRESSIVE RURAL SCHOOLS IN INDIA *

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TO state that one of India's most pressing problems to-day is that of rural reconstruction and uplift is a mere platitude. We have heard it so long and so often (even on the other side of the world ever since I can remember) that our susceptibility to it has been dulled through excessive repetition. This makes the situation none the less imperative, however. Many agencies have given serious thought and attention to the matter; but the one which this First All-Asia Educational Conference is most interested in, no doubt, is that of education. Just what have the schools done to alleviate the conditions?

The institutions considered in this paper by no means constitute a complete inventory of progressive schools in India dedicated to this national need. They are merely those reported in the recently published book entitled, "*Fourteen Experiments in Rural Education*", written by the various directors of these experimental centers, and edited by Miss A. B. Van Doren, late Educational Secretary of the National Christian Council of India, Burma and Ceylon. These accounts were brought to the attention of the author of this essay at last summer's Conference on Rural Reconstruction in Landour, where some of the directors reporting were present; through some of our Educational Secretaries of the Methodist Episcopal Church; and through personal friends, who are modelling their schools on these, elsewhere in India, after studying some of the fourteen in person. Geographically, eight considered herein, represent most of the greater areas in India, as follows: the Punjab, United

* A paper read at the All-Asia Educational Conference, Benares.

Provinces, Central Provinces, Bengal, Gujarat, Maharashtra, and South India. From the standpoint of the organizations which are sponsoring them, it might be said that they are representative of the largest missions working in this country. So far as the sex of the pupils goes, some are strictly boys' school, and some co-educational.

Let it be clearly understood from the outset, that the aim of the author is by no means to consider or criticize in detail the aims, organization or activities of these schools; or even to approximate anything like a thoroughgoing study. The aim is to evaluate their avowed claims and practices as set forth in the above-mentioned publication, in the light of the latest principles of education—those of the "Child-Centered School".

It might not be amiss, for the sake of clarifying our thinking and holding clearly before ourselves the criteria which will be applied, to indulge in a brief and succinct consideration of this most modern of educational theories.

Perhaps, the most compact and complete statement of the ideals and postulates of the 'new education' ever phrased in like space is set forth in the 1912 Yearbook of the Francis W. Parker School of Chicago, Vol. I, p. 11. These postulates are: "(1) that self-actuated work causes the greatest gain in the pupil; (2) that training and initiative is the child's great need; (3) that in his own interests we often find educative opportunity; (4) that freedom with a balancing responsibility is the best condition; (5) that real experience with actual material is an essential of learning; (6) that opportunity for varied expression is necessary for right education; (7) that for purposes of development children must be treated as individuals, and not as a group; (8) that one of the most effective and wholesome motives of work is the "social motive". In short, self-actuated work, freedom with responsibility, real experience with actual material, opportunity for varied expression, emphasis upon the individual, and recognition of the indispensability of individual growth in any way other than membership in a "social group"—these compose the child-centric creed or philosophy. Its protagonists, in rebellion against the *status quo* of American schools, preached the dynamic doctrines of growth, activity, freedom, spontaneity, and initiative. In the forefront of their thought is the continuous

growth of the pupil through dynamic self-expression. The educational systems reverberate with the battle of "Adult *versus* Child Life; Logical *versus* Psychological; Control *versus* Freedom; Iron Rule *versus* Spontaneity; Interest *versus* Effort; Order *versus* Chaos; Subject-Matter *versus* Child Experience; and Habit-Forming *versus* Self-Expression." Child activities—not studies and lessons were to be the core of the curriculum; life-experience, not the acquisition of ready-made subject-matter, was to orient teaching.

This brings us to the curriculum of this new type of school. The curriculum made up of formally organized subjects of study, systematized lessons, rigorous examinations, set practice exercises, and recitations in the conventional schools are replaced by a "continuing stream of child activities unbroken by systematic subjects, springing from the interests and personally felt needs of the child." Education is pictured as growth—all-round growth—physical, intellectual, moral. For this reason, the aims of education increasingly center on the development of the child's individuality. Children are regarded as unique individuals with personal rights. The curriculum is to be organized around the four chief impulses of the child: the social instinct, the contributive instinct, the expressive instinct, and the instinct of curiosity (some psychologists might dispute the accuracy of calling these "instincts", but I think most educationists will agree to name them "impulses").

Small wonder, then, that "Child-Centered Schools" present an appearance totally different from that of all its formal antecedents and contemporaries. Movable furniture, school architecture, small classes, active children, teacher advising, flexible schedule, individual and group units of work, close co-operation of pupils, staff and community, class-room library in addition to the school library, assignments prepared from many books, individual assignments and reports, lack of wholesale conformity, free play and dramatization, and so on. Would that there were time to go into a detailed presentation of the matter; but this is not possible now. Suffice it to say, that the atmosphere pervading these schools is provocative of spontaneity and is free from all affectation and self-consciousness. The children share in the government of the school; in the planning of the daily and weekly programme; in the administration of the curriculum; and

in conducting the life of the school. Pupils are active physically, mentally, and artistically. The education is based on concrete child experiences, and gradually works toward the abstract, vicarious, and verbal. Projects, units of work, creative work periods, industrial arts, story hour, informal group conferences, and other enterprises take the place of the three R's with its accompaniment of lifeless geography, and dry historical facts of the old school. Centers of interest in the more advanced standards (in America called "grades") originate in some institution, problem, fundamental movements or trends of contemporary life; while in the lower standards the focus is the immediate school scene. The new school is concerned with big concepts, themes, movements, and broad fundamental phases of life while the old school spent its time in drilling to the point of passing minimum essentials. In the new school, these are the by-products of the educative situation, and the result is usually that they are much better taught. The school environment is one which "draws out" of the pupil rather than "pours in". The emphasis in the new school is not upon finished work, skill, technical perfection; but upon the release of the child's creative capacities; upon growth in his power to express his own unique ideas naturally and freely. While individuality is stressed and its development provided for, a personality comes to its best expression in living and working in co-operation with others. Opportunity for this is given in the form of dramatics, which require concerted effort towards a common goal; assemblies, through which frequent interchange of mutually interesting ideas take place; student committees and clubs managing student affairs; and miniature social organizations and group games.

And now to sum up, the criteria of this "Child-Centric Education" by which we shall evaluate the eight rural schools mentioned might be given, phrased in a few pertinent questions, the chief of which are: "Does education produce a constant tendency towards growth? Does it draw out the potential capacities of the children? Is the curriculum visualized as a continuing stream of child activities, unbroken by systematic subjects, and springing from the interests and personally felt needs of the child? Is the education dynamic?"

Now let us consider these eight Boys' schools described in the book entitled, "*Fourteen Experiments in Rural Education*",

published by the Association Press, Calcutta, in 1929. Two of these have also departments for Girls. All of them are Middle Schools, which use to a greater or less degree the "Project Method". Without exception every one of them emphasizes manual labor as of equal importance with the so-called 'literary' education. As will be seen presently, most of these schools adhere closely to the Government educational requirements, and prepare their pupils for the examinations. However, almost without exception, this forms only the "minimum essentials", as it were, and their course is a greatly enriched one. In one or two cases, these requirements come rather as by-products of a child-centered curriculum, and it is proved there that the learning is of a better quality when thus derived than when formally imparted. This confirms the claim of the "new philosophy". The schools at Manmad, Maharashtra, and Asansol, Bengal, are community Middle Schools with no other institutions attached. Moga, Punjab; Ankelswar, Gujerat; Dhamtari, Central Provinces; and Chapra, Bengal, all have training sections in addition to Middle Schools. Ghaziabad, United Provinces, has included in the same institution, and on the same plan its Theological school. All these are so-called "literary schools" which have developed the literary side. The school at Sangli, Maharashtra, is a vocational school which has developed a literary side. It is beyond the province of this paper to go into details concerning these schools; enlightening as that might be. Presumably, those of us who live in India are familiar already with these institutions—in many cases personally so. A repetition would be boring to such.

Moga, the first of these eight schools to be discussed, is a pioneer in the application of the project method, and emphasizes in theory and practice, the underlying principles of this type of education. Its aim is not the mastery of subject-matter, but the building of self-reliant, Christian character to result in fuller, richer, happier life. Only that subject-matter, which meets a felt need is supplied *as it is needed*. They teach responsibility by imposing it—not arbitrarily, but as life itself would. The projects are, for the most part, self-initiated, and thus involve responsibility which the student is willing to shoulder because the problem is his very own. They train the pupils in judgment, by giving them many opportunities of choice; for example, the

disposition of crops to the best advantage when two different times will bring approximately the same financial returns, but when other subtler advantages will result from one course of action, not at first apparent. They teach them to read intelligently, by giving them many opportunities for reading; as, for example, the commercial need for this in their shops, their dispensary, their need for information from books on agriculture and other school enterprises, their evangelistic activities, and the like. They teach them practical arithmetic by solving the problems arising in connection with the buying, sowing, planting, harvesting, and disposition of their crops in the school shop, their co-operative bank, the book-keeping, their dispensary, their own personal income and expenditure, etc. In the formal type of school, a record of six problems out of ten correct gives the boy a passing mark; but this standard of accuracy applied to the class shop would run it into hopeless bankruptcy in a very short time. Thus, the boys most naturally, according to nature's own method, set one hundred per cent. accuracy as their standard. 'Learning by doing' controls the class work and also the life of the school. As far as possible, all teaching is done through pupil enterprises, chosen and undertaken by groups of pupils or by an entire class under the guidance (but not the dominance) of the teacher. These are situations of real life. Pupils plan and carry out their undertaking. As they work, they find a need for various kinds of information and skills. The ordinary school boy has a result without the activity of which it is the result; but to a Moga boy the fact is the result of an experience. The same policy obtains throughout all the departments of the school. Thus, the Normal students, for example, derive all their theory of method from the problems they discover in trying to teach in the various village schools, which are used for demonstration and practice teaching. Without taking the time to repeat the criteria above mentioned, it must, surely, be clear to the reader that Moga really is a "child or pupil-centered school". Perhaps the artistic impulse is not as strongly stimulated as it might be, but this does receive some medium of expression in the garden and craft projects which the pupils carry out. Moga has, indeed, made a great contribution to education in India.

In Ushagram, (meaning "Dawn Village" signifying "the village of a new day") we see a "cottage system," with a group of boys creating a model village and living under the laws of an ordinary village organization. There are five boys to a cottage, with their head boy acting as a sort of 'house father'. The head boys compose the governing body or "*panchayat*" of the village along with the director. This body meets regularly, is responsible for the morale of the village, makes rules to the best interest of the village, legislates and administers justice, suggests experiments, reviews industries and vocations, considers new projects, and consults with the director, who sits, listens, explains, suggests, learns, and asks advice, especially for the purpose of awakening the creative interests of the boys. There is a system of taxes to care for the community needs, such as; defraying the expenses of coal, oil, street lights, and sweeping the streets. All have a share in erecting and keeping in repair the cottages. When a boy comes to the necessity of choosing his life's vocation, he does it on the basis of his inherent interests and consultations with his instructor; and then he correlates his choice with other village industries. There are individual and group projects in the matter of savings accounts, farming, co-operative stores, and the various trades. For aesthetic development, the boys have their flower gardens in which they take great pride and pleasure. After learning this we could almost formulate the aim of the school ourselves and come very near coinciding in its wording, with that of the author of the account. This is to prepare the individual for specific village vocations, and is looking to the future to produce competent leaders so that village industries might be brought to a place, where men will be able to stay in their home villages and earn a livelihood for their family instead of joining the army of underpaid, ill-adjusted, ever-increasing city dwellers.

An objection might be raised, that adult usefulness rather than child activities control the curriculum of the school. However, boys of Middle School age would find nothing but adult activities for them to participate in, if they were living in their own home village.

From the above brief sketch it is evident that in Ushagram the work is for the most part self-actuated; that there is freedom with responsibility; that the experiences are with

actual material; that there is opportunity for varied expression; that both the individual as such or in co-operation with the group has ample opportunity to develop his individuality; and at the same time learn to harmonize with a corporate body to which he can make his contribution. Committee work, clubs, and sports are given and provide a laboratory for this. The four innate impulses: curiosity, construction, expression and gregariousness are constantly brought into play. Ushagram fulfils the requirements of child-centric education admirably.

A preliminary survey of the village of Dhamtari revealed great needs, which then formed the basis of the aim of the educational experiment carried out there. This aim was (a) to attempt to make the school a center of community uplift; (b) to relate the teaching work of the school to the life of the pupils, and (c) to open a Normal School to prepare teachers to conduct such schools along the above lines. The "Project Method" was tried on the first classes of each of the five schools in the teaching of Hindi-speaking, reading, writing, and in arithmetic. The efficacy of this matter was scientifically tested by the use of experimental and control groups. However, the underlying motive, was the teacher's rather than the innovation of the children, and the material on which it was worked out was rather artificial, especially when compared to real life situations as these obtaining at Moga and Ushagram. The children probably accepted it wholeheartedly, but it lacked genuineness. The motive for this situation was a manufactured one rather than one growing out of a need recognized by the children as their own, and creating in them a burning desire to meet that. There is no indication in this account of the children's request for a single thing that was done.

In the second year, a shop project to motivate the subject of slate and mental arithmetic was introduced—we are not told by whom, teachers or pupils. The fact that paper coins were used, however, suffices to prove that the zest which accompanies real life conditions must have been necessarily lacking. It might have been a game, but not life.

