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GIRLS' PRIMARY SCHOOLS.

- (1) PAPER BY Miss MARY SORABJI, ASSISTANT, FEMALE TRAINING COLLEGE, POONA.
- (2) PAPER BY Mrs. F. L. McAFEE, LADY SUPERINTENDENT, FEMALE TRAINING COLLEGE, AHMEDABAD.

Girls' Primary Schools, as they are and as they might be.

In a crowded street, up a dark and creaking staircase, into a poky room, with a low roof, ill-lighted and worse ventilated, roughly plastered walls—innocent of pictures or diagrams,—a few benches without backs, an unwieldy table, a couple of chairs, a board that was *once* black, but under the softening influences of time has now grown grey, an abacus hung safely out of reach covered with dust and cobwebs. Such is the Primary Girls' School as I know it, with regard to situation and surroundings.

As for Magister and Pupillus, the following may furnish an idea. My hour for visiting the schools—there were about six in all—was half-past ten in the forenoon. On arrival at the school door I found it *not* unfrequently locked.

A few stragglers with slates tucked away under their arms would be waiting for admission. Presently the Head Mistress, with the keys, would appear upon the scene.

On being questioned as to the reason of her tardiness, her reply would be: "Breakfast was late," or, "I had visitors," "I had a religious ceremony to perform," or the like.

The Assistant, usually a *man*, was, naturally, not more punctual than the Head Mistress, and the children—faithful little imitators in all things of their elders—would drop in at intervals during that first hour. How much of that hour's subject was taught and learned is not difficult to conjecture.

Imagine yourself now in the school-room looking round upon the pupils in their places. You do not, *of course*, expect that even the minimum regulation "eight square feet of floor area" is allowed to each child. Such a day-dream would have but a rude awakening.

(a) You listen to a Reading Lesson in Standard II. or III. It is somewhat after this fashion: *Teacher*—"Open your books. First girl—Stand! Read!" The child obeys in that strident, rather nasal, monotonous tone, which is such an unpleasing characteristic of the reading in our vernacular schools. *Note* that this lesson was not previously taught. It is new for the day. The fact that reading is an imitative art is wholly lost sight of. The Teacher sets no pattern or model for imitation before the class.

The child is *told* to do something; instead of being *shown how* to do it. If a new and difficult word occurs, it is pronounced casually, and then left; not written up on the black-board (or grey board), not explained. The attention of the class—as a whole—is not drawn to it. No attempt is made to illustrate the use of it in another connection. The same sing-song mechanical unexpressive drone is repeated faithfully throughout the class, till the last child is reached. A few questions upon the equivalents of difficult words follow—but word for word substitution "got up" from a book of meanings—is all that is demanded and given. When the books are closed the children are never invited to give a coherent, succinct account *in their own words* of the passage read, and thus the opportunity of encouraging continuous thought and affording it oral expression is lost. "Prepare the next lesson for to-morrow" is the *coup de grace* of this almost worthless performance.

(b) Notation and Numeration are seldom intelligently taught. The Teacher does not think of any device, or visible and tangible illustration, to help the children to understand the mysteries of units, tens, hundreds, and thousands.

The multiplication table must of necessity be learnt by heart, but to explain to the tiniest that this formidable and often much-dreaded exercise is only a quick and short way of doing a simple addition sum, and to illustrate this on the black-board never dawns upon the mind of the Teacher. And so, further on, Arithmetic is often taught as "a mechanical knack rather than a mental discipline," the *reason* of the rule being seldom if ever explained.

(c) In a Writing Lesson to infants the procedure is on this wise.

The Assistant, who is, of course, put to the infants for every subject, gets hold of the child's slate, and reclines on his chair, or stands in front of his pupil, in either case holding the slate towards *himself*—well *away* from the child. He forms a letter of the alphabet, meanwhile the child may be looking anywhere. *That* does not matter! The teacher has fulfilled *his* part of the contract, it remains for the child to perform *hers*. "Go and sit down, and write that letter" is the order it receives, and the poor infant struggles to imitate it, or gazes at it in despair, but, you see, it has been got rid of for a while and kept quiet, and that, of course, is a great point gained.

You will observe here that there is no effort on the part of the Teacher to show the class on the black-board how the letter is formed, bit by bit, no examination and correction of slates, after each separate portion has been duly copied, no calling of attention to curves, angles and straight lines, no intelligent talking to the class, while the writing lesson is going on.

(d) In teaching the babies their letters, much precious time is ruthlessly thrown away, and our little girls who alas! leave us so early to be married—are kept grinding at letters and figures—when they might be reading simple words and adding up numbers.

Imagine the young Assistant—who has taken up teaching as a *pis aller*, not by any means for love of the art—enthroned on a chair. A class of infants is sitting around him. He points (or does *not* point) to a letter on a card, and pronounces it in a dull lifeless voice. The tiny mortals repeat the name of the letter after him in the same wooden way. Their eyes, however, are not fixed upon the letter. *That* evidently is not an essential part of the performance. The hour, you see, is being "put in". Does it matter *how*? (I would remark *en passant* that hardly any lesson—even for infants—is allowed to occupy less than a solid hour of sixty minutes.) Meanwhile budding intellects are being blighted, the growth of tender minds is being arrested, by this *terribly* deadening process.

(e) Geography—which in the hands of a skilful teacher may be made as interesting as a fairy tale—is often reduced to the learning of lists of names by heart from a pernicious cram book purchased for a pice in the bazaar, or—which is equally bad—from a catechism of Geography. The Teacher sits in her chair, and tells the child to point one place or another on the map, and the "trick"—I speak advisedly—lies in being the sharpest to spy it on the map. The meaning or use of a map is never illustrated by drawing a ground-plan of the school-room, and calling upon the pupils to fill in where they can, doors, windows, furniture, &c. Indeed, of so little educational value is this *instruction* (?) in Geography that nine children out of ten cannot tell you on which side of the school the sun rises, nor—though they know by heart *to a mile*—the area of the Province prescribed for the standard—can they measure to you a foot upon the school-room floor or wall, or tell you the distance from the school-house to the nearest market.

(f) With reference to the Object Lesson—it finds no place upon the timetable;—one potent reason being that "it does not pay." It is not examined at the annual inspection. Another is—it is too much trouble for the Teacher to "get up"; *ergo*, we perceive that the child's observation, imagination, and reasoning powers are all suffered to lie dormant. I have often noticed that the child is not encouraged to think for herself. When she ventures on an answer in class, it must be in the preconceived stereotyped words of the book. In fact the child who is the dullest and least animated in the class—who moves not a muscle, but obeys every order like an automaton, frequently wins the highest praise from the Teacher. "She *is so* quiet!" is the eulogy I have often heard from an admiring master regarding a dense child, out of whom I could extract nothing.

(g) Story-telling is an unknown quantity in the Primary Girls' School as I know it. (h) Singing (I do not call the reciting of poetry from the reading book by that name). (i) Drill, and (j) Manual Exercises do not form a part of the day's joyless and uninteresting programme, and how much happiness is thereby

denied to our little ones—*happiness*, without which they cannot live, or grow healthily. It is like giving to growing plants everything but *sunshine* and then expecting them to thrive.

Our Teachers do not realize that as some one has well said, "In early childhood the senses are more active than the intelligence, and that one of the first things needed in early training is to teach a child how to use *his fingers, his ears, and his eyes*, and that whether he does this well or ill, makes a great difference to him, all through his later life."

Having followed thus far along the rugged pathway of the child's intellectual career, you may wonder what provision is made for her *moral* training.

I wish I could say that she is seriously and distinctly taught to feel rightly, to be guided by a noble ambition and inspired by a high sense of duty. This alas! like the object lesson, does not fall under the head of Subjects for Examination at the dreaded annual visit, and so we ignore or leave undeveloped the highest faculties of the wondrously complex minds of our little children.

I would here enter a protest against our Primary Departmental Readers. To my mind they are quite *passé*, wholly played out. They have had their day, and fail to interest the children. They are by no means attractive, *within or without*. They are not carefully and thoughtfully graduated in difficulty, and in the case of the 1st Marathi Reader—the poor child is compelled to labour through the hieroglyphical intricacies of the *जोडा अक्षरे* (joint letters) before it is allowed to read simple words and easy sentences.

I have seen children surreptitiously hide pictures or picture-books between the leaves of their Readers, *pour passer le temps*, for children will provide entertainment for themselves, if you deny it to them. I have likewise seen them playing at cat's cradle in class, or counting their little bare toes, each other's glass-bangles, or engaged in the livelier, if less harmless, diversion of pinching and pushing.

Occasionally I paid a surprise visit to one or other of the Primary Schools, and if, by chance, a pair of bright black eyes spied me through the window, there would instantly be a general "*Post*" followed by loud raps with the cane on the table for silence. When I arrived at the head of the staircase, a sudden and unnatural hush would pervade the room. If I happened to enter as I did, once or twice, unobserved (shall I say it?) the Assistant—with his feet upon the chair—would be having forty winks.

Now I do not mean to blame these poor Teachers wholesale. In many cases they only "act up to their lights". In most cases they have forgotten what they learned in their training colleges, and then, when they have left these colleges and gone out to teach, how we *do* neglect them. Speaking of the city of Poona alone, at the present time, with one noble voluntary exception—I know of nobody specially deputed to visit and look after our Primary School Mistresses. *Who* is there to take an intelligent interest in them, to encourage them in their work, to sympathize with them and counsel them in difficulties? From one week's end to another do they see the face of a friend? There is no one in short to do for these Teachers what is so lovingly and effectively done by the Vicar and his wife for every village schoolmistress in England. Further, I know of no Teachers' Guild or Association for mental culture and social intercourse to which they might affiliate themselves—and alas! they too often degenerate, and their work becomes a drudgery instead of a delight. Can we wonder that this should be so?

In justice to our Primary School Teachers, I must admit, as I do gladly, that they possess some excellent gifts. Their endurance, their unwearied patience and calmness under difficulties are beyond all praise, and the mother-love inherent in every *true* woman, is not wanting in our Primary Schoolmistresses. Moreover, I *have* here and there come across one who was a *born teacher*, and work with such an one has been a continual joy. If they *do* happen to be rather injudiciously indulgent to their pupils, and if it is a general opinion amongst them that to punish for naughtiness is unkind, the fault lies in their own early up-bringing and false idea of duty.

I have said much about the deficiencies of our Primary School system, but not more than is justified by facts, and surely the hearts of all who care in the least degree about the early training of our dear young children will cry out for a speedy reformation !!

Let us try and get at the root of the matter. To me it seems that so far as Primary Girls' Schools are concerned, the mistake lies in our own training system. Our Mistresses are not sufficiently or efficiently equipped for their life-work.

Their schedule is far too meagre. It does not cover a wide-enough area. In the highest or last year of the Female Training College—the women's knowledge of literature is limited to the second half of the Fifth Departmental Book. They read no distinct, separate standard author in prose or verse.

In Euclid they learn only 20 propositions of the 1st book. They read but one History, that of India. They learn no second language, and *Drawing* is not even an *optional* subject.

Now this schedule may have met the requirements of the past—but the day of better things has dawned. We want something more comprehensive.

I should plead for an (a) *entire* remodelling of our Female Training College Code, and for the raising of the standard of entrance. The numbers may suffer, in consequence, for a year or two, but we should undoubtedly gain in quality, and the whole tone of the College would be raised.

(b) Drawing, I should make a *sine qua non*, for what is more useful for a Schoolmistress, than to be able to illustrate her lessons by drawing rough diagrams on the black-board? and this is but *our* aspect of its utility. In this connection I would venture to repeat what was quoted by an Ecclesiastical dignitary at a recent school gathering: "All experts are agreed that practice in Drawing is valuable as a means both of general and of technical education. It imparts steadiness and delicacy to the fingers, it develops clear and exact perception, and it cultivates the sense of beauty, which however feeble in most people, is wholly absent only from the lowest minds."

(c) I should further advocate the taking up of English or Sanskrit as a second language. It has been said that to know any language besides one's own is equivalent to acquiring a sixth sense. However that may be, we all know that the mental culture involved in learning a language other than one's own, enriches and enlarges the mind as perhaps hardly anything else can do. And then to what a wide and glorious field of literature you introduce the student of English or Sanskrit! What a delightful resource you provide for his leisure hours! How much more generously you equip him for the battle of life!

(d) I would suggest also the introduction of Science, just enough, at present, to enable the student to give breadth and amplification to the object lesson.

(e) Furthermore, I would submit that it seems advisable to initiate the intending Teacher into the mysteries of the Theory and Practice of Teaching, *earlier* in her course, say in the second instead of the third year. It is hardly necessary to add that this arrangement would, of consequence, give her a year more of practical experience and supervised exemplification, and this, after all, is her *raison d'être*. I would also encourage proficiency in the art of teaching by offering a medal for the best lesson given in presence of the Examiner.

(f) I come now to one of the most important qualifications of the Schoolmistress. I would have every Primary Schoolmistress study the Theory and Principles of the Kindergarten System, for I believe that we ought to hail gladly any means by which we may render the early school-life of our little children more joyous and beautiful.

I am well aware that a Kindergarten Schoolmistress to be successful must be possessed of rare and peculiar gifts. She must be animated, naturally joyous, sympathetic, unwearyingly patient and a good *raconteuse*, and with

regard to little children she must be an *enthusiast*, but I think that all these may be acquired in a greater or less degree, provided there be to start with, earnestness of purpose, combined with that heaven-born spark of love for children which, as I said before, is not wanting in our Indian women.

Above all, I would have our Teachers know and recognize the dignity and nobility of their profession. I would have them wait and listen for the *Divine voice* to call them to arise and bear a share in this glorious work. Indeed, it seems to me that the Teacher who does not approach these little ones "fresh from the hand of God" with *reverence* and *love*, ought to abandon for ever the profession of teaching.

For the future of our Primary Schools themselves, I venture to offer a few suggestions.

By some they may be considered highflown and visionary, and, so far as funds are concerned, beyond the range of practicability; but surely nothing in the way of money or effort ought to be thought too great to devote to the service of little children, in order to secure for them the best possible advantages, both in the excellence and efficiency of teaching power, as well as in favourable external conditions.

With regard to these suggestions, I beg to offer them with all due deference to you, Sir, and to this Conference, in the spirit of a disciple, hoping to be corrected where wrong, and to learn from the wider experience and knowledge of others.

I would like most of our Primary School buildings pulled down and rebuilt on the latest and most approved scientific models, furnished simply but suitably with proper regard to the health and comfort of growing children. I would have the walls adorned with bright and pretty pictures of animals and birds (preferably those lately selected by Mr. Giles), of occupations and manufactures peculiar to India, a map of India, weights and measures, coins, an object box, and a picture of Her Majesty the Queen-Empress. I would have the surroundings made as attractive and pretty as possible, fresh flowers filled every day and a few plants growing, so that the artistic taste and æsthetic feeling of the children may be unconsciously developed and influenced; and we shall observe that when they return to their own homes their refined instincts will distinctly rebel against dirt, discomfort, and untidiness.

"Before each day is ended one ought—'it is said'—to look upon a beautiful picture, hear some lovely music, or read an exquisite poem." If this be desirable when the object is to preserve æsthetic sensibilities already in exercise, how much more is some such expedient necessary when dealing with little children, in whom we are seeking to *awaken* and *develop* these sensibilities?

With reference to the Kindergarten system, I should try to adapt it to Indian needs and ideas, not slavishly following the games, occupations, and songs of the German and English schools, but selecting only those which are likely to have a distinctly useful and educative value in our *own*—and, if we give time and thought to this matter, I am sure we shall be able to utilize many of our *own* native games and domestic occupations, some of the latter of which are so graceful and picturesque. I refer to the grinding of corn at the hand-mill, the carrying of water on the head from the well, the winnowing of wheat, the pounding of rice with a pestle in a mortar, &c.

Then we may profitably (I) adopt letter-building for the infants, having the letters cut into pieces at the curves and angles and requiring the children to piece them together in imitation of a model set up before them. (I might here mention that I experimented on this point in Ahmedabad with pleasing success.)

(II) Word-building, too, we may have for children who know their letters.

(III) Bead-threading, in various colours.

(IV) Card-pricking and outlining in coloured silks and wool.

(V) Paper-folding and plaiting.

(VI) Building brick houses, towers, bridges, &c.

(VII) A little simple drawing and brush work, and where funds are available, clay-modelling and lace-weaving.

I should then seek to enrich our present *very* scanty Vernacular Child Literature by offering prizes in our local newspaper columns for the best action songs, set, of course, to Indian metre and school dialogues. Some of our Teachers have a decided talent for versifying.

I should further make Drilling and Singing form a necessary item in each day's exercises. The importance of vocal music as a refining and humanizing influence, as well as a means of expanding the chest and strengthening the lungs, cannot be too highly gauged, and who that has watched the delicately moulded, beautiful, and too often alas! fragile limbs of our little Indian children would deny to them the means whereby they become stronger and more vigorous?

These are some of the thoughts that have occurred to me, limited by that very necessary twenty minutes, but I know that in leaving the matter in the hands of our revered President and of this Conference, I have secured for it the ablest and most sympathetic recognition possible.

MARY SORABJI.

Poona, 30th September 1896.

PAPER READ BY Mrs. F. L. McAFEE AT THE RECENT EDUCATIONAL
CONFERENCE AT AHMEDABAD.

Female Primary Education.

The papers have long ere this made public the fact that Government has generously sanctioned for this year an additional expenditure on primary education of no less than two lakhs of rupees. Amidst the many deliberations as to the wisest way in which this liberal grant should be expended for the advantage of the boys, the writer of this paper would respectfully enquire how much of the money is to come to the girls? Are the daughters of the Department to come in only for the crumbs which fall from the children's table, or are they, as children of the same family, to share the loaves and fishes with their brothers?

To come more to particulars. The Ahmedabad Zilla, as Educationalists in these parts are well aware, is, so far as female education is concerned, the most advanced of all the five zillas which go to form this great stretch of country called the Northern Division. Yet even with Ahmedabad let us glance for a moment over the record its talukas have to show, to prove the need for the loaves and the fishes referred to:—

THE AHMEDABAD ZILLA.

