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CHRISTIAN EDUCATION

Published Quarterly on behalf of

391 THE COUNCIL OF EDUCATION OF THE
METHODIST EPISCOPAL CHURCH IN
SOUTHERN ASIA.

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Annual Subscription Rs. 2. Price per copy As. 12.

Club rate for three or more copies to one address Re. 1 per copy.

America :—One Dollar. To be paid through Board of Foreign Missions
150, Fifth Ave., New York City.

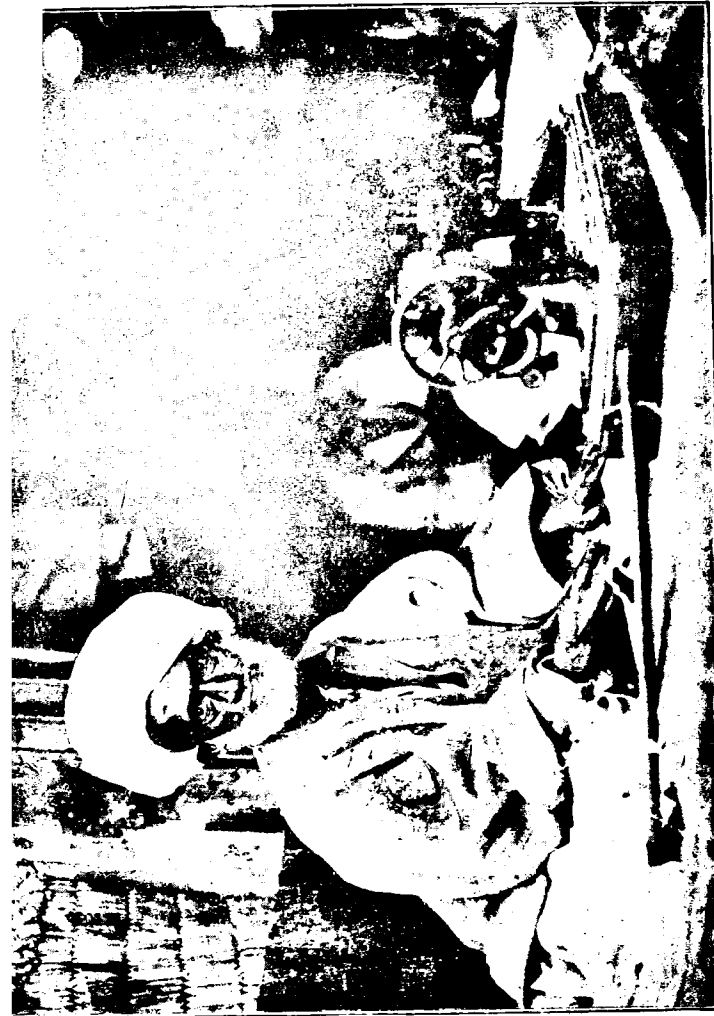
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THE DARZI

Christian Education

Teaching Spelling Instead of Dictation

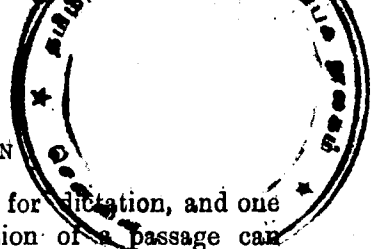
REV. HORACE K. WRIGHT, M.A., PRINCIPAL, UNION TRAINING SCHOOL, AHMEDNAGAR.

The Darzi

In what form do you buy cloth from the bazaar?
Who helps in getting this cloth ready for you to wear?
What does the darzi use in sewing?
Why can he sew so rapidly?
Where does his sewing machine come from?
In what ways is machine sewing better than hand sewing?
What characteristics are necessary in a good darzi?
Do you know how to use a sewing machine?
What care must be taken of a machine?

ON every side complaints are to be heard as to the manner in which students are studying their native tongue. Examiners remark on the glaring mistakes made in the examinations. Numerous failures are to be explained of the disregard of the vernacular. The situation has developed to the point that has engaged the attention of the authorities. Students are now expected to make more marks in the Vernacular Final Examinations, and candidates appearing for the School-Leaving Examinations are now expected to appear in Marathi. All these changes are signs of improvement hoped for and slowly to be realized. One wonders, however, whether the source of the trouble does not lie in the methods employed in the primary schools and elsewhere in teaching the vernaculars.

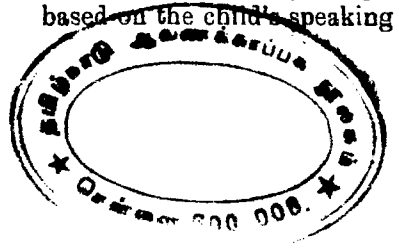
Let us note what is prescribed in Schedule E for Marathi primary schools. For the Infant Standard we find,—“Writing on the black-board or slate in a bold hand words of simple letters in Balbodh.” For Standard I,—“Writing on blackboard or slate in a bold hand words in Balbodh, not involving conjunct letters with transcription of same in Modi.” For Standard II,—“Writing to dictation in Balbodh and Modi in a bold hand two lines from the book read. The words are to be separated.” For Standard III,—“Writing to dictation in Balbodh and Modi, in a bold hand, three lines from the book read.” For Standard IV.—“Writing to dictation in Balbodh and Modi four lines from the book read.” As one studies the work prescribed in this schedule, one is impressed by the fact that the emphasis seems to be on dictation as such rather than on word-formation. One is also



struck by the chance selection of passages for dictation, and one questions as to whether a chance selection of a passage can possibly yield or afford an adequate test as to the knowledge of students as to word-formation. It is the purpose of the writer to suggest that the emphasis be not placed to so great an extent on dictation, but that emphasis be placed on a subject which is known in the West as Spelling. The writer feels that were sufficient time to be given to spelling for a period of 7 years or through the seven standards, there would be a great improvement in the vernaculars.

What is Spelling?—Charters defines Spelling as follows:—“The function of spelling is to enable us to determine accurately the order of letters in words in order that we may communicate values in writing. The penalty for poor spelling is the likelihood of being misunderstood and, furthermore, of losing the respect of the reader.” Freeman in his book, *The Psychology of the Common Branches*, contends that learning to spell is a form of memorizing. He says,—“Memorizing, then, consists in so making associations between ideas, or between words which represent ideas, that these words or ideas may be recalled in the same order in which they were originally formed.” “Spelling may be regarded as exactly the same sort of learning. In the case of spelling, the associations which are formed are between the successive letters of a word, and between the word thus spelled and the meaning.” It is quite clear that spelling is a habit. The writing of words is a habit, and it all depends on how the habits have been formed as to whether the work of students is satisfactory or not. It cannot be too strongly emphasized that spelling, dictation, writing words, or whatever we choose to call it, is a matter of habit, and the reason we have had such failures is due to the fact that the right spelling or word habits have not been formed, and that wrong habits have been formed. It is being realized more and more that inasmuch as spelling as well as skill in other subjects is a matter of habit, it is quite essential that teachers and others devote much attention to the formation of these habits.

What shall be our aims or objectives in teaching Spelling?—Hall-Quest points out that we should have at least four things in mind, (1) The ability to spell a slowly expanding cycle of words based on the child's speaking and reading experience, (2) Skill in



word analysis, (3) Correct pronunciation, and (4) Word meanings. Charters with these points in mind indicates that in teaching spelling, teachers should seek to develop the habit of accuracy, the habit of speed, and the habit of sensitiveness to mistakes.

What is involved in the formation of the spelling or word-formation habit?—Freeman has indicated that the “ability to spell may be based on association between movements or between elements of perception. Association must always be between certain ideas or experiences, and one type of experiences which may be associated consists of motor activities.” Freeman indicates four kinds of association, (1) In the case of spelling these activities may be the writing of certain letters, and *some persons can spell the more* difficult words only when they write, or at least when they imagine themselves to be writing.” This type of association is a “motor association because it consists of connections between movements.” (2) The “association may be between the movements which are made in the pronunciation of the letters of a word.” (3) “There may be an association, also, not between these forms of movements but between the ideas or percepts, based upon the perception of the successive letters. Some persons can spell most readily when they see a word or think of the way the letters of the word look. The impression which is made through carefully scrutinizing the word as it is made through carefully scrutinizing the word as it is read will then be of help in forming the association between the letters.” (4) “A type of association which is used by many in assisting them to spell words, is between the letters as they are heard. One may either pronounce the letters himself and hear them as he pronounces them, or he may hear them pronounced by another.” In spelling as in reading, much depends on the eye-habits. If one has unconsciously developed the habit of looking at verbal symbols superficially, one's spelling or word-formation is bound to reveal many mistakes. Again, in the case of phonetic languages, as Marathi, much depends on the ear-habits, or the habits of distinguishing between certain sounds. Then, again, methods of memorizing need clarification and amplification. Many students fail simply because they have never been taught the most economical ways to memorize words or matter.

What words shall be taught?—The writer has indicated above that he does not feel that dictation as it is usually given

affords an adequate test of a student's vocabulary or spelling ability. At the very best it is a test only of the words actually used in the readers. But it is quite clear that students have and must have in their vocabulary words that they will use in the various affairs of life and yet words which are not to be found in the readers used or the text-books followed. A number of studies have been made to ascertain the vocabularies of children of school-age. Ayres made a study of letters, newspapers, and selections from literature. He obtained 368,000 words written by 2,500 persons. "Ayres intended originally to pick out the 2,000 most commonly used words, but he found that approximately half of the 368,000 words was made up of only fifty words, and that to obtain 1,000 words, he had to include words used but 44 times in 386,000, while to compile a list of 2,000 words he would have had to include many seldom-used words." Jones also made a study of words. However, Jones directed his attention to misspelled words. These he classified under a list which he called, "Spelling Demons." It is becoming quite clear that we need in India persons who will undertake to make investigations such as have been made by Ayres of the Russell Sage Foundation, Thorndike of Columbia University, Jones and others. What is needed is to know just what words are current, just what words should be used in text-books, and just what words offer the greatest difficulty. It is possible that investigators will find that the word-list is not as extensive as was expected, and that the words offering the greatest difficulties are the words in most common use.

Vocabularies will include, of course, the words used in the school-room, in other subjects, *viz.* Geography, History, etc. They will include also the words used in the readers. Some suggest that every school or schools might well develop a local vocabulary, this to include the names of places, persons, industries, or processes in industry or agriculture, that are peculiar to the school or district. For instance, vocabularies used in some Konkan schools would contain some words that are peculiar to the Konkan. Vocabularies should contain as many "pure words" as possible, that is Marathi vocabularies for school-children, should contain as many words of undoubted Marathi origin as possible. Sanskrit, Persian, English, and other words should be omitted as far as possible. Words from these sources should

be included only when they have become a part of the language. Charters suggests that vocabularies should include or be made up from the "actual misspelled words of the children". "It is quite clear in my mind that the words which each child misspells in his written work are the words upon which the greatest amount of time should be put in spelling".

Spelling Books or Word-Books.—Will this involve the preparation of another text-book, a text-book which may be called a Spelling Book or a Word-Book? There is no doubt in the mind of the writer as to the desirability and value of a text-book or books, graded according to the age of the children if necessary, that will contain those words, and only those words, that have, after the most careful investigation, been found to make-up vocabularies of children. These spellers are to be distinguished from dictionaries on one hand and readers on the other. They contain simply lists of these words that a child may be expected to use in his experience at home, on the play-ground, in school, in simple social and religious affairs, and in ordinary business. An attempt has been made in certain parts of Maharastra to prepare such books or word-lists. Used in school, they have been found of the utmost value in eliminating mistakes. The preparation of these books and their publication should be a simple matter, and inexpensive, after the preliminary investigations have been made. Local word-books may be prepared as hand-work or projects in each Standard.

Frequency of Difficulty.—After having ascertained the words most used, it is desirable that the difficulty—the comparative difficulty—of words be ascertained. We need to know "how much more difficult one word is than another. One method of doing this you can try out in your own class, by using the following table, taken from Tidyman's Teaching of Spelling. By this table we can see that the word which is missed by one hundred to ninety-seven per cent of the pupils in the class has, for the third grade, a difficulty of *ten*, while if it is missed from one to four per cent of the class it has a difficulty of *two*. Consequently, the first word is five times as difficult as the second. This is very important because, if we ask the children to write the second word ten times we ought to ask them to write the first word fifty times. The teacher should make use of this table as a kind of rough rule in deciding how much time and effort to put upon words."

TIDYMAN'S TABLE

Per cent Incorrect.	Standards	RATIOS				
		III	IV	V	VI	VII
100-97		10	10	10	10	10
96-89		9	9	9	9	9
88-73		8	8	8	8	9
72-51		7	7	7	8	8
50-29		6	6	7	7	7
28-13		5	5	6	6	6
12- 5		4	4	5	5	6
4- 1		2	4	4	5	5

Diagnosing Spelling Difficulties.—The best teachers have long been aware of the fact that children are not all alike. Children differ, and they differ in the way they approach the study of each subject. Each child has his peculiar difficulties in studying spelling. Regarding this Charters remarks,—“Each child has its own specific difficulties. It is for this reason that the children should have the spelling lesson dictated to them before they study it”. It is necessary that each teacher should ascertain the individual difficulties of each child. A list of some difficulties follows —

(1) For some children the difficulties arise from the way the word may be presented. Some children see words as pictures; some children receive them as sounds; some children receive them as stimuli to writing them, or articulating and pronouncing them. A child who thinks of words as pictures will have difficulty, if the word is presented only as a combination of sounds. A child who thinks of words as sounds will have difficulty if the words are presented chiefly in any other way. Most children are visual-minded, *i.e.*, think in terms of pictures. The simple question, “what do you see in your mind, with eyes closed, when I mention the name of a thing or of a place?” will reveal whether children are visual-minded or not.

(2) Some children have difficulties because of defects either of seeing or hearing. Physical examinations will bring these defects to the light. It is apparent, however, that until we can have a Presidency-wide annual physical examination in village schools, there will of necessity be some in many schools suffering from these defects.

(3) In Maharashtra many children have spelling difficulties because they have not been taught to discriminate between sounds. Marathi is a phonetic language and it should be much easier to spell Marathi words than it is to spell English words. Bopp remarked that Marathi is the most scientific language. Inasmuch as this is true, children should be given special training in distinguishing sounds, the difference between long and short vowels, and the difference between aspirated and unaspirated consonants, *anasvars*, etc. The writer has been surprised that so many have neglected this most important aspect or feature of the Marathi language.

(4) It follows that if Marathi is a phonetic language, students will make mistakes unless teachers are very careful in their enunciation, and pronunciation. Without a doubt many students have difficulty along this line. Many teachers speak very rapidly. They bunch their words to an extent that it is difficult for a child to separate a line of sounds into individual and meaningful words. Some teachers also are not careful in making the distinctions between aspirated and unaspirated, consonants, and long and short vowels.