The third year class and its local geography was motivated by a study of hemp. A genuinely vital project was introduced in the fourth class. This was in the form of an actual experiment in two ways of planting rice: by the old broadcast system

and by the Japanese system of transplanting, respectively. Account of all expenditure in putting in the crop, labour, computing the yield of rice, per square yard by both systems of culture gave a "felt need" in arithmetic. Real essays were written on the stimulus of their findings. Weeds, insect pests, fertilizers, soils, irrigation, the geography of India and the Empire—all grew out of a study of rice-growing regions and the commodities exchanged for it. This last-mentioned meets and fulfils the criteria of the "new philosophy" as stated above; but the other experiments made in this school can hardly claim to be of the same calibre and quality as this last-mentioned.

In the St. Barnabas School at Manmad, Maharashtra, you have an outgrowth of the work of the Village Education Commission (1919-1920); the visit of the Church Missionary Society Delegation to India; the Inter-Mission Conference at Moga on Rural Education, and a similar one at Ahmednagar in Western India. Its curriculum is one worked out in balance and symmetry of varied pre-vocational activities formed by careful selection. Professedly, its belief is as follows. First, "The end of education is conduct; not knowledge which is only a means to that end". Second, "Education must teach behaviour in a community in which each individual has a vocation." Third, "Vocation must, therefore, be considered during the school years". Fourth, "The choice of vocation can only be arrived at by careful study of individuals." Fifth, "Where possible learning should be taught in relation to some practical task. This makes it more reasonable and gives a greater stimulus to study." Sixth, "Manual work is an essential element in all school education, as giving a great deal of necessary knowledge in such a way that it is wrought into the brain through its motor centres, and as ensuring a belief in the dignity of labour." Seventh, "The economic aspect of life is closely bound up with spiritual progress. The duty of economic independence must be taught both as necessary to self-respect and as a means of social service". Eighth, "The economic condition of our village Christians can only be improved through agriculture and its applied industries. Efforts must be made, therefore, to produce an interest in agriculture and its allied industries during the school year."

Such words in the above statement of educational conviction as "Education must *teach* behaviour; where possible learning should be taught in relation to some practical task, and efforts must be made to *produce* an interest in agriculture during the school years" make one suspect a bit the degree of wholeheartedness with which the project method is entered into. We are told, further, that the functions of the St. Barnabas School, is the selection of boys suitable either for the literary or industrial training, both of which are provided. It would seem from what the author says, that the staff decide this after careful observation and study of the boys' talents, but no indication is given that the boys themselves have any share in the choice. They may, but this is not stated. The non-committal attitude and half-hearted faith which the Director of this school seems to have in this "new education" is further to be gathered from the fact, that only the last period of the day is set aside for project work. He takes care, after describing the projects, conducted during the last two years, to emphasize the necessity of making a connection between the practical work and the ordinary school subjects to keep them from "degenerating into mere pastime." Further substantiation of this is revealed in the expression, that a certain atmosphere of freedom is necessary for growth of character, but yet, certain discipline (I infer, of the formal variety) is needed! The boys do work with their hands; have a share in their government; engage in activities which they have either been born into or will go to in adult life; but this can hardly be called a school "after the heart of our child-centric education".

What a contrast to the school just mentioned do we see in the vocational training school at Ankelshwar, Gujarat! This is a project designed to train for steady self-reliance in place of the "ma-bap" attitude of dependence, and, according to all reports, it accomplished its purpose in the spirit of the criteria laid down in the first part of this paper. It grew out of a felt need for competent, interested teachers for village schools, and the necessity for them to have a practice center, in the form of a Primary School. The government of the community is like that of the village. The boys live in cottages and the heads of these compose the "*panchayat*". The project idea is introduced into work

both inside and outside the school. It gives boys, by earning, the incentive to work and to "learn by doing". Sometimes the class, sometimes the individuals, and usually both undertake some purposeful activity and see it through. This runs through their farming, carpentry, gardening, poultry raising, co-operative bank, store, their government, committee work, and all the other activities they may engage in. Mr. Long, the writer of the report, states that the demands of the village life should determine their policy; that they should aim at a community center designed to touch life at every possible point, intellectual, economic, moral, religious and social, and that the village worker should be a recognized center and moving agent in community activity, and, hence, should be given an all-round training so as to be able to touch life effectually. The promulgators of this policy seem to have kept faith, when we consider that the result of the work so far is that the boys each work on their chosen project; that, under the incentive of the wages received, the boys have become very efficient; and, especially, that they do things now which they never thought they would or could do because of confidence in their own ability to do and to succeed. They return to the village in full sympathy with all who work with their hands and toil. Sturdy self-reliance has become their habit.

In the United Provinces, at Ghaziabad, an institution with the same purpose as that at Ankelshwar (more specifically, "to train leaders—both clerical and lay"—for the Christian Church), exemplifies very well the new philosophy. In addition to the types of education given at Ankelshwar, it gives also Theological training. The "cottage" plan of living, governing, working, earning, and self-supporting is practiced here as in some of the above-described schools. The Government curriculum forms the core of their school activities, but is greatly enriched and supplemented. Every opportunity is sought to relate the work of the class-room to the experiences of the farm, the playground, and the shop. In short, they all grow out of and help to solve the real, everyday life situation with which these children are confronted in an environment that, in its main essentials, resembles that from which the children have come, but which, of course, is designed to raise that very environment to a higher and a more desirable level, by means which are clearly within

into a fever by dwelling on the faults of others—their unkindnesses, stupidities and spiteful words when no good is ever known to result from it? “Begone,” we should say to such thoughts, “Out of the door all you idle, ugly, ill-natured, unprofitable images! My mind is ‘not at home’ to such as you. It is busy with the entertainment of worthier guests.”

After all, why should we not be master in the house of our own mind? We all wish that we could.

If you have followed my argument you will have noticed that I have reached an apparently hopeless contradiction. I have laboured the point that control of our minds is essential if life is to be worthwhile; and I have tried to show that, our thoughts being what they are, mind-control is well-nigh impossible. What is the good of wishing for the impossible? As the old proverb says, “If wishes were horses, beggars would ride”. But wishes are not horses and beggars go on foot.

It is a common place of warfare that often, when the frontal attack proves impossible or unavailing, the enemy may be routed by a *flank* attack. There is a story of Emmanuel Kant, the great philosopher, that he was so upset by the death of a favourite servant that he could not bring his mind to bear upon his work. In the hope of getting rid of the distraction, he printed in large letters on a card, “Forget Heinrich!” (or, whatever the man’s name was) and placed it before him on his desk. You can imagine the result. Whenever his eye fell on the card, instead of forgetting Heinrich, he remembered him more than ever. That was a *frontal* attack and it failed.

Let us consider how we may make a *flank* attack upon the thoughts that invade and occupy our minds and trouble us against our will. If you wish to forget something unpleasant, what do you naturally do? You go and join a group of companions or play a game or read an interesting book. Why? Because you wish to get yourself interested in something else. Then most likely you *will* forget. It is not such a very difficult matter if you will go about it in the right way.

People in great trouble of mind are often advised to go away for a change. Why? To get away from their old surroundings, from everything that would keep suggesting to their minds the subject of their grief, and so that they may acquire new interests.

Fresh currents of thought sweep through their minds making them forget their trouble, at least enough to find it bearable.

It is just by such methods as this that we can get the better of these unruly creatures, our thoughts, bring them under some form of subjection and so keep our minds free for what is worthwhile. The front attack is no good, the flank attack may be very effective.

There is a little word which psychologists make great use of. It is the word “attention”. “Attention” is the key that opens many doors. Consider! If I were to ask you to think beautiful thoughts, you would not know how to set about it and would rightly regard me as a fool. But suppose, instead, I were to read you a beautiful poem or show you a beautiful picture or sing to you (if I only could) a lovely song, and were fortunate enough to kindle your enthusiasm; then, without any effort on your part, beautiful thoughts would come pouring into your mind. How is it done? Simply by having your attention fixed on a beautiful object; the thoughts follow of themselves. There are some domestic creatures, especially hens, which are very difficult to drive before you. Have you ever tried it? They run here and there, and turn back, and get all over the place. But if you walk away and attend to something else, they come trooping after you. It is much the same with thoughts. Try just to collect beautiful thoughts and they scatter themselves. Turn your mind to some beautiful object and the thoughts come flocking.

Now there is nothing subtle or difficult about the matter of paying attention. We are doing it all the time. In our games, in our studies, in talking to each other, we are continually paying attention to the matter before us. But—and this is the great thing—it lies with us to decide to what thing we shall give attention; and it depends on the *class* of object we habitually give our attention to as to what *class* of thoughts will fill our minds. Attend to a fool and you will feel like a fool and may become one. Attend to muck and your thoughts are mucky. Attend to good and worthy things, and the good in you leaps up to meet it. It is a simple process after all, and is the key to the whole problem.

the reach of these people. It is interesting to note that the manual arts of bookbinding, tailoring, shoemaking and shoe-repairing, carpentry, and rug-weaving are taught not for trade purposes, but for their "appreciative value". The aim is that shop work may increase the boys' appreciation of, and respect for, the tasks themselves, and for the people who perform them. The hope is that thereby their own life will be enriched and better rounded out. There is a pre-vocational aim also; namely, that those able to go on to High School may have their prejudice against trade removed, and be favorably disposed to this form of occupation. A third aim is to provide a basis for intelligent choice of a trade.

Supplementary to, or perhaps, parallel with their self-government as described, courses in community civics are given, the purpose being to acquaint the child with community life, his relation to and his responsibility toward it, and the best way of meeting these. The boys start with their own community and gradually broaden out to the province, the country, and the world.

Social service work, like all the other activities in the school, is actually worked out in projects, and not left in the realm of ideas for future fulfilment. This expresses itself in Sunday religious meetings, illustrated talks on sanitation, agriculture, etc., on summer evenings in the surrounding villages. Through friendly intercourse with the villagers, the teaching of primary day schools by the seniors of the Normal School, and by ever-ready assistance whenever asked, the school is a real demonstration centre for all sorts of village activities and needs. Thus, it itself practices an ideal which it wishes to inculcate into the minds and lives of its graduates. This school meets the criteria of the child-centric education adequately.

Praise is due, also, to the community, middle and training school at Chapra, Bengal. All the essential principles practiced in those of the above schools which are pupil-centric, form the foundation of this institution also; but, again, they have their own way of expressing it in actual enterprises. Some of these are very interesting indeed, and are worth noting. For the sake of avoiding tedious repetition, those features which it holds in common with such schools as Ushagram, Ankelshwar,

Ghaziabad and others, will be assumed as being familiar to the reader. Mention must be made, however, of the unique feature such as inter-cottage matches in football, hockey, and volley ball. Debating societies discuss live, current topics. A continuation night-school gives special attention to the relationship of school subjects to each trade. The top class makes articles to order. The boys sow what they like and bank the profits, and the class farm project is the entire responsibility of the class. They are carrying on a stock project with one of the borrowed Government bulls, and are initiating an irrigation project with the help of a motor engine pump. The village teachers are trained to meet the problems of poverty, debt, disease, religion, the village church, and self-government by such activities as, for example, participation in cutting the jungle and oiling the mosquito-breeding pools and tanks in co-operation with the local anti-malaria society. They study village self-government and the work of the Union Board by keeping in actual touch with village life. They assist in running small village Sunday Schools in near-by villages, and a Sunday evening meeting for village herd boys. Camp trips are taken for a longer period of time in evangelistic interests. Second year training students are sent out to work for three weeks in one each of several local villages where they teach in the school during the day, and have the opportunity of studying village conditions at first hand. Thus, their training is made very real and vital by keeping the students in touch with just the kind of conditions in which they will be called upon to work.

The aims expressed above in connection with the various schools, and even the methods of realizing them are found to be features also of the co-educational school at Dornakal. This seems to demonstrate that they are practicable not only for the sexes separately, but also when they mingle in the daily routine of such a school as the one under consideration. Co-education with the project method is possible.

It is obvious from the above, that into the schools considered in this essay the spirit and practice of child-centric education has penetrated, and has thus found entrance into many out-of-the-way corners of this great land of ours, where it is giving considerable help in solving the difficult problem of rural uplift.

Department of Kindergarten and Primary Methods

ORGANIZATION OF A KINDERGARTEN UNION IN INDIA

MISS MILDRED PIERCE, B.A., B.ED.

This article the "Organization of a Kindergarten Union in India" was read before the Kindergarten and Montessori Section of the First All-Asia Educational Conference held in Benares, last December. As advocated in this paper, this section of the Conference passed a resolution as follows: "That steps be taken to organize in India an Association for Childhood Education." It was further resolved that Miss Pierce be requested to organize this association as Provisional Secretary.

Although, there was no association to enable the Secretary of this section of the All-Asia Educational Conference to get in touch with people especially interested in childhood education, it is encouraging to note, that there were ninety delegates in attendance at the meeting of this section. The forming of such an association should help to interest many others and to give the emphasis to childhood education that is being given in other countries. Miss Pierce will be very glad to have any of the readers of "Christian Education", who are interested in the organization of the Association for Childhood Education in India, write to her at Pakaur, E. I. R. Loop.—The Editors.

IT is not necessary to try to convince this group of the value and importance of the kindergarten in the scheme of education for India. Our very presence here in the group indicates that we are interested in the kindergarten. No doubt, all have come to gain the inspiration and information that this group might offer; to discuss problems that are common to us all, no matter what our race or country; to share difficulties and successes with others. We feel the need of being brought together for this purpose.