<p>A. Parántij Táluka, Modasa:</p> <p>Number of boys' schools ... 20</p> <p>Do. girls' do. ... 2</p> <p>B. Virangám Táluka:</p> <p>Number of boys' schools ... 37</p> <p>Do. girls' do. ... 3</p> <p>C. Sánand Táluka:</p> <p>Number of boys' schools ... 18</p> <p>Do. girls' do. ... 3</p>	<p>D. Daskroi Táluka:</p> <p>Number of boys' schools... 46</p> <p>Do. girls' do. ... 7</p> <p>E. Dholka:</p> <p>Number of boys' schools... 36</p> <p>Do. girls' do. ... 5</p> <p>F. Dhandhuka and Gogha:</p> <p>Number of boys' schools... 41</p> <p>Do. girls' do. ... 5</p>
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It will thus be seen that whereas in the Ahmedabad Zilla there are no less than 210 Primary Schools for *boys*, the schools for girls reach only the small number of twenty-six. Of these 15 are Local Board and 11 Municipal ones.

So much for the Ahmedabad Zilla. But Broach has a still poorer record, for in this zilla there are only nine Local Board and Municipal Girls' Schools in all its *four* talukas together.

MIXED SCHOOLS.

To remedy in part, if possible, the want of girls' schools, the Deputy Inspectors have, in several towns where none such exist, ordered the Masters to admit the girls with the boys. But this arrangement is not likely to succeed with any but infants. For few Hindus or Pársis would care to send their daughters of ten or twelve to a school attended by boys of all ages. It is also to be feared that in many cases these mixed schools do not answer even the elementary purpose for which they were designed. For it is stated, and by reliable informants, that of the girls on the rolls, only one-third at the most are presented, and that even this is a mild way of putting it. Where, it may be asked, are the two-thirds whose names are on the rolls, but who are not presented? If all whose names appear on the registers really attend these schools, how is it (1) that they remain in one standard for three or four years together, and (2) that not one-third of those whose names are on the rolls are presented for examination?

If there is really a *raison d'être* for these mixed schools, then a *Mistress*, and not too young a *Mistress*, should be appointed for the girls, and also strict enquiries should be made, at stated intervals, as to how many years the girls are kept in the Below Standard Class.

INFANT SCHOOLS.

It would be well if, in a few of the larger towns where girls' schools exist already, separate schools for infants only were started as an experiment. These,

for economy's sake, might be attended by infants of both sexes. In this case the defect of the present mixed schools would be avoided, for the boys attending them would be infants only, and the school would be under the care, not of a Master, but of a qualified Infant School *Mistress*. This school would prove a valuable feeder for the ordinary Primary School, and should exist side by side with it, although with a complete and separate staff of teachers. In such a school Kindergarten games, &c., could be successfully introduced. But without a Head Mistress for that work, and that work alone, such a school would be an anomaly.

SOME DEFECTS IN GIRLS' SCHOOLS GENERALLY.

Even in Primary Schools *boys* pay school-fees, and they are not likely therefore to throw away their money by paying these, and then absenting themselves month by month. Moreover, the rule of cutting off a *boy's* name from the register, if his fee remains unpaid by the 10th of the month, acts as a salutary check in preventing the cooking up of school registers. But *girls* attending primary schools pay no fees, hence there is little to prevent a Master or Mistress of a girls' school from swelling out the rolls by keeping on the registers names of pupils whose attendance is not more than an average of two or three days in a month during a great part of the year.

Numbers, too, in many schools run up suspiciously by the 1st April, and descend at a corresponding ratio after that eventful official month has passed.

Another noticeable fact about these misleading numbers is the very large proportion of girls to be found in the Below Standard Class. The writer and other visitors to girls' schools has many a time observed that, out of a number, say, of 120 girls, 30 or 40 only will be in standards, and the remaining 80 or 90 in the Below Standard Class, to which they have apparently been sent year by year, by their parents, to get them out of their way.

If the numbers were reported *quarterly* instead of only on the 1st April, and if the yearly reports were made to show *how many years* the "Below Standard" children had been in that large, but to all intents and purposes, untrained class, we should be able to probe a little below the surface, and to clear out some of the rubbish. If also there were a rule that *half at least of the numbers on the rolls should be presented*, the road to Female Education would at least be cleared of some of its obstructions.

GIRLS' SCHOOLS UNDER MUNICIPAL CONTROL.

Many of the present defects would disappear were it possible to appoint *Inspectresses* of Girls' Schools. But as the times do not seem to allow of this increased expenditure, the writer would strongly advocate all girls' schools remaining under the administration of Local Boards. A strong and sturdy boy can run on his own legs and may probably be safely entrusted to the care of an average schoolmaster. But a child beginning to walk is not so sure of its footing and is more likely to need the tender and fostering care of a mother. Pull away its props roughly, and down it goes. Let therefore the Municipality have the charge of the *boys* if they will, but primary schools for girls are not quite steady on their legs as yet, and for many a year still should be under Local Board protection and control.

A School-mistress in a Local Board School is under the protection of Government and is directly accountable to one official superior—the Deputy Educational Inspector. A Schoolmistress in a Municipal school *in a far-off town* is often left to stumble on alone. The Educational Department has, as it were, washed its hands of her. She sees the Deputy but once a year when he comes to examine the school, but for the rest of the time she has, not one, but three or four direct official superiors, to wit, the members of the Municipal Board, and the homely adage "Too many cooks spoil the broth," is often applicable here.

In large cities where the Municipal Boards are composed of educated men, many of them more or less in sympathy with female education, things may, and often do go on, smoothly enough, but complications sometimes arise in outlying districts, which might be avoided were the girls under the control of Local and not of Municipal Boards.

Girls' schools should also be visited by the Deputies at unexpected times, at least two or three times in the year, as is done in many of the schools in England. This answers two purposes :

(a) It keeps a school up to the mark.

(b) It is a help to the schoolmistress who, as a woman, is much more helpless than a man would be in a similar position.

It also seems highly desirable that an untrained Assistant should not be appointed by Municipal Boards without any reference to the Deputy Inspector, and in the face of strong objections from the Head Mistress. Otherwise friction is almost sure to ensue, and such friction between the Mistress and her Assistant is neither good for teachers nor scholars. The weaker is sure in the end to go to the wall, and the weaker, strange as it may seem, is sometimes the Head Mistress herself.

There are also not enough Teachers in the Municipal Girls' Schools. In many a large school the writer has known the Head Mistress to be the only qualified teacher there. She and her one Assistant, often a raw youth, and oftener a sort of a peon and teacher *combined*, form the complete staff, and this sometimes of a school numbering from 70 to 90 children and consisting of six classes.

Under such a state of things as that just depicted, an Infant School system is out of the question, and the talk about Kindergarten pure nonsense.

REVISION OF SCHOOL BOOKS.

The present reading series needs a little revision. Such revision would not necessarily involve the *abolition* of our present books, but some re-adjustment and re-arrangement are required to meet the present needs of our schools.

The present historical chapters, if extracted from the reading books, and further extended by a few additional ones, written in the same simple style, would form a very useful and much-needed history for beginners. And as girls rarely remain at school long enough to pass the 5th and 6th Standards, such a book would give them a fair general knowledge of the history of their country. For the higher standards the present translation of Hunter's History also needs revision, the language being so difficult, and so full of Sanscrit words, that ordinary pupils cannot even understand it.

We are also practically without a Grammar or a Geography in the Vernacular, suitable for the upper standards. In fact with regard to the three subjects—History, Grammar, and Geography—we are in a position as follows:—

English History has to be taught entirely from written notes, as there is no translation of such book in Gujaráti.

Grammar.—Hope's for *beginners* sends girls out from school with a very imperfect knowledge of their own language.

In *Geography* we have no choice between Hope's short summary for beginners, or Candy's Geography, an edition *dating thirty years back*.

MORAL LESSONS IN OUR READING SERIES.

In conclusion may be mentioned that most important subject of all, *viz.* MORAL INSTRUCTION. It is true that *no* Teacher is debarred from a valuable medium for conveying religious instruction in the various selections in prose and poetry, already to be found in our existing books. Many of these are very beautiful, and contain much truth which is common to us all.

Education to be of real value must not only inform the mind; we must seek to touch the hearts and consciences of our pupils, and to teach them their duties to God and to their neighbour.

Without this, all our endeavours will prove fruitless, and we shall only turn out bad citizens and indifferent wives and mothers.

R. McAFEE,
Lady Superintendent, M. F. Training College,
Ahmedabad.

PRIMARY EDUCATION.

- (1) PAPER BY THE HONOURABLE MR. SETALVAD.
- (2) PAPER BY MR. JAMIETRAM NANABHAI, B.A., LL.B.
- (3) PAPER BY MR. N. D. CHHATRAPATI, L.M. & S., AND
MR. J. BENJAMIN BAMNOLKAR.
- (4) PAPER BY RAO SAHEB S. K. RODDA.

A PAPER READ BEFORE THE EDUCATIONAL CONFERENCE AT
AHMEDABAD ON THE 21st OCTOBER 1896.

Primary Education.—Standards and Inspection.

It is indeed a matter for gratification that the desirability of regularly holding Educational Conferences, as recommended by the Education Commission in 1883, has now been recognised, and it is hoped that the present Conference will be the first of a long series of Conferences resulting in much practical good.

But what is a source of greater gratification to me is the presence in the chair to-day of the Acting Director of Public Instruction, which, I venture to trust, gives promise of a more vigorous and progressive administration.

As a person not connected with the Department, and with no practical experience in the work of education, I think I owe an apology for standing here before you to-day. When I got the invitation to attend the Conference and read a paper from the Inspector, N. D., my first impulse was to attend it as a silent spectator, to learn from persons, officials and non-officials, who had devoted their lives to the noble work of educating the people of this country, their estimate of our present educational system and suggestions for its improvement. I, however, thought that I was not entitled, in deference to my personal feeling, to thus trifle with such an important and difficult public question as the improvement of our educational system, to the solution of which every citizen was bound to contribute his humble mite, especially as I had taken the liberty of pressing upon Government the desirability of holding Conferences as a means to arrive at that solution. This, coupled with the strong conviction that I have of the urgent necessity of reforming some parts of our present educational system has made me change my first resolve, and venture to take up your time with this paper.

Coming here with a strong desire, as above stated, to learn and profit by the views and suggestions of officers and others who have been working the present system, I may be permitted to confess my disappointment at the programme promising so little in the way of criticism of the present system and suggestions for its improvement from them. It is not for me to speculate whether, having worked the system all these years, they have naturally come to like it unmindful of its defects, or whether it is not considered good official etiquette to appear in any way to throw doubt on the efficiency or wisdom of the official system even at such a Conference.

I propose to confine myself on this occasion to our Vernacular School Standards and Inspection.

STANDARDS.

The word Standard is a term pre-eminently of the English educational system of testing the work done by schools and schoolmasters, by examinations at the end of a year, and the payment of annual grants based on the results of these examinations. As a necessary corollary of an elaborate system of hard-and-fast examinations, Standards as prescribed are mainly meant as guides to the Inspectors who conduct the examinations in the demands they are to make on the scholars. But when you parcel out a subject into several sections for the purposes of examination, the inevitable result is that that sequence becomes also a sequence for purposes of instruction. The English system having been imitated here, our Standards are framed more as guides to the Inspectors than to Teachers. They tell the Inspector how far to ask questions at the annual examinations, but does not tell the Teacher by what steps and processes he is to give instruction. The result is that the Teacher with examination and not education as his guide, adopts not the method that is natural, scientific, and rational and calculated to give a proper discipline to the infant mind, but the easiest course that would enable him to present his pupils ready to show particular results. This system of prescribing Standards for examination is to be found in Great Britain and Ireland alone. In every other European country, as well as in the United States, we find elaborate courses of instruction prescribed with the simple aim of directing the teachers as to the best methods of instruction and the best sequences for

presentation of a subject to the scholar's mind. With the abolition of the system of payment by results, the English Standards for examination will before long give way to courses of instruction. In order to show what difference there is between a Standard and a course of instruction, and how conducive the latter is to ensuring sound and proper education, I quote below our Infant Standard for arithmetic, and the courses of instruction prescribed for the corresponding first school year in Alsace-Lorraine:—

Our Infant Course.

Repeating Anks up to 100, and Multiplication Tables up to 10×10 .

Alsace-Lorraine.

First School Year—Arithmetic (Practice in numbers 1 to 20.)

1ST PRACTICE.—Value of numbers 1 to 10 taught intuitively (*i. e.* by observation) by number-pictures and by counting.

2ND PRACTICE.—Addition of pairs of numbers of one digit each, taught first on the abacus, and next by number pictures. (*N.B.*—The sum of the two numbers must not exceed 10; this practice must be continued also without apparatus or objects till *absolute mastery is gained.*) Frequent application of these problems to practical affairs. Introduction into these problems of common weights, measures, and coins, in so far as they are within the horizon of the children's experience.

3RD PRACTICE.—Subtraction of pairs of numbers of one digit rendered visible on the abacus and by many other means. Exercise and application to follow intuition (*i. e.* observation).

4TH PRACTICE.—Numbers 10 to 20 rendered visible, followed by addition and subtraction of numbers 1 to 20.

5TH PRACTICE.—Addition of two numbers of one digit whose sum exceeds 10. (*N.B.*—What was said under Practice 2 about intuition [*i. e.* observation], exercise, and application, applies also to Practice 5; in these results also *absolute mastery* must be acquired.)

6TH PRACTICE.—Subtraction of numbers of one digit from numbers under 20. Method as in Practice 3.

7TH PRACTICE.—Resolution into factors of numbers 1 to 20 to be rendered visible on abacus and other apparatus. This practice leads to—

(a) The multiplication table of numbers 1 to 20. (For method see Practice 11.)

(b) Division of the products of the multiplication table by an abstract divisor, or division in the sense of distribution. This practice is the converse of the last. In the former, the factors are given and the product is to be found; in the latter, the product is given and the factors are to be found. The children gain the necessary insight only if such distribution is *rendered visible*.

(c) Measurement of the products of the multiplication table, or division in the sense of being contained. Such measurement being *rendered visible* on the abacus by showing, for example, how many times 3 is contained in 6, 9, 12, 15, and 18.

APPENDIX.—In the seven practices above enumerated, figures are to be employed *only after the numbers have been rendered visible*. The children will be led to indicate the numbers on the slate by lines, dots, or crosses; they will imitate the number-pictures mentioned in Practice 1, *e. g.* :: The children are also to learn soon to make practical application of what they have learnt, by setting forth in figures the processes followed in mental arithmetic."

I venture, therefore, to suggest that courses of instruction for the guidance of teachers on the lines of those prescribed in Continental countries and America be substituted and prescribed in the place of our Standards for the Inspectors.

Let us now proceed to consider our examination Standards, which have by necessity also become Standards for instruction, and see how far they conform to recognised and scientific principles of education, and in what respects they need improvement. For this inquiry I will first take up the first Standards in

ARITHMETIC.

In order to pronounce upon our Arithmetic Standards, we must bear in mind the purposes for which arithmetic has to be taught, and the best accepted methods for attaining those purposes. Now, the teaching of arithmetic has a

double purpose—(1) Intellectual discipline, and (2) giving the pupils a series of processes required in the business of life. Now, in order that arithmetic can be a discipline to the mind, a thorough instruction in the reasons for the rules and processes, and the relations of the different rules and processes should be imparted. The attainment of the second object, *viz.* use in daily life, requires that speed of working must be obtained, and as the mind can reckon quicker than the hand can write, the writing of unnecessary figures ought to be avoided. In the teaching of arithmetic, the way in which this science has developed in the various nations ought to be borne in mind, and the scholars must be taken by easy and natural stages through the same sequence. In all nations practical methods of numeration have always preceded the formation of numerical language, and therefore the maxim has now been recognised that concrete knowledge must precede the abstract. Now, let us see how far our Standards and the methods of teaching adopted in our schools conform to these principles.

A glance at our Standards* will show that we ignore the principle that the concrete must precede the abstract, and we begin with abstract numbers (अंक) as if that were the simplest idea. I know that the abacus is mentioned in one Standard only (Standard I.), but the abacus is also in a certain sense a symbol, an abstraction which ought to be preceded by concrete ordinary objects. Then we require the Anks (अंक), multiplication tables to be repeated (अंकपत्र). For instance, in the Infant Standard small children are required to repeat Anks up to 10×10 . The Standard does not say that the Anks are to be preceded by any practices such as I have quoted from the Alsace-Lorraine courses of instruction. The application of the Anks to small sums within the children's comprehension and the little oral additions and subtractions, etc., find no place in our Standard. What is expected and is done is, therefore, to make the little ones repeat these Anks by heart and write them out, mere memory and cram work weighting the brain without affording any mental discipline.

Our Standards and the English Standards, of which ours are an imitation, sin most in altogether disregarding the capabilities of the infant mind, and violate the principle that children must be gradually trained up to the conception of large numbers. Our infant course requires numbers from 1 to 100, Standard I. up to 400 (by prescribing integral Anks up to 40×10), and Standard II. requires notation and numeration up to one million and additions, subtractions, multiplications, and divisions of numbers of four digits, while in Standard III. the numbers are unlimited. Poor children of seven or eight years to deal with abstract numbers up to one million! What notion can they attach to these symbols! It can never be done with intelligence. It can only be done mechanically. The child is not required to work a small sum in addition of Rupees, Annas, and Pies, which is more concrete, and which he can more easily grasp and understand, but before doing so must first go through elaborate additions, subtractions, and multiplications of long abstract numbers, which are more difficult to work, and still more difficult to understand and realise. The courses of instructions of all the Continental countries progress by more natural and easy stages. They all agree in confining the first year's calculations to numbers not exceeding at the most 20, those in the second year to numbers not exceeding 100, 1000 in the third year, and not till the fourth or fifth year are unlimited numbers allowed, but even then the magnitude of the numbers is kept within the limits of practical utility. Within the limits thus prescribed in each year, they teach also the four simple and compound rules, and such other rules as are suited

* INFANT COURSE.—Repeating Anks up to 100 and multiplication tables up to 10×10 .

STANDARD I.—Anks as in Deshi Hisab, Part I., up to Savaya inclusive. Use of the Arithmetic con.