(5) In Maharashtra more attention needs to be given to the simple rules that govern the forming of words. Children, especially, need drilling in the use of the crude-form. They also need drilling in the changes from long to short vowels, when the crude-forms and case forms are being used.

(6) Garlick, as quoted by Hall-Quest, found (a) a tendency to omit letters, (b) a tendency to insert letters not required, (c) a tendency to mistake vowels, (d) a tendency to mistake consonants, (e) a tendency to reverse the order of letters.

(7) Investigators have also found that errors are limited to one or two places in a word. This is most important.

How to teach Spelling.—There are in the main two methods of teaching spelling (1) The incidental method, and (2) the drill method. According to the former words are taught as they appear in reading and other lessons. This method although it is not known by this name is being followed in many primary schools. Freeman describes this method as one in which “no attempt is made to give the child a drill in the spelling of words in a separate lesson, or to select series or lists of words upon

which repeated drill is to be given". "The drill method, which is opposed to the incidental method, includes the characteristics which have been described as being neglected by that method. It takes its name from the fact that it applies the principles which have been found through psychological investigation to produce the most economical and effective manner the associations which are desired to be formed". The writer is of the opinion that the drill method will yield the best results in Indian schools and the suggestions that follow are based on this belief.

Spelling Suggestions.—

(1) Plan to devote at least 15 minutes a day to spelling.

(2) Plan to teach not more than 25 new words a week. These may be taken until such a time as scientific word-books are prepared for Indian vernaculars, from the texts used in the school room. These lists should contain the new words to be used in Arithmetic, Geography, and History. It is to be hoped that some educationalist will prepare a satisfactory speller.

(3) The teacher should point out the phonetic character of the language. The writer believes that pupils should be given drills in distinguishing sounds. He believes that a marked improvement in spelling will take place, if students give their attention to word-sounds.

(4) Dictate the new words simply as words before the students have studied them. This will reveal (1) whether they have learned the words outside of school, and (2) what their difficulties are, and (3) so will enable the teacher to have the students concentrate their attention on their difficulties.

(5) Write the words on the blackboard, pronouncing the words slowly and by syllables. This will appeal both to the visual-minded and the auditory minded. Teachers should use the "eye-gate and ear-gate" wherever possible.

(6) Indicate the places in the words where the most mistakes are made.

(7) Use the new words in simple meaningful sentences.

(8) Suggest a plan for memorizing the new words. Charters gives a plan much used by Horn. This plan is worth giving.

HORN'S PLAN FOR LEARNING HOW TO SPELL NEW WORDS.

- (a) The first step in learning to spell a word is to pronounce it correctly.
- (b) Close your eyes and try how the word looks, syllable by syllable, as you pronounce it in a whisper.
- (c) Open your eyes to make sure that you were able to recall the correct spelling.
- (d) Look at the word again, enunciating the syllables distinctly.
- (e) Recall, again with closed eyes, how the word looked.
- (f) Check again with the correct form. This recall (as in 2 and 5) should be repeated at least three times, and oftener if you have difficulty in recalling the correct form of the word.
- (h) When you feel sure that you have learned the word, write it without looking at the book, and then check with the correct form.
- (g) Repeat this two or more times without looking either at the book or at your previous attempts.
- (h) If you miss the word on either of these trials, you should copy it in your spelling notebook, since it probably is especially difficult for you.

It is to be noted that two very important matters are stressed here, one the necessity of sufficient repetition, and the other the necessity of attentive repetition.

(9) Children should be taught that it is not sufficient to strive to be accurate in spelling during the spelling period only. They must have before them the ideal of spelling-accuracy in every subject, in everything they write, even the smallest and apparently most insignificant note.

(10) Students should be taught not to write any words about which they are in doubt. It is greatly to be regretted that so few students use or possess a dictionary of their own vernacular. There are not a few primary schools without dictionaries in the vernacular. Every student should be taught how to use a dictionary (a) to ascertain the spelling of a word, (b) the meaning of a word, and (c) the derivation of a word. Students in vernacular should have as part of their spelling instruction drill in using the dictionary.

(11) In areas where the language is of a character similar to the Marathi, attention should be directed to the formation of crude-forms (samanyrupa) the affixing of suffixes, etc. especially as these have a bearing on the spelling of words.

Teachers should be willing to spend some time in explaining to students the suggestions given above. They should teach the students the methods of studying spelling indicated here. Their work will be immeasurably lightened and greatly rewarded, if students are taught how to study.

Spelling Projects.—There are some who think of the Project as a task of considerable magnitude. Charters presents a view of the project which is worth passing on. "As I understand the project, it has two characteristics. In the first place, in a project the child does a great deal of thinking in the effort to solve some large problem, and in the second place, each problem is so staged that it can be worked out under natural conditions which have not been affected by the school." "We can make methods of learning spelling a project. If we say to him, 'what can you do to learn to spell better?', it is a project. He really has to study how to study well and we can help him in the following way:—

- (1) We can help him to analyze his difficulties.
- (2) We can help him to learn how to improve his spelling by having him follow the suggestions given above.
- (3) We can help him to measure his progress by having him keep track of his spelling errors and by giving him tests.

When he takes the methods of improving his spelling as a problem, he has a real project which may prove very interesting to him and which will use all the intelligence of which he is possessed".

Spelling Tests.—These can be devised for Maharashtra along scientific lines only after scientific-word-lists have been determined. Ayres, Cunningham, and others have done a great deal along this line. Their tests might well be used—perhaps with simple modifications—in all Anglo-Vernacular schools. Scientifically constructed spelling tests are of two kinds. One kind involves simply the spelling of 25 words selected with great care from the lists found suitable for students of certain standards. The other type of test involves using the words in sentences

Monroe has devised a timed sentence spelling test of fifty words taken from Column O of Ayres Scale. This test was arranged for the fourth standard. The directions and test are as below:—

DIRECTIONS FOR GIVING A TIME SENTENCE TEST.

(1) See that the pupils are provided with two or three sheets of paper, and with either pencil or pen and ink. If pencils are to be used, they should be well sharpened. If pen and ink are used, good pen points should be provided.

(2) Say to the pupils: 'I have some sentences which I want you to write as I dictate them. I am going to dictate them rather rapidly, possibly more rapidly than some of you can write. If you have not finished writing one sentence when I begin to dictate another, I want you to leave it and begin on the new sentence. If there are any words you cannot spell you may omit them. If you have any question about what you are to do, ask it now because you cannot ask questions after I begin to dictate.'

(3) Make certain that all pupils understand what they are to do. It is well to give a short preliminary practice in writing from dictation if the pupils are not accustomed to it. For this purpose use some simple selection.

(4) Dictate the first sentence when the second-hand of your watch is at 60. When it reaches 27, dictate the second sentence. When it reaches 13 dictate the third sentence, and so on. Dictate the sentences distinctly, but do not repeat. It is advisable for the teacher to practice dictating the sentences according to the directions before attempting it with the class.

(5) Stop the pupils promptly at the time indicated. Allow no corrections to be made. Ask the pupils to turn their papers over and write their name and grade. Collect the papers.

THE TIME SENTENCE SPELLING TEST.

- (60) The *public* appear to want it.
- (27) The *population* of the *district* is five hundred.
- (13) We *refuse* to *attend* the meeting.
- (44) My *uncle* will *remain* until the man comes.
- (23) *Forty* members of the *fourth* company will drill.
- (9) The *judge* knew the *Chief* of *Police* was there.
- (52) The *comfort* of our *friend* is to be considered.
- (70) A *perfect* figure was drawn.

The test comprises 20 sentences of the type given above. The words in italics are those to be spelt. These have been selected from lists approved for the 4th Standard. The figures in parentheses indicate the second at which the sentence is to be dictated. It will be comparatively simple to work out tests of this kind for the vernaculars. The significance of the time factor is that students are expected to write the sentences, and in doing so spell the words, at the rate for the standard determined by the Handwriting Tests.

Courtis' Spelling Practice Tests.—In order to assist the students to improve their spelling Courtis has devised a test which has been used in the Detroit public schools. Tests of this kind might also be adapted for use in Indian schools. Courtis' test is given below:—

Practice Tests in Spelling.

Lesson No. 4.—A Trip to a Great City.

On the *sixth* of December we left the Green *Mountains of Vermont* to visit an uncle, who had just returned from a long *voyage*.

He had acquired immense wealth by deals in *leather* and *turpentine*. We were glad to arrive in *Chicago* on the *eleventh* for we had often dreamed of this visit. But how *deceiving* are dreams. Instead of being met at the depot as we expected, we found we did not know a single man or woman in all the great crowd in the station that *evening*.

We had to *argue* with ourselves to try to *understand* how anyone could *disappoint* us on such an *important* occasion.

INSTRUCTIONS.—Read the paragraphs above and study the spelling of the words printed in *heavy type* until you can fill in all the blanks on the other side of this sheet correctly in four minutes.

REVERSE SIDE OF TEST.

On the.....of December we left	1
Green.....of.....	2
.....to visit an uncle, who had just	3
returned from a long.....	4
He had acquired immense wealth by deals in	5
.....and.....	6
We were glad to arrive in.....	7

on the.....for we had often	8
dreamed of this visit. But how.....	
.....are dreams. Instead of being met at	9
the depot as we expected, we found we	
did not know a single man or woman in	
all the great crowd in the station that.....	10
We had to,.....with ourselves	11
to try to.....how anyone	12
could.....us on such an	13
.....occasion	
Scores.....Number Tried.....Number Right.....	
Name.....Standard.....Room	

REFERENCES.

- (1) Charters, Teaching the Common Branches, Houghton, Mifflin Co., New York, 1924.
- (2) Hall-Quest, Supervised Study in the Elementary School, Macmillan, 1924, New York.
- (3) Freeman, The Psychology of the Common Branches, Houghton Mifflin and Co., New York, 1916.
- (4) McCall, How to Measure in Education, Macmillan, New York, 1923.
- (5) Monroe, Measuring the Results of teaching, Houghton Mifflin Company, The Riverside Press, Cambridge, 1918.
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The Boarding School Girl

MISS CHARLOTTE C. WYCKOFF, CHITTOOR, SOUTH INDIA.

HER MIND AND CHARACTER

PART I.

HER body is comparatively easy to chart, but her mind—! With every year of a teacher's experience it becomes more and more mysterious. I confess that I do not find myself in the position of the Headmistress who is reputed to have said, "I know every thought that passes through the minds of my girls." As years pass, one seems to feel more, rather than less, in the dark as to girls' ways of thinking. One can only grope, after all. With the help of two simple psychology books, Crichton-Miller's "*The New Psychology and the Teacher*" and Hadfield's "*Psychology and Morals*," I am setting forth in this paper a few problems from my own experience with boarding school girls. The solutions no book and no paper can hope to offer, except through heightened understanding of all the aspects of these problems.

Dr. Crichton-Miller classifies the aims of education under two heads,—the development of the individual personality and the transmission of racial experience. Perhaps the chief difference between old-fashioned and modern views of education lies in the order in which one places these two aims. At the present time the tendency is to develop the former almost at the expense of the latter. Not through any lack of appreciation of the importance of the transmission side, but through sheer lack of time or space to go into the intricacies of modern teaching methods. I shall confine myself largely to the more general aspect of education as development of personality. The girl's education is understood to consist of her activities during all her waking hours, not just the five hours in the class-room.

The first thing we must realize as boarding school teachers is that our work is very largely reforming,—if such a thing is possible,—rather than forming the child's mental habits. Modern psychology teaches us that our attitudes, our ways of thinking,

our whole turn of mind are practically fixed by the time we are seven. Froebel said the same thing years ago. The Roman Catholic Church acts on the same principle in training the young. If this is the case, we catch the child rather late, when she comes to boarding school. Sometimes we have to try to straighten out the tangles made by blundering parents, and with all our effort we never quite do it. Some parents look upon their children as little animals until they are of school age. They wash and comb them, feed and clothe them and put them to bed. They enjoy them as amusing playthings. When they are undeniably troublesome and naughty they kiss them or slap them as the mood may be, and reflect comfortably, "We must try to get her into boarding school next June. The 'Missie' will give her good discipline." Meanwhile, in all those years of untrammelled freedom, the child has acquired habits of mind and conduct which all the 'Missie's', and other teachers' discipline can never hope to uproot. A boarding school should run as an adjunct a special training-course for parents, if it is ever to succeed in its own efforts!

Here is our child of seven established in boarding school. A cross-section of her mental processes would reveal all the animal instincts, active in greater or less measure,—self-preservation, desire for approval, rivalry, ownership, and all the rest of them. At home these primitive impulses led to frequent clashes with a small group, but a group that showed her more consideration than this immense herd of fellow-creatures. Her instinct for ownership rapidly brings her the odious title, "stingy girl!" when she clings to her own new slate pencils. Her desire for approval is baffled in this crowd where she has suddenly become "that new girl," less than the least of them all,—she, who was the petted darling of the family. The clever girl of the village school has become a very small frog in a very large puddle,—as far down in her class as the stupid whom she scorned at home. It is a bewildering period for the child,—this period of adjustment to the new environment. It is really a critical time, for while a certain amount of taking-down is wholesome, an over-dose of humiliation may have bad results. In the modern Pilgrim's Progress the Valley of Humiliation ends in a Slough of a Sense-of-Inferiority whence escape is only too easy by following the will-o'-the-wisp of *Phantasy* that leads one far afield from the good hard Road of Reality. If the child continues to find adjust-

ment to school-life difficult and unpleasant, she may take refuge in day-dreams, imagining herself always in the role of the most clever, the most beautiful, the most sought-after, child in the school,—everything, in fact, that she is not, but wants to be. All of us remember such harmless phantasies in our own childhood. The danger comes when they postpone the child's adjustment to her new surroundings, making her content to wander alone on the edge of the other children's activities, rather glorying in her oddness, and working up through it to her old sense of superiority. It is for the watchful teacher to draw such a child into the charmed circle,—to help her to feel wanted and important, to make the real more attractive than the visionary.

COMPLEXES.