It seems to the writer of this paper, that this is an opportune time to discuss the organization of some type of kindergarten union for India that would help to unite us in our efforts to advance the cause of childhood education. Miss Caroline Barbour, President of the International Kindergarten Union for 1929, says in writing of "Co-operative Organizations" in the March number of *Childhood Education* for 1929; "There is no question but that organization and affiliation, intensive interests plus co-operative alliances, national or international are key activities of the modern world as the means and method whereby ideas and ideals considered of worth may be promulgated." Miss Barbour goes on to quote the organization of "Progressive Education" saying, "They conceived of it as a co-operative effort and organization which could give unity, force and direction to what would otherwise be a haphazard and individualistic effort."

Such an organization even though started on a small scale at the present time, may produce tremendous results. The Child Study Association of America on its 40th anniversary in 1929 looked back to the day when it was made up of a small group of women who met to discuss their individual problems; but now it has grown to a national organization whose work has extended to the ends of the earth.

The principal values to be gained from the organization of a kindergarten union at the present time would be to unite isolated pieces of work and to disseminate information concerning the objectives and activities of the kindergarten.

There may be many people in India engaged in real kindergarten work, but since there is no association to unite these pieces of work it is very difficult to get in touch with them. In attempting to prepare a report of kindergarten work in the Province of Bihar and Orissa, I found it impossible to get in touch with all the work that may be in existence. The Deputy Director of Public Instruction reported, that so far as is known the kindergarten and Montessori systems have not been introduced in Indian schools in the Province of Bihar and Orissa. The Inspectress of Schools for the Province states, that the principles of the kindergarten system have been introduced in some schools. The Directory of mission schools lists neither kindergartens nor kindergarten training schools. It would seem

from this report, that very little kindergarten work is being carried on in the province, but yet there may be private institutions doing very good work with whom it has not been possible to get in touch. If there were some association to unite all isolated pieces of work, it would mean inspiration for those engaged in carrying on the work; it would avoid duplication of work in different parts of the country and it would give opportunity for the sharing of ideas and materials found suitable for India.

A union of those interested in Kindergarten work would enable the group to disseminate information regarding the objectives and activities of the kindergarten movement. We are all familiar with the attitude of parents, who think their children are not learning anything worth while if they are not engaged in learning the alphabet or doing sums. A union would be able to put out literature informing the public what the kindergarten is trying to do to help children of four and five to develop physically, mentally, emotionally and socially; how it studies the individual needs of children and keeps records of health, habits, attitudes and activities engaged in by individuals and the group. It would also be possible to bring the needs of little children and the worthwhileness of the kindergarten movement to the attention of capable young women, who are planning to become teachers. No doubt, many more would gladly teach in the kindergarten if they understood just what the kindergarten is trying to accomplish, and if adequate provision were made for kindergarten training; and then adequate recompense provided for the teacher's services. Too often it is the untrained, poorly qualified teachers who are placed in charge of little children, while the better trained teachers teach the examination classes. If the public could be brought to a realization of the importance of the little child becoming adjusted to life mentally, emotionally and socially, there would be a greater demand for kindergartens and kindergarten training schools, and an adequate supply of teachers. It is the duty and privilege of those especially interested in little children to educate the public in these matters. We can only do so by working together.

Froebel societies and Montessori associations have been organized in some countries. These names would seem to

indicate, that the members of these associations adhere to the principles, laid down by these particular educational leaders. The modern kindergarten agrees with the basic principles of these pioneers of the kindergarten movement but continues to adapt its program as study of the psychology of little children reveals further need. In this issue of the magazine *Christian Education* for 1931 there appears an article by Miss Edna Dean Baker on "The American Kindergarten's Contribution to an Abundant life for the Little Child". It gives a very comprehensive idea of what the modern kindergarten is and what it is attempting to do. Miss Baker is a recognized authority in work with little children. She is the author of a number of books and the President of the National College of Education, Evanston, Illinois, United States of America. She also serves on several committees of the International Kindergarten Union. In forming an association for India, it seems to the writer that a kindergarten union that might include all types of kindergartens whether Froebel, Montessori or Modern, would be of more value than one, that would seem to adhere to the principles laid down by any one leader.

It would probably be advantageous to affiliate with the International Kindergarten Union from the beginning of our organization. This Union which has recently changed its name to "Association for Childhood Education" has branches or members in France, England, Cuba, Canada, Mexico, Porto Rico, China, Japan, India and the U. S. A. Its headquarters is in Washington D. C., United States of America. Its activities include:—

1. The publication of monographs and bulletins which are the outcomes of the work of active committees and deal with practical problems and methods. Some of the recent publications are "Reading Readiness," "Equipment and Supplies," "Selected list of Poetry and Stories," "Vocabulary of Children before Entering the First Grade."

2. Convention Programs. These bring together for conference and inspiration class-room workers and educational leaders.

3. Publishes *Childhood Education* to meet needs and stimulate growth. *Childhood Education* is published in co-operation

with the National Council of Primary Education and the National Committee on Nursery Schools.

Shall we not organize, then, to unite our isolated pieces of work in India and to disseminate information concerning the objectives and activities of the kindergarten movement, and then affiliate with the larger group, the International Kindergarten Union, now Association for Childhood Education! Surely, this would be a fulfilling by India of Froebel's chief aim of education—the development of a feeling of kinship with the whole world.

THE AMERICAN KINDERGARTEN'S CONTRIBUTION TO AN ABUNDANT LIFE FOR THE LITTLE CHILD

MISS EDNA DEAN BAKER, M.A.,

President, National College of Education.

(Miss Edna Dean Baker, President of the National College of Education, Evanston, Ill., U. S. A., is no doubt known to many of the readers of "Christian Education." She is an outstanding leader in work for little children. This article by her will be of interest to all who are working with little children. Her books "The Kindergarten Method in the Church School," "The Worship of the Little Child" and the "Beginner's Book in Religion" would be valuable additions to the library of any teacher.—The Editors.)

The kindergarten helps the child to do better what he would do anyway. It meets the needs of the four and five year old child so that maximum growth is stimulated. It increases the power of the child to know, to think, to feel and to do until he lives the abundant or overflowing life.

How does the kindergarten do these things? First of all by staying close to the little child, by observing him carefully, by noting his ways of thinking and feeling and acting, by recording his interests, his abilities, his needs. Then with a clear picture of the child in mind the kindergarten provides a place in which he can live the abundant life, full of the interests that intrigue him, with materials and activities graded to his abilities, and with a supply for every need.

What does the child of kindergarten age, the four or five year old child, "do anyway"? Unless he is prevented by fear or by force, and even then he breaks out at intervals, this child spends every waking moment in some form of play. Someone has said that play is the serious business of childhood. Tagore in that beautiful poem "Plaything" comments, "Child, how happy you are sitting in the dust, playing with a broken twig all the morning," and again, "Child, I have forgotten the art of being absorbed in sticks and mud-pies," and still again, "With whatever you find you create your glad games." This play of the little child has no ulterior motive, it is its own excuse for being. Through it, although the child has no comprehension of the fact, he is gaining control of the senses, control of the muscles, power over things, adjustment to people, all the lessons that life can teach him at this level. No wonder that he plays from waking to sleeping with complete absorption and contentment!

As we watch the child of four or five at play and make a diary record of what he does from day to day, we find out the many things that he is interested in,—mud, sand, clay, water, fire, light in any form, soft and furry things, noises, moving things, toys, pictures, bright colours, animals, birds and insects, other children, people doing things, food, flowers, trees. These are a few of his outstanding interests. We find him singing and talking, running and skipping, throwing stones and picking flowers, patting and pounding and poking, building and drawing, dusting and tidying up the dolls, watching and wondering. These are some of the things that he "would do anyway."

Our study of the four and five year old has not only revealed interests but has led us to the discovery of needs, some of which are directly related to his interests. He is very active and is fascinated by all forms of physical movement. He needs such activity in abundance in order that he may grow normally both mentally and physically. He is very much interested in sensing his environment with the eyes, the ears, the finger tips, the nose and the mouth. Some one has said that all of his senses are hungry. These hungry senses must be fed with the right kind of material so that there will be a wealth of worthy imagery, and they must be brought under control if the child is not to become their slave.

Like the tender young plant the child needs light, particularly sunlight, clean air, a fairly even temperature, and proper nutrition. He needs the out-of-doors every day as well as a sunny room well ventilated, when he is indoors. His diet should include plenty of green vegetables, milk and cereals and restricted amounts of sweets and meats, and no rich pastries, fried foods or condiments. Because he is growing and because the digestive organs are very easily upset and the foundations laid for diseases which develop later in life, nutrition during these years is of vital importance.

Moreover, these are the years when the child is especially susceptible to colds, contagious diseases, such as, whooping cough, measles and scarlet fever, and when therefore we need to keep his resistance built up through a wholesome hygiene and a daily routine in connection with it. Children with colds and coughs should be immediately isolated because of the danger of the spread of contagion.

Little children of four and five are easily fatigued, physically and mentally, and this fact suggests the need for abundant rest, sleep and non-stimulating play. Too many demands for conformity, too large groups of children, too many visitors, shopping, travelling and entertainments are some of the stimuli responsible for unnecessary fatigue during these years.

Equally as fundamental in building physical and mental health as the appreciation of physical demands is the understanding of the intellectual, emotional, moral-social and spiritual requirements of the four and five year old. His curiosity, which leads to a multitude of questions as well as to much prying, poking and taking apart, that consistent attack on life which caused a little girl to say, "Now you know what a little curiosity I am" suggests the need of legitimate material for investigation, of desirable problems to solve, of a helpful guide in getting questions answered.

The lively imagination of this period, appropriately called "make-believe," calls for the most delicate handling if the divine fire of the poet and the artist is not to be quenched on the one hand, and the reliable citizen commended for accuracy, sincerity and honesty is to be born on the other. The credulity and trustfulness of children just venturing forth into the world

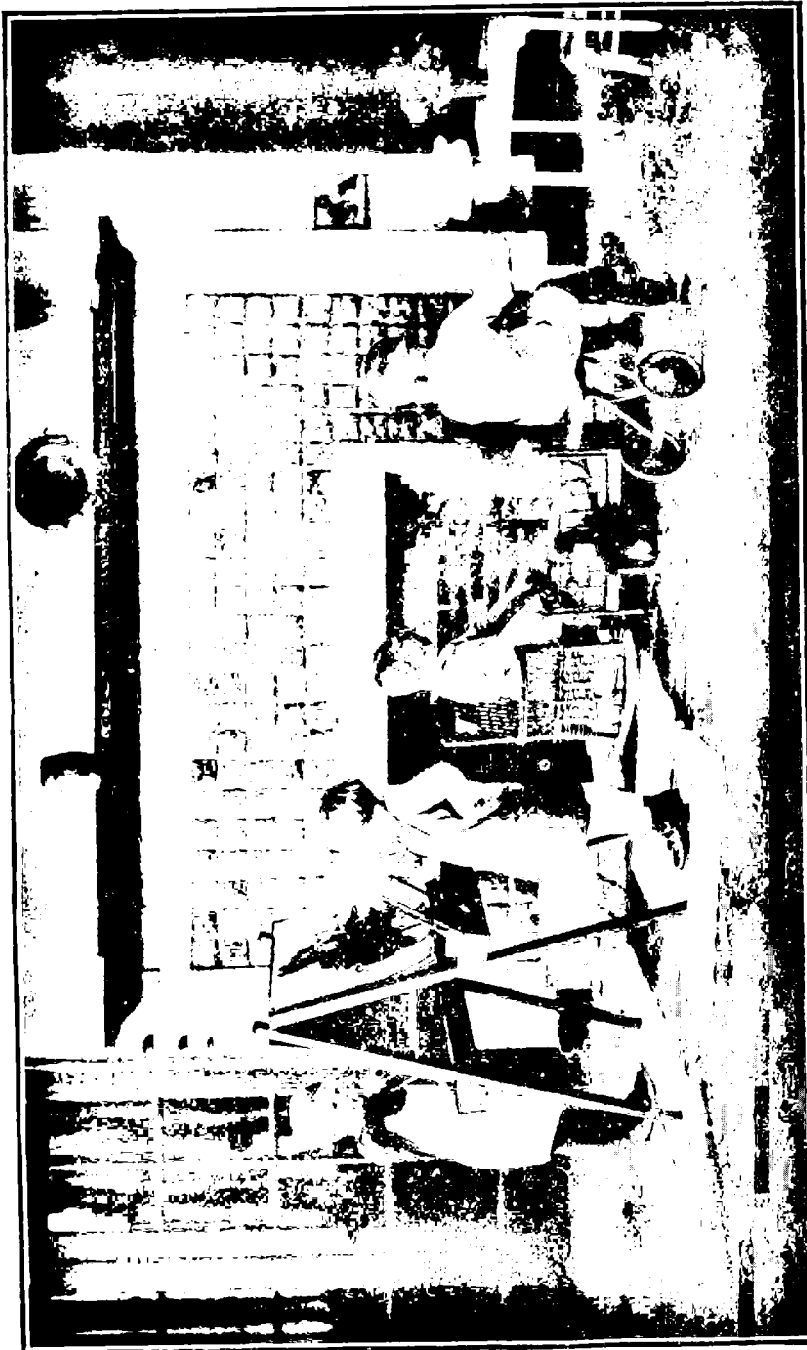
beyond the home are due in large measure to the limited knowledge and the lively imagination at this time, and suggest again their need of more mature comrades and friends who will help them to learn what is true and untrue, what is real and unreal, and who under no circumstances will purposefully or carelessly deceive them.