STANDARD II.—In addition to Standard I.—

(a) Anks up to Paya, Dhats of current coins, seers, and maunds.

(b) Numeration and notation up to 1,000,000, sums in the four simple rules of not more than four figures.

STANDARD III.—In addition to Standard II.—

(a) Anks complete, except Dinchas and Dholas, easy mental arithmetic, *i. e.* Deshi Hisab, Part II. The Sons, Manikam, Khadinam, Sonarupanam, and Jaminam Lihkams.

(b) Four Compound Rules and Reduction (Native Table).

to each stage. Curiously enough, excepting the committing to memory of Savaya and other Anks, we do not begin fractions, the study of which is so formative and useful, till the fourth standard is reached, the amount of work for which standard, including rule of three, compound proportion, simple interest, and fractions is too heavy for one year. The result is that such children as leave school before reaching the fifth year of their study never learn at school much arithmetic useful to them in life. On the other hand, on the Continent almost everywhere, fractional arithmetic begins in the second year, and it advances *pari passu* with integral arithmetic. We needlessly and unnaturally disjoint and divorce the various rules and processes of arithmetic, postponing one to the other, instead of giving instruction in all of them as far as practicable, starting from simple illustrations of them in the lower standards and then by degrees proceeding to more difficult illustrations in the higher standards.

I have stated above that the teaching of arithmetic is required for the double purpose of affording mental discipline and for giving the scholar processes required in daily life. As speed of working is the essential in the second purpose, mental arithmetic becomes a necessary part of the arithmetic curriculum. I apprehend that we entirely fail to realise the real meaning and importance of mental arithmetic, and give it a proper place in our arithmetic standards. There is no mental arithmetic prescribed in Standards I. and II., except such as is implied in stuffing the brains of the little children with Anks. Little sums calculated "to encourage dexterity, quickness, and accuracy in dealing with figures, and to anticipate by means of rapid and varied oral practice in the small numbers the longer problems which have afterwards to be worked out in writing"* find no place here. The so-called mental arithmetic prescribed in the third and higher Standards consists only in what is known as *lekhas*—mere rules of thumb based on the accidental resemblances afforded by particular numbers (७२से ३५ये शेर तेथी अ२०१जे दोडडे ३५िया ७२ etc.) which correspond with the rules in English arithmetic for computing dozens, scores, etc., e.g., to find the price of a dozen articles, call the pence shillings, and call every odd farthing threepence. This is what Dr. Fitch† says about these rules of thumb. "The mental arithmetic, which is of real service, does not consist in exercises in a few special rules, but in rapid, varied, and irregular problems in *all* the forms which computation may take. It differs mainly from written arithmetic, in that it uses small numbers instead of large ones." The Educational Department in England gives the following directions‡:—"Oral practice should be given in all the ordinary processes of arithmetic, and should be so varied as to furnish as many different forms of exercises as possible in concrete as well as abstract numbers, and in the fractional parts of money, weights, and measures. In the last quarter of the year it should deal chiefly with the work of the next higher standard. It is often found to be a help in calculation if the dimensions of the schoolroom, the playground, and the desks and the weights of a few familiar objects are accurately known, and if the figures recording these particulars are easily accessible, and are occasionally referred to as standards of measurement." I am not for the abolition of our time-honoured *Lekhas*, which are useful in themselves, but I think that their number should be curtailed by omitting such as are useless and difficult of comprehension, and that a complete course in mental arithmetic requiring calculation of little sums in all rules of arithmetic should be prescribed.

Closely connected with mental arithmetic is the subject of Anks and the tables of weights, measures, etc. Standard III. prescribes ३५५ ३५५ (*tables of native weights, measures, etc.*), but with characteristic vagueness does not particularise which tables are to be taught and how far. The result is that some tables, which are either antiquated or are incomprehensible to little children (e.g. ६१५५५५ ३५५) have to be crammed by children because they are included in the prescribed text-book. Scheme B of the English Arithmetic Standard,§ on the other hand, prescribes, with great particularity, the stages and the sequence and extent of those tables that are to be taught in each Standard. A radical change should also be insisted upon in the method of teaching these tables. What is done and

* Vide Instructions to Inspectors, English Code, Art. 26. † Lectures on Teaching, p. 301.

‡ Article 26 of Instruction to Inspectors.

§ Vide English Code, Sch. I.

what is required is to make the children repeat these tables. I would rather have the children themselves see and handle weights, measures, etc., and weigh and measure things. Their eyes and muscular sense should be cultivated by estimating weights, distances, etc., as is prescribed in the English Infant School Course (Circular number 322 of 1893).

Coming to the Anks or multiplication tables, one is struck with the almost appalling disregard of the methods of rational and intelligent teaching. The first standard requires committing to memory of tables multiplying numbers from 1 to 40 by numbers from 1 to 10 and numbers 1 to 100 by $1\frac{1}{4}$ (*Savaya* सवयी), the second standard Anks up to 1 to 100 by $\frac{1}{4}$ (*Paṛa* पारयि), and the third standard 1 to 100 by $\frac{1}{2}$ (*Ardhas* अर्धयि), etc. Now let us see the sequence adopted in this course for developing the idea of fractions, and consider whether it is in accord with the sequence in which fractions would occur to the human mind. The first and easiest notion that would naturally come to any one is the division of a thing into two parts; then would follow the further division into two parts of this half, arriving at a one-fourth of the whole. Then would occur the notion of putting the half part and one-fourth part together and arriving at three-fourths of the whole, and so on. So that if the idea of fractions is to be given in an intelligent way to a child, the Teacher must first cut a thing into two parts and give the child a notion of $\frac{1}{2}$, then cut that half into two equal parts and thus go to $\frac{1}{4}$, and then would come in the additions which would give the child a grasp of $\frac{3}{4}$, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, and so on. But the Department would subvert all natural order and force upon the child first $1\frac{1}{4}$, then $\frac{1}{4}$, and lastly $\frac{1}{2}$. The only result can be and is universal cramming, and repeating a string of abstract numbers without the least grasp of their real significance. I think these multiplication tables should be spread over more standards than at present, be taught to the children by easier and more natural stages, and should, instead of being required only to be committed to memory, be always made intelligible by being preceded by additions and subtractions appropriate to them, by visible illustrations, and by application to little oral problems of ordinary life.

I have already said above that in order that arithmetic can afford intellectual discipline, the reasons for rules and processes and the relations of different rules and processes should be clearly laid out. It has, therefore, become an axiom of rational teaching that no rule should be given for use without the explanation of the principles on which it is based. But nowhere do our Vernacular Standards require or distinctly prescribe the teaching of the principles of Arithmetic, and I doubt very much whether they are ever asked at examinations; and, being never asked or prescribed, they are, of course, never taught. For instance, how many of our school-going children, or for the matter of that, even Teachers understand the principle of local value of figures, *i. e.*, fixing the first line for units, the second for tens, the third for hundreds, and so on. This, no doubt, by long practice appears to be very simple, but how important and pregnant this rule is, and what intellectual discipline the proper understanding and grasp of it gives will at once be apparent to us, if we remember that neither the Greeks, nor the Romans, nor the other nations of antiquity in Europe had any idea of local value. They used for their arithmetic letters, and the value of each was absolute. This circumstance and the absence of the symbol cypher, without which any numbers written in columns would be deranged, prevented the principle of local value occurring to them till the time they learnt it from the Arabs. I have often questioned young scholars and masters to tell me why 12 denote a particular number, and if their position is interchanged they denote a different number, but in vain. The following important directions are to be found in the English Code* about this matter:—

“The Inspector should satisfy himself that the principles of arithmetic are properly taught in the school.” “There is in an elementary school course scarcely any more effective discipline in thinking than is to be obtained from an investigation of the principles which underlie the rules of arithmetic. It is therefore desirable that you should very frequently ask the teacher of the class to give a demonstrative lesson on this subject, and he should so work out an example on the black-board as to make the reason for every step of the process intelligible and interesting to the scholars. When children obtain answers to sums and problems by mere mechanical routine without knowing why they use the rules . . . they cannot be said to have been well instructed in arithmetic.”

* Vide Sch. I. footnote, and Article 25 of the Instructions to Inspectors.

I venture to think, therefore, that steps ought to be taken to follow the English Code in the matter.

LANGUAGE STANDARDS.

I will next take the instruction in Language. The first thing to be considered in this connection is reading and writing. The preliminary conditions generally accepted, *viz.* (1) the child should have considerable practice and facility of distinct pronunciation of the vocabulary of early childhood; (2) the first reading lessons ought to be formed from matter and words within the child's familiar knowledge and experience, and that they should be complete sentences, appear to have been well kept in mind in the Hope Series, and so far as I can see the first two books at least of the series are very admirable in that way. With such phonetically perfect languages as the Gujaráti, Maráthi, and other Indian languages, it is not necessary to enter here into the relative merits of the different methods of teaching reading, *viz.*, the alphabetic, the phonic, the phonetic, the "look-and-say," and the phonic-analytic. But as we go further than the second book we realise the drawbacks of Mr. Hope's books as a reading series. The two main drawbacks of the series are these—(1) that instead of containing quotations from standard authors, and thus making the student familiar with the different styles of composition, it presents to the student the composition of the compilers; (2) that it mixes up with the strict reading exercises a number of other educational purposes all good in themselves, but misplaced. I do not deny that a good reading series ought and does always contain extracts on history, geography, and natural science. But then they are quotations from the standard authors in those branches of knowledge, selected with the single aim of making the student familiar with the style and nomenclature of those subjects, and not with a view to impart instruction in them. The other great defect of our reading series is that it is not sufficiently expressive. Dr. Fitch has rightly observed* that "monotony is encouraged by always reading sentences consisting of assertions only," and, if reading is to be taught as an art, the reading books must contain a large number of lessons with genuine dialogues. The following extract from Mr. C. C. Pery's Reports on German Elementary Schools and Training Colleges is very pertinent to the question of the contents of a reading series and the method to be adopted by the teacher:—

"The reading book occupies a central position in the instruction of the language. An especially thorough treatment is given to the normal subject-matter contained in the reading book, as well as to the extracts intended for repetition, in the selection of which form, contents, and authors are to be the main considerations. With respect to the form, the pieces selected must represent the most superb species of style, as well as the chief kinds of poetry. Their contents must be calculated to foster an ideal tendency in a boy's spirit, and to enlarge his range of thought, to render his mind active, and give a lasting impulse to his will. Amongst the authors none of the more important national writers who are represented in the reading book must remain unnoticed. The treatment which should be given to the pieces related consist in—(1) good reading on the part of the teacher; (2) explanation of difficult expressions, figurative modes of speech, etc.; (3) repeated reading in which special attention is to be given to correct emphasis and expressive delivery; (4) stating the main contents of a piece and following out the different trains of thought; (5) a free and independent rendering of the contents (either in a concise or compressed form, or adding what can be read between the lines, or paraphrasing the passage, putting it in different order, using different expressions, etc.); (6) written and oral exercises set in connection with the subject (such as imitation of style, detailed explanations of different expressions, synonyms, comparison of two extracts, etc.) Requisite information is also to be given as to the form of the piece and its author."

I should not be understood to in any way undervalue the very valuable services rendered by Sir (then Mr.) Theodore Hope and his coadjutors in preparing, among various difficulties, the present series, but I feel that it has served its purpose, and it is necessary that it should be remodelled. Those who ask for this do not ask for it with the object of Sanskritising it as Mr. Chatfield seems to suppose, and I really wonder where Mr. Chatfield got this idea from. I have above indicated wherein I think the present reading series is defective, and I would suggest the preparation of a new series somewhat on the lines of Murison's Globe Readers or similar readers at present used in England.

The next thing in language instruction is Grammar. To my mind the present system of teaching grammar as an abstraction is radically wrong. The

* Lectures on Teaching, page 210.

proper method, especially in dealing with an analytical* language like the Gujarati, is the analytical method, and I am supported in this view by Dr. Fitch,† who says:—“Whatever is to be learned of a vernacular language, must be learned by the method of analysis and not by the synthetic process which is proper in studying a foreign tongue.” The reason is plain. The child knows his mother-tongue and speaks it long before he begins to learn grammar. To it a sentence is easier than isolated words. To begin, therefore, with the analysis of a simple sentence and find out its various parts according to the functions which they perform in the sentence is more rational and yields more mental discipline than to ask a boy to define and give examples mechanically of the parts of speech. Instead of requiring at once all the parts of speech in Standard III., as at present, I would have the scholars first divide a sentence into subject and predicate, then learn nouns and verbs as subject and predicate, then adjectives and adverbs as enlargement and extension, and then will follow pronouns. The remaining parts of speech, as well as declensions and conjunctions, would follow later on. I will not go into further details, but will say that at each stage the teaching of grammar should be connected with sentences, and not only should sentences be analysed for an exposition of its rules, but new sentences formed by way of exercise and application.

The next item to be considered in language teaching is composition. All that our standards prescribe about composition is :

Standard V.—Writing an easy letter. To know the forms of private letters, deeds, etc.

Standard VI.—To write a report, letter, or essay about an incident which the examiner reads or relates.

Now, in composition there must be an order as to—(1) subjects, (2) personal effort, and (3) treatment, and, further, a corresponding graduated set of models for comparing and correcting the scholar's composition. The order of subjects must be the same as the growth of the various faculties—first observation, then memory, then imagination, and so on. The sequence of personal effort will naturally be from oral to written. The written work may begin by the Teacher reading short stories and the scholars reproducing them immediately. Then the stories may be more long and difficult. Then merely the main outlines of stories or passages may be given, merely the main points in the next stage, and ultimately simply the subject, thus developing by slow degrees the constructive faculty of the pupils. The sequence of treatment should, of course, be from short simple sentences to more elaborate ones, and then to compound and complex sentences. Our standards pay no heed to these principles, and do not provide a graduated scheme for composition. They unnecessarily postpone it to the 5th Standard, and then at once begin with writing a letter as if this could be done before learning to write sentences and paragraphs, and require forms of letters and deeds to be committed to memory. I give below composition courses in England,‡ which are similar to many of the Continental composition courses, and are based on more rational principles. They may be usefully followed as guides in reforming ours.

STANDARD I.—Answering questions orally in *whole* sentences.

STANDARD II.—Oral composition. Answering questions about familiar scenes and objects in *whole* sentences.

STANDARD III.—Sentence formation in connection with grammar.

STANDARD IV.—Sentence formation. Transposing words in simple poetry into the order of prose.

* One of the speakers at the Conference (I think it was Dr. Taylor) said something against this view. An analytical language, however, is one that has lost many of its inflexions. Gujarati has lost several case terminations, the declension of many of its adjectives, many of the tense forms, etc. In બેશ વાક્ય મારે છે, and વાક્ય બેશ મારે છે, for instance, the position of words and the context alone must decide whether બેશ and વાક્ય are subjects or objects; the same about the numbers of માણસ in તે માણસ આવ્યો and ઘણા માણસ મર્યાં. The place of tenses is taken in Gujarati by participles and auxiliary verbs. The same word is a preposition (શબ્દયોગી), conjunction, or an adverb according to the function which it performs; for instance, હું તેની પછી ગયો and તે પછી આવો, etc. In a language like this, the mere forms of words can assist very little, and the pupils must examine the functions which the words perform in the sentence. This necessitates the teaching of grammar by means of the analysis of sentences.

† Lectures on Teaching, page 262.

‡ English Code, Supplement to Sch. II. (English).

After these preparatory exercises children are led to letter writing, essay writing, etc.

GEOGRAPHY.

Coming next to Geography, the following are our standards in that subject :

STANDARD II.—A knowledge of what is meant by a map. The four principal cardinal points. Map of zillah, province, or state. *Pointing on the map*, boundaries, divisions, mountains, rivers, and towns.

STANDARD III.—Geography of the Presidency. *Pointing on the map*, boundaries, native states, mountains, rivers, zillahs, cities, ports, etc.

STANDARD IV.—A knowledge of the *map* of India, with a further knowledge of the Bombay Presidency.

STANDARD V.—A general knowledge as in previous Standards of the maps of Asia and Europe. Drawing a *map* of the Presidency.

STANDARD VI.—General geography of the *World*. Principle of physical geography. The seasons, the rain, the dew, the climate, tides, and other natural phenomena. Drawing a map of India with latitudes and longitudes.

A little thought will convince any impartial judge that in our geography standards we subvert all natural sequence and principles of sound education. All throughout what prominently strikes the eye is the pointing on the map, as if the sole aim and object of learning geography were to remember a lot of names and point out their position on the map. There is no wonder that the pupils know only the points on the map, but so far as useful knowledge is concerned they know next to nothing.

If the teaching of geography is to afford any intellectual discipline, and give to the pupil any useful knowledge of nature, you must proceed by natural and rational stages. To begin with, the powers of observation of the pupil must be first cultivated by making him observe and understand his own natural surroundings, and the simplest and commonest natural phenomena. When he has carefully observed and grasped a rivulet or a mound, you can then lead him to imagine a river or a mountain. Then by resorting to models and photographs and oral descriptions, the pupil must be made to conceive mental pictures of unseen places. Maps are of no use at this stage. The necessity for them comes later. But in order that the pupil may conceive mental pictures, the places or localities to be thus imagined must be made interesting by the teacher, for children care more for actual moving life than imagination. This has, therefore, to be done by connecting the place of which a mental picture is to be drawn with stories and historical events, especially such as bring out prominently the physical configuration of the locality. When the physical characteristics of the locality are once mentally fixed, their effect on, and connection with, human life, manners and thoughts, and industries and occupations must be noted, thus passing to towns, buildings, animals, etc. It is in this way that the student is intelligently led from one fact to another, and thence to a third, by linking together cause and effect. The knowledge of the character and rainfall of a province or country leads him to a knowledge of its rivers ; that of the character of the soil, the rainfall and the rivers, to a knowledge of the people, their trades and industries, and so on. It is when mental pictures of unseen places and localities are formed that the necessity of a map arises, in order to record the outlines of the mental picture. This must first be done with reference to simple objects near at hand, such as the room, the door, the table, the playground, neighbouring buildings, fields, etc. Thereby the pupil must be led to the idea of relative positions, directions, distances, areas, etc. Progressing like this, we may fix upon marks for denoting mountains, rivers, etc., and proceed to map-reading. In this natural sequence the physical and political geography cannot be divorced from the so-called geography, by which probably is meant the names of towns, rivers, and mountains, and their positions on the map. They must all go hand in hand.