If she does not find herself this doubtful escape through phantasy, she may wallow so long in the slough of a Sense-of-Inferiority that some of its mud may stick to her for life. Each one of us feels truly happy only when we feel to some extent equal and superior to our fellow-beings. When our feet are planted on the Road of Reality we form a fairly true estimate of ourselves: "I may not be beautiful but at least I am not altogether stupid", or *vice versa*, or "I may not be a musician, but I can cook", etc. We are all right so long as we feel superior about *something*. In the first days of adjustment in boarding school a child may lose for a time this self-confidence. She becomes abnormally sensitive to teasing and to the consequences of her own mistakes. A feeling of complete inferiority surges over her, but as the feeling is repugnant and contrary to all her natural instincts she suppresses it instantly. She may not be aware of it, but it is in her 'unconscious mind', where it forms a *complex* that strongly affects her actions. Unconsciously she begins to compensate for her sense of inferiority. She may begin to brag or boast or swagger. She asserts herself forcibly, and tries to show off. If her sense of inferiority has to do with the poverty of her family, her compensation may take the form of superior criticism of school-food, of other children's manners or clothes or relatives. If she is physically unattractive, she may try to attract notice by naughtiness, by boldness or by illness. If this complex is allowed to continue she may continue all her life to be over-assertive, and morbidly sensitive. Of course a

inferiority complex may have been formed long before the child comes to school. The psychologists tell us that they may begin at three years. A child who has been too much teased by older children in the family, or who has been too continually nagged and criticised and called "bad child" by its parents, may have a complex already well-developed before coming to school. Other children may acquire a complex later on in their boarding school life when they begin to fall behind in their lessons, or when they have been repeatedly punished and scolded. It is very bad for a child to be always the lowest in her class,—to feel herself always a failure. It is far better to put her back into a class where she can succeed and sometimes excel. Some children struggle along in a High School, never able to learn English, yet their parents insist upon their remaining. The study of English is glorified as the end of all things,—but it is an end which they know they can never attain. How much kinder and wiser it would be to remove such a girl immediately to a Vernacular school, or, if she cannot succeed there, to an Industrial school, or to any place where she can use her own particular gifts and, in the use of them, feel superior and happy once more. Many parents are blinded by their own ambition into a cruelty that may mar their child's mind for life. They drive them back to the work they cannot do. The result is an inferiority complex. The girl becomes morbidly sensitive. Those who have a Vernacular School and a High School on one compound can testify to the constant clashes that are likely to result,—the chip-on-the-shoulder attitude and jealousy that may grow up on one side, with a corresponding response in lofty pity on the other! There may be the same sensitiveness where teachers of different grades of education and pay work together. Where matrons or teachers of little education have authority over High School girls, there is nearly always war! Fortunately in these days the importance of the right type of women on the resident staff is not only recognized, but considered sufficiently great to warrant increased expenditure.

How can the teacher prevent, or deal with, the inferiority complex? She must come to know the abilities of every child in her class. She must firmly believe that, as the hymn says, "God entrusts to *all* talents few or many." It is for her to unearth the buried talent and remove it from its napkin, for all

to see and appreciate. The child who is dull at books may be clever at sewing. The deformed child may be gentle and easy to get on with. The teacher must see to it that praise and appreciation are equally distributed to all in the class,—that every child gets some chance to shine. Especially must she be careful in dealing with the troublesome and high-spirited children who need frequent scolding or punishment. Too great a "sense of sin" may be dangerous. A child who is repeatedly told, "You are naughty and wicked", will soon begin to believe it and to think, "What's the use of trying to be good? She never notices it when I am. All right, I'll be bad!" It is some comfort to excel in badness at least, if one cannot excel in anything else. Even more inexcusable for the teacher is the practice of expecting naughtiness of saying or looking: "There you go again! I *knew* you would!" What better soil could one wish for the growth of an inferiority complex, compensated for in the child's mind by acts of increasing insubordination and deceit? The right soil for healthy mental development is an atmosphere of impartial, sympathetic trust and encouragement, where the gifted ones are held firmly to the principle, "To whom much is given, of him shall much be required", and the less gifted feel themselves useful and necessary to the group in some way.

Other complexes formed in early life at home result in the *fears* which are so common among children,—fear of devils in trees and in dark corners, fear of being alone, and all such terrors that are a life-long bondage if they persist. The teacher is no trained psycho-analyst, but she can at least try to be such a friend and confidante that children will freely discuss their rights with her instead of burying them in their minds. Talking things out often helps reason to conquer instinct. Science classes can do much to lay ghosts, and the teacher's own calm faith in God can inspire the child with confidence.

PHANTASIES.

We have already mentioned one type of phantasy,—the "compensatory phantasy" by which the child tries to escape from the hard reality of the world about her, into a world of her own imagination where all her difficulties are easily settled. A phantasy of superiority may make her not only a person apart from the group, but really unbearable to get on with. There are

two other types of phantasy listed in "The New Psychology and the Teacher" which are more useful to the teacher. One is phantasies about the unknown. When a child wonders about a thing she asks questions. If she does not get a satisfactory answer, she makes up an explanation for herself. All teachers realize the necessity of taking the time truthfully to answer the child's questions at the time when she asks them. To reply, "Never mind, you'll learn all about that when you come to Fourth Class," is to kill a spontaneous interest that the future Fourth Class teacher may never be able to revive. The most important of these phantasies about the unknown is the child's curiosity about the facts of sex. If a child's perfectly natural question is met with embarrassment and evasion, her curiosity is greatly increased, and if she cannot ask again, she will make up ideas of her own, or piece together facts that she gets from schoolmates. If the mother would frankly and simply meet her child's first questions with at least part of the truth, much later trouble would be avoided, and the child would be protected from false and impure ideas that she is likely to get from others. As it is, the teacher very often has to make up for the mother's mistakes or negligence. It is never easy to talk sex-hygiene to as large a group as a class, yet it has to be done. It is best not separated under a separate name or division of the time-table, but brought in quite naturally as a part of Nature-study, Physiology and Botany. With older girls it can sometimes be discussed in the Religious Education class. When the girl leaves school, she should go out into the world with a clear understanding of and respect for the sex instincts. It is only such self-knowledge that can lead to self-control. If the teacher fails in her duty, or does it badly, a girl's mind and character may be distorted for life by some sort of a sex complex. Needless to say, this part of a girl's education needs to be done very wisely and matter-of-factly if she is to get the right attitude to life.

The third type of phantasy listed is the creative phantasy, which when given the opportunity, leads into all sorts of creative work. The child must have the opportunity and the material to put these dreams of hers into action,—to draw, plan, make and devise. All modern methods of teaching, notably the Project Method, give plenty of scope for this self-expression from the Montessori Class to the Chemistry Laboratory. Now-a-days the

child makes what he will with his box of blocks and his lump of clay; He does not follow the teacher's pattern. This chance for self-expression should not be limited to the classroom. It is even more needed in the hostel, in the hours out of school. Some schools have the child's day with its various activities so mapped out and regulated by bells and supervision, that a girl gets not a moment she can call her own. She plays, prays, sweeps and waters her garden to order. Someone is generally watching her. Her natural reaction is to escape and shirk whenever she dares. Her natural independence rises up in rebellion, if she has any mind of her own. It is hard to strike the happy medium between a judicious letting-alone of children and absolute neglect that may have bad results. Certainly they should have *at least* one hour a day and much more on Saturdays and Sundays when they can go where they like, within the compound limits, and do what they like without older people's interference. Supervised play has its place, but it should not take the place of free play. No activity brings the child so much pleasure as the one she originates and carries out all by herself with her companions, whether it be building a mud house, giving a 'drama' playing 'teacher' to the younger ones, decorating the hostel, or adopting a dog! We can all remember the joy of Saturdays in our youth when we were turned loose for long, golden hours of adventure and play and secret enterprises. Can we not give some of that freedom and magic to our much-belled-and-lined-up hostel children?

THE UNCONSCIOUS MOTIVE.

Another matter in which psychology gives us firm ground for suspicions already formed by common sense, is the matter of unconscious motives. We are aware in ourselves of semi-conscious motives for certain acts of our own. We depreciate ourselves, hoping to stir the other person up to praise us. In "Sentimental Tommy" Barrie probes this motive in the words: "Tommy looked around for some one to applaud him. When we are older we call this a yearning for sympathy!" We make noble excuses for leaving disagreeable duties undone. Though we may at first indignantly repudiate these motives, a little reflection leads us to recognize them. Somewhat similar in effect but less blameworthy because really *totally unconscious* are motives that arise out of

hidden complexes and phantasies. I may list five types that I have had experience with in boarding school. First there is the case of the girl who hates to do drill, because she is both lazy and awkward. One day she has a fall and dislocates a joint. For a long and blissful period she escapes not only drill but a lot of other distasteful activities such as domestic-work. She has, in addition to natural laziness, an inferiority complex about drill. The first day she is ordered back to full work, her symptoms commence again and become really acute. A return to the hospital brings the verdict that nothing is wrong, yet she really suffers acute pain when she moves her limbs. This is merely a school version of what happened so often in the war through an unconscious effort to escape pain and danger. Such a condition is called a *neurosis*. We cannot blame the girl, for she is not aware of her motive. If we try to reveal it to her, she will only become a martyr in her own eyes and the eyes of the school, while we find ourselves in the uncomfortable role of tyrant. Similar to this, there is the case of the girl who always faints at dramatic moments. The ensuing excitement of the surrounding crowd seems to give her the attention she craves, and she is willing to pay for it by enduring crude first-aid measures. Her health returns speedily to normal after a short period of absolute solitude!

A difficult person to deal with, sometimes, is the orphan who spends her life in an institution. Her life is bound to be somewhat artificial and unsatisfying. Perhaps her greatest lack is the lack of a mother who thinks her wonderful, whatever the world may think. We who have had it, little realise how great a factor in our development was that love which is so soothingly blind to our most glaring defects. On the other hand, the orphan gets more pity than is healthy for her. Her natural impulse to self-pity is greatly increased, and when she reaches the introspective stages of adolescence one may find it highly developed in her. No one pets her and makes a fuss over her. She can easily persuade herself that none loves her or cares for her. She may deliberately repress this self-pity as unworthy and ungrateful, but it is bound to affect her actions. With some girls the unconscious craving for someone to care for her and her alone, for someone to pet and fuss about her, leads to symptoms of illness which bring to her some of the attention she longs for. If she has seen another sick girl cared for, her symptoms are likely to be

the same. With younger orphans, the passion for ownership of all the little ornaments and trinkets that home-going girls accumulate, may lead her into stealing, to satisfy her unconscious motive of self-adornment. The obvious means of prevention in this sort of case is to see that our motherless girls get during vacations, when they are left dismally behind in the empty school, some measure of personal love and attention. If we can arrange for a real mother to come in and provide a little of the home-touch during the holidays, or perhaps move into a smaller house where the home atmosphere can be maintained, we shall be doing incalculable good. A little extra petting is not going to 'spoil' anyone nearly so much as the lack of it. On the other hand we should not run any risk of encouraging self-pity by too much playing Lady Bountiful. I have found that when two or three little girls helped me to clean out an old trunk and divided among themselves the 'loot' from my waste-basket, these bits of old ribbons and trinkets were treasured long after they had smashed the expensive American dolls that came to them on the Christmas tree. The 'homey-ness' was doubtless what appealed. In this connection I might add that I feel it very necessary that every orphan should have regular pocket-money each month which she can spend as she chooses,—be it only one or two annas beyond the amount needed for collection. If she has not that, we are only training her to steal.

Another case of unconscious motive is the girl who has fallen behind in her class and dreads the humiliation that will come at examination-time when her inferiority will be revealed to all. She must escape. She becomes ill and cannot take the examination, or is, at least, ill enough to have a good excuse for failing. It seems cruel even to mention the possibility of such a thing happening, but when we are backed by psycho-analysts who have dug up these motives from the 'unconscious' of other victims, we are led to believe that it is not so impossible.

One outcome of the inferiority complex is the craving for notice and attention. If a girl has no outstanding social or physical qualities that make her popular, she unconsciously works for fame, (or at least notoriety!) in other ways. She may air peculiar views which shock others, or relate marvellous experiences or visions (a type of phantasy), or adopt a different style of clothing, or do something naughty or run away from school. I recall

child who, after three times experiencing the thrill of running away, being found and brought back to awestruck schoolmates and quite patiently disturbed teachers, was finally given an ultimatum: "Evidently you don't like school. We don't want you to think it a jail, so we have decided to let you run away for good. You may go as soon as you like, and no one will hinder you. No one will look for you. It is a famine year, and probably people along the way won't be able to spare you much food, however, you may go if you like. When will you start?" It was a tense moment for the older people concerned, but their line of action was justified. The child went back to school like a lamb and did not accept their invitation to depart! The motive was quite gone if no one would follow her.

These are a few abnormal cases, but, rare as they are, they bring us a great deal of worry and bewilderment. There seems to be no cure for most of them except, perhaps, time and patience, but there is certainly a means of prevention, and that is to work on the positive side to build up in the school a sane and wholesome atmosphere, conducive to sensible attitudes and right mental habits. We shall next concern ourselves with some of the steps toward achieving this ideal. In the doing of it we need to recognise some of the normal phases in the girl's development during adolescence.

GROWTH OF REASON, JUDGMENT AND INITIATIVE.

Very soon after they come to us, girls begin to show signs of reasoning power. The importance of developing this phase is very much emphasised in modern education. Where children used to be told what to think, they are now encouraged to think and find out for themselves. At first, it is very easy to influence them. They are extremely suggestible, and tend to accept views unquestioningly. With the least encouragement the question "Why?" begins to be asked frequently. Geometry teaches them to demand that statements be supported. In Geography and History they are trained to look for causes underlying situations. In Language classes and Scripture classes they are urged to debate and discuss questions of all sorts. In Science they must prove every statement by observation. From the lower classes up, the stress now-a-days is on teaching them to think for themselves. In this connection I may refer to two modern methods which are being tried in various parts of India,

THE DALTON PLAN.

It is a little hard to harmonize the Dalton plan with prevailing system of public examinations and certificates, but some of the Madras Girls' High Schools are using a modified form of it. According to this plan, the classrooms of a High School become subject-rooms,—one for History, one for Geography, one for Mathematics, and so on. The books and equipment related to each subject are centered in these rooms, and the teachers spend their day in the room of their special subject, ready to lend a hand when needed. The pupils undertake, by a written contract, to complete a certain amount of work in each subject each month, and are thereupon provided with a set of printed assignments outlining in detail the work they are to do. There are few set classes during the week. The pupils go to a subject-room and settle down to work there upon their assignments, writing out answers to questions which they look up in text-books and reference books. They can ask for individual help from the teacher. If a number ask for help on something new at the same time, the explanation may be given to the group. Girls are permitted and encouraged to work together, exchanging thoughts and ideas. They may concentrate for the greater part of the day on the subject that interests them, without fear of a bell and change of period to interrupt their train of thought. They are forced to become active and constructive rather than passive and receptive learners. The training in concentration and independent work is a very valuable feature of the Dalton Plan. Its disadvantages are its lack of the social stimulus of class-work, and the room that it gives to some teachers and some girls to become slackers. It is also a difficult scheme to adopt wholly in schools in South India where girls work through the medium of a foreign language. It is hard to find suitable books which they can understand without a great deal of help. But certainly every teacher can adopt its method of assignments, and many schools will find it feasible as a whole or in part.

THE PROJECT METHOD.