The playfulness of these children can have no complete expression unless there are the right kind of things to play with, things in which they are interested but which at the same time have maximum possibilities in aiding their all-round development. They need a place to play admitting of space enough for the big body co-ordinations to get under way through running, jumping, skipping, galloping, riding velocipedes, and hauling wagons. They need enough companions of their own age to provide a wholesome "give and take," and they need wise guidance in play which will bring out the timid repressed child, will stimulate the slow child, will teach the bright child patience, will help the aggressive child to become aware of the rights of others, and will facilitate co-operation, creativity and kindness in the whole group.

The little child of four or five is just beginning to develop purposefulness in his activity and to show pride in his achievement. He needs guidance in finding worthy purposes, in solving his own problems, in carrying them out, in examining his work critically, and using it to further his next undertaking. He is taking the first steps on the ladder of achievement which must be climbed round by round if he is some day to arrive at the pinnacle of satisfying adult attainment.

Adult activity holds great interest for children and they are very eager to have a part in it. They want to be helpful, and if this beginning helpfulness can find opportunity for expression and genuine appreciation, the contribution is apt to be continued and a definite habit of helping established in the home, the school, the community. Children need encouragement and jobs that are their size. Adult companionship and understanding are a big part of the reward.

The child is constantly learning through his association with other people. Not only "every man is his teacher," but every woman and child that comes into his environment. This



"They need a place to play."

teachableness, especially the unconscious moulding of the child by parent and teacher, has led to great emphasis on imitation and suggestibility. The child needs good patterns both from the standpoint of overt acts and from the aspect of the attitudes and feeling sets, the enthusiasms, the loves and the loyalties of the folks about him. He catches the good and the bad indiscriminately during his early years, while slowly the outer world becomes the inner world in which he will spend his days.

Easily stimulated as the four or five year old is, he can be made to experience fear, anger, jealousy with slight provocation and quite readily becomes the chronic temper tantrum case or develops an inferiority complex. He may already have acquired these difficulties as an infant or very young child. Fortunately, he is just as sensitive to the stimuli that inspire affection, happiness and contentment. These and the years under four are responsible for more or less permanent attitudes, likes and dislikes and ways of behaving induced by them. Children need a loving, serene, firm handling and guidance in self-control; they need a happy, cheery, friendly atmosphere in order that they may gain emotional stability and the foundation for character of Christ-like grace.

Among the positive or wholesome emotional expressions of the child is wonder which can be observed in the stillness that occasionally comes over him as he notes some new phenomena of nature, like the baby bird emerging from the shell or the mist rising,—the eyes at such a moment are apt to be wide open and the whole body expresses that mingling of surprise and awe which is so akin to reverence and so near to worship. The little child needs opportunity to wonder,—contact with the marvels of nature and invention, and time to absorb them. From wonder he may be led to reverence and faith.

Little children of four and five are manifesting a keen desire to protect, to nurture, to care for. They begin to show this feeling toward their dolls, their pets, babies and younger children and occasionally toward someone older. They need objects upon which they can safely lavish their attention and they need guidance in right ways of nurturing and caring for others. It has been aptly suggested that if you would make a little child careful you must give him something to care for; tender something to tend.

Not only has the study of the children of kindergarten age revealed certain universal needs, interests and capabilities, but it has also made very clear the fact that no two children are alike. Because of different heredity and environment there are outstanding differences in appearance and bodily structure, in mental characteristics and ability and in ways of acting. Race, sex and maturity are also affecting factors, and that intangible something which we call individuality is blamed for whatever difference may not be accounted for in other ways.

The American kindergarten begins with all the knowledge it can acquire from the studies of psychologists, physicians and psychiatrists on the pre-school child and especially the four and five year age levels. To this knowledge of children in general at these ages, it seeks to add an intimate, personal study of each individual child who is enrolling in a particular kindergarten. This information is secured through a personal conference with the mother before the child is enrolled or as soon after enrollment as possible, through an intelligence test given either by a psychologist or by the kindergartner and through a physical examination by a physician or trained nurse. This preliminary information is carefully kept on record forms and to it is added the record which the kindergartner keeps of the child through the year. If any aspect of his behaviour presents a serious problem, she takes a diary record or a stimulus response record of him for a part or the whole of a day, and repeats the record at intervals until the problem has been solved. The records are very objective and seek to cover only the overt acts of the child and in the case of the stimulus response record, the stimuli which ostensibly provoke them. The kindergartner visits in the home, observes the child in the community, at the church school, on the public playground, in the shops, on the street; and adds any additional facts that she gleans to her study.

The school equipment, environment, teaching materials, activities and techniques are then the result not only of what is known of the needs and interest of children of kindergarten age in general but of the specific needs and interests of the individual children in that particular kindergarten. In a kindergarten, for instance, in the heart of a great city, where the children come from many different nationalities and races and many of them from homes of extreme poverty, special attention is given to

making the room as homelike, as cheerful and as pretty as possible so as to supply the lack of such qualities in many of the homes of the children. Through the kindergarten room the children gain, too, an idea of the equipment of an American home in the doll furnishings, in the tables, chairs, dishes and even the bedding on the cots which are used at rest-time by the children themselves. Into such a kindergarten is introduced often the noon meal of nutritious, properly served food and the afternoon nap, a bath once or twice a week for every child, and habits of washing the hands and face, of proper elimination, drinking, eating and sleep,—all of which are especially needed by children from homes such as we have described.

Emphasis is placed upon careful training in the use of the English language through conversation in connection with the activities of living together and the development of habits, and through the use of simple songs, pictures, stories, rhymes and games. Because the children from the homes represented in this kindergarten often present very difficult behaviour problems, arrangements are made to have the most puzzling cases taken to a behaviour clinic, and the kindergarten teacher works upon techniques in handling these children which will carry out the suggestions of the clinic for treatment. These are a few of the ways in which such an individual kindergarten seeks to adapt its programme and procedure to the needs of the children represented in its membership.

Every kindergarten, however, is committed first of all to a programme and procedure which will utilize the common interests and meet the common needs of four and five year old children as we find them everywhere in America and in other countries. There is at least one room devoted to the use of these children, if possible two rooms, especially if both four and five year olds are accommodated. There is a cloak room and a good-sized toilet, providing low wash bowls, toilet seats, and in the poorer districts a bath tub. All of these rooms are well lighted, well ventilated and well heated and usually on the first floor of the building. The ceilings are white or ivory, the walls a deeper ivory, tan or soft green, and the floors of hard wood, linoleum on concrete, or tile of some soft dark colour to harmonize with the walls. These rooms are large enough so that there is plenty of space for the children to play freely and

"The habits of washing the hands and face."



to skip, run or gallop without cramping the movement. They are equipped with tables and chairs which have been carefully constructed to promote correct posture at these ages. They are also equipped with a piano, usually of small size, and with toys, picture books, large building blocks, paper, crayon, calcimine paint and easels, scissors, large brushes, clay, a sand table and sand toys, a work bench and a few tools. The toys may include bells, a drum, triangles and sticks, dolls and some doll furniture, bells, a wagon, trains, automobiles, a few animals, a set of play dishes, and perhaps laundry equipment.

In addition to the rooms indoors, there is some provision for out-of-door play space which usually has such apparatus as swings, a slide, a balance board, a jungle jim, a pile of logs, rings, or bars. On the play-ground there may be a few wagons, some barrels and barrel hoops, a few boards, some big packing boxes, a sand box, a garden and garden tools, and a pet house or houses. Both indoors and outdoors there is space and every encouragement for activity of the big body muscles, there is richness of objects of interest to children and there is beauty on a child's level, and a chance to test with all the senses.

In this environment the kindergarten seeks to develop health and physical fitness further by providing daily medical inspection for all children so as to isolate the child with a cold, cough or any contagion likely to spread to other children, by giving every child a physical examination and repeating such an examination later if it should seem desirable, by discussing any physical defects or needs with the parents and providing that they be met with the help of the family physician or the school doctor, by weighing and measuring height of all children regularly, by planning lunches for mal-nourished children and talking over diet with the parents of these children, by placing rest periods in both morning and afternoon schedules and providing rugs or cots for this purpose. Hygienic habits are carefully taught, such as washing the hands before eating and after going to the toilet, using the handkerchief properly, brushing the teeth, using the individual cup of drinking fountain and the like.

The right conditions are provided also for mental health in a happy atmosphere, a firm but gentle and loving control

based on laws understood and accepted by all, and a sympathetic appreciation of each child. The American kindergarten is seeking to limit the number of children in one kindergarten to about thirty so as to avoid the over-stimulation of the larger groups. It is attempting to give plenty of opportunity for individual initiative and creativity within a well-balanced programme of activities that will regulate the child's day without requiring too much conformity to social demands or permitting freedom on the other hand to degenerate into individual caprice or boredom.

The intellectual interests, capacities and needs are as adequately considered as the physical demands. The child is encouraged to ask questions, is indeed provoked into asking them by the method which the kindergartner uses in stimulating him to think for himself. The materials are carefully arranged in certain centres about the room or on the play-ground so that the child is intrigued to find a centre where he can become active, perhaps where the blocks are or the sand table stands or the easels and big paper invite. Having chosen his centre or having been helped to find something to do if he is idle, he begins to play. If presently he does not find a purpose which leads him on to worthwhile achievement, the kindergarten teacher again assists him by suggesting a project on which he can work or by letting him choose between two or three projects. As soon as he begins to work alone or with other children, he begins to meet problems and he begins to ask questions of himself, of the other children, of the teacher. The teacher always tries to see that every question is answered by guiding him, if possible, to find the answer for himself and if that is not possible by giving him the answer. On excursions, in conversation, in stories, other questions are precipitated, many occasions arise when conduct problems or whole group projects demand questioning and thinking through to a solution as a group.

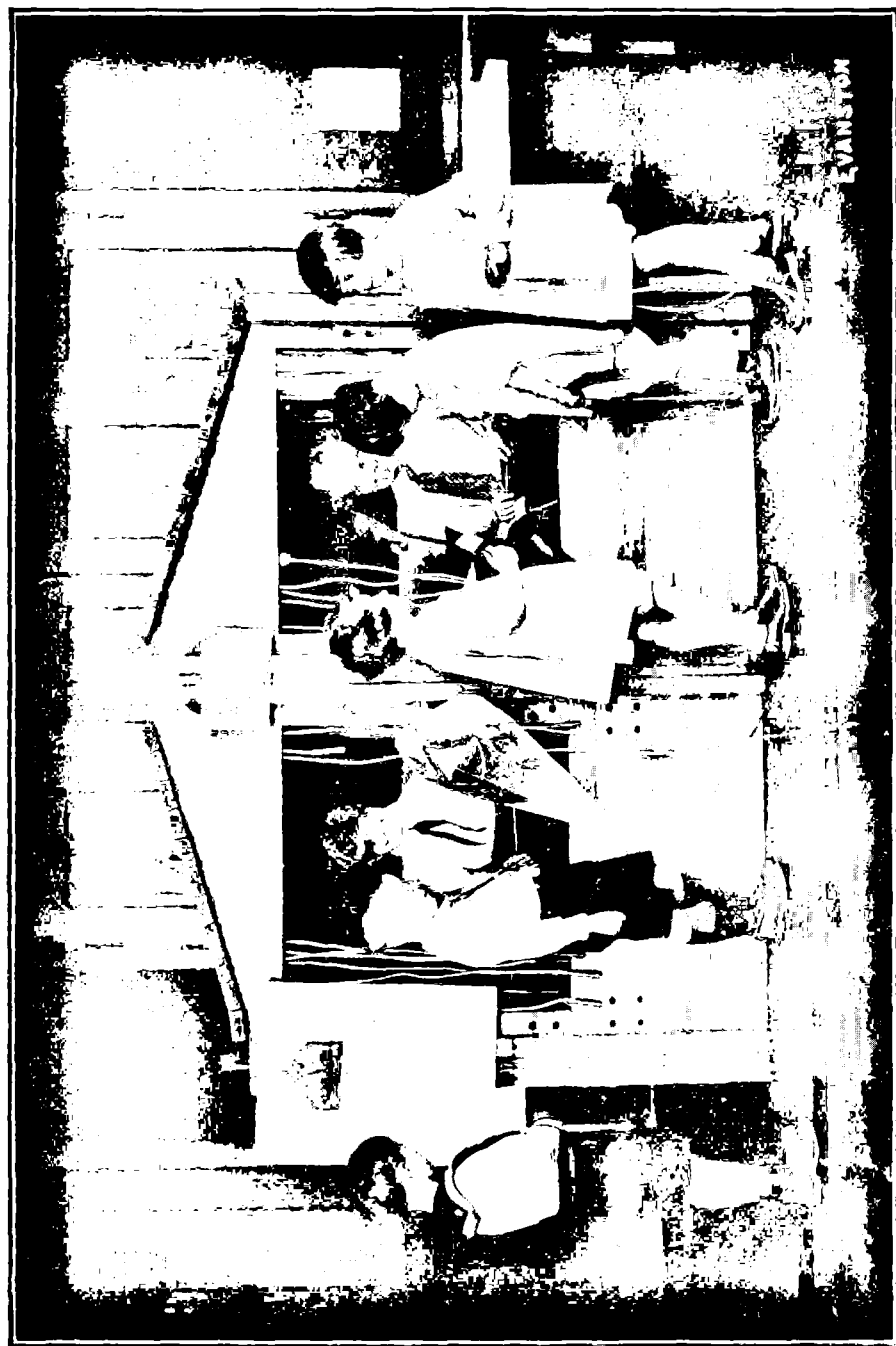
The lively imagination of these years is given wholesome outlet in constructive activity where the children build houses, boats, trains, aeroplanes and other things with the big blocks or the packing boxes or wood, hammer and saw, and then proceed to equip with home-made furniture, dishes and the like and with their toys. As they construct and when they complete

So far, I have said nothing about the help we get from education; but, of course, you will see where that comes in. Education trains us in concentration and orderly thinking and balanced judgment; and saves us from being what we call "scatter-brained". But, more important than that, it directs our attention to the things that are really interesting, really worthwhile as objects of our thoughts. It is not so important how many facts you can cram into your minds while at College; as what kind of interests and enthusiasms you take with you when you leave. If you leave this place with one or two good, honest enthusiasms for science, for literature, for things found in books or things outside of books, you need have no fear for your mental state. Thoughts will follow in the path of your interests, and will be sound and wholesome. If you have learnt to appreciate good literature or art or science, you will have no use for bad or inferior stuff. If you have learned in the playing fields to find a joy in real sportsmanship, you will carry that sense into all the affairs of life. Students are fortunate in having opportunities of forming such tastes and interests. If you leave College without them, no matter what examinations you have crammed for and passed, your education has been in vain.