Comment is needless to show that by postponing political and physical geography, the latter to the sixth or the highest standard, our standards stand condemned on the face of them. It is no wonder that I have often found pupils who have passed through standard after standard in geography, and who know

by heart the names of innumerable towns, rivers, and mountains in the world, simply dumbfounded at the most ordinary but practical questions like the following:—Why is Káthiáwár deficient in such large and long rivers as the Tápti, the Narbada, or the Máhi? Why is the population in the Kaira district denser than that in Viramgám or Modása? Why are people from Cutch and Káthiáwár to be found in Zanzibár, Mauritius, and Natal in large numbers, and not those from Ahmedabad, Surat, etc.? Why does Khárághoda yield salt? Why do not the people of Dhandhuka and Jhááwád wash or bathe as much as those in Gujarát proper? Why is rice the staple food of the Deccanis and not of Gujarátis? Why are the Maharáttas hardier than the Gujarátis? Why is the rainfall in the Konkan heavier than in Gujarát, and why that in Gujarát heavier than in Sind?

The English standards which begin physical geography in Standard II. and distribute it over all the standards, and require the physical and political geography of every country prescribed in the different standards to be learnt together, are certainly an improvement over our standards, but those of Continental and other countries are still better.

I quote below, as a model, an extract from those of South Australia :

"JUNIOR DIVISION.—The first notions of a map should be given by making a plan of the school-room. This is to be drawn to scale on the black-board from measurements actually taken by the children. In the first instance, the board should be laid on the floor, so that the various lines may correspond with actual directions..... The cardinal points are to be taught. By actual observations the children are to find when the sun rises and sets, and in what part of the heavens it is to be seen at mid-day. A pole (say 6 feet high) should be set up in the playground, and the direction of its shadow at noon observed for a few days. It will also be useful to notice the length of its shadow at mid-day at different times of the year. It should be noted in what directions the neighbouring houses and other prominent objects lie from the school; a plan is then to be drawn, showing not only the school building, but the houses, roads, and other objects in the immediate vicinity.

CLASS I.—The elementary notice of the map given in the Junior Division is to be extended till the pupils understand an ordinary map. Observation of the neighbourhood is to form the basis..... The children, whenever possible, to have *practically* the meaning of a majority of terms, like road, railway, plain, hill, range of hills, valley, creek, &c..... Whatever can be noted by this *actual observation* is to be embodied in a rough map, drawn bit by bit, on the black-board by the teacher, and then copied by the scholars..... The teacher must then have recourse to *models*..... Maps are then to be exhibited and new ideas connected with old.

The geography of the neighbourhood within ten miles of the school is then to be thoroughly learnt. This includes not merely the ability to point out places on the map, but, in addition, a satisfactory knowledge of the character of the country, the occupation of the people, the different township, &c., modes of access to them..... Elementary ideas of the earth, sun, and moon are to be given to the class..... Note the position of the school as nearly as possible on the globe."

I need not give further quotations, but the above sufficiently indicates how standards can be made to guide teachers, more especially in the earlier stage. I am aware of the instructions given in the Deputy Inspector's Code and in the departmental text-book on geography, but they are of no effect in the absence of proper standards and text-books.

I also suggest, along with the modification of our standards, the preparation of books on the model of Geographische Rilderteffen (Geographical Charts) by Hirt and Schneider's Typen-Atlas that are used in Germany, Longmans' Geographical Readers, with map and pictorial illustrations, etc., and Geikie's Geography of the British Isles for the lower standards, and Chisholm's School Geography for India and Ceylon for the higher standards.

HISTORY.

Coming next to history, I think that this is one of the worst taught subjects in our primary schools. Faulty standards, want of proper text-books, and incompetent teachers contribute towards this unsatisfactory state of things. The most important effects of history teaching at school are to create a love for the mother-country and interest in humanity, and an awakening of noble feelings. But these results can be achieved satisfactorily only if you proceed in this, as in every other subject, by natural and easy stages. What impresses little children most is striking, dramatic, and interesting personal action or adventure. It is not necessary at the first stage to trouble them with argument or reflection.

When the child has been made to take interest in personal history, then by a criticism of personal actions and character he may be led to consider causes and consequences of events. From individuals to classes and classes to nation will then be an easy step. Then may follow state, public duty, knowledge of other nations, etc. Moreover, it has to be borne in mind that a child is interested more in the present, and therefore the past should be made to run into the present, and made interesting by its connection with the present. Following these principles, in all civilized countries the study of history begins with short stories and biographies, and the text-books contain more of narrative than facts, and the books are made interesting by full illustrations and maps. Our standards violate all these principles, prescribe nothing of stories or biographies, but require dry facts and figures. The history of Gujarat by the late R. S. Mahipatram prescribed in Standard III. is very dry and overcrowded with facts. I quote a small paragraph in which is crowded the history of so many as four reigns—

યોગરાજ તેના આપણેવો પ્રતાપી હતો. તેણે રાજ્યમાં અને ક્ષેત્રમાં વધારો કર્યો, અને કોડને સુખી કર્યો. લડાઈમાં ચતુર અને યુદ્ધે હતો તેમ તે અલ્લેખોપણ હતો ક્ષેત્રમાં પણ રાજ્યનો વિસ્તાર અને દેશની દોલત વધારી. એનાપછીનો રાજ રતનાદીત્યસારાચુણને માટે વખણાયો છે. તે પોતાનું વચન પાળનાર, સાચો, યુરો, અને અંગે બલવાન હતો. હુઆ ચોર ઠગારા વગેરે અપરાધીઓને દેશમાંથી કાઢી મુકી તેણે પ્રભને સુખ દીધું. સાચંતસિદ્ધ નબળો અને દુર્ગંથી હતો. વનરાજના નર વંશમાં એ છેલ્લો રાજ થયો. એના પછી વનરાજના દૂતની કન્યાના વંશમાં ગાદી ગઈ.

The translation of Hunter's History of India is too difficult to understand. Moreover, very little attempt is made to connect the past and the present, and the pupils, so far as practical useful knowledge about the present is concerned, *e. g.*, the revenue, judicial, and municipal administration of the town and zillah, the local government and legislation of the Presidency, &c., appear to be as ignorant as any foreigner can be, the standards being extremely vague in this respect. What is necessary is to have graduated standards somewhat on the model of the English standards that I give below, and get proper historical readers prepared for the purpose.

ENGLISH STANDARDS.

STANDARDS I. & II.—Simple stories relating to English history.

STANDARD III.—Twelve stories or simple biographies from British History down to 1485.

STANDARD IV.—Twenty stories and biographies from 1485 to 1688.

STANDARD V.—Thirty stories and biographies from 1688 to the present time, and so on.

OBJECT LESSONS, DRAWING, AND MANUAL TRAINING.

It is now universally recognised that in a healthy system of elementary education object lessons ought to have the first place. The purposes of such lessons are—(1) to form habits of observation; (2) to form habits of reasoning; and (3) to increase knowledge of common things. I am glad that object lessons are given a place in the Infant Course and Standard I., but it is a pity they are not continued further. They must be continued in Standards II., III., IV., and be followed by elementary science in the higher standards. It is true that our reading series contain lessons on common objects and science. But to read lessons and repeat words is entirely different from handling and observing things, finding out their nature and properties, and thereby obtaining an insight into the laws of nature. To teach object lessons and science lessons by definitions and verbal description is worse than useless as a means of education. They can be profitably taught only by experiment and illustrations. The reading must follow and not precede or be a substitute for actual observation and experiment, in the absence of which the children talk words but really know nothing, and there is a pretence of knowledge which in fact does not exist. I would therefore see real object and science lessons, with observation and experiment, take their proper place in our standards, and not merely be a part of the reading series. I give below the scheme followed by the School Board of London, which is very suggestive and appears to be very thoughtfully devised. The circular* of the 25th June, 1895, issued by the Educational Department in England, may also be usefully borne in mind.

FOR INFANTS—A few objects should be selected from each of the four following groups: (a) *Domestic Group*.—The school-room itself, with door, chair, table, desk, fireplace, and clock. The child's coat, cloak, frock, cap, shawl, and boots. Pins, needles, knife, scissors, bell, and kettle.

* *Vide* Appendix to Instructions to Inspectors.

to which may be added any other article of school or household furniture, clothing, or common utensils. (b) *Animal Group*.—First in importance comes the child itself, afterwards the cat, dog, horse, cow, sheep, cock and hen, sparrow, herring, fly, beetle, to which may be added any other familiar animals, such as donkey, rabbit, mouse, goose, canary, lark, pigeon, &c. The parts of animals may form the subject of lessons, such as head, hand, foot, paw, eye, ear, mouth, nose, hair, feather, wool, &c. (c) *Plant Group*.—The choice will depend upon the season of the year, and should include the nearest trees and such smaller plants as are accessible, as primrose, violet, cabbage, potato, wheat, &c. The parts of plants may also form subjects of lessons, as the wood, bark, leaves, flowers, &c., or special products as apples, nuts, starch, sugar, gum. Attention should also be drawn to the simple phenomena of vegetable growth by means of actual observation or experiment. (d) *Mineral Group*.—This should include any accessible stone, with chalk, sand, coal, salt, black-lead, and water, together with iron, brick, clay, sulphur, glass, &c. Opportunity should be taken of bright sunshine, black clouds, fogs, heavy showers of hail, rain, or snow, strong wind, a rainbow or a thunderstorm, to draw attention to these natural phenomena.

STANDARD I.—Extension of the object lessons in the Infant School, with simple illustrative experiments.

STANDARD II.—Comparison of different plants or animals, ordinary phenomena of the earth and atmosphere, and substances of domestic use.

STANDARD III.—Simple principles of classification of plants and animals. Further phenomena of the earth and atmosphere, and substances used in the arts and manufactures.

STANDARD IV.—More complete classification of plants and animals, with typical examples. The three forms of matter familiarly illustrated.

STANDARD V.—(a) Animal and plant life, with the most useful products; or (b) more definite notions of matter and force illustrated by simple machinery or apparatus.

STANDARD VI.—(a) Animal and plant life, with special reference to the laws of health; or (b) the commonest elements and their compounds; the mechanical powers.

STANDARD VII.—(a) Distribution of plants and animals and the races of mankind; or (b) light, heat, and electricity and their applications.

Coming next to manual training and drawing, it is needless to enter into the controversy whether manual training is an essential part of disciplinary education as such or is wanted in order to render primary education less bookish and more practical, so as to make the pupils better fitted for various trades and industries, because from either standpoint it must form a part of primary education. Similarly drawing trains the eye and the hand, and develops the sense of beauty and faculty of conception. Hence elementary drawing is regarded as an essential branch of primary education, and is taught in most European and American schools. A very feeble attempt at this appears to have been made in our infant course, by prescribing lessons on common objects, stories, simple household songs, and infant drill and physical exercises. But what is much needed, and is absent in our infant course and in the standards, is hand and eye occupations, such as would ensure habits of accuracy, observation, neatness, invention, &c., and cultivate taste. Children must be made not merely to repeat words, but to do things. Circular No. 322* of 6th February, 1893, issued by the Educational Department in England, which recommends varied occupations for the infants, as well as the courses of Continental and American schools, may be profitably studied. Some years ago complaints were heard in England that the elementary schools were preparing cheap clerks and not good workmen, and eminent educationists like Professor Huxley, Sir Henry Roscoe, Sir Phillip Magnus, Sir John Lubbock, and others advocated the introduction into the curriculum of (a) object lessons in the lower standards, leading up to elementary science in the higher standards; (b) drawing, both freehand and mechanical; and (c) manual training and use of simple tools in the upper standards of town schools and elementary agriculture in rural schools. The introduction of these subjects was further strongly recommended both by the Royal Commission appointed to enquire into the Working of the Elementary Education Acts in England and Wales, and by the Royal Commission on Technical Education,† and since then drawing has been made compulsory for boys in all standards in England and Wales. Varied occupations have also been introduced as a voluntary subject up to Standard III., and manual training in wood and iron as a voluntary subject in the higher standards.

* *Vide* App. VII. to the Instructions to H. M. Inspectors in England and Wales.

† One of the members of that Commission, Mr. Swire Smith, wrote in the *Westminster Review* in 1887 as follows: "The Continental nations, by the teaching of drawing and modelling, elementary science and manual occupations in their elementary schools, provide a basis for technical training, which materially affects their whole plan of education and acts directly upon their industries."

No argument is, I suppose, needed to show that a great need exists in this country for paying attention to these subjects. India is now drawn into a fierce commercial and industrial competition with the other countries of the world, and if it is to keep its own in that race, we should turn out pupils with a taste and inclination and necessary educational equipment for commercial and industrial pursuits, and not merely applicants for Government service as at present. The primary schools must also lead to technical schools only, to secondary schools of a purely literary character as they do at present, and for that purpose should provide such instruction as would prepare the children to take full advantage of advanced technical instruction in higher institutions. Unless the primary schools did their duty in this respect, technical schools will be handicapped in their work. The Government of India recognised this when, in accepting the recommendation of the Education Commission that practical subjects, such as elements of natural and physical science and their application to agriculture, health, and industrial arts, be taught in primary schools, they in their Resolution No. 10—3039* of 23rd October 1884, said:—"Every variety of study should be encouraged which may serve to direct the attention of native youths to industrial and commercial pursuits." The Bombay Government† made similar proposals, and introduced drawing and agriculture in training colleges with a view to prepare teachers for teaching those subjects in primary schools. They have further introduced a rule in the Training College Codes, to the effect that masters, who, after passing in drawing, agriculture, or industrial art in the Training Colleges, teach those subjects in their own schools will receive special grants-in-aid. But no courses in those subjects suited to primary schools appear to have been yet laid down, as is done by the Educational and the Science and Art Departments in England.

The time has now come, when, I think, Government should introduce these subjects in the primary schools and prescribe suitable courses for the guidance of teachers.

The introduction of these subjects will no doubt necessitate a re-distribution of the various subjects, the omission of some, and the making of others optional—detailed suggestions for which are, I think, beyond the pale of this paper. My own idea is that after the fourth standard there may be different branches with certain common subjects and others special to each branch. The branches, I should think, be industrial, commercial, agricultural, and upper primary, according to the needs of different localities.

I have all along spoken above about the standards in boys' schools. When I first began to write about the standards, I intended to deal with girls' schools also, but owing to want of time (I having received only about a week's notice), and in view of the length this paper has already assumed, I am obliged to postpone it to some future occasion. The same considerations have prevented me from fully dealing with the present text-books, pointing out their defects in detail, and making suggestions for improvements that I originally intended to.

INSPECTION *vs.* EXAMINATION.

In the beginning of this paper I remarked that standards, instead of courses of instruction, were an evil attendant upon the system of examinations that we had borrowed from England. To that can be traced almost all the evils of our present system, and unless you overhaul it and substitute real inspection in the place of examination, there is no hope of much improvement in the unsatisfactory state of our primary education.

As in our system of inspection and examination we have closely followed the English system, it will be instructive to take a brief review of the English system and its results. The difference must, however, be borne in mind, that while in Bombay, besides aided schools, we have schools directly managed by

* *Vide* Appendix page lxxvii. of the Director of Public Instruction's Report for 1884-85.

† *Vide* Director's Report, 1885-86, Appendix page xlvi., para. 17, of Resolution No. 3E of 18th September 1886, and paras. 3 and 29 of Resolution No. 1988 of 29th October 1885 at the end of the Appendices.

the Department (for which a rigid examination of each individual pupil in every subject is not so necessary as when a money grant based on results has to be paid), in England the Department merely aids schools whether voluntary or belonging to school boards.

Before the Royal Commission of 1858 there were Inspectors in England and Wales who inspected the schools, but the Government grant was not regulated by results. Dissatisfaction having arisen in the working of the system, a Royal Commission, presided over by the Duke of Newcastle, was appointed in 1858 to enquire into the state of education in those countries. This Commission spoke of the superiority of schools inspected by Government inspectors over those not so inspected, although they said that "inspections often lead the teachers to dwell on matters of memory rather than of reasoning." They, however, recommended an individual examination of pupils, but proposed for that purpose the employment of examiners *in addition to* inspectors. Lord Sherbrooke (then Mr. Robert Lowe), who was then Vice-President of the Committee of Council on Education, decided, in 1861, that the Government grant should be paid on the results of the annual examination of each individual pupil in certain subjects, and setting aside the recommendations made by the Commission, made the inspectors also examiners, and as examinations were introduced standards for examinations were framed.

Loud and bitter complaints soon began to be made about the mischievous results of the Code of 1861, as leading, among other things, to cram and mechanical methods of teaching, undue recognition being given to results rather than methods, undue retarding of clever scholars, and unnecessary degradation of the teachers' profession. Of course all these complaints, as is usual with Government departments everywhere, were at first met with a flat denial of the existence of the evils complained of; then, when their existence, in view of the strong evidence brought forward by eminent educationists, could not be disputed, it was attempted to lay the blame on the teachers, but the system was defended. Fortunately, however, unlike here, the people in England could, through the Parliament, make their voice heard effectively even against the opposition of Departments, and Viscount Cross' Royal Commission of 1886 was appointed to examine into the state of education, who submitted their report early in 1888. They said :

"We are bound, before entering upon the consideration of the curriculum, to call attention to the fact that witnesses of all classes testify to the imperfect hold of knowledge gained in elementary schools. It is obvious that to teach a child to observe and think by proper training of the mind will more effectually develop its capacity and faculties than premature initiation into matters beyond its intellectual habits." (Report page 133.)