Mr. McKee's school at Moga has made the Project Method famous; many training schools and teachers' institutes are spreading its gospel over India. The method is based on the Laws of learning, namely, that one learns best when learning brings a

degree of satisfaction and pleasure, that one learns by repetition, and that one learns best when one's mind is in readiness for the new knowledge. These three laws, called the laws of Effect, Exercise and Readiness are explained in greater detail in Woodworth's "Psychology", Kilpatrick's "Foundations of Method" and other Teachers' College (Columbia) publications. The project is a purposeful activity, as far as possible initiated by the children themselves, participation in which provides them with new facts which they retain because the learning has been done under conditions that satisfy the above laws. For example, as Christmas is approaching, the class determines to give a Christmas treat to a poor school nearby. A little play is written and acted to raise money. Materials are purchased in the bazaar, or ordered by letter from the city. The boys make Christmas tree ornaments and clay marbles and kites; the girls sew simple little garments and make and dress rag dolls. The class prepares stories to tell and songs to sing. When the day comes they prepare the tree and cook sweets and cakes. The entertainment is carried through as planned. They talk it over the next day and decide wherein they can do it better another time. In the month that they have worked on this project they have had practice in composition of letters, stories, invitations and a play, they have worked at sewing and hand-work, improving their skill in both, they have cooked and told stories. Above all, they have learned to work in co-operation with one another, and they have learned that the real joy of Christmas is in giving rather than getting. There are projects of all sorts,—the keeping of a school 'shop' and post-office, keeping a pet, raising poultry, making a garden, making a doll-house, making sand-table illustrations of life in other lands, planning educational programmes to give the rest of the school, etc. etc. Every number of the Moga "*Village Teachers' Magazine*" makes new suggestions. One of the most charming features of the system is to see the children set free from the formalities of the schoolroom and all working on the floor with the desks pushed back against the wall or busy out-doors. There is a degree of zest and absorption in work of this type that it is hard to obtain in regular work. If the teacher is skilful and resourceful, the children learn an astonishing amount in this way. One feels, as with the Dalton plan, that it is 'the real thing' in education,

because of its scope for initiative, for creative work and for training in independence and co-operation. Yet everything depends on the teacher, and comparatively few teachers seem able to carry through a project without either waste of time and material on the one hand, or too much help on the other. The use of projects all the time seems beyond the average teacher's resources, but one can get a great deal of value from them, even if one introduces them occasionally in the course of following out one's syllabus.

No one method is perfect in itself. These two are cited because they have brought a new spirit of freedom into schools. So long as teachers shake off their stilted ways and bring children to feel that classes are a part of life the details of method may be left to be adapted to their use. Sanderson, the famous Headmaster of Oundle, brought the spirit of independent creative work into his public school by turning his laboratories into actual work-shops, and his agricultural and botanical departments into a farm,—not for vocational but for general 'cultural' training for future lawyers, politicians and business-men. The modern emphasis on constructive arts as an integral part of education needs to be adopted to a much greater degree than it is, in the schools of India. Another notable example of relating the school to the activities of life is Mr. Tyndale-Biscoe's boys' school in Kashmir, where high caste Hindu boys and teachers work together to improve town sanitary conditions, fight epidemics and rescue people from death by fire and drowning.

During all the hours the child is in the class-room we labour to develop her powers of reason and judgment and we encourage her initiative. When she is fourteen, fifteen and sixteen years old, she becomes keenly critical of her elders and their demands upon her. She is no longer submissive and docile under rules and commands. Her teachers, who try so hard to teach her in class to think for herself, sometimes greatly resent it if she makes use of this new power in the hostel; "The *little* girls are so good and obedient," they complain bitterly, "but these big girls give a lot of trouble." Parents sometimes complain too. One mother wrote, "My daughter always asks: 'Is it right? Is it just?' when she hears our decision. I don't know what to make of her." Wise elders sometimes shake their heads dubiously and ask: "Will these girls obey their husbands when they marry?"

Certainly it is a very trying stage that adolescents pass through. They must stop and argue about every request; they have lost their fear of teachers and have not yet come, through experience, to reverence superior wisdom. They know so little that they think they know everything. Their freedom and independence are very precious to them, and they are not going to surrender them lightly. We still look upon them as children, but they feel themselves to be women. The inevitable result is many a clash with authority,—the defiant girls, head high and eyes mutinous insisting "Why should I?" and the outraged teacher angrily but quite ineffectively insisting, "Because I tell you," and exclaiming in private: "What *has* come over her? She never used to give so much trouble." The great danger at this time is to the whole spirit and tone of the school. If the girls get a feeling that they are on one side and the teachers are lined up against them, war will rage continually. Even if the girls are forced into a measure of outward submission, there will be a most unhealthy amount of clever deceit or else suppressed grievances and grumbling that are bound to make trouble some day.

Such troubles can be to some extent prevented if teachers and all older people can realise that they are as unable as King Canute to stem the tide of self-assertion and independence that inundates a girl's or boy's whole consciousness at this stage of adolescence. In due course the tide will turn of itself. For the present we can only move ourselves further up the beach and give it room. Better yet, we can turn its forces to good account in character development. If the girls can have some share in making and enforcing the laws of the school they will take more interest in them. In many boarding schools where there are older girls, there is a system of *co-operative* government in which teachers and girls co-operate. Laws (not rules!) are passed and amended by the whole group after free discussion of their necessity. Those who break the law are not punished arbitrarily by any one teacher, not even by the Principal, but come before a jury or 'court' upon which the girls have fair representation. All sides of the case are heard, the culprit being given full opportunity to state her side of it, and sentence of punishment is declared by vote of all members of the court. Since adolescent girls care far more about the opinion of their equals than about the opinion of their elders, they feel the disgrace of coming before such a court,

whereas a reproof by a teacher might be merely a joke. The training in disinterested judgment that such a jury-system gives counts for very much in developing the power of reason, as well as right attitudes toward conduct. This plan takes a great deal of extra time and bother, but it is worth it, for it creates a new spirit in the school.

Throughout this impressionable age when a girl is rapidly accumulating knowledge of various sorts, we must not forget that school is life, and that school situations are life situations, in the same way that a few drops of acid in a test-tube will react in the same way as a large amount of the same acid in a twenty-gallon vat in the factory. A woman's work, wherever she is, is pre-eminently home-making. Her instincts turn her that way. The school should provide the home-atmosphere and the home-situations as far as possible, so that the habits and attitudes formed there may continue unbroken through life. All that a girl learns will take on new interest and significance for her if it is linked up with this fundamental interest of her life. Chemistry and Biology become living when one is actually planning meals, cooking, gardening, cleaning and preventing disease. Physiology and Hygiene are learned quite as much on the compound, in the school hospital, and in care of the sanitary arrangements, as in the class room. With real, live problems coming up all the time to be solved, a girl appreciates the need of every woman for a disciplined mind that can meet difficulties. The building of school-hostels on the cottage-plan not only enriches a girl's life in school by giving significance and unity to her miscellaneous activities, but prepares her for a home of her own. No amount of wisdom or breadth of vision is too great for the task of motherhood. In addition to as much general training as she can get she needs a certain amount of special 'vocational' training in 'homecraft and mothercraft'. Sewing, spinning, knitting and embroidery, cooking, gardening and poultry-raising, give her full scope for her constructive and creative abilities, while the study of foods and textiles, of disease and its prevention, of the needs of the child's body and mind, bring her a fascinating application of the more general sciences. Only in this way can the years of school be worked so harmoniously into the pattern of her life that the whole becomes one.

IMAGINATION AND LOVE OF BEAUTY.

We have spoken thus far of the sterner and more forceful qualities of a girl's mind,—reason, judgment and initiative. Equally important are the finer qualities of imagination, ideals, love and appreciation of the beautiful. A girl's emotional nature comes to life during adolescence. She craves romance, sympathy, friendship. She is easily stirred on the emotional side. The waking of the sex-instinct gives her new feelings, new yearnings. If this side of her nature has no legitimate outlet, she will easily be led into perverted thoughts and cravings. We can provide the outlet through folk-lore, poetry, music, art, pageants and plays, and nature. Our school ought to be situated in as beautiful natural surroundings as we can find, but if that is not possible, we must find beauty elsewhere. Some schools which are efficient and vigorous on the rational side, are positively drab and dreary on the aesthetic side. All the finer chords in a girl's nature respond to the beauty of poem and song and sunset, once her eyes and ears are opened to it. The stars, the birds, the flowers, can be friends for life. The riot of colour in her flower-garden, the blending of colours in the pageant of which she is a part, the melody of a chorus which she is helping to sing,—these all bring her a rapture and a thrill that make all her life sweeter. If, like Wordsworth, she can say, "My heart leaps up when I behold a rainbow in the sky," she is developing infinite resources of enjoyment,—that "delight in simple things" which Kipling makes part of his prayer for children. When St. Paul urges us to think on things that are pure, lovely, of good report, he is pointing the way to a character that is pure, lovely and of good report.

In the classroom we need to choose wisely the literature for this period. Folk-stories of all nations, including India, find a welcome response. A few of the best romances of English literature, read with a teacher or alone in the library, help to form a girl's taste in reading at a time when the dime and penny novel is penetrating even Indian boarding schools. I have found it a very successful experiment to read Tennyson's "Idylls of the King" and Scott's "Ivanhoe" or "Kenilworth" with Fifth girls. The poetry is simple and rhythmical, and the idealism of chivalry makes great appeal. The way is opened to discussion of relations between men and women, and difference between western and eastern customs. Since girls of this romantic age

are bound to be thinking of such matters anyway, it is better to have free and frank and matter-of-fact conversation about it, especially at a time when customs are changing so rapidly in India. The charming Indian romances of Damayanti, Sita, Draupadi, Chandramathy, Savitri, and others, should of course be read in the vernacular, and if possible, acted, for the music of those dramas is an education in itself. Indian music is intricate enough and worthwhile enough to merit a great deal more attention than it gets in our schools. European and American teachers have been so prone to teach the music that they love and appreciate, that in most places there is almost none of the music of the country. We must remember that we are training Indian girls to live in India, and therefore, we must try to develop the culture of the country, rather than bringing in an unnecessary amount of western culture. Mr. Popley of the Evangelistic Council of the Madras Christian Council, holds a Summer School of Indian Music in the Tamil country every year to train *bhagavathars* and teachers to the adaptation of Hindu music to Christian purposes. In time it will be easier than it is now, to offer thorough courses of Indian Music.

Another great need in our schools is the development of Indian art. Drawing is given very little place, and what there is, is often anything but artistic or creative. One builds castles in the air of a day when every High School will have its studio and its music-room, where a variety of fascinating instruments and materials will attract pupils even to forego the S.S.L.C. or Matriculation examination to develop their own special bent, or at least to develop a taste for art along the common way. The present system forces children too much into one mould. Hundreds fall by the way and are considered 'failures' simply because of the rigidity of a system that leaves no room for individual differences in gifts.

(To be continued.)

Septic Tanks and School Sanitation

MISS JULIA I. KIPP.

I. HOW AND WHY HUMAN FILTH IS DANGEROUS TO HEALTH.

THIS is a live question here in India because of the careless personal habits of a majority of the people. Human excreta is dangerous because the intestinal canal harbours germs, worms and other parasites which transmit disease. If people pollute the soil, they scatter these germs, and the eggs of the parasites. Infection is then carried to others by the feet of animals or people, by dust, by flies and other insects, and by surface drainage into wells. That is to say, if human excreta is not properly disposed of, it gets into the water we drink, the food we eat, and into the skin and so conveys to us the diseases which have come from the bodies of others. India is especially concerned in this problem because the warm moist climate favours the development of certain of these germs and eggs.

The most important diseases caused ONLY by infection from human excreta are enteric, dysentery and cholera from germs, and hookworm, round worm, pinworm and tape worm spread by eggs or even the worms themselves. If a person contracts ANY ONE of these seven diseases, it is because somehow human excreta has come in contact with his food, his drink or his body. (Tuberculosis of the kidneys and bowels is another disease that is spread in this manner).

Remember that these germs are invisible to the naked eye. 12,000 enteric germs placed side by side would only measure one inch. We cannot see these causes of infection. We can only protect ourselves by developing sanitary habits in the community.

An example of the value of preventive measures. In the State of Minnesota, U.S.A., during the first ten years of this century, the average number of deaths per year from typhoid was 400. Typhoid fever is known to be a disease spread by the pollution of drinking water from the excreta of persons having the disease. Acting on this premise, in 1910 the State Health Department began a pure drinking water campaign. After nine years of intensive work the death rate in 1919 from typhoid was

only 82, and the incidence of many other diseases was lessened by the general clean-up.

The work of the International Health Board has shown that a majority of the people in most parts of India are infected with hookworm. Some places in the United Provinces show a 75 per cent infection. Madras Presidency about 70 per cent. Recently a missionary from the United Provinces sent the stools of 34 little children for examination. Four were found to be infected with hookworm, two with dwarf tapeworm and seven with round worm. People who are careful themselves are often careless about the habits of children, forgetting that infection with pinworm and round worm is particularly heavy in children.

A SILVER LINING. Fortunately not every person is harbouring these harmful germs and ALWAYS in human excreta there are helpful germs sometimes called 'nature's scavengers'. These latter are of two kinds, one works in the open air (witness the decay of a bit of fruit), the other kind works in damp dark places with almost no air. Because of this second kind of helpful germs or bacteria a simple solution of the problem we have been discussing is evolved in the SEPTIC TANK.

II. SEPTIC TANKS.

The essential features of the septic tank are so simple that the uninitiated can hardly believe that it will solve the problem of caring for human excreta. A properly built septic tank furnishes a quiet, dark, damp place for these 'nature's scavengers' found in all human excreta to work and they decompose this filth and render it easy to dispose of.

SEWAGE problems are of two kinds:

1. Those of a city or town, where large quantities of water, as well as many kinds of refuse must be cared for. This requires a complicated and expensive system to care for it.

2. A system to care for human excreta only. The septic tank described here was designed for this purpose, and is simple to build, simple to operate, and requires a minimum amount of water for flushing. The plans given were worked out at the University of Minnesota, under the direction of the State Sanitation Department, for conditions as found in our boarding schools, and for an Indian climate. (Extreme cold makes the problem more complicated.)

SEWAGE AND WATER SUPPLY.

A septic tank, or more particularly, its accompanying drain should be located at least 100 feet from the well, and on lower ground, that is so that drainage will not be toward the well. However, sanitary engineers emphasize the fact that pollution of WELLS is usually from surface water draining into the well, rather than from underground pollution. In India for instance, a well usually has no cover, many persons lower utensils into the well; the well-bag and rope, the latter having dragged on the ground first, are lowered into the well, the water passes over the feet of the man operating the bag, the curb is not tight and surface water seeps back in. Under these conditions, even a driven well does not furnish safety.