Nobility of mind is the one thing in the world that is worth striving after; and nobility of mind is a thing that can be fostered and built up. With it is bound up our happiness and the only kind of success that really counts. But more than that, in the keeping of our mind, is that second great possession, our moral being, our character.

One day you will pass out of College to live your life in the busy world; and the world as you know is full of temptations. Some people will tell you it is a veritable land of dragons waiting to devour you. But if you have fed your mind on the right kind of food most of these dragons of temptation will seem to you very stupid, ugly and repulsive creatures. You would as soon think of putting yourself into their power as of walking down the throat of a real dragon. And, if serious temptation comes to you, as, of course, it will—for temptation has a thousand forms—you will not meet it unarmed. For temptation, too, is a matter of attention, and it yields, not to the frontal, but to the flank attack. When a man is tempted two different

worlds are striving concerning him. Striving for what? Striving to win his *attention*. On the one hand is the world of evil (disguised, perhaps, in very attractive dress); on the other hand is the world of good which bids him refrain from evil, the world in which lie his own self-respect and the good opinion of others. The fateful question is which of these two worlds will so win his attention as to gain possession of his thoughts and so ultimately of his will. The answer depends almost wholly not on the present but on the past. It depends on the amount of attention he has given in the past to the one side or the other, to good things or to evil. "Whatsoever things are true, whatsoever things are pure" . . . think on these things; make them your mental companions. They will protect you. They will rally to you and rescue you in many a hard fight. They will remain interests, satisfying and abiding, and full of the zest of life.



"They live in their constructions, dramatizing the life about them."

they live in their constructions, dramatizing the life about them. Now they are riding in an aeroplane, landing in the airport or delivering mail in a great city, or perchance they are aboard an ocean liner sleeping in the cabins and dining in the saloon. The stories which are told or read to them suggest other enterprises for constructive, plastic or graphic art, or stimulate them into telling stories of their own. Poetry, music, including song, pictures, conversation furnish stimuli to action and are in turn forms in which the child expresses his own creative imagination.

Through utilizing the interests of the child in purposeful play the span of attention which is comparatively short in the beginning is gradually lengthened until the child is attending to stories which require ten minutes in the telling and gives himself with complete absorption to handwork or dramatization for a period lasting over half an hour. He also learns to take turns in speaking and to listen quietly to the teacher or to another child who is giving a direction or contributing a bit of information. Although he has not reached the point in mental development where either rote or logical memory is reliable, he is learning to make associations more easily and he does recall spontaneously many short songs, rhymes and stories, as well as incidents in connection with excursions and with his daily play life.

The kindergarten works indirectly for ease and fluency of expression, giving each individual child many opportunities every day to express himself in conversation, song or story. The teacher gradually introduces new words as they will have a meaningful content; she gives the correct word tactfully when he by chance uses an incorrect word, as, for instance, when Bobby called the children to see that the bulbs had begun to "splute." She sets a good example in the matter of using correct grammatical form herself, always adhering to simple construction and comparatively short sentences. The child who stutters, stammers, lisps or has any other speech difficulty is given special help and, if possible, the advantage of the diagnosis of a speech clinic.

Through all the activities of the kindergarten the children are acquiring information concerning the world about them, especially through excursions, directed observation, investigation

and experimentation, and through stories and conversation. They learn to know the signs of the changes in season; the common fruits, flowers, vegetables, birds and animals of their immediate environment; certain natural processes such as the changing of moisture to snow or to steam, the hatching of the bird from the egg, the birth of all young; the elements of nature. They become acquainted with the members of the family, their relationship and function in the home; with the trades people, the labourers, the officers and protectors of the community; with stores and shops, post-office and library, fire-engine house and public park. The information will vary according to the community in which the kindergarten is located and the previous experiences of the children: but certain fundamental relationships and ideas that promote "tolerant understanding" on the level of the four and five year old are the common acquisition of children trained in the American kindergarten.

It is perhaps on the emotional and social side that the work of the kindergarten is most effective. Here little children live in a group of twenty to thirty or thirty-five of their peers. The group is usually a mixed one, representing more than one nationality or race and considerable variation in the economic status of the families from which the children come. Under the wise guidance of the kindergarten teacher they learn to "give and take" in a truly democratic way, sharing toys and play materials, assuming responsibility for their own work and the tools they use and for the general care of the room and playground. They take turns in looking after the pets, arranging the flowers or watering the plants, frequently each one helps in the garden. They also take turns in serving at table, in washing dishes, in dusting or sweeping up waste. There are abundant opportunities to help the teacher, other children, the plants, the pets; to nurture and protect, and to love and wonder.

In such an environment, with such an atmosphere and programme as the kindergarten provides, the timid, fearful child forgets his fears, gains in confidence, in power and in happiness; the aggressive child learns to adjust to the group while developing in a wholesome way any ability for leadership that he possesses; the child who is nervous, who is very slow or very superior is given special consideration and the modification of

method best fitted to meet his need. All children learn property rights and are helped gradually to discriminate between the real and unreal, or between fact and fancy.

There is, of course, a schedule in which the activities of the day are arranged with a view to alternating rest and active play, rhythm, story, conversation, dramatization, excursion, lunch and bath; but while this schedule has certain fixed hours for beginning and ending, for eating, resting and toilet, there is plenty of opportunity for variation in the arrangement of other activities both as to time and length of the periods and as to combination of activities. It is the ideal of the teachers that this large group of children may live together comfortably, happily, easily, learning spontaneously, growing apace in knowledge, grace and joyous self-expression. This we believe to be the abundant or overflowing life for the kindergarten child.

Our Forum

STUDENT GOVERNMENT IN HOSTELS

BY A HOSTEL WARDEN

THE great John Knox called the attention of his fellow-Scotch, as he rowed away in a boat, to the "University at every home"; and St. Paul refers to "the Church at thy house". These statements lead us to the belief that home is the first place of Christian culture and education. But, very unfortunately, all homes do not measure up to this two-fold ideal. Moreover, a number of natural causes bring boys and girls away from homes into hostels attached to large educational institutions. But in spite of these facts, be it remembered that hostels are only substitutes for homes: and can never replace them. We may, by constant efforts and good-will, make them as home-like as possible; and a Warden should never forget this primary obligation to the parents, who, in all faith, send children to his or her care.

All those connected with hostels know how boys and girls from various homes and different environments and social standing, grouped together in a hostel, create a variety of problems, and how often efficiency, morale and discipline are seriously interfered with on account of certain disturbing elements and nasty traditions. We ourselves are connected with a hostel and write with first-hand experience of the problems which every warden has to face.

We took charge of affairs as they were left by our predecessors. Our first problem was to get close enough to the boys so as to deserve their confidence. There seemed to be a gulf of suspicion dividing the administration and the student body. However, we continued to have faith in our boys and devised plans whereby representative students could share with us the responsibility of administration. It was with a genuine desire to train them to assume power and responsibility, that we instituted a Student Council. Each class was eligible to secure one seat on the Council, but the whole hostel group shared the privilege of nominating and electing. This was done in order to do away with narrow, class distinctions. The Student Council thus constituted was not purely advisory; it had legislative and judicial powers, too.

The initiation ceremony was made as effective as possible soon after elections.

Our first mistake was that we had votes by show of hands and not by ballot. The most popular and not the most capable students got nominated and elected. It was evidently thought, that if one could kick hard in the field or sing well at a function, he could think hard and administer well. It was rather unfortunate, or perhaps fortunate, that of the first few offences two were committed by two Councillors, and as part of the disciplinary action taken by the Council, they were asked to resign their seats on the Council. This had the desired effect of making the voters think before voting. Besides, it was pointed out to them by a student leader, that they should not elect any one who was likely to degrade himself in public estimate by any act or breach of discipline. As is always necessary, where the ultimate obligation for the maintenance of order lies on an individual, we reserved to ourselves the right to veto any proposal brought forward and passed in the Council Meetings. But we made it clear, that we would use our power only when we felt that a proposal was not in entire agreement with hostel discipline, administration and Christian culture for which the hostel existed. We ourselves did not wish to use this privilege, partly because we hoped that the Councillors would be sensible enough not to give us a chance to use it and partly because we wished to show our sincerity and good-will in the experiment we were trying. However, we had to resort to postponing the framing of rules on certain issues. We would just mention three of these. The Council wanted to have the hostel servants obey its authority, which meant, as we had learnt by experience, everybody's authority, and this, in its turn, more than occasional ill-treatment of servants. Secondly, it wished to frame a rule permitting students to go to Cinemas in second show. Thirdly, an effort was made by the Council to seek for entire freedom on matters relating to attending Church services. Now, we knew that the Council's reactions were the results of old, suppressive methods employed in hostel administration and did not really express their normal thoughts. We had to postpone several meetings, as we felt that the Council did not have the right point of view, and a little more educative work was necessary. Our hopes were not deceived, for the rules

framed by the Council, after several delays, were quite satisfactory.

As we look back upon the experiment we tried in student self-government, we realize that we made several mistakes. The initial one was that we started with too much zeal. In matters relating to devolution of authority one must observe the principle of hastening slowly. The result of this incautious haste was a misreading of the situation by the boys. They thought we had virtually resigned all authority. Our anxiety to make the experiment succeed was taken for weakness; and it took a great deal of tact, patience and firmness to show that the Warden was yet a Warden and a guardian working for the best interests of parents and students alike.

The running of the mess was a perpetual source of misunderstanding and trouble, and we made it an item in the self-government project. We had a Mess Committee elected and after some coaching, turned over to it the management of the mess affairs. We even allowed students to purchase, beside food materials, such crockery and kitchen utensils as were needed from time to time. They have shown a very commendable zeal and sense of responsibility in looking after the interests of the students. They seem to get real joy out of this work and the mess runs smoothly. There is generally more respect shown for mess property, while the wastage of food, which was so common before, has almost entirely ceased now. Consequently, there is a saving on expenditure, which in its turn helps to provide better food. And the students are proud of the fact that they can handle so great a responsibility with ease and honesty.

Lately, we had several examples to show how self-government can make the students feel the weight of responsibility. The student representatives waited on the Warden and complained that the discipline in the dining hall was not what might reasonably be expected of grown-up boys. The noise and misbehaviour on the part of some at meal times did not reflect any great credit on the manners or character of a group of Christian lads. The complaint was all the more sharp as several Hindus and Mohammedans mess with our boys. They, then, requested the Warden and his wife to kindly come and dine with them at least twice a week and teach them Table manners. They, also,

began regularly inviting several of their teachers to have dinner with them on Wednesday and Saturday nights. The Warden appointed table heads after consultation with the student leaders; and the meal hours very soon became as pleasant as could be desired. Noise changed to music. On Saturday nights each table now provides an item of general entertainment, such as a song, a dialogue, a story, a pantomime.

The student leaders also suggested that the liberty of junior boys be curtailed a little and they be required to study together in a separate hall under the supervision of a teacher. Obviously, they thought that the junior students must feel that as they grew in age, they could be entrusted with greater freedom and responsibility. The stand was quite sound and their suggestion soon took effect. The greatest proof of the student leaders' sincerity was shown when they impeached one of their own comrades of over-chumminess with a lad much younger than himself. They considered such intimacy undesirable, as it reduced the helpfulness of the older boys by extreme familiarity.

It might be asked of us, what has been the net result of this experiment in student self-government? We find that our boys are more law-abiding now than they were before. Since they enjoy all the freedom they desire, they use it with care and discretion, lest they should forfeit it. Time was, when they did everything to throw off all impositions of rules and regulations. Now, that they themselves have formed the rules they are more willing to abide by them, and consequently there are better and happier relations between the boys and the administration. And most of all, we feel we have tried to create as much of a home atmosphere as possible. And we have the confidence that our boys are growing every way and are developing a character that will stand the wrench of changed environment when they leave us. We hope that, as home memories save one from much that is mean and unworthy, in the same way in hours of life's temptations the memories of a free and happy hostel life will exercise a soothing influence. And as our boys are learning to impose control and discipline on themselves now, they will continue to lead a disciplined life when they strike out into life.

A HOSTEL WARDEN.