"Looked at from all sides, it is plain that there is room for much improvement in reading. We are of opinion that it would be of advantage to increase rather than to diminish the number of books to be read in each standard, but that the spelling requirements should be diminished; and we think that unless the scholars are taught to read with ease and acquire a taste for reading, their school learning will not be followed up in after-life..... Good reading is, however, at the present time often sacrificed to instruction in spelling. In a reading lesson the whole of the teacher's attention should be concentrated in securing fluency and expression, and in interesting the scholars in the subject-matter of the book." "If drawing were universally taught, probably handwriting would receive more attention than it does, with the result of its becoming both better in form and more legible. The teaching of drawing has a marked effect in improving the character of the writing in elementary schools." "With regard to arithmetic, Mr. Wild, an elementary teacher, complains that children in the first and second standards are required to deal with figures far too large for their comprehension, and urges that the first lessons in arithmetic should be confined to numbers within the ordinary purview of the children themselves instead of numbers of which they can form no right conception..... They are often unable to apply their knowledge to the simplest practical use..... Much time is said to be occupied with mechanical and practically useless arithmetic, and with unravelling arithmetical puzzles. (Report pages 135, 136.)

"Taken altogether, the evidence of teachers amounts to a very heavy indictment against the system of payment by results. Many teachers say that an intellectual teaching does not pay, but that the teachers have to work up to the hard-and-fast line of the code and to study the individuality of the Inspector, so as best to prepare their children for winning a high percentage of passes. The teachers say that the method of pricing the subjects induces all parties to look more to what can be earned than to what is good for the scholars, and that it provides a stimulus not to good teaching, but to cram with the view of getting money. In this way, it is maintained, teachers have become demoralised..... This system has, it is said, led managers to form an exaggerated idea of the importance of the percentage of passes, so that to them the number and percentage of passes is of far greater interest than that of the children's intellectual welfare. It is said that in treating with a teacher for a vacant appointment, the manager's question is, 'What percentage have you passed?' and that under this state of things the teacher's professional reputation is at stake, and might suffer considerably. The system in existence before 1862 was said to have resulted in dull children being neglected, but

to the present system is attributed, by the witnesses above referred to, the opposite evil of neglecting the brighter and more forward children. . . Many managers condemn this method of assessing the grant under its present conditions almost as strongly as the teachers." (Report, pages 179, 180.)

"On this subject the Inspectors gave some important evidence. The effect of the system on the teachers they admitted to be sometimes bad, especially in fostering the unhealthy competition among them for high percentages, and so leading teachers to work for a bare pass. . . . Under our present system, though the results of the inspection of schools and the examination of scholars may appear satisfactory, many of the children lose with extraordinary rapidity, after leaving school, the knowledge which has been so laboriously and expensively imparted to them. We are thus led to believe that a system of cram with a view to immediate results which threatens to destroy the love of knowledge for its own sake, is prevailing more and more in our public elementary schools, and that unless a large change is now made, as the system must become in working more rigid, so its evils will increase rather than diminish." (Report page 182.)

About the same time Mr. Mathew Arnold submitted his special report on primary education in Germany, Switzerland, and France, in which he expressed his strong conviction that frequent, thorough, and skilful inspection, and not examinations, can ascertain whether the correct methods of education have been adhered to.

In consequence of the verdict of the Royal Commission thus endorsing the strong public opinion that had manifested itself, the Educational Department in England has gradually replaced the pernicious system of payment by results by one based on the average attendance of pupils, until at last, in 1895, it practically gave up the annual examination of schools and substituted instead inspection without notice, at least twice a year, and even a third or a fourth time, if necessary, while the classes were actually doing their work.* Detailed instructions are given to the Inspectors as to the manner in which schools are to be inspected. I will not go into the details of these valuable instructions, but will quote below a passage from what the Lords of the Committee of Council say :

"It is to be hoped that by replacing the annual examinations of schools by these occasional visits you will be able to promote a free classification and advancement of the scholars ; there will be no longer any temptation to keep clever scholars back in order to establish, through good examination results, the high efficiency of a year's work. It is the desire of the department that its officers should aim at being the helpful and sympathising friends of all concerned in the work, and that without dictating to managers or teachers, they should throw out suggestions, whether towards greater freedom of organization or in the direction of more effective educational work, and confer with all concerned both as to general school arrangements and as to the details of the teaching."

The new system, though only a year old, is said to work very satisfactorily, and is favourably spoken of alike by Inspectors and teachers.

In the light of the above history, let us look at and examine our system, and consider in what direction it is capable of improvement. While the schools in this Presidency were under the Board of Education, and for some years after the Department of Public Instruction was organised, the schools were inspected once or twice a year, but the pupils do not appear to have been individually

* Mr. Giles on the second day remarked that in England examinations were not abandoned as I had stated, but still formed the backbone of inspection, and referred in support of his statement to Articles 99 (a) and 101 a (5) of the English Code. As I then pointed out, all that those articles say is, that all scholars present are liable to be examined. It only leaves to the Inspector an option, if he so chooses, to examine the scholars, and examinations being thus made permissible, rules for examination have been retained. But Article 84 (b) shows that the ideal put forward is to omit examinations, and the provisions of Chapter IV show that in all class subjects the grants are regulated not by examination, but with regard to proper provision having been made in the schools for suitable instruction. The following new paragraphs, added in the Revised Instructions to Inspectors for 1896, show that the aim of the Department is anything but to continue examinations as the backbone of inspection.

"It has been decided to extend to schools, for older scholars, the provision of the Code by which the annual examination has been allowed to be omitted in the case of infant schools, and occasional visits of inspection have been substituted.

"It should be clearly understood that in schools excused under Article 84 (b), any formal record of examination, except in specific subjects, is henceforward prohibited. The judgment of a school will no longer be founded upon a record of examination of individual scholars or classes. You may find it necessary to question a class in some subject, as to which you cannot otherwise obtain sufficient evidence of the success with which the subject has been taught, but all visits of inspection should be mainly devoted to observation of the ordinary working of the school, in order that you may be able to make useful and sensible suggestions for its improvement, and any questions you may put should also be directed to this end as well as to a just assessment of a grant.

examined as at present. In the year 1861, as narrated above, the result system of payment was first introduced in England, which soon travelled to this Presidency, and the individual examination of pupils was introduced here both in aided and departmental schools, and the standards of examinations were fixed. Aided schools began to receive Government grants in accordance with the results of the annual examinations, and the head masters of departmental schools began to receive a proficiency allowance, in addition to a fixed salary, in accordance with their results.

Of late years, in this Presidency, the system of payment according to results has to some extent been replaced by fixed grants of five years in many of the well-established grant-in-aid schools, and, if I am not mistaken, these schools are inspected instead of having an individual examination of pupils. The proficiency allowance, too, though still retained in the Code, has practically disappeared. But the individual examination every year of the pupils of the large class of departmental, municipal, and other primary schools in each head and sub-head of the standards still exists, and a master gets praise or blame, and even promotion or degradation, in accordance with the percentage of pupils passed by his school on the annual parade day, as the annual examination is sometimes called in England. So that, although the system of payment by results, including proficiency allowance, has to a great extent disappeared, all its attendant evils, especially in the Departmental and Municipal schools, are still present. By this system of individual examination every year, we turn our Inspectors into simple examiners, and make them perform a lower function in place of the higher and more really useful one of inspection. Under such a system examination, instead of education, becomes the teacher's guide, and mechanical and cram teaching takes the place of sound and rational instruction, for what is tested is merely results and not processes or methods.

That the system of annual examination has failed to introduce the most correct methods of school management and instruction will be seen from the following abstract of an account of unannounced visits (not by an inspecting officer) to some schools in Ahmedabad (*vide* Gujārat Shālā Patra of February and March, 1895) :

(1) In every one of the schools visited, dirt, cobwebs, etc., were to be seen in the corners and in the walls, roofs, etc. There were ink spots on the doors, walls, etc. The teachers did not appear to know what cleanliness meant, and this state of affairs was reflected on the children, whose clothes and books were dirty and untidy. Some of their clothes and books were torn, and nobody cared to get them mended. There were ink and oil spots on the books. The children recited ગાથા ગાથા ગાથા, etc., from their reading books, but were not habituated to apply the lines to actual affairs of life.

(2) In several classes the black-boards were so placed that all the children could not see what was written on them. In one case the children were seated in such a manner that they could not face the black-board, and had to look sideways to see the example which the teacher was working on the board. In some cases there was no duster with the board, and the teacher set an example of uncleanness to the children by rubbing the board with his hand.

(3) In a good many cases the teachers did not appear to know how to seat the children in reference to light. A good many of the classes had front light, instead of from the left, thus injuring the eyes of the children. One school showed three or four short-sighted children in each of its classes, and still the teachers did not know or care to discover the defect, much less to warn the parents about it.

(4) Some teachers appeared to be shouting and even threatening children, instead of talking to them kindly. The shouting created a deal of noise.

(5) The time-table of one school showed that in some of its classes arithmetic was taken for an hour and a half or two hours continuously, thus fatiguing the children. That of another small school was an impossible one, fixing as it did the teaching of reading, etc., to three distinct standards at the same time, by the same teacher.

(6) The Infant class in one of the schools was being taught colours and forms in an extremely unintelligent manner. The teacher did not even know how to arrange the children for this lesson, and none of his questions were calculated to encourage observation or reflection by the children.

(7) In a first standard class poetry was being taught in a very unintelligent fashion, and the children could not sing in unison.

(8) Some of the first standard classes were being taught Anks. In none of them could the children explain the anks learnt by them on the arithmeticon, or apply them to

simple little oral sums occurring in ordinary life. They were being taught merely to repeat the anks and write them on their slates.

(9) Several of the second standard classes that were seen were being taught arithmetic, and the children were painfully toiling through additions and subtractions of numbers extending to lakhs and more. On questioning them, it was found that they were doing their work mechanically, and did not understand anything of what they were doing.

(10) One of the second standard classes was doing dictation. The class had read only eight or ten lessons of the third book, and still the dictation was from the fourteenth lesson. The boys did not know the meaning of the words that were dictated to them.

(11) All the third standard classes that were seen were doing sums in arithmetic. In one class the teacher gave a sum, saw the answer when it was done, made the children take numbers as their answers were right or wrong, and set another sum without working the first example on the board, or teaching it to the children who could not work it. The second sum set was in the reduction of mohurs to rupees or pies. The children had committed the table to memory, and could say that a mohur was equal to Ra. 15. When asked about the shape, size, or appearance of a mohur, or the material of which it was made, they appeared to have no notion about it whatever. Only one child attempted to give an answer, and he said a mohur was made of gold and was as long as one's arm. The other classes showed the same kind of unintelligent teaching.

(12) One fourth standard teacher was teaching, or was rather making a pretence of teaching, reading. He never once read to the children, but merely accepted their reading such as it was, and questioned them about the meaning of words. The meanings, again, consisted of synonyms, and were not easier than the words explained; for instance, he explained *ଅମଳ* by *ଅମୃତ*, and when questioned, the children said *ଅମଳ* meant *ଅମୃତ*, and *ଅମୃତ* *ଅମଳ*. They had no notion of what the word really meant, and the teacher never attempted to give such a notion.

(13) In some classes the children appeared to have brought unauthorized books with them to school.

(14) One first standard teacher complained that his children did not prepare their lessons at home. He seemed to think that his business in school was merely to examine the children in what they had learnt at home. He did not know that six hours schooling was more than enough for the little children of the first standard, and that they should have no home work.

A thorough inspection of schools would bring to light many similar defects, which annual examinations alone fail to discover.

I do not mean to say that examinations are entirely useless, but they have their proper limits and place. When a pupil's status is considerably altered, say, when he has finished his school course, or when he is going from a primary to a middle school, from a middle school to a high school, or from a high school to the college, he may be examined to see if he is fit for the higher course; but the promotion of pupils from class to class had better be left to the teachers themselves, who know the pupils better than the Inspector can know them, and the inspecting officers can be better employed in their legitimate duties of thorough inspection. There can be only two objects in examining schools which are managed by the Department or do not receive grants on the results: (1) to see if the teachers do their work properly; (2) to see if children are fit to go into higher classes. The latter function, as I have said, can be better performed by the teachers than by the Inspector with a five minutes acquaintance with each pupil. As to gauging the teacher's work, it can be better seen, I think, by unannounced visits during the year, when the school is at work, and watching the methods of instruction, than by an examination of the so-called results of instruction at the end of the year, when the teacher exactly knows beforehand the time of the Inspector's visit, and is able, temporarily, to present a good appearance. Mr. Mathew Arnold, an Inspector of over thirty years' experience, says:—"The best test of school work is afforded, in my opinion, by what oneself sees and hears the scholars do; for that reason I have looked upon it as the essential part of my business, to be as much as possible in the classes while they are at work, and I spend there every hour I could. (*Vide* Special Report on Education in Germany, etc., page 11.)

The effects from an educational point of view of a system of mere examinations is best put forth by the following eminent authorities. Dr. Rigg, the Principal of the Westminster Training College, said:

"If teachers are appealed to on the subject and asked how they can excuse their teaching the elementary rules of arithmetic by mere rule of thumb, without ever having made the children understand the laws of notation on which all arithmetic is based, and without under-

standing which arithmetic, instead of being a science and a discipline of the mind, is a mere apparatus of tricks, a species of conjuring which happens—the child knows not why nor how—to bring out true working results; and if they are asked what excuse they can give for teaching fractions, vulgar and decimal, irrationally, the answer is always the same—‘They have to get the children to pass—to work so many questions very quickly, and they cannot afford to spend time and labour on principles and the reasons of processes.’”

Lessing says :

“We reward the possession of truth, no matter how it has been acquired, unmindful of the fact that there are honest and dishonest ways of getting knowledge, as there are honest and dishonest ways of getting money; but with this notable difference—the purchasing power of the sovereign remains the same, however acquired, whilst the regenerative force of knowledge dishonestly obtained is often zero or even a negative quantity.”

I am aware that the Deputy Inspectors' Code provides for second visits to schools without notice (surprise visits as they are called), but perhaps they are so overwhelmed with the work of the annual examinations, that, notwithstanding a pretty large increase of late in the numbers of Assistant Deputy Inspectors in each district, they do not find much time for their second visits.

I therefore strongly advocate the giving up, in the case at least of Departmental and Municipal schools, of the annual examinations in favour of thorough and real inspection several times during the year without notice. The experiment may, if so desired, be at first tried in the best schools in each district and then extended to others, second unannounced visits being in the meantime paid to all schools. The inspecting officers should also be required to give model lessons, from time to time, for the guidance of the teachers—to be in fact peripatetic head masters.

In asking for this change, I am not asking the Department to launch into an experiment of doubtful result. I am asking it to follow a system that has been most successfully followed in almost all the Continental countries, and has been, though tardily, now adopted in England. What a Continental inspection means will be clear from the following extract from Mr. Arnold's Report :

“At Trachenburg, near Dresden, I went with Mr. Grulich, the inspector, into a school-room where the head class were reading a ballad of Goethe, *Der Sanger*. Mr. Grulich took the book, asked the children questions about the life of Goethe, made them read the poem, asked them to compare it with a ballad of Schiller in the same volume, *Der Graf von Habsburg*, drew from them the difference between the two ballads, what their charm was, where lay the interest of the middle ages for us, and of chivalry, and so on. The performance was not a solo by a clever inspector, the part in it taken by the children was active and intelligent, such as would be called good if coming from children in an altogether higher class of school, and such as proved under what capable teaching they must have been.”

How schools are now inspected in England under the system sanctioned in 1895 is well described by an English schoolmaster in an educational journal (*The Schoolmistress* of 8th August, 1895) :

“Three months after last inspection of school, and immediately after minute authorizing intermediate inspection to certain schools, the chief Inspector called one afternoon and intimated that the school would be placed on the list of exempted (from annual examination) schools.

“Monthly syllabuses had been drawn up for each class, work faithfully examined, records kept, and notes on oral lessons specially prepared for younger teachers, so that when official notice (of exemption) was received, everything was in readiness for the fresh system.

“At the end of the six months of the school-year the sub-inspector arrived (without giving previous notice of inspection) at ten minutes to two (opening time two o'clock). Schools were opened as usual, and as there was an absence of lateness, the teachers were complimented upon it. Usual lessons were taken, H. M. Inspector remaining for first half hour in infant school, and listening attentively to the lesson given.

“He then came upstairs (in mixed school) where boys were taking drawing and girls needle-work. After taking a general survey of needle-work, he asked for summary registers, and evening school vouchers, and expressed his pleasure at seeing the registration kept up-to-date. At the close of the drawing and needle-work lessons, the children were dismissed for ten minutes recreation (cricket and skipping in the field adjoining) which greatly delighted him.

“After play scholars were re-assembled, and each teacher proceeded, with the respective work of each class, geography being the subject. As the head master was now a fixture to his own class, the character of the work depended upon each individual teacher, but, as mentioned before, notes had been carefully prepared and explanations given to the teachers as to mode of procedure, and therefore I entertained no fear for the result. After listening some minutes to each teacher, and carefully taking notes, he again went down among the infants.

"This time he asked permission of the mistress to chat with the children, and it being Royal Oak Day, he gave a most beautiful and interesting lesson on it, the children seeming charmed with him. On his again coming into the mixed school, he asked to be allowed to take class I. in their geography, the subject being the Rhine. As he had paid a personal visit there, he gave a grand supplementary lesson to that of the teacher. The children were assembled for prayer and dismissed. The teachers were called to the desk, the pupil teachers being fittingly praised for the good work done, and errors pointed out in a most kindly manner to all. . . . If future inspections are to be carried on in the same courteous spirit, if such kindly consideration for difficulties shown, such appreciation of honest work exhibited, teachers who are conscientiously doing their work will be relieved of many burning anxieties, children of over-pressure, and educational work in our schools will be carried on truer and more rational principles."

May I respectfully venture to ask how many of our Inspectors, in which term I include the Deputy and Assistant Deputy Inspectors, have realized the above picture of an inspection. I quite admit it is not their fault, but of the system which makes it impossible for them to do so. All this, of course, assumes that you must have very competent Inspectors. The whole success of your elementary schools depends mostly in having really good Inspectors. "Take care," said the founder of Public Instruction in Holland, "take care how you choose your Inspectors; they are men whom you ought to look for with a lantern in your hand."