EXPLANATION OF SEPTIC TANK PLANS.

Sketches are given, but blue prints for building may be obtained at cost from the writer of this article.

FIG. I. Size: The cubic contents of a septic tank should be about four cubic feet per user. (This measure refers to the contents below the water line. Circumstances will decide how high the wall needs to be above the water line.) In this connection it is IMPORTANT to remember that no surface water, even during the rains should flow back into the tank. To insure the needed quiet for the bacteria to do their work, the tank should be deep, and nearly twice as long as wide. Some sizes are given below. For a large number of users less than four cubic feet per person will do, for only a few a little more than four feet is desirable.

TABLE OF SIZES:—

No. of Users.	Width.	Length.	Depth (below water level of tank)
2-5	2'	4'	5'
6-9	2' 6"	5'	5'
10-13	3'	5'	5'
14-17	3'	5' 6"	5'
18-21	3'	6'	5'
50	4'	7'	7'
100	5'	10'	8'
200	7'	12'	8'
300	8'	15'	8'

BAFFLES or splash boards. The purpose of these is to break the force of the water as it enters and leaves the tank, thus giving the needed quiet to the bacteria. Any one who has made yeast bread will remember what would happen if the dough were kneaded every little while. The principle is the same here. The baffles are near the ends, and the tank is long and deep to give a large undisturbed place in the centre. The size and location remains the same in both large and small tanks, but in the tanks for only a few users (as for a bungalow) instead of splash boards, the inlet and outlet pipes may have an elbow and short length of pipe so that water enters and leaves the tank a short distance below the water level. **MATERIALS.** The baffles may be of 2" plank, but stone slabs, or reinforced concrete are better. The tank itself may be of brick concrete or stone, and the thickness of the walls depends on the material. It should be plastered on the inside, and finished with a smooth cement coat. The whole point is to build a WATER-TIGHT tank with a smooth inner surface. **OUTLET AND INLET PIPES** are 4" in diameter, the size remaining the same in all tanks. The **LOCATION** of these may vary, being at the end as shown, or at a corner or one side, JUST so they are between the baffle and the end of the tank.

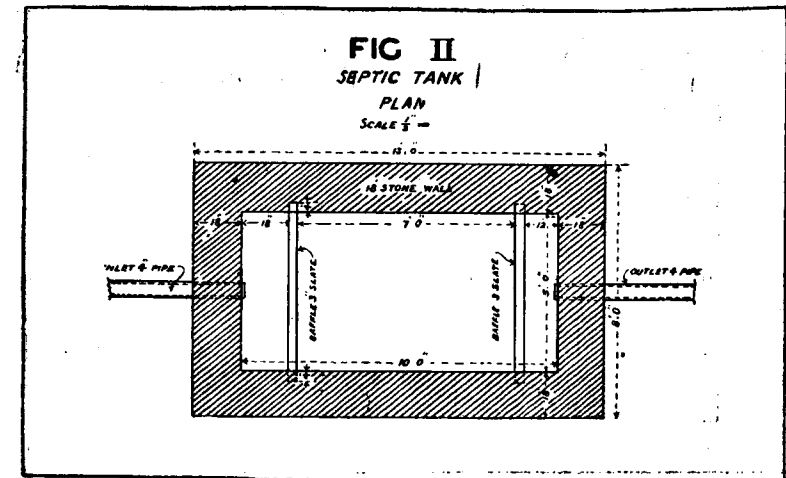
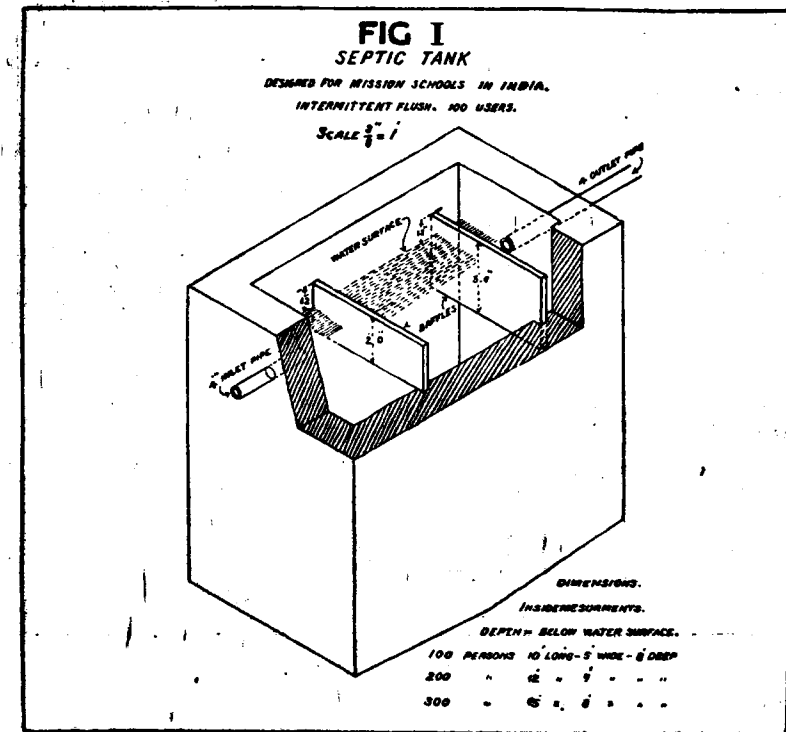
FIG. II. This shows tank looking down from above.

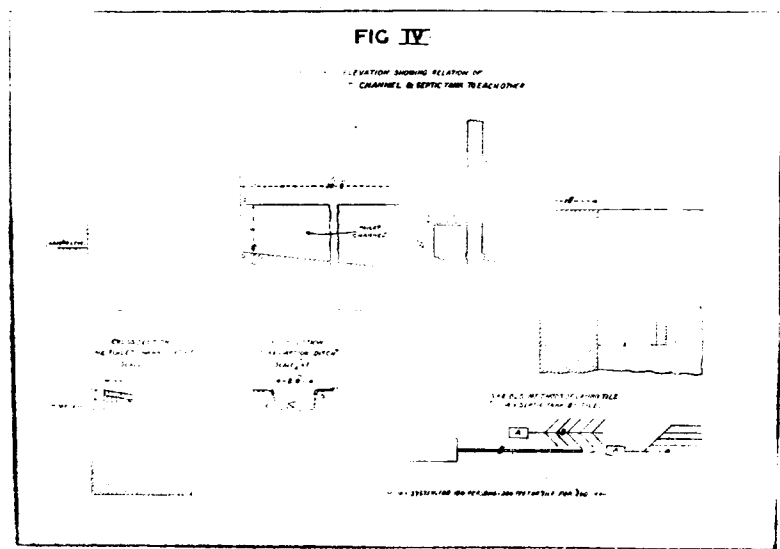
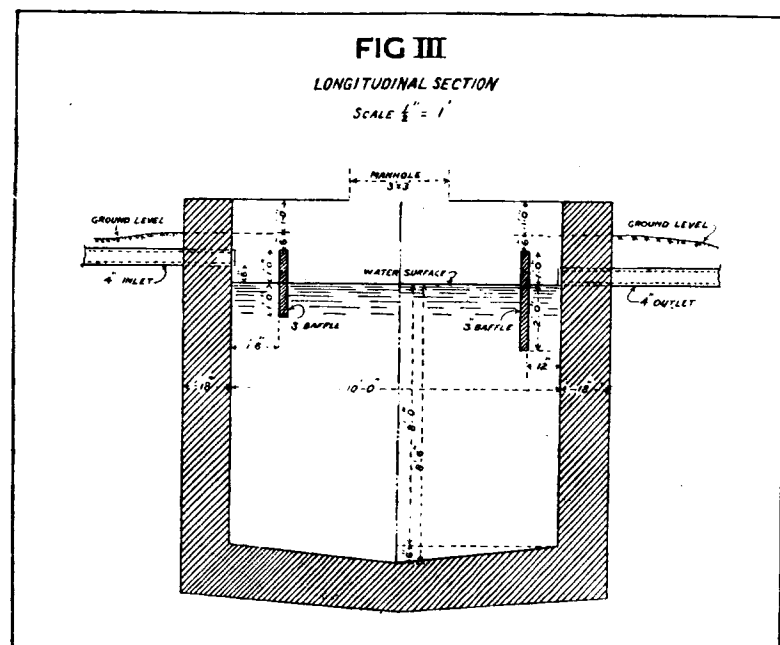
FIG. III. This shows relation of pipes, baffles and water level in the tank. It also shows a sloping floor to the tank. This is preferable to a level floor.

FIG. IV. LATRINE CHANNEL AND FLUSH TANK.

The Flush tank. This is placed so as to clean the latrine channel. Water is also needed in the tank itself to replace evaporation, and to keep up the flow through the tank. The tank placed as shown fulfills all three purposes.

SIZE of flush tank. If a 6-inch vitrified drainage piping is used for the bottom of the channel then about two-tenths of the length of the channel will give the size of the flush tank in cubic feet. That is, if the latrine channel is 20 feet long the flush tank should hold 4 cubic feet of water. If the bottom of the channel is wider than 6 inches a little more would be needed. Fill the flush tank with water, then pull the plug at the bottom, so the water will rush through with some force. At Sikandra near Agra





and at Tilaunia flushing is done twice a day, but no harm will be done if it is done oftener. If done oftener, one must take account of the extra amount of water to be disposed of in planning the drainage system. In a tank for 2-5 users two gallons of water a day would be enough to pass through the tank. The septic tank should not have water from the kitchen, dhobi tank and bath and rains pass through it. Grease and rubbish clog the tank, and too much water carries the waste material out before the bacteria have had a chance to work. To care for these see 'grease trap' described later.

COVER. The septic tank should have a tight cover with a large man-hole in the centre. This also to have a tightfitting cover easily lifted off when necessary to clean the tank. In one corner of the permanent roof of the tank, place a 2-inch piece of water piping to allow a little circulation, if gases should accumulate. The VENTILATOR prevents odours coming back into the latrine. (See Fig. IV).

THE DRAINAGE SYSTEM. In the Girls' High School at Amritsar, and at Tilaunia an underground system for disposing of water from the tank is used. Where there is a heavy rainfall so that the ground is saturated with water throughout several months this may not be satisfactory. At home drainage is often into some stream. At Sikandra near Agra the water is used for irrigating.

The underground or seepage system. Connect the outlet pipe with vitrified drainage piping cementing the joints. This need continue only six or eight feet. Then lay country-made (kachcha) drainage pipe, placing them about $1\frac{1}{2}$ inch apart. The drainage channel in which these are laid should be about 2 feet wide. This system works best if the elevation of the latrine is such that the drainage pipe is not more than nine inches or a foot below the level of the ground. Digging the drainage channel at least 2 feet deep and filling below the piping with small stones. At the place where the water leaves the vitrified piping, place a flat stone beneath the first kachcha pipe, so that the outwashing water will not dig a hole. If there is clogging in the seepage system this is the first place to look for trouble, as there may be a deposit of fine silt just here.

An open drain. In case this is used it will be best to have an aerating tank, or tanks. This is a water tight open shallow tank,

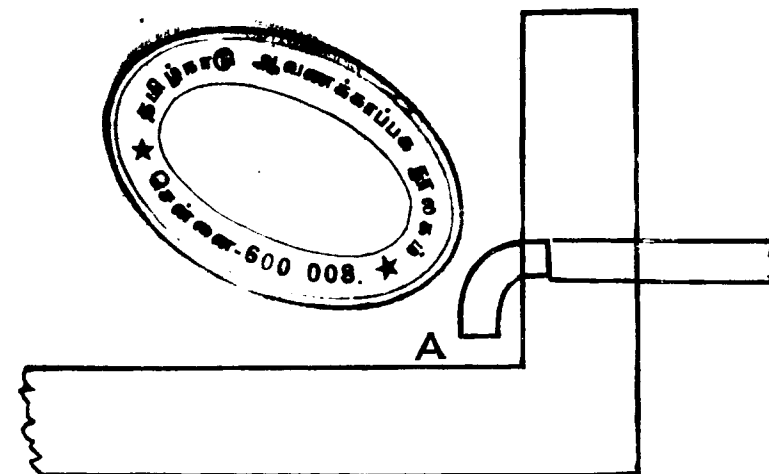
or tanks joined to the septic tank so the outlet pipe empties directly into them. This should be about 2 feet deep below the entrance of the outlet pipe, and have a surface area of from 50 feet to 200 feet for the largest size septic tank. The outlet from this is directly into the open drain, and comes from the bottom of the tank. This aerating tank should have a bottom that slopes gently toward its outlet end. It is filled to above the level of the pipe coming from the septic tank with broken brick or with very small stone.

OPERATING THE SEPTIC TANK SYSTEM.

First fill with water to the level of the outlet pipe. Then begin to use. The Kentucky Health Board recommends soaking several cubic feet of horse manure in water for a week and then emptying into the tank when one begins using it as they say this contains more of the bacteria than human excreta, and starts the decomposing process quickly. Until this process is well begun there will be a little odour. After a time a thick scum will form covering the surface of the water. There will be a small residue of fine black silt called sludge form at the bottom of the septic tank. This should be removed once a year. To do this get a pitcher spout pump 3-inch barrel, and one and one-fourth inch suction. Fit this with a piece of water piping long enough to reach to within 2 inches of the bottom of the septic tank when the pump is screwed on to a piece of plank and placed across the manhole. Cover the lower end of the pipe with coarse wire netting so that rags that may by chance have got into the tank will not be sucked into the pump. The sludge pumps out easily and can be used for fertilizer. As soon as water begins to emerge the task is finished. This may be done most easily in dry weather during school vacation. DISEASE GERMS are not all destroyed in the tank so neither the sludge nor the water from the tank should be used for vegetables that are to be eaten raw.

Where the bungalow is not arranged with a septic tank night soil can be emptied into the large tank through a small opening in the roof of the septic tank at the inlet end between the baffle and the end of the tank. If the tank is being used by the school no more water need be added because this is being done.

V GREASE TRAP TANK

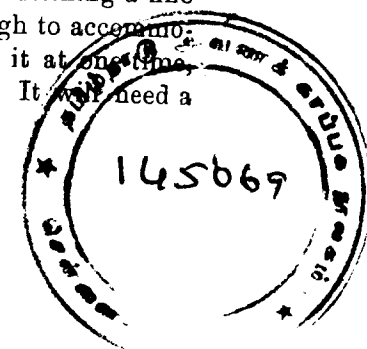


Shows corner of tank to explain location and shape of pipe.

Opening at A covered with coarse wire netting 2" from A to floor of tank.

FIG. V. GREASE TRAP.