Notes and Comments

The Editorial management of *Christian Education* regrets the fact, that the publication of the First Quarter's issue was so greatly delayed; and that it had to finally appear in an incomplete form. We tender our sincere apologies to our subscribers and to those of our contributors, whose articles have been held over till this issue. We trust, that with a change in our publishing arrangements, there will be no recurrence of this experience.

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The Central Conference of the Methodist Episcopal Church, held at Cawnpore during the closing days of 1930 and the first week of 1931, proved to be an epoch-making one. It was notable for the election of the first Indian Bishop of the Church. Dr. J. R. Chitambar, D. D., Principal, Lucknow Christian College, was elected to this important office. The Conference also sounded a clear note as to its position in respect to Church Union and appointed representatives to represent the Church in all further conversations and negotiations looking towards that end. A further step, looking to the Indianisation of the Church was taken in the decision that one of the Educational Secretaries should be an Indian, as soon as provision can be made for his appointment; probably, if finances permit, in 1932.

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The Rev. T. C. Badley, who for the past seven years has been one of the Educational Secretaries, relinquishes this office. Mr. Badley has rendered invaluable service in the territory he has served, by the codifying of policies and their co-ordination wherever necessitated and advisable; by his assiduous attention to the cultural and Christian character advancement of our students both in the central and village schools; as well as in Institutes for the improvement of teachers in service. *Christian Education* owes its inception to his idea and first came before the public as *Methodist Education*. Mr. Badley will take with him into his new responsibilities, as District Superintendent, Delhi District, North-West India Conference, the esteem and best wishes of his colleagues and friends for still larger usefulness in the work of helping win India for Jesus Christ. We trust that he will still continue to contribute to this magazine out of the large store of his experience as a scholar and administrator.

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In future, there will be a unified Council, to be known as the Council of Christian Education, consisting of the Chairman, Bishop J. W. Robinson, D.D. and seven members elected by the Central Conference. In this Council, the elected Secretaries will be *ex-officio* members; and the Chairmen of the Annual Conference Boards of Christian Education will be corresponding members.

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In several of the Annual Conferences, the Boards of General and Religious Education have, already, been amalgamated. We believe, that with due precautions, such as the appointment of a Secretary for Religious and General Education, respectively, both aspects of our educational task will receive adequate attention; and, that by uniting, under the Board of Christian Education, a great deal of time will be saved.

THE POONA GEOGRAPHICAL CONFERENCE

As previously announced, a Conference of Geography Teachers in the Bombay Presidency was held at the Training College for Men, Poona, on the 12th and 13th of January, 1931. The Conference was attended by a large number of delegates from all quarters of the Presidency. Principal among the mofussil delegates were:—Mr. R. P. Pandya of Baroda, Mr. N. P. Pandya of Mehsana (North Gujarat), Messrs. N. B. Kapadia and J. M. Mehta of Baroda, Mr. K. B. Ghate of Dhulia, Mr. S. V. Diwan of Sangli, S. J. R. Ramdas of Bombay, Mr. K. K. Rahalkar of Alibag, Messrs. S. R. Nargolkar and K. G. Joglekar of Thana, Mr. K. B. Babar of Satara, Mr. D. S. Kulkarni of Amalner, Mr. G. S. Amonkar of Goa, Mr. A. G. Paranjape of Sangli, Mr. D. D. Paranjape of Kelashi, Mr. D. S. Sapre of Marmad, Miss E. D. Kenyon of Ahmednagar. Among the institutions represented were the following:—Z. B. M. Mission, Manmad; School Board, Nasik Municipality; A. V. Girls' School, Ahmednagar; N. E. School, Ramdurg; Sevasadan Training College for Women, Bombay; M. H. High School, Thana; V. T. High School, Pandharpur; C. H. High School, Belgaum; City High School, Sangli; Miraj High School; S. S. High School, Aundh; C. L. B. High School, Dadar, Bombay; Hindu High School, Panchgani; not to mention the various local educational institutions who also sent their representatives.

The Conference opened its sessions at 8.30 a.m. on Monday, the 12th of January, 1931. Mr. K. S. Vakil, M.Ed., F.R.G.S., I.E.S., Educational Inspector, Southern Division, was voted to the chair. In addressing the meeting, Mr. Vakil congratulated Principal Tawde and his co-workers on the very notable and welcome step they took, in singling out Geography from amongst the school subjects for discussion at the Conference. Recalling his own school days, the President remarked that Geography was the most hateful of all school subjects, and emphasised the point that though, of recent years, the subject has received some attention at the hands of enthusiastic teachers, yet it deserves far greater attention than has hitherto been bestowed on it. The science must be studied, not as a list of names, but as the story of the earth as the dwelling place of man. To give the subject a higher footing Mr. Vakil exhorted teachers not to depend too much on text-books. He deplored the fact that teachers, instead of maintaining their position as masters of text-books, became their slaves. Referring to methods of inspection of Geographical lessons, he deplored the fact that these were not as intelligent and suggestive as they ought to be. Mr. Vakil then proceeded to show how Geography can be taught from a human stand-point, from the earliest

standard to the highest. Geography, he said, may be used as the means of explaining how the present social, economic and political condition of different peoples and countries of the world has been largely determined by their natural environment. Finally, he remarked that there is not one method of teaching Geography, but many; and that each teacher is free to devise his own. Geography, thus taught, would be learnt without tears, and would have a most humanising influence on young learners, would knock down barriers that divide the different peoples of the world, and unite them into one universal brotherhood.

Mr. Vakil then proceeded to open the Geographical Exhibition in which the work of the Training College for Men, Poona; Training College for Women, Dharwar Training College for Women, Poona; Training College for Men, Dhulia; Training College for Women, Hingne; and the individual work of S. J. R. Ramdas featured prominently. The work of A. V. Girls' School, Thana; Mr. V. H. Damle, Ichalkaranji; Mr. A. K. Raje-Deshmukh, Salabatpur; Mr. R. B. Challare, Rajur; Mr. Ganaji of Shahapur-Belgaum; Mr. Aphale, Miri; The Government High School, Satara; the State High School, Sangli; Mr. D. B. Penkar, Practising School, Training College for Men, Poona; was also much appreciated. The picturesquely fitted stall of the Basel Mission Press and Book Depot, Mangalore, attracted quite a crowd of people. The variety of excellent publications in Longmans' stall drew a lot of people interested in the education of the young—as did the stall of the Chitrasahala Press, on account of its publications in Marathi. People of a scholarly bent of mind minutely looked through the publications of the Oxford University Press, and their attention was rivetted on the Pictorial Map of India which, on account of its artistic printing and graphic method, was thought to deserve a place in every Geography Room. The stall of George Newnes was remarkable for its decorations, and on account of its priceless productions. The publications of L. R. Godbole, A. P. Bapat, V. K. Samak and the Terrestrial Globes of A. G. Gadre were appreciated in no small measure. And last, but not least, was the Pictorial World Tour Exhibition of Mr. Vakil himself, which was a treat for the young and the old alike.

The afternoon session opened with a Demonstration Lesson to boys of the 6th standard by Mr. B. G. Nene on the importance and growth of the city of Winnipeg in the Prairie land of Manitoba. This was followed by another lesson by Mr. D. B. Penkar, to boys of 1st standard. It was a story-lesson about the boys and girls of China.

After these two lessons were over, Mr. R. V. Parulekar, M.A., M.Sc., Secretary, Schools Committee, Bombay, gave an interesting lecture on "Some Suggestions on Geography Teaching". Mr. Parulekar strongly supported the syllabus outlined by the Geography Teachers of Poona and circulated, in the morning, among the delegates of the Conference and gave valuable hints as to how to make a lesson in Geography interesting and instructive.

After an interval of half an hour, the audience had the pleasure of listening to and seeing the Magic Lantern lecture by Mr. V. S. Toro, Deputy

Educational Inspector for Visual Instruction, on "the Place of India in the World's Commerce." Here the proceedings of the Conference terminated for the day.

The morning session of the second day of the Conference opened, in the cool hours of the day, with a Demonstration Lesson—the third of the series—by Mr. P. K. Atre, on Lumbering in Canada. This was followed by another—the fourth and last of the series—by Mr. B. D. Deodhar, on "the Growth of the City of Bombay during the last two centuries".

Then came the most exhilarating programme of the Conference, when the outline syllabus in Geography was placed for discussion before the Conference. Mr. M. G. Modak, Administrative Officer, School Board, Ahmednagar, remarked that Geography, as laid down in the proposed syllabus was divested of all its scientific aspect, and that the subject was thus made too easy. Mr. D. D. Paranjape, Kelshi, regretted that no provision seemed to have been made for Astronomical Geography in the primary school. Primary teachers did not seem to relish the new syllabus, and expressed fear that it was not one which would be practicable in village schools. This view was also supported by Messrs. R. S. Dixit and K. S. Dixit, Administrative Officers of the District School Boards, Poona and Nasik, respectively, who remarked that, whatever the merits of the Syllabus, it would be a hardship to tax the village school-master with an ambitious syllabus. S. J. R. Ramdas, of Bombay, remarked that the High School Course was too sketchy. Finally, Principal Tawde, and Messrs. Nene and Atre, in turn, explained how the proposed syllabus took the interest of the child at heart, avoided overlapping, and gave a wide outlook of the world to the little learners, and aimed at making a school boy imbibe the spirit of a citizen of the world by the time he matriculated.

The outcome of this animated discussion was the passing of the following Resolutions at the close of the Conference:—

- (1) That since the present syllabus in Geography in both primary and secondary schools is inadequate, the Conference appoints a committee to consider the outlined syllabus in Geography placed before it for discussion, and to frame definite proposals for the revision of the present Geography courses.
- (2) That the attention of the University of Bombay be drawn to the extreme urgency of including Geography as one of the optional subjects in the syllabuses for Intermediate and Degree Examinations.

Prof. M. R. Paranjape, Prof. Hudlikar and Prof. Potdar in supporting the resolutions made eloquent speeches.

After the passing of these resolutions, the work of the Conference practically terminated.

The closing programme of the Conference was not only entertaining, but highly instructive. Mr. V. S. Toro spoke on the advantages of instruction by the Cinema, and screened films to show the action of the heart, lungs, ear, etc., and displayed some more films to illustrate Physical Geography. The crowning feature of the Conference was when the representative of Kodak Co., Ltd., of Bombay, released the following films which were viewed by the audience with rapt attention:—

- (1) Electric Power in the South Appalachians.
- (2) Safety on the Sea.
- (3) The Road to the Pyramid.

Thus, came to a close a Conference, which was unique as being the first of its kind in the Presidency; and as being one which stimulated a healthy spirit of thought among Geography teachers.

Light on Books

Abingdon Press, 150 Fifth Avenue,
New York City, U.S.A.

Character Education by Church and State,—Professor Harold S. Tuttle, \$1.50

One would do well to undertake the reading of this book, realizing that its primary concern is with the situation that obtains at present in the United States of America, concerning the religious training of children in church and school. To avoid sectarian instruction in schools, where attendance is largely compulsory, legal enactments have prohibited all religious instruction beyond the reading of Bible portions, without comment, in the school. In some States even this is illegal. Thus was created a situation, where the church was looked upon as the proper place for religion and the school for education. "But ethical conduct cannot be assured apart from religion." There has been, in recent years, a definite movement in the United States toward larger emphasis on the place of character development in the youth of the land, and the school's responsibility to share in this development.

While the trend toward religious training has grown in the school, the church has turned toward education. There has been a definite movement toward better educational aims and methods. This is evidenced by graded Sunday Schools, teacher training, improved curricula and other things borrowed from the schools. While the schools have been saying that education needs more religion, the church has been saying that religion needs more education. Both are right.

Professor Tuttle undertakes to give a survey of the recent movements in school and church looking towards larger co-operation in character education. His work for some years as a minister of religious education and later as a professor of education has given him opportunities to observe the trends of character education in the schools and religious education in the churches. He finds the school aware of its limitations and calling to the church for co-operation and especially to provide the motivation for right conduct that only religion can provide. It is the church's duty to stimulate this co-operation and to discover ways of more effectively bringing religious education to the aid of the school in building character that will stand the test of our present complex social order. We may follow in outline form the author's discussion of this thesis.

1. The reports of the National Educational Association, the creation of a Character Education Institute with headquarters in Washington, special courses in Teachers' Colleges, all reveal an attention given to character education unknown in the past. Definite courses for character training have been prepared as an integral part of the school work. Nor is this all; the

regular school subjects, methods of discipline and extra curricular activities are all being re-organized to be used for the development of moral character. Illustrative of this changed attitude is, "the shift of discipline from authoritative use as a means of suppression to democratic use as a means of cultivating self-control," and the statement that one school has discontinued giving marks on subjects, but gives them on the basis of the character attainment of the learner.

2. The best that the school alone can do in character education will be insufficient for three reasons: (1) Building good habits may not insure proper reaction in all situations, especially in crises. (2) Life is not made right simply by knowledge, and character education is largely based on instruction. (3) Instruction in morals and forming habits may be done without evaluating the morals or the habits. Current morality is not enough.

3. The insufficiency of the school is paralleled by the fact that religion can supply the need. To the morality that results from the character education in the school must be added beliefs that satisfy, ideals that motivate conduct and an adequate attitude toward life. The church should welcome the help given by the school in establishing right habits and judgments and not duplicate. But no agency other than religious can set up ideals that motivate and integrate character. None can arouse that sense of awareness of God that gives a serene and reverent attitude toward all life. Man is reasonable, "it is important therefore that the wisest guidance be given the child as he inquires into the meaning of his expanding value-experiences." Man will believe, therefore he should be helped to beliefs that satisfy. Satisfactory moral character cannot be achieved without the motivating, evaluating and unifying force that only religion can give. The school's recognition of this fact is the church's opportunity.