The Honourable Mr. Kirkham attempted, at the Poona Conference, to put the whole blame of the defects of our primary instruction on teachers. One of the speakers at the same Conference is reported to have said: "As is your teacher so is your school." I would add—"As is your Inspector so is your teacher, and as is your system so is your Inspector." If the teachers are bad, and I am not going to defend them, are they not themselves the product of the present system, and is not the Department again to blame in this matter, for there are above 2,800 untrained head masters, nearly 1,400 of whom are in Local Board Schools directly managed by the Department, beside 3,000 untrained assistant teachers who have simply passed the Public Service Test, and 4,000 who have not studied even so far? (Director of Public Instruction's Report for 1894-95.)

Let me assure the officers of the Department that I have made the above observations in no hostile spirit. I am aware of the good work that they have done, and am, along with the public, grateful to them for what they have done. I only beseech them to remove the disadvantages and difficulties inherent in the system under which they are working, and their work will still more shine and bring forth its legitimate results. Let them, therefore, instead of resting on a feeling of false security, welcome criticism and honestly set to work to find out the real defects in their system and make a bold attempt to remove them. It is no use shutting one's eyes to facts and shirking the responsibility on other shoulders.

It will be said that it is easy to enter into a destructive criticism, that it is easy to pull down but difficult to construct again. I would answer that it is not the business of an outsider to construct. He is entitled to point out that the present system, instead of being an aid, is a hindrance to real education, and indicate the lines on which reform is possible. Doing that does not necessarily entail the further obligation of constructing a system. It is for the Department, with all its resources, intellectual and pecuniary, to undertake the task.

CHIMANLAL H. SETALVAD.

A PAPER READ BY JAMIETRAM NANABHAI, B.A., LL.B., ADVOCATE OF
H. M.'s HIGH COURT OF JUDICATURE AT BOMBAY, ON 23RD OCTOBER
1896, BEFORE THE AHMEDABAD EDUCATIONAL CONFERENCE.

Some Thoughts on Primary Education.

AN Educational officer of long standing, whom I had the pleasure to listen before coming up here, while narrating his experience, in response to an invitation from the Surat Delegates, my friend Moulvi Abdul Kader and myself, remarked that we devote less of our care and attention to our children than to our animals. That this startling statement is true to a great extent must be admitted boldly and frankly, if any reforms are to be made. The reason for such a state of things is not far to seek. Keen competition and the hard struggles of life for bread engross most people. Others more or less in affluent circumstances, blinded by the race after gold, cannot see anything else. Of the few—the very few—who remain, a great many are disqualified by old age, with hardly any energy left in them. The rest may be said to have some knowledge of the ways and means of bringing up their children. And such persons are so few and scattered far and wide, that united action, which is one of the essentials of any successful agitation, be it in politics or in matters educational, is well nigh impossible. Hence it is that our children are allowed to be treated far worse than animals. If the case were not so, we would rebel in a body against the evils of the present system of education, at least so far as primary education is concerned; to which I will mostly confine my observations. But our difficulty does not end here. The other party who ought to be equally concerned labours also under peculiar difficulties. Our great *Ma-Bap*, the *Parens Patræ*, has its attention distracted and its means limited by its many-sided activities and wants. The impossibility of attending to so many things at the same time has led to the appointment (to imitate a legal phraseology) of the keeper of the educational conscience of Government. Without in the least depreciating their valuable services, I make bold to say that this keeper of the conscience—I mean the Director of Public Instruction—and his staff have not succeeded in doing their best. They ought to have gone on dunning the Government every now and then for more and MORE GRANTS to establish new schools and improve the old; they should press upon Government—who in India are the greatest landlord—the desirability of devoting a little less time, energy, and money to sterile politics, and of not wasting our good money on that most inhuman of human institutions, *viz.* war and military expeditions; then our educational grants would bear favourable comparison with those in the civilized countries of the world. They might take a lesson from their military brethren who have surpassed them (*i.e.*, the educational officers) in this direction, and who have succeeded in extorting larger and larger grants. Ours is a nobler cause; and the enemy, *viz.* Ignorance—the common enemy of mankind—more powerful than its offspring, the bubonic plague at Bombay, or the impending famine, deserves to be put down and stamped out at any cost. Money so spent is never wasted. With more money and efficient education, the lamentable neglect of our children would be a thing of the past. This false economy is a danger to the State and to its inhabitants. “It is because of the evil propensities of men,” says Mr. Smiles in his book on Thrift (pp. 75, 60), “that the costly repressive institutions of modern governments exist. Ignorance arms men against each other; provides gaols and penitentiaries; police and constabulary. * * * The physiologist may discuss the laws of health, and the Board of Health may write tracts for circulation among the people; but half the people cannot so much as read, and of the remaining half but a very small proportion are in the habit of *thinking*. Thus the laws of health are disregarded; and when fever comes, it finds a wide field to work upon: in undrained and filthy streets and backyards—noisome, pestilential districts—foul, uncleansed dwellings, large populations ill-supplied with clean water and pure air. There death makes fell havoc. * * * Give the people knowledge—give them better education—and thus crime will be abated, drunkenness, improvidence, lawlessness, and all the powers of evil will, to a certain extent, disappear.” More money after education ultimately would effect a saving under

the head of law and justice, and increase the yield of other taxes as the material condition of the people would improve considerably. But the ways of our *ma-bap* are sometimes inscrutable! It will not allow others to spend as far as it can. I do not know how much truth there is in the statement that, if any school ceases to levy fees or reduces the scale of fees, Government will cease to pay or reduce its grant. Only six months ago I proposed that PRIMARY EDUCATION be made FREE. The Surat Municipality would not have had to spend more than about three thousand rupees a year. There was not a single member who denied the desirability of such a step; nor was want of funds pleaded as an excuse, but my proposal was voted against and lost, on the only ground that the Government grant would be withdrawn; and this was urged against me by one who had served as a teacher for a long time, and by one who probably knows more about these things. Such a statement may be based upon truth or not—at present I have no means to ascertain—but an authoritative denial widely published and circulated that Government will not withdraw or reduce its grant in case fees are abolished or reduced would be an agreeable surprise; for, who could not believe in the said statement, when one finds a similar policy enunciated after a good deal of deliberation. The rules made under Section 24 of Bombay Act VI of 1873 leave the Municipalities practically at the mercy of Government as to the scale of fees to be levied. Rule 10 (1894 Dec., *Bombay Government Gazette*, Part I, p. 1233) forbids either increase or reduction of fees without the previous consent of Government.

Again, this penny-wise and pound-foolish policy of parsimony prevents the possibility of employing really good and FIT TEACHERS. When one looks to the fact that first impressions last longest; that, to use Pope's words, just as the twig is bent, so is the tree inclined; that at a tender age the child has got no reasoning powers to follow the *precepts* of the teacher, but has only the ability to imitate his *example*; that it is the teacher who is the soul and life of his school; that teaching the youngest is the most difficult task, and requires the utmost care and attention from the best of teachers; that it is the teacher who makes or mars the child; that, as observed by Dr. Mathew Arnold, an expert in educational matters, in his report for the year 1858, truly able teachers find it possible to inspire children with a genuine interest in their work, a good taste and a self-respect, which is the highest office of education to inspire. When one looks to these facts, it must be admitted that the qualification of the teacher becomes a *sine qua non*, and that a teacher carrying a salary not more than that of a day labourer, however clever he may be, is worthless. Always in pecuniary difficulties, he thinks of extra income only. Somehow he manages to keep the sons of pliant rich persons at the bottom of the class, with the invariable result of securing private tuition, notwithstanding the contrary orders of the Department of his superiors. These pupils now find their places changed. Instead of being at the bottom, they are at the top of the class, whether they deserve or not. This is the first lesson, that of injustice, that they learn. The second lesson they learn is, that they can smooth their way to better places by pecuniary payments. The gentlemen of Surat, who had been good enough to favour me with their views in order that I may put them before you, one and all laid no little stress upon the necessity of moral education, which no one denies. I have no doubt that well written books on morality are very useful. But they are neither the sole nor the most potent factor in moral elevation. An ounce of practice is worth more than a pound of unmeaning talk.

The Honourable Mr. Chimanlal, who preceded me, has gone over many of the chief points on which I intended to address you at some length. As I fully agree with him, I will not travel over the same ground again, but will confine myself to noticing some of the points that he did not touch upon.

The present CLASSIFICATION in schools requires reconsideration. Putting together boys in one class according to standards they are learning is harmful, as this arrangement neglects individual differences. Classes should be formed according to the subjects that have to be learnt. Suppose reading, arithmetic, and history have to be learnt. One may be well up in arithmetic and very backward in the other subjects; another may be backward in arithmetic and well up in the other subjects. The result, according to the present system, is a retardation of

the progress of both. The one has to wait till the other makes up his deficiencies ; whereas it would not be so if the classification were based on principles of individual attainments in special subjects. One who had a special aptitude for arithmetic would not find his progress in that branch retarded by having to wait for the slow scholar. This principle of classification is recognized in the English Code for 1896 (Art. 101, [a], [v] elementary subjects and [e], [ix] class subjects).

As to the ways of TEACHING, no one denies that the kindergarten system is the best. But firmly wedded to our old ways, we stick to them though convinced to the contrary. Even in small matters we take years to improve. Teachers are frequently transferred on trivial grounds, *e.g.*, to give them two or three rupees increase of pay. Such transfers prejudice the interest of boys. Another factor that regulates our teaching is THE SYSTEM OF EXAMINATIONS, which may be said practically to command "CRAM." When one remembers that success in life, the object with which education is sought, depends most upon the useful practical applications, and not upon the disordered store of knowledge stocked in one's brains ; that for such applications it is essential that one's faculties should be developed systematically ; he cannot but concede that it ought to be the first and the foremost duty of an examiner or an inspector to see whether the mental food received has been digested and assimilated, or whether the knowledge received is power or merely a semblance of it. Yet this is exactly what he does not do. It is easier to determine quantity rather than quality. And if what I was told at Surat be true, that the Department required the Inspector to examine a certain number of schools within a certain period, he must hurry over his work and attend to quantity only. The natural consequence of such an arrangement must inevitably encourage and enforce cramming. Professor William James, of the Harvard University, shows clearly how cramming is a bad mode of study. "I mean by cramming," says he, "that way of preparing for examinations by committing 'points' to memory during a few hours or days of intense application immediately preceding the final ordeal, little or no work having been performed during the previous course of the term. Things learnt thus in a few hours, on one occasion for one purpose, cannot possibly have formed many associations with other things in the mind. Their brain processes are led into by few paths, and are relatively little liable to be awakened again. Speedy oblivion is the almost inevitable fate of all that is committed to memory in this simple way, whereas, on the contrary, the same materials taken in gradually, day after day, recurring in different contexts, considered in various relations, associated with other external incidents, and repeatedly reflected on, grow into such a system, from such connection with the rest of the mind's fabric, lie open to so many paths of approach, that they remain permanent possessions. This is the *intellectual* reason why habits of continual application should be enforced in educational establishments." * With such practices, baneful in every way, and specially injurious to HEALTH, it is but proper that after examinations there should be a vacation to give rest to overworked brains. A sound mind requires a sound body. For a sound body some sort of EXERCISE is necessary, whether it be the gymnasium or the out-door games or sports, and these, though I would not say should be made compulsory, at least should be treated as if they were one of the subjects in the school studies, and should have a certain position assigned to them in the time-table, and the hours so spent should count as study. Next, the HOURS OF TUITION for infants should be reduced.

As to the TIME best suited FOR STUDY, the opinion of Dr. J. C. Browne is worth quoting. "Every observant man and woman," says he, "knows that the mind is clearer and stronger in the morning than it is later in the day, and that the nerves are steadier before the meridian than after it, and one would naturally conclude that this universal law had been held well in view in all educational arrangements, the pressure of mental work being made to follow the curve representing the diurnal changes in brain function. At one time, probably, this was so, and at a first glance it might seem that it is so still. School hours fall mostly in the early part of the day, but a little enquiry will reveal that the

* Principles of Psychology, 1891 Edn., Vol. I., page 663.

heaviest part of school work is not generally performed at that time. If any boy or girl be asked, 'What is the most trying part of your school work?' the invariable answer is, 'Preparation'; and if the further question be put, 'When do you do your preparation?' the almost invariable answer is, 'In the evening.' This is a state of matters that is to be condemned from a medical and from an economical point of view. The most severe brain effort that the child is called on to perform, that which involves most strain and concentration of attention, that opening up of new ground on which progress must greatly depend, is reserved for the period when brain function is almost at its lowest ebb, and when all the vital powers are exhausted by the exertion of the day. The most severe and important intellectual labour is undertaken just when it is sure to be most injurious and least remunerative. Evening preparations of lessons, if faithfully performed, must be prejudicial to the fatigued brain, and is not even rendered innocuous by a long interval of recreation between it and school work. It often induces sleeplessness, and a long train of attendant evils, and contributes largely to the nervousness and debility which are becoming so common amongst school children, particularly in towns, while it fails in securing advancement at all equal to what might be got from a much less strenuous and protracted study earlier in the day.

The most arduous mental work required of a child ought to be imposed on it when its mind and body are in their prime vigour, between 9 A.M. and noon, and certainly nothing but the lightest work should devolve upon it after 5 P.M. To the medical eye preparation seems to be peculiarly the work which should be carried on in school with the constant assistance of the master, whose special mission is to explain difficulties, to remove obstacles, evoke interest, and stimulate endeavour. It is perhaps because some masters do not take this view of their office, but fancy that their duty is performed when they prescribe tasks, listen to the repetition of them, scatter over them a few critical remarks, and diffuse around them that magnificent moral influence which is not after all a good substitute for hard work, that tutors and evening governesses have so often to be employed to help boys and girls with their preparation, and that parents have to take upon themselves the real drudgery of teaching." Further on he says that "Spring is the time when there should be a relaxation of pressure on the highest nerve centres of children, when more rest and less work should be enjoined, when strong stimulation and severe exercise should be carefully avoided. But in this, as in so many other educational matters, physiological indications have been not only disregarded, but contravened, for in most schools the hardest work for the year is reserved for this perilous season. Examinations, which are generally held at the end of the summer term, have to be prepared for, and so special diligences and concentration are demanded, and both pupil and teacher often feel the injurious effects of over-exertion. * * * Education judiciously conducted may go on safely in spring as in other seasons, but there should be no extra labour nor competitive excitement then, while for the fragile, mobile, and scrupulous children there should be an abatement of the tasks exacted from them in winter. * * *

When children, during early spring or summer, exhibit very marked excitement or prostration, or are attacked by any of those trifling ailments which are often neglected, but which are very significant, such as swollen tonsils or glands, the work of education should be interrupted."*

These extracts are very instructive. As these are matters that appertain specially to the domains of medical science, I a layman do not propose to enlarge on them, but the extracts prove conclusively the necessity of appointing **MEDICAL VISITORS** to schools as recommended by Drs. Nilkanthrai and Joseph Benjamin. At first sight people may raise various kinds of objections to the scheme, but ultimately it is a suggestion likely to be adopted in the near future, as the public attention will gradually be drawn to the good effects of such a step.

Coming now to the head of **ARITHMETIC**, I find that much time is wasted in mechanical and useless operations and in unravelling of riddles, puzzles, and conundrums. Mr. Lalshanker will excuse me for saying that most of the mis-

cellaneous examples in his arithmetic fall under this category. In life outside the school these riddles are not required, and it is hoped that the Educational Department will not, now that its attention has been drawn to the point, require them from the students. The neglect of this principle explains the contempt which business men express for the arithmetic learnt in our schools. Boys waste a great deal of time in calculating impossible fractions of a pie. Absolute mathematical accuracy is not required in such cases, and an approximate calculation method should be taught, as approximations suffice for mercantile purposes where rapidity of working is considered essential, and not absolute mathematical accuracy as to fractions of pies. One has simply to cast a cursory glance at the answers to the examples at the end of Mr. Lalshanker's arithmetic for higher standards—a book which, I am informed, is taught in our schools—to verify the statement made by me. As an illustration I may cite only the examples on interest given on page 222 (1896 Edn.) and the answers on page 380. Fractions of pies are calculated to an impracticable extent. Some of the answers carry the fractions so far as nine decimal places, and some have nine figures in the denominator. After this it is impossible for any one to refute the charge levelled against our system of education, that life inside the school is divorced from life outside it. As a further illustration of the failure to recognize this principle, I may be permitted to refer to the *āṅgi*, which should be reduced considerably. A boy of 8 years of age is certainly never in want of a ready answer as regards gold or land, nor about ordinary things weighing more than a maund at the utmost. His senior by a year, too, does not require this and other things. But to crown all, a boy of 12 years of age is required to be a walking encyclopædia in mental arithmetic. He must know the formulæ required by a petty as well as a wholesale dealer in all sorts of things; he must know those required by a goldsmith, by a dealer in cloth, by a surveyor of land, by a timber merchant for measuring the cubic contents of timber, whether square or round, and ascertaining its value, by a seller of paper, by a sower of wheat, and by a dealer in pearls. As if this were not enough torture, he must be able to do the service of a table for calculating wages, of an exchange table, and of an interest calculating table in all its complications. Instead of all these useless things, which do no good directly or indirectly to, but rather harm boys of twelve and thirteen years of age, we might prescribe some knowledge of the rules of health, as recommended by Dr. Mathew Arnold in his Report for 1876. If no text-books exist, Government will find no difficulty in getting them prepared.

Now we come to the last but not the least important subject on which I will address you. Let me at the very outset assure you that I do not deny that the GUJARĀTĪ READING SERIES contains lessons that are admirable in a certain way; but that must not blind us to the defects, some of which I observed while casting a cursory glance over them. I do not propose here to dwell exhaustively on all the lessons and all the books, but will take them up as random samples, and I hope, after you have heard my remarks, you will agree with me that it is desirable that the subject deserves more thorough and searching investigation.

Standard III prescribes the Fourth Departmental Book. The majority of boys who learn this book I find from statements obtained from various municipal schools in Surat to be between the ages of 8 and 10. Lessons 32 and 40 forbid the speaking of lies, enjoin true speaking, and treat of *express* and *implied* lies and *suggestio falsi* and *suppressio veri*. Lesson 70 is about politeness, and is full of abstract propositions. Lesson 116 requires the children to use the faculty of discrimination, which they can hardly be said to have developed at this stage to an extent to enable them to understand the difference in the power of God and man. The former *creates something out of nothing*, while the latter simply *discovers, arranges, or transforms things existing*. Lessons 112 to 115 treat of prosody, and are simply beyond their powers of comprehension. When the public raise the cry that the present system is a severe strain on the powers of the students, when they point out that the present reading series requires to be modified, they are silenced by the reply that the series is the best, has stood competition for a long time, and that this is the test of its superiority, and that what the reformers desire is a highly Sanskritized series. This reply will be welcomed only by those who will not see or understand things for themselves.