This may be used for taking care of water from dhobi tank, kitchen and bath rooms. It is a shallow open water-tight tank, with an outlet of water pipe made as follows:—Pipe about two and one-half inches in diameter is a good size. Procure a bend of pipe and attach a length of pipe to it some four or five feet long. In building the tank place this with the mouth of the bend facing down toward the bottom of the tank, and not more than two inches from the bottom. Cover this with heavy wire net. The straight piece will project some distance beyond the outside of the tank and may empty into an open or a seepage underground drain as the case may be. One of this nature for the Tilaunia dhobi tank and the Sanatorium kitchen has been used for years, the underground drain nourishing a fine row of oleanders. The tank should be large enough to accommodate the largest amount of water emptying into it at one time, e.g., as when the dhobi empties one of his tanks. It will need a weekly cleaning but this is not difficult.



Places where septic tank installations may be seen.

Punjab. Most of the United Presbyterian Missions.

Muttra Girls' School. This was installed by an engineering firm, and is more expensive than a "home made" one.

Philander Smith College, Naini Tal.

Methodist Girls' School, Shajahanpur.

Methodist Girls' School, Arrah.

C.M.S. Mission, Sikandra, out of Agra.

Tilaunia, Mary Wilson Sanatorium.

Sanatorium, Madar, near Ajmer.

Stanley Girls' School, Hyderabad, Deccan.

Methodist Boys' School,

Methodist Girls' School, Kolar Town, Mysore State.

COST. Doubtless the place nearest would be glad to give some idea of the cost. One was recently built at Shajahanpur for a cost of about one thousand rupees including latrines.

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The Education of the Future

(BY CAPTAIN J. W. PETAVEL, LECTURER ON THE
POVERTY PROBLEM, CALCUTTA UNIVERSITY, AND PRINCIPAL
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ONCE there was at least an apparently satisfactory answer to the questions: How are we to educate our village and middle class boys and girls, and what can they do when educated? There was a time, almost forgotten now, when a good elementary education was a passport to some kind of a clerical job. Then came a time which some of us faintly recollect, when special training in something like typing, or better still shorthand, opened up prospects. This, in its turn, was succeeded by a time when some good technical training, combined with a sound schooling really gave a boy a chance; but, now, nothing seems safe for the ordinary boy and we are perplexed. All are asking, "What are we to do?"

The economist has to answer the question for the educationist, and he has great news for him. News so good, in fact that the difficulty is that people cannot believe it; and it looks as though it would take a little time yet before they begin to pay serious attention to it.

The economist points to an accomplished fact, and invites people to consider what it signifies.

There is a "school" in Switzerland—a strange sort of school certainly, still stretching the point a little, we can describe it as such—that is "A cloud no bigger than a man's hand" on the horizon, to give those who will take the trouble to study the signs of the times a hint as to what is coming. This Swiss "school" is not for the young hopefuls, but for the old hopeless, for people who are declared so worthless that, in the public interest, they must be taken charge of by the State. In this school they do but little of the Three R's or anything of that sort, but are mainly taught to work and the interesting thing about it is that their work makes them self-supporting.

Now, first, we have to understand why they are self-supporting? Why, when so many honest and good workers toil hard to earn the bare necessities of life, should a school for the "old hopeless" be self-supporting?

This is what the economist must explain.

In general terms, we can answer the question in this way: Progress in industry and agriculture has enabled us, in a good organisation, to produce things with extraordinary little labour, and to use a very large proportion of quite unskilled workers. Production can be made easy now if organised on a fairly large scale, but it is accompanied by certain complications as regards disposal of produce. These difficulties are in some ways particularly great in connection with a large proportion of food stuffs, which are perishable, bulky, and therefore in every manner the very worst things to handle commercially. The result is, that organisations to produce such things by modern methods, established commercially, are not so extraordinarily successful as one might expect. But organisations of that kind to produce things, not for sale but mainly for the use of the producers themselves, have the full advantages of modern improved methods, without the disadvantages that otherwise accompany them. That, in a word, is the general principle on which the Swiss "school" works, and succeeds in being self-supporting, though employing the very worst labour it produces things for itself.

But that again explains more or less why, as yet, people are not shouting "Eureka". They say, that no one wants to be rationed, and rationed on the things, their farm happens to produce. It is a fancy, because a big farm can produce many things, but, of course, fancy is a big factor in human affairs. Evidently, however, the difficulty can be overcome by operating on a sufficiently large scale, and it will disappear altogether when we have a large number of schools of that kind, economically co-ordinated, and exchanging produce.

But now many will say that there is nothing new in the suggestion; that people have been trying all the time to make education pay for itself; but hitherto, very little success has attended their efforts.

The simple answer is, that there is nothing new about the rising tide when it has been flowing for several hours, but the time comes when, at last, it floats the ship. Progress has been

steadily increasing the productive power of labour; and, what concerns us specially in this connection, is the productive power of unskilled labour, so that we are beginning to see signs of the self-supporting education ship floating off at last.

Now, that whole attention of educationists should be directed to these economic facts, which mean everything to them. Calcutta University has established a department specially to study them, which has issued, during the last few years, a very considerable amount of literature.

Let us first concentrate on the general principles. I cannot do better than quote from my recent article in "*Capital*" on the subject—for Calcutta's great financial paper is taking an increasing interest; a fact that should encourage educationists to pay attention too.

The cultivation of the land is essentially different from any other kind of productive work. We might say, that a couple of hours a day of work on the land is comparable to digging gold, the next two to digging silver and the rest to digging copper. That holds in every case and particularly when boys are employed on the work. What we have to do, to attain the best results, is to confine ourselves to the gold digging part. In the copper digging part, those who are not born and bred agriculturists may easily work at a loss.

The two hours a day digging gold is the work spent cultivating intensively a little plot round the dwelling producing food for one's own use. In doing that, as we have already had occasion to mention, one is producing things that are worth the retail price, since by growing them one is saving oneself the necessity of buying them retail. Moreover, the homecroft is practically safe from the vicissitudes ordinary cultivation is subject to. It can be irrigated from the house water supply, manured with household refuse. Methods have now been perfected, which allow every kind of household refuse to be converted, in the course of a short time, into excellent manure. Last but not least, the homecroft can have extra labour at the times when its ready application makes the whole difference between success and failure. The latter factor also is of the greatest importance. Cultivation requires not a constant but varying amount of labour. The homecroft can receive the varying amount with the minimum of difficulty.

The silver mining is the cultivation of things one can sell at the retail price. The copper mining finally is the ordinary extensive cultivation.

In employing boys we have further the fact, that, *whilst their labour may be very useful in a proper organization such as when they are employed as helpers to workers with some experience, they are of little use by themselves.* If we have an adult staff of one to every sixteen boys, and the boys work the whole day, the staff is inadequate to secure good results. If, however, the staff works eight hours a day and the boys two hours we have one adult on the work to every four boys, which, if two are senior boys with some experience, will be a satisfactory arrangement.

In addition to the above is the fact, that the young love variety more than anything else; and work they will apply themselves to with zest for two hours a day they will carry on but languidly for eight.

The failure of attempted educational colonies has been largely due to these economic and human facts not having been properly taken into account. Whilst it is possible to attain some useful degree of self-support by employing children on the gold digging, if we attempt in an ordinary organization to attain complete self-support by digging silver and copper also, the result with their unskilled labour may perfectly well be a failure.

In a word, then, at first at least, we must keep the children to the gold-digging part.

Is this going to make them self-supporting, people will enquire next?

Probably not at once, but if it goes half way towards it, or even say one-third of the way, what a splendid thing it would be, just from the financial point of view. Far more important, however, is the character training that we shall give in this way. Here I shall again quote from our own little monthly on this subject from the December 1925 issue.

The Royal Commission on Physical Deterioration called our attention to the fact that the young human being, up to the age of about eighteen, is plastic and capable of being moulded and formed; that right treatment up to that age can make almost every child grow up strong, healthy, alert, and, most important of everything, it can develop the character and moral sense at least as effectively.

With all that may be said, about degeneracy and racial or national defects, it is in the power of a nation taking the proper steps to correct faults and develop desirable qualities in its rising generation, if only it will give the right training to the young. What we have to do to help children to grow up healthy and moral is, after all, simple. We may quote from Royal Commissions, from Plato, Ruskin, or other great educationists, for the forcible way in which they have told us what is needed, but it is all summed up by saying, that we must place them under the conditions that are *natural, to the young human creature.*

What is wanted first and foremost of the educational scheme is, that it shall be so arranged as to keep the children engaged in a manner that will keep them keenly interested; keen exertion being the character forming influence; and only natural occupation and variety can maintain keen interest in children.

In that variety, the item of useful productive work is of paramount importance.

Useful work, giving the idea of duty and loving service, is also the moralising influence in education, as all great educationists have insisted so strongly.

Here then we are on something solid in this domain of education where so much is uncertain and perplexing. It is in accordance with plain commonsense, and it has been strongly endorsed by the most prominent educationists from Plato onwards.

An education that will train the character, train the body, and give a sound general knowledge, will take us a long way towards the solution of the problem of what to do with our youths—and maidens also—when we have educated them.

But this even is not all, there is something more hopeful still. These schools, as they develop, will be two things, non-co-operative communities on the one hand, and schools on the other.

What do we mean by the words non-co-operative?

We mean organizations working on the economic principle of the co-operative community, producing things, that is to say, to a very great extent for the use and consumption of their own workers, but not under co-operative management, which is so difficult to carry out successfully. The industries of such an organization would probably be owned by private individuals, who would work on certain agreed terms with the community

The various little agricultural holdings should, as soon as possible,* belong to groups, of pupils and ex-pupils, the whole, however, being co-ordinated by a central authority.

Pupils would by and by give less time to their studies and more to their productive work and become entirely self-supporting. There would then be no hurry for them to leave the school organization. They would remain on, and gain practical experience in industrial work, together with some technical training, and so finally go out into the world thoroughly well equipped.

Of course there are always the considerations of land and equipment to limit any organization of this kind. The parent colony, however, would be able to start branches and it is not on the whole anticipated that great difficulty would be found in the way of keeping pupils if they wanted to stay, and educating them to form the basis of a great non-co-operative organization that would spread through the country.

I have given but an outline, and I have a feeling that if the sketch is interesting, it may still provoke more incredulity than anything else.

I shall conclude, therefore, by saying that five Government Committees have examined the plan from the educational point of view. First the Calcutta University Commission did so, and published a description of it in its Appendix Vol. VII p. 18. The President also expressed his hope to see the plan soon tried. The Bihar and Orissa Vocational Education Committee examined it and made a similar recommendation, and the Bihar and Orissa Government passed a Resolution (No. 365-D of 10th February, 1925, Section 26) to the effect that assistance would be given to anybody trying to give a demonstration. The Bengal Unemployment Enquiry Committee was the next. It also recommended the plan to be tried. The Assam Secondary Education Committee made a special enquiry into the scheme, that is to say it made it an item of its Questionnaire. Fifthly also the Madras Unemployment Committee is now examining it. It is generally considered, that though the economic side of the scheme will not be easily understood the educational side will be very readily understood, the need of sound elementary and agricultural education being so very great. That is all we need wish for if we make a start the idea will spread and develop in every way. A special appeal can of course be made to Christian Missionaries.

A Rating Scale for Textbooks in Religious Education*

By E. L. KING.

THE need for the evaluation of materials available for incorporation into a new course of study in religious education for the Methodist Episcopal Church in India and Burma, and for a body of specifications for the guidance of authors of books being specially written for it, explains the original development of this scale,† though it has subsequently been worded in such a way as to make it applicable to wider fields and other countries.

It would have seemed more logical and economical to have utilized one of the existing instruments, but difficulties were met at the very start which made considerable modification necessary, and modification ultimately issued in an instrument of a somewhat different type. Existing scales were found to be either so detailed that none but research students would be likely to use them to any considerable degree, or so sketchy as to err very far in the opposite direction. Where critical apparatus had been provided to a marked degree the danger of over-refinement in grading appeared, or that of looseness in grading, such as the assignment of equal scores to items with two or four or six sub-heads, some of which had sub-heads of their own; or that of including under one head for rating items not very intimately related. But the most damaging difficulty—and one that no scale will for some time be able to wholly meet—was that involved in an undefined, or ill-defined, terminology in this field. Where standards do not exist to any appreciable degree, for instance, the use of terms such as *adequate*, *suitable*, *effective* without rather detailed definition and delimitation gives scope for an undue subjectivity in an effort, one of the main objects of which is an increased objectivity. In using a standard such as “fitness

* I am indebted, as are all workers in this field, to the pioneering of professors Athearn and Betts.

† Though in its present form it may represent only a stage in that process.

of materials to furnish adequate knowledge of a Christian social order " we do not criticize the standard, but we do find ourselves placed under the necessity of defining *fitness*, *adequate*, and *Christian social order*, in which process we are likely to be carried far beyond the scope of our original purpose in measurement. Similarly, such a standard as "appropriateness of style to age of pupil" carries us into fields beside our own, and where experts have as yet found it possible to do very little indeed in the way of measurement.

What is sought is a scale detailed enough to be fairly comprehensive, specific enough to be understandable on reasonable acquaintance, and compact enough to insure to some degree against the creation of antagonisms against the whole movement of measurement in religious education.

It is scarcely necessary to say that no claim is made that this ideal has been approximated, or that any of the difficulties mentioned have been eliminated in more than part. Some are inherent in the nature of the materials with which we work. Others will only be removed by a long process of careful experimentation. However, it is felt that the use of the five-point rating feature will add considerably to the definiteness of the evaluations, and that the rather detailed definition of certain terms from which escape seems practically impossible will assist to this end. The restriction of the scale within limits of reasonable present attainment, the provision of a compact scale within the larger scale for rough and ready appraisals or preliminary study, and the possibility (assuming a reasonable acquaintance with the book) of evaluations within forty and twenty minutes respectively, are thought to be added values.