4. The means of co-operation between church and school are described as the largest possible use of such religious teaching in the school permitted by law, granting of school credit for outside religious education than meets a literary standard set by the school, and the release of children in school time for religious education carried on by the churches.

The book closes with a chapter on Effective Co-operation, wherein the author suggests that the basis for such co-operation is found in a frank recognition on the part of the church and school of the oneness of personality; a recognition, on the part of the school, of the need or more than knowledge and skill; and a recognition on the part of the church that the school has a share in the responsibility for character training and its help should be encouraged. Recognizing these things may not the church and school, which with the home, most influence growing persons, co-operate in providing a training that will make them reverent and joyous and hopeful and patient, that will reveal life in its true perspective and that will hold them, in spite of every allurements, loyal to the ideals that their hearts hold worthiest?

Though the book is frankly a survey of the progress of American character training of recent years, yet there is much of profit to those interested in

effective character training in India, or elsewhere. The highest points in the book are the discussions of the unique contribution of religion and the bases of effective co-operation. These two chapters are worth the price of the book plus.

LESLIE G. TEMPLIN.

The Nursery Child in the Church School,—Anna Freelove Betts

Psychologists tell us that the little child at first is neither moral nor immoral but unmoral. Every care should be given to see that he develops physically, mentally, morally and spiritually, especially during the first few years of his life, for we have learned that as human beings we learn more during the first five years of life than any other five consecutive years. Realizing this, parents and teachers are directly responsible for nurturing and caring for the little ones during these early years. Mrs. Betts, because of her experience with little children in the Nursery classes has been able to give us in her book, "The Nursery Child in the Church School" workable suggestions and plans for us to use in our programme building. Suggestions are given for the contacts the church should have with the child from birth through the Nursery Department of the Church School.

The book contains valuable suggestions for organization, equipment and activities, as well as thirty-five planned programmes. These programmes are grouped under themes that are of real interest to the little child such as, "Kindness and Helpfulness," "Ownership and Care of Pets," "The Friendly Word," "The Coming of the Christ-Child," "The Babyhood of Jesus," and "Jesus' love of Little Children." It also contains an excellent collection of children's pictures, songs and rhythms which have been suggested in the programmes.

Mrs. Betts' suggestions arouse interest and creates enthusiasm within us as Christian workers, to carry out some of her plans. She says that, "Certainly not the least of the influences back of the Nursery School Education is the increasing interest being taken by the parents themselves in the training of the very little child." The Christian worker should aim to bring parents and teachers together and help them feel that by co-operating they can become better co-workers with God. They Week-day Nursery Schools of America are demanding well-trained teachers for this great task. Mrs. Betts tells us, that the Church schools ought to demand the same. This book will be of value to the teachers and those training teachers, who will have charge of this work, whether in India or America.

E. I. BRADLEY.

Primary Method in the Church School,—Alberta Munkres

What methods are your teachers using to help the child between the ages of six and eight to have a "Child's Religious Life"? Miss Munkres, who has a sympathetic understanding of the child and a mastery of the principles

of teaching, has presented in this book the materials and methods for this age.

Much emphasis is laid upon the method of telling Bible stories and detailed and careful instruction is given as to the structure of the story, the method of presentation with illustrations of the principles laid down. To this is added a topical list of extra-Biblical stories for Religious Educational use.

A second section which makes the book valuable for the Primary teacher is the attention given to handwork and conduct responses growing out of this work. The methods for the use of drawing, folding, cutting, and construction work are given in detail and the section on the work of the sand table is very explicit with illustrations of projects done on different stories.

The unusual value of the book for work in our Indian schools is the elemental organization and the simple and the clear language used, which makes it one of the few available books for use among Primary teachers, who have only a limited command of English.

HELEN E. FEHR.

Oxworth Book Service, Landour, Mussoorie, U. P.

The Portfolio of Indian Art, with suggestions for Teachers.—Miss Mary F. Carpenter, M.A., M.Re., Educational Secretary, Methodist Episcopal Church, India and Burma. Oxworth Book Service, Landour, Mussoorie, U. P. Rs. 2/4 V. P. P. plus packing and postage.

This portfolio contains a selection of 16 pictures, copies of Indian Artists, which originally appeared in the Chatterjee Picture Albums. The selections have designedly been made with a view to their use in Indian schools. A pamphlet accompanies the portfolio, intended for teachers, containing interpretations offered by Miss Carpenter, which we believe will be found very valuable in connection with programmes for character and religious training and the teaching of ideals.

The pictures are painted on art paper and are loose-leaf. For titles of subjects, please read advertisement in this issue of the magazine. We strongly urge all school people, who desire to encourage a wider knowledge and appreciation of Indian art among their pupils, to secure this portfolio, before it is sold out.

C. B. H.

Macmillan and Co. Ltd., St. Martin's Street, London.

Here be Dragons.—F. Gwynne Evans, with illustrations by George Morrow. Quarto; pp. 108; 7 shillings 6 pence.

Twenty poems, beginning with *A Dragon Hunt* and others, such as *Dick Whittington and His Cat*; *Flying to the Sun*; while a particularly humorous one is entitled *Aden*. All who have read and re-read *Puffin, Puma and Co.* will want to read this collection of verse by the same author. A vein of humour which captivates the attention of old and young, alike.

Thy Servant a Dog.—Rudyard Kipling, Quarto; Cloth. Illustrated by G. L. Stampa, the well known Punch artist; pp. 93. 5 shillings.

One of the latest productions of Kipling. Stories which will be appreciated by all dog lovers, whether adults or children. An excellent gift book.

The Gospel and the Modern Mind.—Walter Robert Matthews, M.A., D.D. Crown 8vo. Cloth; 7 shillings 6 pence.

These sermons were originally preached at St. Bartholomew's, New York City, and are now arranged in book form. Designed to meet the problems and perplexities of people, in respect to the fundamental affirmations of the Gospel in relation to modern opinions. A book which deserves wide reading.

C. B. HILL.

Association Press, 5 Russell Street, Calcutta.

Letters to a Fundamentalist.—Percy Austin, B.A., Cloth, Index; pp. 249; 6 shillings.

A strong yet sympathetic and courteous discussion regarding the interpretation of the Bible from the Modernist view point. The author endeavours to illuminate what he regards to be baseless fears on the part of his Fundamentalist readers, respecting the vital significance of the Scriptures as traditionally accepted. Particularly helpful to youthful and devout people, who are in perplexity as to Christian faith and orthodoxy.

Footprints in the Snow.—H. L. Hemmens. Cloth; pp. 128; 3 shillings 6 pence.

A delightful book containing 23 stories, full of stimulus and encouragement for boys and girls, who wish to be their best. These stories centre around robust characters of recent times.

Projects in Indian Education.—Edited by Alice B. Van Doren, B.A. Stiff paper. Illustrated; pp. 163; 6 shillings.

Miss Van Doren has placed us, in India, under additional obligation, by collecting in this handy volume, accounts of 17 projects carried out in recent years in various Mission Schools in India. The influence of the philosophy of Dr. Kilpatrick of Teachers' College, Columbia University, New York, has made a marked impression on the Mission Schools of this country; and, in this book, we see how this type of teaching can be related to the Government Code. Not, until rural teachers have been trained in these experimental ways, can much change in traditional methods overtake the village school. Miss Van Doren's book is a harbinger of that happy day. We predict a wide reading for this book at a most opportune time.

C. B. HILL.

Edinburgh House Press, 2 Eaton Gate, London, S. W. I.

I Lived in India,—M. L. Christlieb. Illustrations by Wal Paget Paper; pp. 62; 1 shilling 1 pence. Post free.

Miss Christlieb is well known as a missionary writer on India. In this booklet, she has achieved a difficult task of placing before her readers in Great Britain and the English-speaking world a description of India and life in this land—particularly rural India—which for vividness, accuracy and compactness, it would be hard to excel. An excellent book for thoughtful boys and girls.

* * * * *

Creatures Great and Small,—Mary Entwistle. Illustrations by Helen Jacob. Board; pp. 62; 1 shilling 6 pence.

One of the "Round the World" story book series by the same author. This deals particularly with India. A fascinating book for children, with a strong missionary bias and setting.

COLLIS SAYA.

* * * * *

SCHOOL BOOKS.

Messrs. Macmillan and Co. Ltd., Bombay.

Direct Readers,—Primer I and II. George Robb, Illustrated; paper cover; pp. 32; 16 mo. 8 pence each.

Apparently a popular reader in Egypt for beginners in English. These readers should be of value in India, in guiding conversational English and in the art of word and vocabulary building.

Elementary Algebra for Schools,—Indian Edition. Hall and Knight. Rs. 2-8-0.

This well known text needs no further commendation, than to say it is a reprint of the new edition first put out in 1907; and, that it contains the answers to the problems.

English Composition for Beginners,—L. Tipping, B.A., India edition; pp. 164. Board, Re. 1.

Contains quite a variety of exercises, built on a grammatical basis, but encouraging the beginner to exercise his freedom of expression, rather than to model his phrases after the teacher.

The Story of India,—Rai Saheb Sohan Lal, B.A., B.T., F.R.G.S. and Violet Burry, B.A. Part I, Re. 1; Part II, Rs. 1-4-0; Part III, Re 1-8-0. Illustrated, maps, cloth; p. 140.

This book is based upon modern psychological principles and is intended to challenge the activity of the child reader's mind. The style is simple and should create a desire for a fuller treatment of the subject, than is found in the ordinary text-books on Indian history.

High School Geometry,—Part II. M. R. Paranjpe, M.A., B.Sc. Board, many diagrams, pp. 20. 12 as.

Intended for students preparing for the Matriculation examination; who will be greatly helped by the examples and riders.

Kazim's Matriculation Geography,—Published in Urdu, Rs. 2-8-0 and in Hindi Rs. 3. A. A. Kazmi. Board covers, maps, illustrated.

These books, in the vernaculars mentioned, appeal to the recent demand for books in the vernaculars by students preparing for the Matriculation examination. The author has had wide experience, both as a student and as a teacher of geography. We recommend the books to all who find English to be an insuperable barrier to the comprehension of the subject.

High School Geography,—James H. Gense, S. J. St. Xavier's High School, Bombay. Cloth, Fully illustrated; pp. 383. Rs. 2-8-0. Intended to cover a four-year course, leading up to Matriculation.

While the style is descriptive, nevertheless geographical data is presented to the student, as something necessary for factual possession. Strongly recommended.

Chapters on Nature Study,—M. J. LeGoc. O.M.I., Ph.D. (Rome), M.A. (Cantab), B.Sc. (Lond.); Paper cover. Fully illustrated, pp. 184. 12 annas.

This is a third edition, revised and enlarged, of a very useful text on Botany. It contains an index of English, Sinhalese, Tamil, Telugu, Malayalam and Canarese plant names. The book will appeal to all plant and flower lovers, whether in school or out of it.

Practical Elementary Science,—Without a Laboratory. Book 1. Dora Hussey. Formerly Inspectress of Schools, Ceylon. Paper. Diagrams; pp. 48. 40 cents.

The Teachers' Lesson Book,—H. R. Hamley, M.A., M.Sc., Dip. Ed. Board; pp. 48. Rs. 1-8-0.

The author, until recently, was Principal of the Secondary Training College, Bombay. Contains valuable suggestions on class-room methods and management for the teacher; while Part II consists of 48 blank Lesson Note Forms. This handy book should be in every teacher's possession.

* * * * *

E. J. Arnold and Sons, Leeds.

Bright Story Readers,—Grade I. The Lost Ring. Amy Woodward, The Marvellous Gift. D. Violet Dunsdale. Paper, pence 2½.

GRADE VI.

Peter Simple. Maryat. 5 as. Paper. Notes, p. 96. Fine as supplementary reading.

* * * * *

The Relation of Geography to all the other Concrete Sciences :

A PLEA FOR THE TREATMENT OF HUMAN GEOGRAPHY IN SCHOOLS *

B. G. NENE, Esq., B.A., Poona

An After-Dinner Story

THERE is a story of an anchorite who, renouncing all worldly affairs, lived in a secluded cave, away from the buzz of human activity. His simple fare consisted of edible roots of forest trees, and his only apparel was a slender loin-cloth. He lived quite happily in this fashion till, one day, a tiny mouse bit the loin-cloth, which had been left to dry and be ready for use the next day, into small pieces; and, thus, gave the anchorite cause for annoyance. To save himself from any further loss, the anchorite tamed a cat who might scare away the troublesome mice. The pet cat had to be fed on milk, and the anchorite felt the need of maintaining a cow; and after the need for a cow, was felt the necessity of a cowherd and of a field, and, inasmuch as the bountiful condition of a crop depended on the labours of workers in the field, the latter settled in the neighbourhood in no time—and in the course of a few days the secluded spot was turned into a gladsome village! And the blessed anchorite had to look to the management of this busy hive of toiling men—all this as a logical consequence of his desire to protect himself from the troublesome vermin!

This after-dinner story clearly sums up, in a nut-shell, the extent to which human needs can be contracted, or extended to suit a life of ease and comfort, free from annoyance of any sort.

* This paper, read at the Geographical Conference, Poona, was awarded a prize; and is published by the kind permission of the Geographical Conference and the author.