The slightest knowledge of the elements of psychology reveals the fact that the teaching of prosody to boys of 8 or 10 years of age is a task which no teacher can succeed in; and to make up for the show of the examination, he must make the children "cram" up the thing without understanding a bit of it. A task beyond their comprehension excites no interest, and they feel it irksome, but they must go through it for fear of punishment. What is this work against will if it is not slavery in disguise? Does it not produce the disgust of books and learning, and of teachers and of schools? How happy do they feel when released from schools, which are more of prison-houses than places of pleasure! In vain do we read the admonitions to make learning a pleasure. So long as we work in a wrong way it will cause pain and mental as well as bodily injury. Children are not made for the books or for the schools, but the latter are intended for the children. The books ought to be fit for their ages, and they have not to fit themselves for the books. And what wonder is it, seeing that their learning consists almost in a rabble of words and not a study of things, that the so-called education does not develop their faculties, but only consists in filling their brain with the prescribed quantity of ill-digested grammar, arithmetic, and mere collection of hard words. Manu (II. 159) enjoins—"Created beings must be instructed without giving them pain, and sweet and gentle speech must be used." But how, then, can such ways of instruction proceed "without giving pain," and how can the teacher, who must be vexed beyond measure at the stupidity of the children not to comprehend his explanations, be expected to use "sweet and gentle speech." Lesson 10 of the same book is on morals. આજ્ઞા—ધર્મ and આચાર may be explained in meaning books, but that is explaining one unknown term by another. It treats the subject—obedience to parents—in an abstract form, and is an appeal to reasoning powers. It is more like the speech of an advocate trying to convince a judge. It says parents ought to be obeyed, firstly, because—secondly, because—; and so on. Anyone who has attempted a study of the human mind will at once perceive that the place for this lesson is rather in the last book of the series. Knowledge proceeds from the concrete to the abstract. And children of this age find it impossible to grasp such abstractions and ratiocinations. They want something vivacious and something more about the material world. Looked at from this point of view, the whole book seems unfit for the boys who have to learn it. Out of about 160 lessons, nearly half of them treat of morals, about a fourth treat of subjects of general knowledge, which, I think, will not make them a bit wiser or the better, being either beyond their capacity or exciting no interest in them, and of the rest only few can be said to appertain to the material world, in which alone such children take delight.

In book III. Lessons 123 to 126 are, I think, beyond the understanding of the pupils learning them. They treat of the method of teaching good reading. The students are asked to distinguish between gutturals, dentals, and other letters, and are recommended to take care in applying their tongues to various points in the mouth to produce the various sounds properly. An attempt to follow out these intricate directions will certainly result in bewildering the children rather than fulfilling the prophecy contained in one of these lessons એ પ્રમાણે હરેક અક્ષરનેા હુચાર બરાબર ધ્યાન રાખીને કરે અને વાંચે તે સાર વચ્ચા. Then we are also told about stoppages in reading wherever punctuations occur. These instructions are very difficult of understanding. No amount of labour bestowed by a child on these lessons will enable it to learn good reading. I think the best way to teach reading is, that the teacher should himself read out the lesson to his class, and then ask a student to try to imitate him, and point out errors as soon as they occur, instead of giving so much of dry rules all at once. Lessons 1 and 2 of the same book (Book III) represent an idle boy as having had talks with ants, dogs, and sparrows. This is all unreal. They remind me of an amusing incident to which I bear personal testimony. I once told my little child to order my carriage. The child, deeply engrossed in play, did not like to give it up, and in all seriousness told me, "Your horse told me he was tired on account of the drive we had yesterday." If you do not want a child to imitate certain things do not acquaint the child with them. Lesson 64 of the same book (Book III) has got a long sentence of about 8 printed lines, so that it becomes difficult for a child to comprehend it. It keeps the mind on a stretch till the end, with the result that the child will say—I can think only of the meaning of words, I can't

think about the meaning of the sentence. I will read it to give you an exact idea of what I mean : વા પ્રવાહી છે, માટે જેમ પાણીમાં પથરો નાંખીએ, ત્યારે તેમાં લહેરોનાં કુડાળાં ઉપરા ઉપરી થવા માંડે છે, તે તે લહેરો છે તેના પાણીને હલાવે છે, તેથી ત્યાં હાથ રાખ્યો હોય, તો તે ઉપર અથડાય છે, તેમજ નગારા ઉપર દાંડીઓ ઠોકાયે, તો તે નગારા આમડું થરથર ધુલે છે, તેને લીધે વાહાલે છે, અને કાનમાનોવા માંહેની ચામડી ઉપર અથડાય છે તેથી આપણને માલુમ પડે છે કે હલાણો નાદ કે સાદ થયો.

Lessons 10 in the fifth book (અખખાના ૭૨૫), 123 in the seventh book (મનઉપદેશ), and lesson 38 in the sixth book are very difficult of comprehension and should be omitted. The last mentioned lesson, viz. 38, does not appear to have been understood even by the editors of the series themselves, for at the top of it they have placed a wrong title. It is headed મરણનો ભય છે માટે પ્રભુને ભજવો. We should worship God because there is fear of death. There is nothing, so far as I can see, in the lines that follow, which show that this is the idea to be conveyed by the lines ; on the contrary, the whole argument tends to show that this world is all unreal, and the only real thing worth attaining is God, and therefore he should be worshipped. Another ground on which I would advocate the removal of this and the like lessons altogether from the series is this, viz., that they unduly depress the spirit of growing children who want something that is lively. We are told father, mother, sister, brother, wife, and other relations and wealth and palatial dwellings are worth nothing. They are mere dreams. These ideas may be good for old people, but for the young the description of the burning of the dead and the other things mentioned therein would bring about, in most cases, the disease which I think doctors call "melancholia."

The following extract from the lesson will convince how unfit it is for boys learning the book. ઘરની નારી કંઈ વળાવી તરત ખીજને ગઈ is too much for a child of this age. It certainly is not the object of the series to advocate widow re-marriage with a vengeance, or to instil in young minds a disgust for women. The following lines present such a horrid picture to the child, that no comment is required besides reading them :

ઉપર કુલડા ફરફરે નેહોડે શ્રીફળ ચાર,
ડીક કરી એને ઠાઠડામાં ઘાંદ્યો પછી પુડે પડે પોકાર રે
* * *
ખેરી ખેરીને ખાજશે જેમ લોહું ગાળે હુવાર—

More I will not reproduce. The world is meant—at least the infant world—for happiness and the glorification of God, and not for the horrors or miseries of which there is no lack.

Of moral lessons the books contain enough so far as numbers go. Abstruse argumentative lessons should be omitted as they do no good. Instead of recommending the various virtues in the abstract, I think lives of eminent men may with great advantage be substituted, and many of the present lessons might be omitted to make room for them.

Yesterday it was asserted here that the children of the present generation do not show that amount of respect to their parents as was done by those of the older generations. I for myself am inclined to think that there is some truth in this statement, though it may be greatly exaggerated. However, on this point I will not make any emphatic statement, as I have not had an opportunity of thoroughly going into the question, but I am afraid and regret that the fault here lies in our reading series. I must strongly protest against the harm that some of the lessons, like Lesson 66 in Book IV, are calculated to inflict on the young students. This single lesson alone is enough to make a family miserable. Children of tender years who believe every word that is in print to be absolutely true are taught practically to disobey their parents. All the good effects of injunctions about obeying and respecting our parents is at once done away with એ ચાલ સારો નથી. એ કેવી ગાંડી ! એ કહ્યા કાપણની રીત ! એ ગાંડી રીત છે. એ કેવું ખોટું દેખાય છે ! એ કેવો ઉધો ચાલે છે ! એ મુખાઈ છે ! એ તો ઘણીજ મુખાઈ છે. Language such as this and all in one single lesson concerning the practices of our parents and elders certainly results in throwing aside all respect for the parents and elders. Human beings are not perfect ; parents may follow wrong practices, but is this lesson meant for the improvement of the child or the punishment of the parents ? The evident tendency is to leave the parents at the mercy of their children.

Faults of parents are to be approached very tenderly. But this lesson establishes an exception to the general rule of obedience to parents. The result of this lesson, read along with others inculcating obedience to parents, may be summed up shortly, thus—"Obey your parents, except when their orders are improper." And who is to determine whether the order is proper or improper? No solution is offered to this question anywhere in the series, and the result is, our children of ten or twelve sit in judgment over us and pronounce our orders to be improper. I will not go into details, but may say that this lesson is not a solitary instance. I contend that the reading series is not the place where an editor should be allowed to play the *role* of a social reformer, and I protest that it certainly is not the place where he should be allowed to abuse us in the most unbridled fashion in the face of our children. I have no desire here to enter into a controversy about the old customs; some may think them wrong, others may differ from that opinion. But, while we are thus vilified, I regret to find that there is not in the whole series a single lesson which would make one say from his innermost heart—"This is my own, my native land."

JAMIETRAM NANABHAI.

A PAPER PREPARED BY NILKANTRAI DAYABHAI CHHATRAPATI, L.M. & S.,
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*Read at the Educational Conference held at Ahmedabad on 21st October 1896 by
Joseph B. Bamnolkar.*

Primary Education.

MR. PRESIDENT, LADIES AND GENTLEMEN,

Being laymen, it is with some diffidence that we venture to come before you to express our humble views on the momentous subject of 'Primary Education,' to which only experts can do proper justice. We are conscious of our weakness to treat such an important subject; we have nevertheless some experience of this subject as parents, citizens living in a large educational centre like Ahmedabad, and as persons connected with the education of the young. Besides as medical men our attention is now and then directed to the effects of education on the young resulting both from the present mode of study and from confinement for long hours in unsuitable school-buildings. We therefore trust that our humble views on the subject will receive at the hands of this Conference and the Educational authorities that kind and sympathetic consideration which the importance of the subject deserves.

Under the benign British rule facilities have been offered to us for acquiring knowledge, and consequently education has made much progress. Nevertheless, looking at the percentage of school-going children, which is about 16, it is evident that a large number who can attend the schools cannot avail themselves of education on account of poverty. When we compare this low percentage with that of England, which is more than 93, and with those of Germany and Switzerland, we grow the more conscious of the urgent necessity of making education free as in England and the other European countries, and if that is not possible at present, of cheapening it as much as possible so as to make it more accessible to the poor and backward classes. The Government expenditure on primary education for the year 1894-95 amounted to Rs. 8,19,190 in this Presidency to a population of 26,834,305, whereas it amounted to £6,465,670 to a population of 30,060,763 in England. From the above figures it is clear that whereas England spends about 4·5 shillings per head on primary education, the Bombay Government spends only 8·7 pies per head of population. Our Municipalities with their limited funds spend more than double of what our Government spends on primary education. We would therefore humbly suggest that at least the percentage of free studentships be raised to 25, and the School Boards be asked to notify this every year so as to attract the attention of parents of school-going children of the backward classes irrespective of caste or creed. Besides, the rates of fees should be reduced, especially in the city schools, where even the local fund cess-payers have to pay the full fees instead of $\frac{1}{2}$ anna and 1 anna in the Local Board Schools.

Government are very anxious to see the spread of primary education. The Director of Public Instruction's Report for 1894-95 shows however a decrease of 57 schools in the Northern Division. This has resulted in the decrease in the number of school-going children in some of the districts, but the number of school-going children has been shown to have increased on the whole. If the Government had opened some new schools in suitable localities, the number of school-going children would have been decidedly greater than that shewn in the report. The marked decrease in the number of school-going children by 403 in the Thana District on account of the closure of six schools is to be regretted; and we hope the Department would see its way to remedy this state of affairs. Taking into consideration the increase that goes on from year to year in the population, it is incumbent on the Government to establish more schools for primary education, so that there should be a primary school provided for every village or a group of villages with a population of about 500 souls.

STANDARDS.

From the annexed tables it will be seen that we propose that instead of the present six standards there should be eight for boys, so that the burden may be lessened and the subjects distributed over a larger number of years. For this purpose we should like to see the standard of Arithmetic suit the ages of little boys and girls, that lines of Poetry for recitation be decreased in each standard, that Geography and History be taught in a manner so that the children may like the subjects and learn them in a practical manner, that Grammar be commenced from the 5th instead of the 4th standard, that children should be taken out every morning for sight-seeing, so that they can easily learn object lessons, that Drawing be introduced in the standards, and that elementary science and manual work be taught in the higher standards so as to be useful to boys in after-life. Native games should be introduced in the different standards and the instruction of physical exercise arranged according to the age of the pupils. We would also beg to propose that in the case of girls particular attention be paid to the subject of needlework and cutting so as to be useful to them for home purposes, and that the girls of the highest standard be given instruction in domestic economy, elements of hygiene, and in general knowledge of nursing of children and the sick, and the rearing of children. Moral education should form an essential part of primary education, moral lessons in addition to those occurring in the reading series being taught to them. In village schools boys of the agricultural, trading, and artizan classes should be taught from the 5th standard agriculture, native accounts and book-keeping, and smith's, carpenter's, or weaving work according to the class to which they belong, they being exempted from the study of history and geography.

We shall take up the subjects one by one.

READING AND THE HOPE SERIES.

The reading is from the Hope Series, and is suitable. This series has done incalculable good to the province, and the thanks of the Gujarati learning public are due to Sir Theodore Hope and his colleagues for their great labours in the preparation of the series. A considerable time has, however, now elapsed since the first publication of this series, during which time a goodly number of literary works has come into existence, and a number of writers of various kinds of styles have also come forward and a considerable amount of information of the geology, botany, and other sources of economic products obtainable from rivers, earth, and animals in this province has found its place in the Bombay Gazetteer. Besides a number of new industries have come into existence and some old industries hold their own against outside competition; and a number of European and native workers in educational, industrial, and other subjects have made their mark in the history of the province. In the Hope Series there are very few lessons which would go to enrich the minds of boys of the higher primary standards with knowledge and instructive information about local economic products. Another drawback in the series is that most of the prose lessons occurring in it from the 2nd to the 7th book are written in the same style, though it is true that the style is good and easy, and the language pure. From the above it is fairly clear that a strong necessity does exist for the introduction of a new series side by side with the Hope Series.

POETRY.

The number of lines to be learnt by heart in each standard should be reduced to lessen cramming, and before the boys learn the lines by heart they should be in a position to explain them, so that lines can then be easily committed to memory.

OBJECT LESSONS.

No doubt object lessons are provided for in the first two primary standards. But it is essential that the boys should be taken out for the purpose and shown different objects, which should be explained to them. In this way the children can easily learn these lessons, they will get exercise, and the task will be both

easy and amusing to them. It is to be regretted that the teaching of simple common objects obtaining in the infant class and the 1st standard is not continued in the higher standards and developed into elementary science lessons in the uppermost standards. It will perhaps be said that lessons on common objects and elementary science occur in the reading books. But this can hardly be sufficient. We have seen boys who can repeat the names of all the planets from the Gujaráti seventh book, who never know Mars from Mercury when seen on an evening in the heavens. We have also seen boys who talk of the phases of the Moon from the Gujaráti sixth book, but who never carefully observe her when seen in the heavens, and who cannot therefore draw the picture of the Moon as seen on the fourth of the bright and dark half of the month. What is important is to train the children's faculty of observation, and no science lesson can be fruitful unless it is really taught by means of observation and experiment. Reading such lessons as language lessons in the reading books and repeating words without catching the ideas is next to useless. We may add that so long as object lessons and science are not examined as a separate subject, they will never be taught properly by the teachers, since the teacher looks for his prospects and position to the annual examination, and does what pays at the examination.

SINGING.

The girls in all the standards should always be made to sing in a circle, so that they can get physical exercise in addition to singing.

PHYSICAL EXERCISE.

Native games should be introduced in the schools while imparting instruction in drill, running, jumping, dumb-bells, crowbar, parallel and horizontal bars, cricket, &c., which all should be arranged according to the age of the children.

MATHEMATICS.

The teaching of Arithmetic should not be merely mechanical, but should be based on the teaching of principles. Little children cannot comprehend large numbers, and it is useless and positively injurious to make them wade through sums involving numbers beyond their comprehension. It is therefore essential that as proposed by us smaller numbers than those taught at present should be fixed for the lower primary standards. So also there should be a reduction in the standard of arithmetic for little boys.

The same rule should be made applicable about mental arithmetic in the case of such children. It should therefore range over a larger number of years, so that it be raised in the higher standards. At the same time to put *सपत्नी* before *पत्नी* and *पत्नी* is like putting the cart before the horse, and is a very bad arrangement. It should therefore be immediately remedied.

With reference to Euclid, it may be said that it is being ostracised on the continent of Europe, and modern geometry is taught instead. We think it will be better in this instance to follow the example of European countries than to continue to move in the old grooves. Besides, this subject is not included among those for the Public Service Certificate examination.

GEOGRAPHY.

Geography as at present taught to boys goes very hard with them, because what is done at present is merely to cram a string of names and nothing else. Preliminary notions of distance and relative position of objects &c. should be developed, and the children made to draw a map of the street and then of the village by their own observations and measurements before they can be taken to the topography of the district. We think the preliminary notions and the map of the village as drawn by children themselves from their own observations would suffice for the second standard, and the geography of the district taken in the third standard. Again, at every stage in the teaching of geography, the physical geography of the district or country taught should be taken up along with the topography and political geography and the bearing of the physical geography of such district or country on the manners and habits of the people, on their

industries and trade, on their political situation &c. should be explained. Then alone can geography yield the necessary discipline to the mind. At every stage again the children's own observations should be brought into play, and the teaching should be enlivened and illustrated by means of pictures, and if possible by relief maps. Besides, every school should be provided with a terrestrial globe.

HISTORY.