Problems aplenty still remain. One is that of weighting the several items. This may some time be done on a consensus basis, but those consulted have felt that little would be gained in the process. There would always be the necessity of a mind shift from numerical value to numerical value as one standard after another was taken up. The increased specificity secured horizontally will to some degree balance any loss through equal weighting vertically. But perhaps the main reason why equal weighting will not stand markedly in the way of effective evaluations is that it is not intended that the scale should be used to secure percentage markings of textbooks, except in cases where

A RATING SCALE FOR TEXTBOOKS IN RELIGIOUS EDUCATION

By E. L. KING, Secretary of the Epworth League in India and Burma

NOTE.—The ten standards starred may be used as a compact scale for preliminary, or rough-and-ready, characterizations or judgments

No.	STANDARDS	4	3	2	1	0
I. Selection and Organization of Material						
1*	Adapted to the life the child is NOW living † Relatedness to immediate environment, life needs, life tasks, such aspects of community life as child finds natural contact with, human achievements of which child is beneficiary, problems of child life.	Very close and vital relationship throughout	Ordinarily quite closely adapted	Theoretical relationship expressed in aims, but not so evident in subject-matter and method.	Occasional relatedness	Wholly unrelated.
2	Preparing for the life the child will be an adult in	Future clearly visualized for child and guidance furnished.	Future clearly visualized, but little, or no guidance furnished.		Occasional awareness of future demands and needs.	No awareness of future demands and needs.
3	Accuracy and reliability of subject-matter	Accurate and reliable	Accurate and reliable in the main		Rather frequently open to question	Inaccurate and unreliable.
4	Progressive in thought, viewpoint, terminology— As definitions of "progressive" differ widely this may be essential to intellectual honesty and the needs of the group for which the text is intended.	Sanely progressive	Conservative—Progressive	Leaning more to italicized position.	Progressive—Conservative	Reactionary.
5*	Making provision for pupil-participation, thus, e.g.— The p. hod, the socialized recitation, the "conduct assignment" (Charters: How to T.), discussion, the case method, experimental Christian living, dramatization (especially if spontaneous), the story method when involving the pupil, manual work when motivated, etc.	Every opportunity for pupil participation seized, but method not forced and unnatural. The method as a means, not an end.	Frequently used, and when used done naturally	Aim in this direction, but technique weak and at times overdone.	Occasional provision, but haphazard	Pupils expected to passively take in and later reproduce.
	Finishing incentives to such self-expression in life as participation in great causes; leadership; personal service; community, national or international service; further study.	Highly motivated Full guidance as to how.	Considerable incentive A fair amount of guidance.	Fair incentive Little or no guidance.	Little or no incentive, but formal guidance	No incentive to expression apparent in either aim or implied practice.
7	Grading	Method	Departmentally graded	Closely graded	Ungraded	
8		Type	As adapted to group intended as are its school textbooks.	Inclined to be somewhat too difficult; is somewhat too stringent for ordinary pupil, but not hopelessly so.	Inclined to be somewhat too easy; does not demand enough.	Either hopelessly hard, or unnecessarily easy.
9	Style	Picturesque, rich, intimate, clear, concise, simple in vocabulary and construction; essentials, but no overcrowding of details; variety in constructions; variety in lesson types.			Dull, matter-of-fact, turgid, barren, full of unnecessary and uninteresting details; monotonous constructions; all lessons of same type.	
	No extremes are characterized—intervals may be marked proportionately.]					
10	Relations of lessons to one another	Continuous—cumulative	Grouped—cumulative	Continuous or grouped, but not markedly cumulative.	Isolated	
11*	Illustrations— teaching value; involving artistic and aesthetic qualities only so far as related to putting idea across. Gratings refer [to general type of illustrations through a text.]	Picture is a story; needs no supplementation	Gets idea across with little difficulty	Gets idea across, but with difficulty	Slightly better than no illustrations	None, or so poor as to be almost worse than none.
		Very plentiful	Plentiful	A fair number	Few	None.
13	Incorporating cultural materials: art, music, poetry, history, folklore, and the like—both national and foreign: enlarging range of interests, worldmindedness, sympathy, understanding.	Very rich cultural background from wide range of sources.	Rich cultural background, but range of sources somewhat limited.	Only moderately rich cultural background, but cosmopolitan.	Cultural background too narrowly nationalistic.	Either no cultural background or a jingoistic expression of cultural material.
	Training for intelligent church membership: thorough Biblical grounding; knowledge of church history and polity—general and denominational (the latter in the light of the former and in due proportion); rights and duties of members; the church in community, nation, world; the church as a factor in building civilization; personal spiritual duties and opportunities; the church as a means, but not an end. The kingdom an end.	Material thoroughly adapted to training in understanding, constructively criticizing, utilizing, and serving the Church as a means to the bringing in of the Kingdom.	Fair adaptation to training under heads mentioned under rating of 4.	Some adaptation to training under heads mentioned under rating of 4.	Aim expressed, but adaptation unattempted, poor, or left too largely to teacher without adequate guidance.	Church ignored, or eliminated.
II. Pedagogical Aspects						
15	Aim maintained throughout—as stated by author, if not stated, as implied by rater	Cumulative	Continuous	Fairly well-maintained	Now and then apparent	Lost sight of, or not apparent.
16	Engagement clear and adapted to economy in the learning process	Outlined in utmost clarity, and with lesson assignment needs in mind, but not stiff, thin, choppy, or monotonously uniform.	Generally clear and adapted to lesson assignment; in the main avoiding defects noted under rating of 4.	Can be made so to fair extent by co-operation of teacher, but tend to stiffness, monotony and undue manipulation of material in the interests of form.	Ill-adapted; asks too much of teacher and pupil; now overloaded, now thin and choppy.	Highly wasteful of teacher and pupil time.
		Increasing	Steadily maintained	Erratic	Occasional	None.
	and motivation of, reviews and drills	Regular, frequent, in small amounts	Regular, fairly frequent, in small amounts	Occasional, in varying amounts	So infrequent as to tend to "cramming"	No provision for final summing-up. Left to pupil to cram before examination.
	guidance, supplementary suggestions, etc., which, according to McMurtry, are: Provision for specific purposes, thought, the organization of ideas, judging the soundness and worth of memorization, the using of ideas, and individuality.	Abundant provision—text built with these points in mind. † Conformity to at least 1 laws.	Aware of need, somewhat adapted, † though scarcely adequate. † Conformity to 3-4 laws.	Indicates but few study possibilities † beyond memorization of the unthinking type. † Conformity to 2 laws.	Study left to pupil largely, a few chance references to the need, but little guidance.	Makes proper study habits unnecessarily difficult or impossible.
III. Teachers' Guides						
	are at period for which book is intended	Thorough, and illuminating	Fairly suggestive	Brief, but useable		No reference.
	model lesson plans, information on pupil (in this special field), how to make supplementary work for pupils, stage and grade pupil participation, how to effectively investigate.]	Rich in such material	Generous	Moderate	Scanty	None.
Mechanical Aspects						
	Complete conformity	General conformity		Slight conformity		conformity.
	ear: type ear: "					
	on among in general.					
	th—well bound	Paper or board—well bound	Cloth—only fairly well bound	Paper—only fairly well bound or paper leaflets		
	ve in colour, feel and general makeup	Attractive	Fairly attractive	Very modest appearance		Positively ugly.
	equal on the whole		Not quite so good	Considerably poorer		Marred by inferior

A TEXT BOOK RATING SCALE

Procedure :

1. Familiarize yourself with the standards in the Scale, and then with the 5-point gradations for rating under each.
2. Familiarize yourself with the book to be rated, keeping these standards to the fore while reading it.
3. Consider the book as a whole, standard by standard, and assign appropriate ratings. When ratings are on a 2-, 3-, or 4-point basis intermediate rating is permissible.
4. If for good reasons one or more of the standards in the Scale are inapplicable to a given book (e.g. some subjects may not lend themselves to pictorial illustration) add 4% to the total score for each standard thus found inapplicable.
5. When textbooks are accompanied by teachers' manuals, count the two as one for purposes of rating.
6. When the only book in print in connection with a course is intended for the teacher rather than the pupil, the subject matter should be rated on the basis of the form it is likely to assume in passing through the ordinary teacher to the ordinary pupil.
7. In group use of this Scale the first rating should be individual. These ratings may then be compared, medians found, reasons for divergence in either direction determined, and the results otherwise studied. If the group meets frequently, training in the use of the scale through discussion and practice will be found valuable.

Extra copies at 3 annas may be had from, and criticisms sent to, The Central Office of the Epworth League in India and Burma, Jubbulpore.

comparability within the limits of group marking is desired. The major purpose of the scale can be achieved on the basis of a standard by standard study, or merely the use of the standards as specifications, the five-point feature serving to call attention to possible pitfalls in meeting the standards, and so on.

The securing of purely numerical valuations will serve, beyond the comparability just mentioned, merely to establish books in *rank* of general values, and will indicate little or nothing as to how the book meets specific needs of particular localities or situations. This suggests, also, another reason why consensus on weights to be assigned will amount to little—the purposes for which, the situation in which, the group with which, a book is to be used or written will vary so widely that any general value established will only occasionally be found applicable.

Another difficulty is involved in the fact that the field of religious education is already being so broadly interpreted that any scale is likely to be strained to the breaking point in attempting to evaluate materials. There are certain books of types on-the-margin which defy classification, books meeting necessary but very limited needs, and the like. If a purely numerical basis were employed such books would at times be unnecessarily penalized, but this would not be the case were the scale to be used in the larger sense of a body of specifications capable of numerical expression for limited purposes. Even if the total score be used such books may be found to be as much stronger under certain heads as they are weaker under others, and thus equalize values in the total. Further, by subjecting even such specialized books to the evaluation of a general scale it may be possible to discover points at which they may be improved, even within their limited field. It might be added, however, that most of the features which appeared to unduly discriminate against such books were dropped when the original list of 47 standards was reduced to the present 25.

* The validity of the scale cannot be determined until it has been used more widely than present facilities make possible, which wider use is one of the objects of its present publication.

Present ratings are too few to enable us to make any statement with regard to the degree of correlation between the complete and the compact scales. Such work as has been done indicates "marked" correlation, using Rugg's terminology. The

first compact scale worked out in this experiment correlated more closely with its corresponding complete scale than do the two here offered. But as it was in a sense an independent scale, with equivalent standards but different values differently characterized, it is felt that in all likelihood the present compact scale will, in addition to being more logically defensible, prove also sufficiently adequate mathematically for its purpose. Another variation between the two is interesting: the present compact scale tends to grade more closely than the complete scale, while the grading of the earlier compact scale was looser. Much of this paragraph may prove to be beside the point, however, when the scale is studied more closely and ratings are made by a variety of raters.

This naturally introduces the question of the objectivity of scales in general and this one in particular. Will the same person rate the same way twice? Will two persons rate anywhere near one another? Rugg* has shown the inadequacy of rating scales in general, basing his strictures upon a very detailed study of the absolutely unique materials available during the war. His remarks have more force, however, when applied to the rating of men than to that of books. Books "stay put" while men decidedly do not. It is rarely possible to find a man sufficiently acquainted with another's real character to justly rate him, and to find three equally equipped for the job is more than three times as hard. But this, likewise, applies far less to books. It has been shown beyond question, in work with composition scales for instance, that training will work wonders in producing uniformity of marking. Even in what is called "service shopping" and the training which is given in connection with it, where relations between public utilities, corporations and the public are dramatized and ratings called for great improvement in the objectivity of rating has been achieved, though involving men and elusive traits rather than merely things. To rightly determine the objectivity of such a scale as this, therefore, it will be necessary to rate more than once as an experiment, to compare ratings one with another and with those of other raters, to discover whether the tendency of an individual is to rate uniformly too high or as uniformly too low. Under such circumstances it

* Is the Rating of Human Character Practicable? *Journal of Educational Psychology*, November 1921—February 1922.

should be remembered that the scale itself is not to be questioned, but rather the ability of the rater to work to it. Questioning the scale is another process entirely and one not to be mixed with the process of learning how to use it.

Questions, suggestions and constructive criticism will be welcome and may be sent to the Central Office of the Epworth League, Jubbulpore.

For suggestions and criticisms in the construction of the scale I am indebted chiefly to Professor W. W. Charters of the University of Chicago, as well as to Professor F. N. Freeman and Professor T. G. Soares, and to the members of two graduate classes, one in the School of Education, and the other in the Divinity School, of the University of Chicago.

Light on Books



HEROES AND HERO WORSHIP, Volumes I and II, Carlyle. Introduction and notes by H. M. Buller, M. A. Illustrated. English Literatures Series. Messrs. Macmillan and Co., Ltd. Shillings 2 per volume.

Carlyle's great classic is very attractively presented both as to binding and letterpress in this edition. A concise summary of each lecture is appended, accompanied by notes which are educative and a series of questions and suggested topics for essays. These features and the pocket size of the volumes make them valuable for Indian students altogether, a welcome and attractive addition to the well-known English Literature series.

C. B. H.



BREAD AND FREEDOM. Monthly Magazine. Edited by Capt. J. W. Petavel and K. M. Banerjee. Rupee 1 per annum. Issued from Keshub Bhaban (Block F) Shambazar Bridge Road, Calcutta.

This magazine published by Capt. J. W. Petavel, Lecturer, Poverty Problem, Calcutta University and K. M. Banerjee, Editor of Industry and Commercial India tells of the progress of an interesting experiment in building up an Educational Colony not far from Calcutta. Our readers, who have been interested in Capt. Petavel's ideals, as illustrated in his article found in the current issue of "*Christian Education*," will want to read about the details and actual working out of the experiment in "*Bread and Freedom*."



C. B. H.

BHIM SINGH, A ROMANCE OF MOGHUL TIMES:—By Frank R. Sell, M.A., 194 pp. With illustrations and map. Macmillan & Co., 1926. Price 3s. ?

As the title indicates Bhim Singh is truly a romance. The hero is described in the preface as "a very shadowy figure in the chronicles." The heroines Premabai and Ambalika are purely fictitious. The story begins with the Boar Hunt and ends with Bhim Singh kidnapping Princess Ambalika. As indicated in the preface the author's theme is the discomfiture of Aurangzeb in the campaigns of the Rajput War. He keeps well to the theme throughout the book. The story is exceedingly interesting and while not meant to give accurate history does give historical facts. The author makes the claim that "his tale is sound enough as history" and the reader is quite sure to realize his hope that it is "sound enough as romance."

R. J. M.



HAMARE PARIND, MISS M. I. KLINE, (Persian-Urdu, 14 pages) Scottish Mission Industries Co., Ajmer. As. 2-6.

A splendidly lithographed booklet, with interesting illustrations and simply told stories connected with twelve familiar birds and fowls. The elementary schools in the Persian-Urdu field will welcome this attractive booklet as a supplementary reader.

Field News

THE AJMER TEACHERS' INSTITUTE

September 28—30, 1926

OUR District Conference came to a close on the 27th September, 1926. Right after that we were permitted to take part in a very successful Inter-denominational Teachers' Institute here in Ajmer from 28th to 30th September.

All the teachers were greatly benefitted and were unapiously in favour of having such a gathering every year.

All of the teachers from the Ajmer Avery Girls' School, Tilaunia Mary Wilson Sanatorium School, the women teachers of Ajmer Presbyterian Middle School and almost all the Christian teachers of Ajmer-Merwara of the Presbyterian and Methodist Missions were present. Every morning two lectures were delivered by the Rev. C. B. Hill on "Jesus' Method of Teaching" and "Character Building." His lectures gave to the teachers a larger vision of their responsibility and privilege in training the young lives.

We were indeed very fortunate in having with us the Rev. Alexander McLeish, M.A., F.R.S.A., Principal, Husband Memorial High School and Chairman, Municipal Board, Ajmer, on the eve of his departure for his well-earned furlough. He showed some simple methods of teaching for Primary and Secondary Schools.