Vital Problems

Ever since life began on the face of the earth, man has eked out a living by contriving to derive as much benefit as he could, out of his surroundings, to provide himself with means of Housing, Clothing and Food. The life led by primitive man was by no means a covetable one, as Aeschylus describes it in the following manner :—

“ And let me tell you, not as taunting men,
But teaching you the intention of my gifts
How, first, beholding they beheld in vain,
And hearing, heard not, but like shapes in dreams,
Mixed all things wildly down the tedious time,
Nor knew to build a house against the Sun,
With wicketed sides, nor any wood-work knew
But lived like silly ants, beneath the ground,
In hollow caves Unsunned.”

Primitive Life

But man has grown wiser with age, and an intelligent study of the primitive life of a cave-man, with his tools of stone or of flint, bows, arrows and harpoons with which he hunted animals for his food, and the fur-skins with which he probably clothed himself, and of the tree-life of a Papuan, the desert-life of an Arabian or the mountain-life of a Tibetan, or the river-side life of a Burman, or the boat-life of a ‘ Pe Chung ’,—a study of the life of an Eskimo in the Cold North, of a Kaffir in the wilds of Africa, of an Indian in the plains watered by the Ganges, excellently illustrate the variety of the manner of leading one’s life to suit the environment. Nor could these people live, dress and eat otherwise so long as they did not care to get the better of their respective surroundings.

Civilized Life

When, on the other hand, we see the American cram his lodgings in the small space available near a busy port, or a commercial city, and provide for the dense population teeming with worthy workers in his wee world of wonders, we are surprised to see how the head and hands of man contrive to change the face of the earth with railroads and iron bridges, to suit his specific needs.

Macmillan and Co. Ltd., St. Martin's Street, London.

Captain Courageous,—Rudyard Kipling. School Edition. Twenty-one Illustrations. Cloth; pp. 282. 4 shillings.

A well bound edition of this famous story, in good type, very suitable for gift or presentation.

Just so Stories,—Rudyard Kipling. School Edition. Cloth. Illustrated; pp. 218. 4 shillings.

Similar in character and style to "Captain Courageous."

Guy Mannerling,—Scott. English Literature Series. 1 shilling 9 pence.

Introduction, notes and helps to further study by Y. W. Cann, M.A. As usual, the text and make-up leave nothing to be desired.

Arithmetical Problem Papers,—E. M. Radford, M.A. Board; pp. 103. Answers. 2 shillings.

Intended for use in Senior Elementary, Central and Secondary schools in Great Britain; but serving as a very useful book to teachers of Arithmetic in India, when preparing periodical tests.

* * * * *

The Grant Educational Co. Ltd., 3, Eagle Street, Southampton Row, London, W.C.I.

The Adventures of Billy Bun.

Tinker Comes to Town Again.

Clear bold type. Stiff paper cover. 3 pence.

Very suitable as supplementary reading for beginners.

* * * * *

American Book Company, 88, Lexington Avenue, New York City.

Everyday Reading,—Pearson and Hunt. With a manual intended for Teachers. Book I, 56 cents; Book II, 64 cents; Book III, 68 cents; Manual 48 cents.

The material in this series is organised and adapted to class-room situations, particularly to Silent Reading. The content is simple enough for beginners in English; and, at the same time, instructive and interesting. Typography excellent.

* * * * *

Books Received.

Macmillan and Co. Ltd., London. *Indian Finance in the Days of the Company.*

Christian Literature Society for India. *Home Science.*

Oxworth Book Service. *How to Teach Ideals.* Second Indian edition.

Abingdon Press. New York. *Religion and Conduct.*

Printed and Published for the Editor by H. F. Hilmer, at the Methodist Publishing House, Mount Road, Madras.

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[illegible]

One may wonder what these problems of Housing, Clothing and Food, howsoever interesting in themselves, have to do with Geography—the science which *describes* the surface of the Earth and its inhabitants. Unfortunately, much more emphasis is laid, by most Geography teachers in our schools, on the names of every imaginable mountain, river, cape, plain, vegetation, mute animal on the face of the earth, than could ever be warranted in a subject worth teaching in schools—and the wonder of wonders is that little reference is made to the most important living creature—Man!

The Proper Study of Geography

If at all Geography has any claims as a school subject, it is because it is the study of the earth in relation to man. Spencer's epigrammatic sentence, that "Science is for life, not life for Science" should never be lost sight of by the teacher. "Historical inquiry shows that the concrete sciences grew out of practical lore, and that even after they began to stand on their own legs as independent theoretical interpretations of Nature, they have often received fresh stimulus by coming back to practical problems. Science ultimately sprang, and is continually springing, from the desires and efforts of men to increase their skill in their occupations. All scientific discoveries and inventions can, thus, be traced to practical problems"—J. A. Thomson.

The rise of the steel-frame building is a case in point.

Practical Needs and Concrete Sciences

Owing to the high cost of sites in the great cities of the United States of America, and the importance of having business offices in close proximity to the centre of commercial life, and, in cities like Chicago and New York, owing to obstacles in lateral expansion, the inhabitants of those cities have adopted the policy of spreading themselves out vertically rather than laterally, by the aid of lofty steel-frame buildings.

Necessity is the Mother of Invention

Necessity is the mother of invention. The first form of metal-frame building in the U. S. A. is said to have originated in California, in 1867, when iron-frames were constructed within

the walls of buildings for the purpose of preventing rupture by earthquake. The substantial superiority of the steel-frame over the brick building is demonstrated by the result of an earthquake in San Francisco wherein the only unruined part of the library at Stanford University was the steel-framed tower and dome. The brick-work encased in wood, being unable to stand the shock, was well nigh razed to the ground.

Similar problems regarding housing accommodation are being faced, though not on so large a scale as in America, by the City Improvement Trust, for the planning of a Garden City on the Dadar Matunga Estate, Bombay. It is interesting to see what a tremendous price a plot on a site in close proximity to a business centre, and situated on an artery of communication, fetches in comparison to one, in an out-of-the-way place. Desirable Building Plots to be let on 999 years' leases—

Worli Estate ...	Rs. 2-8 to Rs. 3 per Sq. Yd. per annum
Sydenham Road	
Estate ...	„ 15-0 „ „ „ „ „
Nowroji Hill Estate „	7-8 „ „ „ „ „
Parel Rd. Bhindy	
Bazar ...	„ 15-0 „ „ „ „ „

On 6-9-1929, an area of 282 Sq. Yds. at Bhat Bazaar was purchased by Mr. Lalji Ramji for Rs. 1,14,000 (at Rs. 407 per Sq. Yd.).

Geography and Town-Planning

In studying the Earth in relation to Man, then, we must needs take account of the causes of the rise, growth and possible future before the bee-hives of Industry—*viz.*, Cities—which, with the production of a variety of articles conducing to the satisfaction of the daily needs of MAN, not only do justify their own existence, but demand their extension on a sound, recognised and healthy plan. The water-supply of the city, parks which ventilate and give more vigour to the millions who work in the city, arteries of commerce which bring food for the teeming workers, and provide for the distribution of the products of mills or workshops even to the nooks and corners of a village where they might be needed,—are factors which claim, quite legitimately, a place in Geography. Keeping in mind this most noble

and urgent need in the interests of Humanity as a whole, the most up-to-date town-planners start with a definite plan before them, and ensure that the roads are adequate for the traffic of the fully grown town, and see that the inhabitants are not denied the health and comfort which they so much deserve when both at work and at play. Garden-cities, they are called ;—and Letchworth, in England, in an example worth imitating.

Geography and Traffic Problems

Celerity in communication between two business centres is a problem that is engaging the attention of the City Fathers, now-a-days. A notice recently (Sept. 1929) published under the Police Act prohibiting the traffic of bullock-carts in certain important public thoroughfares in the Fort (Bombay) between certain hours, clearly points to the conspicuous feature in the traffic situation in Bombay in recent years, *viz.*, the continuous increase in Motor vehicles, with a corresponding decrease in the number of other types of vehicles. The problem of carrying land traffic across inland waterways is solved in a variety of ways.

The Importance and Utility of Bridges in Geography

Contrast the way in which communication is established between the two banks of the Kiel Canal by means of an Arch Bridge with that by which an African river is forded. The history of how the Menai Suspension Bridge came to be designed by the great engineer Mr. Thomas Telford, will be found to be full of interest by students of living Geography. "At the commencement of the 18th century a voyage from England to Ireland was not lightly undertaken. The vile condition of the Welsh roads compelled travellers to make either Bristol or Liverpool the port from which to sail. The ships of those days were far from commodious, or comfortable, and when contrary winds and storms protracted the voyage, the passengers fared badly. Now, Holyhead is much nearer the Irish Coast than is either Liverpool or Bristol, and this geographical fact presently made it the fashion to brave the joltings of Welsh mountain tracks in preference to the tossings of the Irish sea. The Holyhead route included the crossing of the Menai Straits which, in certain states of tide and weather, was a very

unpleasant business. Mr. Telford undertook to span the gap. He submitted two plans for *arched* bridges. Both these plans were ruled out on the ground that they would interfere seriously with the navigation of the Straits ; so the engineer decided on a suspension bridge which should clear the water by 100 feet or so—sufficient to permit the passage of a tall ship."

Practical Needs and Invention

It is worthy of note how the design of yet another type of bridge was responsible for the desire to satisfy a practical need, which could not be done by any other type of bridge. "The engineers of the Metropolitan West-side Elevated Railroad of Chicago had to solve a difficult problem—how to carry four tracks across the Chicago river between the Jackson Street and Van Buren Street *Swing* bridges, which were so close together that it was impossible to build a third *Swing* bridge between them. Further investigations resulted in the evolution of an entirely new type of bridge, the Scherzer Rolling Lift Bridge. The convenience afforded by this type of bridge is that there is no obstructing midway channel pier required for the support of the bridge, which, moreover, does not occupy more space laterally when open than it does when shut."

Science is for Life—Not Life for Science!

It is noteworthy to observe what a keen interest is taken, in *life-problems* by so eminent a scientist as Thomas A. Edison who, among other questions recently set to candidates for the Edison Scholarship Examination, included the following ones :—

"If you were marooned alone on a tropical island in the South Pacific, without tools, how would you move a three-ton weight, such as a boulder, 100 ft. horizontally, and 15 ft. vertically?"

"Two towns on opposite sides of a river one mile wide, are cut off from each other by any electrical means, due to a calamity. How could you attempt to establish communication between the two cities without the use of electricity? The river cannot be crossed by human beings."

"The Captain of a boat, when passing a certain cliff on a summer night, heard the echo of his whistle four seconds after

blowing. How far away was the cliff? If he repeated this observation from the same point on a day in January, would he notice any change in the time? If so, what and why?"

Are these not problems which beset an adventurer in unknown lands?—Verily, Edison seems to believe that *Science is for Life, not Life for Science!*

The Genesis of Geography

Let us consider, again, the causes that led to Geographical discovery. History tells us that it has been due to one of the following causes:—

- (i) Operations of war—as when for example, Alexander's conquests materially enlarged the bounds of Geographical knowledge.
- (ii) Commercial intercourse—e. g., that of the ancient Indians, Arabs, Phoenicians, etc.
- (iii) Pilgrimages and missionary zeal—e. g., that of the Crusader, Arabs, Christian Missionaries in Africa, China and other parts of the globe.
- (iv) Pursuit of knowledge, as in the case of Caliph Al Manum; Emperor Justinian (who sent two monks to China, who returned with eggs of the silkworm concealed in a hollow cane, with the result that silk manufactures were established in the Peloponnesus and the islands of Greece); the Royal Geographical Society; National Geographical Association, America, etc.

Even in these civilized times in which we live, we need not make light of the contribution, however naive, made by the ancients in the field of Geographical knowledge. Newton, the greatest founder of mathematical mechanics, truly remarked, "If I have seen further than other men, it is because I have been standing on the shoulders of giants"—and this truism holds good in the case of all sciences and at all times, and without any exception.

The Scientific Spirit

The scientific spirit which made the plains of the Punjab the centre of commerce, always endures. The ancient wise man of Greece applied his mind freely to facts of the world

around him, without subservience to tradition or authority— anxious to use knowledge for the common good—and the traveller who assumes a like attitude of mind turns into a Geography worth the name. Nothing short of sheer ingratitude will make us forget the debt we owe to the Chinese, who first made use of the load-stone to guide ships in stormy seas, or to the ancient Egyptians whose Pyramids, in part, at least, serve an astronomical function. It is a matter of no small wonder that in a country with vast stretches of sandy plains—with no vestige of green vegetation to please the eye for miles—with no permanent marks on the ground to guide the traveller on his way—that, in such a country, man should turn his eyes to the skies, and receive impulse and guidance from the stars. Can the most up-to-date seaman, sailing in the far off seas, afford to forget the debt he owes to the hoary men in the sands of Araby, who taught him how to make use of the external, heavenly guides?

Contribution of the Ancients to Geographical Knowledge

"Tis good to muse on nations passed away
Forever from the land we call our own;
Nations, as proud and as mighty in their day,
Who, deemed that everlasting was their throne."

—SANDS.

The world in which a human child is born to-day is not the cold, still earth of yore when the shaggy-haired caveman eked out a dull, difficult living,—but a world full of intelligent human activities ever engaged in getting the better of natural surroundings, in applying natural forces to serve man's own needs. As Marvin has said: "The fabric of science and social organisation into which each child is born stands firm around us—it is the child's inheritance." It is on this account, then, that we must needs take account of the scientific discoveries and inventions which have contributed to turn certain portions of the earth into centres of human activities.

Christian Education

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