He commended the use of questions in teaching and estimated that a good teacher will ask

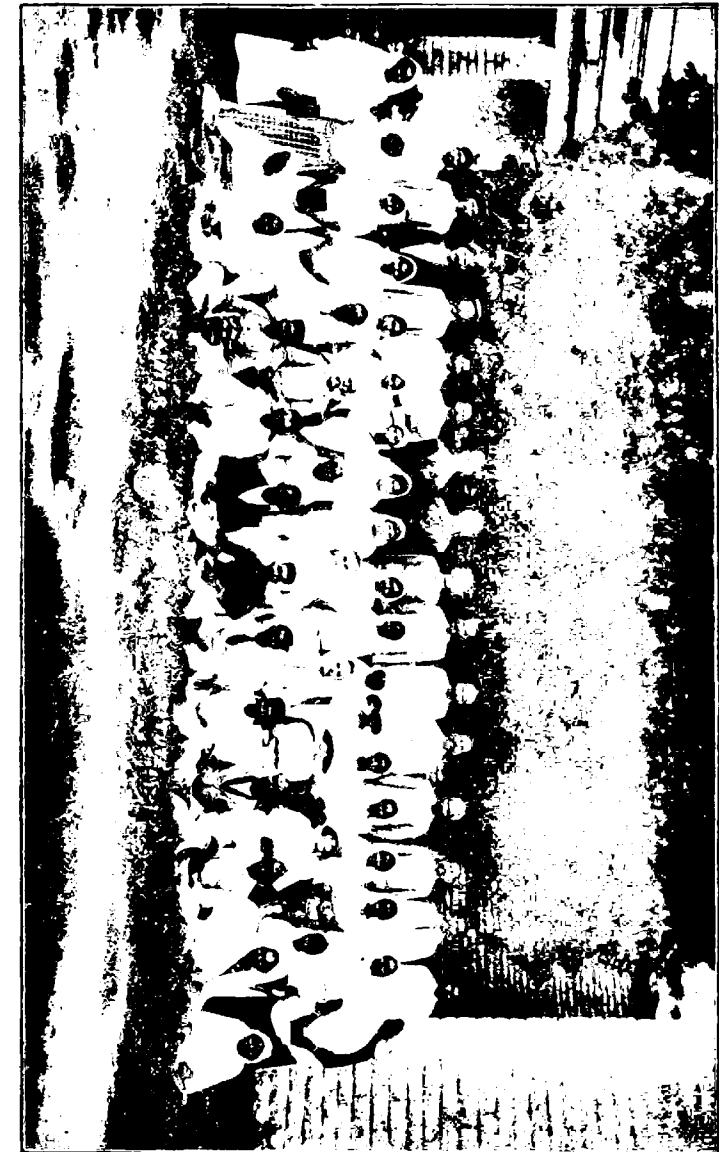
120 questions in an hour

600 in a day

1,20,000 questions in a year.

He explained methods by which a teacher can increase his proficiency in his vital work for the young. His lectures did a lot of good to all the teachers.

We rejoiced in having with us Mr. A. N. David, B.A., L.T. He also delivered three good lectures on How to Teach Arithmetic in Primary Schools. He presented us the new method of Arith-



metic teaching by Miss E. R. Cussons, which has been published in pamphlet form in English. He explained that method in simple Urdu in a very helpful and able manner.

One evening we had the pleasure of having Dr. Naval, the Health Officer of Ajmer City, with us. He delivered a very instructive lecture on some of the diseases which are so common to the people of India. His suggestions of simple, inexpensive remedies were very helpful and practical and strong.

We all hope the schools in Ajmer-Merwara will be better next year than ever before as a result of this Teachers' Institute of 1926.

CHATUR BHUJ.

THE TEACHERS' INSTITUTE Nagpur C. P.

At Mecosa Bagh, Nagpur, September, 21st to 23rd the Rev. C. B. Hill, Educational Secretary conducted a very profitable Teachers' Institute. Emphasis was laid on the teaching methods used by our Lord Jesus Christ, character building as the aim of education, and how to teach Arithmetic. Each evening during the Institute Dr. Mongrulkar, Public Health Officer, gave an illustrated lecture on some health topic. How to guard against cholera, malaria and tuberculosis, and to treat those who are suffering therefrom were among the subjects presented. His addresses were very interesting and helpful.

A. N. WARNER.

THE TEACHERS' INSTITUTE Lahore, October 6—8, 1926.

The Teachers' Institute held at Lahore from October 6th to 8th, was the first one of its kind to be held for Methodist Teachers in the Punjab. The Institute, under the able leadership of the Rev. C. B. Hill, lasted three days and it is with its principal features that this brief account is mainly concerned.

It will be difficult to describe fully, in the short space allowed, the wonderful benefits and the spiritual uplift and inspiration that this Institute has brought to all those who were privileged to attend its sessions. The three short days of its duration were full of valuable information.

Each day was begun with a devotional hour; and Mr. Hill gave us three heart-searching talks on Jesus as a Teacher. The first talk, Jesus and His Authority as a Teacher made us feel with a new thrill, the power of the personality and the wonderful opportunity of richer, fuller service that opened up to every one who follows this high calling. The second topic, The Aims of Jesus as Seen Through all His Teachings brought home to us in a new light, the goal towards which we, as teachers, should ever keep our aims and our ideals. The third and last, The Methods of Jesus, opened our minds to new visions of vast unexplored possibilities in the sphere of teaching.

The second session of the day was devoted to a lecture by Miss A. C. Dass on the methods of teaching in Arithmetic both primary and secondary. The lectures were well developed and aptly illustrated. The most interesting feature of the lecture was the method of teaching Arithmetic in the Kindergarten and B classes, as demonstrated by Miss Dass.

A very important feature of the Institute was the third session of each day when there was a round table discussion and questions asked concerning anything that may not have been fully understood by the teachers present. It also was a time when mutual problems were discussed and helpful suggestions made.

An apt conclusion to this brief account is the report of the Findings Committee as quoted below:—

"Your Committee makes the following recommendation—

1. The Institute is a great success.
2. There must be a wider series of subjects to touch on the needs of Primary and Secondary schools.
3. More time should be devoted to this Institute. The time should be from a week to ten days.
4. A Programme Committee should be formed to arrange subjects for the next Institute.
5. The Committee proposes a vote of thanks to the Rev. C. B. Hill, Miss Palmer, and Miss Dass for their help."

This has been one of the finest means of help and inspiration to our teachers and we hope that this will be a regular institution of our Methodist schools, scattered in all parts of India.

T. I. THOMPSON,

INSTITUTE FOR HOUSE FATHERS AND MATRONS

Khandwa, C. P., Sept. 17 to 19, 1926.

The Institute for House Fathers and Matrons held at Khandwa, C. P., September 17th to 19th, 1926 was probably one of the most profitable assemblies of its kind ever held in India. It is true that Institutes for House Fathers and Matrons have not been very many and the work is largely breaking new ground. But to say the least the gathering was all we expected and more than we could have hoped for.

Rollcall revealed to us the fact that there were representatives present from nine different Missions in Central Provinces and Central India. One of the men farthest away came from Baitalpur of the American Evangelical Mission, a distance of 537 miles from Khandwa. There was another equally far from the General Conference Mennonite Mission of Janjgir. Then of the other Missions represented there was a man of the Free Methodist Mission of Yeotmal. Three came from the Kurku and Central India Hill Mission of Ellichpur. A man and his wife came from the Disciples Mission at Damoh. The Friends Mission had representatives from Hoshangabad and Schagpur. The C. M. S. sent a man from Mandla. From the United Church of Canada Mission there were House Fathers from Ujjain, Kharua and Rusalpura. The Methodist Mission sent representatives from Jubbulpore, Narsingpur, two from Baihar, two from Basim and two from Khandwa.

In the twenty-one schools represented there are 1,564 boys and girls. If the House Fathers and Matrons have gone back to their boarding schools filled with the Holy Spirit and with renewed determination to help these 1,564 boys and girls to become good men and women, who can begin to estimate the good that may come from this gathering?

A splendid spirit of co-operation was shown from beginning to end and there was only one desire and that was to become better prepared for the great task and great opportunities that are in our boarding schools. There was one central thought in the program and that was Character Building. Every paper and every address gave testimony to this thought. In the last service, the Consecration Service, "Rededication to the Task" one and all with uplifted hands promised to go back to his or her Boarding and live the Christ-like life and be a better House Father or a better Matron.

Was it worthwhile? The follow up work will tell.

O. M. AUNER.

EXTRACTS FROM THE CHINA EDUCATIONAL COMMISSION'S REPORT OF THE IMPORTANCE OF TRAINING TEACHERS

"The government has seen the importance of teacher-training and is succeeding in the public normal schools to a degree that is unrealized by many missionaries. It would be a safe prophecy that Christian elementary education will stand or fall during the next ten years according as it awakes or not to the absolute necessity for training its teachers." (P. 80).

"Teacher-training is the most essential type of occupational training for the Christian system." (P. 107, with reference to Middle Schools.)

"It is necessary, in order that Christian education may maintain its leadership and render the service which Christian ideals and practices alone can give, that the Modern Christian educational system be not only of a high order and decidedly effective, but forward-looking, easily modified to meet new conditions, and sensitive to change," (P. 135).

"In a sense, a system of schools may be regarded as an organism created to produce certain desired changes in people. The fingers and hands are the teachers . . . (who) must be competent to carry out the plans of the central organization. Each must be sensitive to the demands confronting him. Each must be skilled in the processes of his task. Not only must he have an appreciation of skilled work when he sees it, but he must himself be trained to become a skilled technician. While many teachers in the past have reached this stage of efficiency by a process of trial and error in years of experience, the process has been wasteful. In general we can expect such teachers only as a result of distinct professional preparation." (P. 135-7).

"Unquestionably all of these proposals involve expense. But the imperative need for training-in-service of all teachers in the Christian institutions in China justifies even seemingly elaborate plans for meeting the demand. *If quality of work is really the key-word for the Christian Educational forces, a successful program of short courses for the teachers must be made,*" (P. 351).

MINUTES OF BOARDS OF EDUCATION

Indus River Conference

A most interesting and inspiring meeting of the Indus River Conference Board of Education was held in Lahore, October 27-29. At this meeting a lively interest was manifest in the development of our educational policy on broader and more economic lines. Plans for the opening of new schools at Hissar and Karachi showed that the committee had a vision of the needs of India and were anxious to cope with the new interest and demands of our Indian Christians for an education.

Plans for a Model School were presented and it is our hope that we may be able to develop and remodel schools on these lines; thus increasing the efficiency of our Boarding Schools. The reports of the committees gave grounds for encouragement in that each showed that work had been done and that some progress had been made in the past year.

On Friday reports of the Raewind, Ajmer and Lahore schools were read by the head teachers of these institutions; this linked us closer to our Indian helpers and made them feel a more vital part in the institution and work of the Mission. At this meeting the Boy Scouts of Raewind entertained those present with songs, a drama and other scout stunts. They also gave a demonstration of first aid in rescue cases. The girls of the Lahore school presented model classes in arithmetic, home-nursing, writing and handwork. These demonstrations impressed everyone with the practical nature of modern education and clearly demonstrated that modern methods would incorporate the play instinct as one of the vital factors in dealing with children.

An insight into the possibilities for higher education . . . was given by Professor Paustian of Foreman Christian College. He pointed out with pride our participation in such a worthy and far-reaching undertaking. Mr. Malcom Pitt of Jubbulpore eloquently urged that Methodist Ministers should send more promising men to the Theological College.

Mr. Hill, our Educational Secretary unified the Educational Conference in a remarkable closing address which gave us all a vision of the possibilities of such a conference.

A. P. KEHM,
Secretary.

North-West India Conference

The Annual Meeting of the Board of Education of the North West India Conference met in Mr. Rankin's drawing room at Gola Ganj, Lucknow, at noon on November 13th, 1926.

(After singing "Oh, for a thousand tongues to sing," prayer was offered by S. Singh.)

(The following members were present:—President, Benson Baker, Secretary, Miss Hoffman, Misses Richards, Bobenhouse, Donohugh, Everley, Dr. Tower, Messrs. Henninger, Pace, Clemes, Aldrich, and Jones.) The members of the American Commission who were present were Dr. R. E. Diffendorfer, Mr. Wm. Boyd, Mr. Stanley High. (There were twenty-one visitors present.)

On motion the privileges of the floor were extended to visitors.

Dr. Diffendorfer was introduced and gave four major questions for consideration.

1. How far should our main emphasis be on the education of our Christian community?
2. How far should our main emphasis be on the education of our non-Christian community?
3. How get emphasis upon quality instead of quantity?
4. How can we correlate our education of boys and girls, of young men and women so that we can reach the Christian community?

Mr. Boyd was introduced and responded.

Mr. Stanley High was introduced.

Miss Ball reported for the committee which was appointed to consider special cases to present to Dr. Diffendorfer regarding places where co-operation in primary schools between the two societies would be feasible. The committee met in July and the places suggested were Aligarh, Roorkee, Sonapat.

J. C. Pace explained the object of the Ingraham Training Institute and its relation to other schools. There was an extended discussion during which Dr. Diffendorfer gave this question for thought, "Can you do the experimental work in Ghaziabad which will give the new approach to the villages?"

Adjourned to meet at the call of the President.

Second Session, November 20, 1926.

(Prayer was offered by J. T. Robertson.)

By motion all Children's Day collections are to be sent to the Treasurer of the Board of Education.

The Report of the Committee appointed to draft plans for an annual Athletic meet and Physical Ability Test was read by S. W. Clemes as follows:—

1. There shall be an annual athletic meet in each of our Mission Schools.
2. The time for such an event shall be Easter Monday.
3. Ribbons of three colours for 1st, 2nd, and 3rd. Places are to be rewards for the successful ones.
4. Where possible boys and girls shall meet on the same field, but shall not compete against each other.
5. Classification is to be by height.
6. Events—
 - I. Dashes, 40, 60, 100 yards.
 - II. Track event, long run.
 - III. Field event—
 - (a) Jumps.
 - (b) Ball throw.
 - IV. Team events—
 - Tug-of-War, Relays, Three-legged race.

Any other information desired may be obtained from S. V. Clemes. The report was accepted.

The committee appointed to investigate the opening of a Conference High School for boys gave both a majority and a minority report and both were read by R. T. Templin. On motion the majority report was accepted and the following committee was appointed to investigate the possibility of opening such a school in Muttra:—

The Muttra District Superintendent, R. E. Crane, J. C. Pace, R. T. Templin, S. Singh, S. W. Clemes.

Adjourned to meet in Delhi, January 11, 1927.

C. E. HOFFMAN,
Secretary.