This subject should be commenced from the fourth standard and not in the third as at present, and should be entirely based on stories and biographies. History of Gujarát is at present taught in the third standard from a book called "A short sketch of the history of Gujarát." As this book is full of dry facts, the subject becomes burdensome and uninteresting. We would therefore suggest that it should be taught in a narrative form written in an easy style on the plan of "India : Historical and Pictorial." In the fourth and the higher standards History of India is taught from the translation of Hunter's smaller History of India. The language of this book is difficult and unintelligible to the boys. It should therefore be replaced by a better book written in a narrative form in an easy, interesting style.

Books on history and geography should all be illustrated, and the history books should contain the maps appertaining to the different periods of history.

GRAMMAR.

The teaching of Grammar should be based entirely on the analysis of sentences. The present system of unintelligently going through meaningless forms has proved a failure, and should be replaced by a better and more logical system.

COPY-WRITING.

The boys should be made to write copy-books with a reed-pen.

The handwriting of the present generation has deteriorated. We are aware that the copy-books at present in use are well spoken of by departmental officers and others taking interest in educational matters. But looking at the results, we beg to say that the old "Dopista" system was better and much cheaper.

COMPOSITION.

The subject of composition is not well taught at present, and has not been properly provided for in the standards. The earlier standards should insist on the children talking in simple but complete sentences and thus accustom them to oral composition. In the third standard children should be asked to write complete sentences in answer to questions on the subject-matter of some of the reading lessons. In the fourth standard a few of the reading lessons should be discussed and the sequence of ideas in them noted on the black-board, and children should be asked to write out the substance of the lesson from that analysis. The fifth standard at present prescribes letter-writing, but it is absurd to ask the children to write a letter before they have been taught systematically to write a paragraph on a simple subject. The fifth standard should, we think, confine itself to the writing of narrative paragraphs, and after this is well taught, longer essays and letter-writing may be taken up.

KINDERGARTEN.

This system at present obtains in all the standards of the Chichgar's Pársi Girls' school at Bombay, and is highly spoken of. We would therefore beg to draw the attention of the authorities to the subject with a view to its being introduced into all our primary schools.

DRAWING.

The standards again make no provision for hand and eye training, which is important in these days of commercial competition with the whole world. England and other countries have made drawing compulsory in all the boys' schools, and some such thing ought to be done in this country, at least in the town and city schools.

ELEMENTARY SCIENCE AND MANUAL TRAINING.

These subjects should be introduced in the fifth and higher standards, students taking these-up being allowed to forego the study of History and Geography.

HOME-WORK.

The children in the lowest standards should have no home-work, and those in the upper standards should not have more home-work than would occupy them for an hour or two.

PROPOSED INCREASE IN THE NUMBER OF STANDARDS.

Though the Government middle school scholarship rules expect children to finish the vernacular fourth standard at the age of ten, we actually find children to be in that standard between the ages of ten and twelve, so that under present circumstances they reach the vernacular sixth standard between the ages of twelve and fourteen. The public service certificate and other examinations prescribe seventeen as the minimum age for admission to them, so that boys who finish the sixth standard at the age of fourteen or fifteen have to waste two or three years before they can go up for these examinations. We think that at least two standards should be added to the present vernacular course so as to relieve pressure on the lower standards and to provide for some additional useful subjects such as drawing, elementary science, manual training, &c., and for agriculture in village schools. In this manner there will be eight instead of six vernacular standards, the first four being primary, and the other four being middle vernacular standards.

Secondary education is at present mostly given through the medium of the English language, so that the addition of two standards to the vernacular course will meet the wants of those who cannot learn English by providing some better instruction for them in the vernacular than at present.

In our view of raising the standards we are supported by recommendation nine under primary education of the Education Commission, which is as follows :

That the standards of primary examinations in each province be raised with a view to simplification and to the larger introduction of practical subjects such as native methods of arithmetic, accounts and mensuration, the elements of natural and physical science, and their application to agriculture, health, and the industrial arts.

Government of India's Resolution No. $\frac{10}{509}$, dated 23rd October 1884, also directs a revision of primary standards. They say that "every variety of study should be encouraged, which may serve to direct the attention of the native youth to industrial and commercial pursuits."

NIGHT SCHOOLS.

Night schools are necessary in cities like Ahmedabad, Surat, Broach, Nadiád and Viramgám. In Birmingham, Sheffield, and Manchester a lot of night schools exist for the benefit of the working population, where not only are the three R's taught, but also drawing and some industrial subjects.

MORAL EDUCATION.

Moral education should form an important part of the education of both boys and girls. The teachers should be made to pay particular attention to this subject by impressing upon the minds of young children love of truth, kindness to man and animals, obedience to parents, guardians, and superiors, freedom from vice and crime, &c., by their own example as well as by freely mixing with the boys during their play, recess, and object lesson hours. The efforts of teachers in this direction should be supplemented by those of parents, whose duty it is to see that their children don't fall into bad company, and they should by their own example inculcate the principles of morality on their children. The effects of this education should also be to create a love in the child for the Crown and for his country.

We are at one with the Government of India in their opinion that religious instruction can form no part of our present system of primary education taking into consideration the diverse races and creeds that attend our schools.

TEACHERS.

We would beg to draw the special attention of this Conference to the fact that the present lower primary standards require better-qualified teachers than those appointed at present, because they have to teach little children fresh from the influence of home and just beginning to subject themselves to the discipline of the school and with a nature which is required to be properly understood by the teacher in order that he may be able to instruct them. In practice we see that for these lower classes teachers of the lowest qualifications, unable to understand child-nature and its requirements, are appointed. Hence arises the loud complaint of faulty education, and should, therefore, be immediately remedied.

In villages small schools are often found with one or two children in each standard and only one teacher to teach five or six classes. We cannot recommend many teachers being given for such small schools; but we would urge that some special facilities should be given to the teachers of such schools for the grouping of classes, such as is intended in Schedule S. of the English Code.

The teachers fail to introduce the pupils to the lessons of the next day, and act as inspecting officers instead of teachers. This state of affairs should be remedied.

In the town and city schools where the number of boys exceeds 300, an extra assistant teacher should be provided to enable the head master to properly supervise all the classes and to help him in his official writing work. This becomes the more necessary as these schools are not provided with a school servant.

In the village schools generally more than two standards should not be entrusted to one and the same teacher, and there should not be more than thirty boys in each class.

The Department should also see that the teaching staff is not frequently changed, and under no circumstances should the responsibility of the teaching of a class be allowed to be divided among two or three teachers in a year.

It is also our humble opinion that no one should be appointed as teacher who is under 18, and that in the practising schools attached to our training colleges students of the colleges should only be allowed to teach the boys of the practising school under the teacher's eye.

The Director of Public Instruction's Report for 1894-95 shows that there are still some 2,800 untrained head masters on the primary schools of this Presidency, about 1,400 being in the Local Board schools directly managed by the Department. The Northern Division alone has 748 untrained head masters, of whom 414 are in Local Board schools managed by the Educational Department. The total figures for the Northern Division are as follows:

Untrained Head Masters, 748.

Untrained Assistants, who have only passed the public service certificate examination, 1,287.

Untrained Assistants, who have not even passed the public service certificate examination, 695.

This is hardly a satisfactory state of affairs, and vigorous efforts should be made to provide a trained head master to every school and a few trained assistants to every large school. In England, every school is required to be presided over by a trained head master and to have an additional trained teacher for an attendance of every 60 children (*vide* Article 73 of the English Code). It is useless to say, as was done at the Poona Conference, that the teachers do not teach properly when qualified teachers are not appointed. In such cases it is not teachers that are responsible for bad teaching, but those who appoint them.

The teachers also don't get promotion as prescribed in the Master's Code. This drawback should be removed if the Department desires the teachers should do their work properly. In addition, if the pay of the teachers be raised they will be more contented, a better class of teachers will be had, and thus the teaching will naturally improve.

INSPECTION.

The inspection should be frequent, unexpected, and careful, and should be made with a view to improve the teaching and test how much intelligent work has been done by the class and its teacher in accordance with the directions given in the Deputy Educational Inspector's Code.

Besides with a view to enable teachers to take keener interest in their work, there should be more frequent inspections by the School Boards and Deputy Inspectors and their assistants of schools as to the mode of teaching &c., and they should encourage the teachers in their work and point out to them in a kind manner their shortcomings in the methods of teaching by personally giving lessons to children, and pay them that respect which their position as teachers deserves. In this the School Board also should enlist the sympathy of the general public by appointing gentlemen of education and others outside the Board taking interest in schools as visitors, upon whom should be impressed the fact that they also should try to help the teachers by rendering them assistance of every kind.

The inspecting staff should ask the teachers whether the schools have been provided with the latest appliances necessary for school-teaching, and if they require any new appliances for the purpose. They should also see that every school has a museum of its own, which would go to illustrate the lessons under various heads of the different standards.

SCHOOL-BUILDINGS AND SCHOOL HYGIENE.

All over the province of Gujarát almost all the schools in the cities are located in hired buildings built as residential quarters. Some of the buildings are old, rickety, and ill ventilated, with deficient light and with damp floors. In such schools two or three classes are located in one room and there is no compound to serve the boys as play-ground. Some of the schools are situated in narrow lanes with neither a frontage nor accommodation sufficient for children attending them. Some of the schools in the city have to occupy two, three, or even four houses in order that they may accommodate the children that attend them. In many schools the arrangement of classes is such that the light falls exactly on the faces of children instead of on the books from their left. Some years ago short-sight in children was almost unknown. But now we see for every 20 or 25 children two shortsighted ones. Possibly this has resulted from the class rooms having deficient light, the paper of the books unsuitable, the type small, and the distance between the lines short.

On account of sufficient floor and cubic space being not allowed to children as well as on account of the long number of hours during which they are confined in the schools, the children are found suffering from frequent headaches, drowsiness, and listlessness. We would therefore earnestly pray that the money spent on building suitable school-houses will tend to diminish shortsightedness, improve the general health of the boys and thus enable them to become better citizens. We are aware that the attention of the Ahmedabad Municipality being drawn to the sanitary defects of its school-houses, it is trying to secure a loan for this purpose and has asked Government to help it in this matter.

The minimum area required per head must be 10 square feet and 120 cubic feet with such an arrangement of windows &c. as would ensure a free interchange of air without producing a draught. In this particular respect most of the schools of Ahmedabad fall far short of the requirements. Every school-house with an accommodation for 250 children should have at least $\frac{1}{4}$ acre of land inclusive of building and the play-ground, and where convenience and space permit, some of it should be turned into a garden.

A separate room should be given to the infant class in every school. The other classes cannot be suitably taught in the same room as the infant class because of games, noise, &c.

Special arrangements should be made for urinals, care being taken to see that they are kept scrupulously clean.

The seats for boys in the classes should be properly arranged, and care should be taken to have the school-houses kept neat and clean.

SCHOOL WORK.

With reference to school-work the children of the infant class as well as the boys of the highest class in the school have all to attend nearly an equal number of hours, viz., from 10-30 A.M. to 4-30 or 5 P.M. with recess for half an hour in the city schools. Such a long confinement acts injuriously on children and their growth is stunted. They should therefore get at least one hour's recess every day, the younger children being confined for a shorter time in the school than at present.

Further, the school-lessons extend from three-fourths to one hour alike irrespective of the class and the age of the pupil. Children between the ages of 6 and 7 should not be confined more than two hours; between 7 and 10, three hours; 10 and 12, four hours; and 12 and 15, five hours. Again, the time for each lesson should be adjusted according to the average age of the pupils. Between the age of 5 and 7 a single lesson should last only for fifteen minutes, 7 and 10, twenty minutes, 10 to 12, half an hour, and 12 to 16, three-fourths hour. Perhaps it would be urged that if these suggestions were to be adopted with reference to school and lesson hours, the instruction that the children would receive would be much less than now. We are strongly of opinion that if lesson time were to be alternated with manual work, drill or singing, the children will be able to assimilate the instruction better and grow into vigorous youths better prepared for the study before them. In this opinion we are supported by no less an authority than Mr. Edwin Chadwick, a great sanitary and social reformer in England.

VACATIONS.

It is a great strain to little children to have to grind at their books throughout the whole year without a break. A month's long vacation was tried in primary schools but proved a failure, as it did harm to the schools and reduced the attendance. We would suggest that instead of a month's long vacation given at once, four small vacations of a week each may be given, say at Christmas, Easter, Divali, and Holi. These vacations being short will do no harm either to the schools or to the children, and will give them relief from a constant grind. We hope, therefore, that this suggestion may be taken up.

MEDICAL VISITORS TO SCHOOLS.

Schools in England have medical visitors. A similar provision is necessary in this country, and the business of the medical visitor should be to examine the eyes and general health, the weight, height, and growth of children in the school, and advise the teachers in regard to the sanitary arrangements of the school and regarding children who require more care. We may say that the health of the convicts in jails is more looked after by the authorities than of children in schools. Medical officers examine convicts and determine the class of labour to be given to them. No such thing is done in regard to dull or sickly children. They are driven in the same way as more intelligent and healthier children, and the consequent strain on their minds and bodies becomes unbearable. We hope therefore that this suggestion will be taken up by the authorities.

It is also necessary to pay particular attention to the water arrangements that are made for boys in schools, so also people should not be allowed to sell nasty articles to children in or near the school compound.

Cleanliness in children should be particularly attended to, and during epidemics and in zymotic and contagious diseases special attention should be paid in schools, children suffering from such diseases being prohibited from coming to school.

SCHOOL-GOING AGE.

At present the minimum age at which boys can be admitted into schools is 4 years. We are humbly of opinion that it should at least be raised to 5, though 7 is the proper age at which the mental faculties begin to be properly developed.

PROGRESS REPORT OF BOYS.

The teachers should send a report every month to parents of the progress made by the children in their studies, of the number of days they attended school and of their general conduct, and should also ask the parents to furnish them monthly information about the children's conduct &c. at home.

CONCLUDING REMARKS.

The suggestions we have made in this paper are with a view to render study more suitable and more useful, and less irksome and less burdensome to little children. With this view we have proposed that cramming should be lessened, that useful and practical subjects be taught, that manual training be given to them, that moral and physical instruction be more carefully imparted to them, that they be provided with suitable school-buildings, and that their health be looked after, so that the real objects of education can be fulfilled, and the recommendations of the Education Commission and of Government may then be said to have been carried fully into effect. For this extended boon the people will be more grateful to the British Government, the country will be more prosperous, and its material improvement will naturally bring more money to the Government treasury and the task of governing the people will become easier.

Ladies and gentlemen, we solicit your kind indulgence for trespassing upon so much of your valuable time with our lengthy remarks, which were required to be made taking into consideration the importance of the subject.

Lastly, we cannot conclude our paper without expressing our hearty thanks to Mr. J. Oliver, Educational Inspector, N. D., for his kindly giving us an opportunity to read the paper at this Conference, and to you all for the kind and sympathetic hearing you have given it.

Proposed Standards for the Boys' Primary Schools in Gujarát.

Standards.	Subjects.										REMARKS.	
	1	2	3	4	5	6	7	8	9	10		
Infant Class.	Short interesting Stories by the Head Master. Gujarati 1st Book.	Singing simple Songs. Singing and writing of alphabet.	Object Lessons. Do. Freehand Drawing (straight lines).	Numeration up to 10 ... Numeration up to 100 and tables up to 10 x 10.	Boys should be taken out every day for teaching object and elementary science lessons. Kindergarten system should be introduced. Agriculture should be taught to children of the cultivating classes, native accounts and book-keeping to the trading classes, and smith's or other work to artisan classes instead of History and Geography. Physical and moral education should also be attended to.
2nd ...	Gujarati 2nd Book with 50 lines of Poetry for recitation.	Copy-writing and Dictation.	Do. ...	Freehand (lines and angles).	Numeration up to 1,000, simple addition and subtraction of 3 figures and tables to 20 x 10.	.....	Geography of the school.	.....	.....	Do. ...	...
3rd ...	Gujarati 3rd Book with 100 lines of Poetry for recitation.	Do. ...	Do. ...	Free hand on paper.	Numeration up to 10,000, arithmetic up to simple division of 3 figures, and mental arithmetic ગણિત and વણિ.	.....	Geography of the town and districts with its physical aspects.	.....	.....	Writing complete sentences.	...
4th ...	Gujarati 4th Book with 150 lines of Poetry.	Do. ...	Do. ...	Freehand (straight and curved lines).	Numeration up to million and up to compound division.	History of Gujarát to Wag h e l a Kings.	Geography of Gujarát as above.	.....	.....	Writing substance of lessons..	...
5th ...	Gujarati 5th Book with 200 lines of Poetry.	Do. ...	Elementary Science and Sa n i t a r y Primer.	Freehand (from a plain picture).	Upto fractions ગણિત and numeration to 100 millions.	History of India to Mogal dynasty,	Geography of the Presidency as above.	Gram m a r (parts of speech from analysis of sentences).	.....	Writing narrative paragraphs.	Manual training.
6th ...	Gujarati 6th Book with 250 lines.	Do. ...	Do. ...	Model Drawing.	To double rule of three, interest and discount. Native accounts ગણિત as taught in the 3rd Standard at present and numeration to 1,000 millions.	History of India up to 1800.	Geography of India as above.	Grammar up to declination of adjectives.	.....	Short essays and letters.	Do.
7th ...	First half of Gujarati 7th Book with 300 lines.	Do. ...	Do. ...	Do. ...	Up to profit and loss and stocks ગણિત at present taught in the 4th Standard, Mensuration, Book-keeping.	History of India complete.	Geography of Asia and Europe as above.	Grammar up to particles with etymology.	.....	Longer essays and letters.	Do.
8th ...	Second half of Gujarati 7th Book with 350 lines.	Do. ...	Do. ...	.....	Arithmetic complete, Mensuration, Book-keeping ગણિત and numeration complete.	Smaller history of England and general knowledge of a d m i n i s t r a t i o n.	Geography of the whole world as above.	Gram m a r complete and etymology and prosody.	.....	Do. ...	Do.

Proposed Standards for the Girls' Primary Schools in Gujarát.

Standards.	Subjects.									Remarks.	
	1	2	3	4	5	6	7	8	9		
Infant Class.	Short, interesting Stories by the Head Master	Singing short Songs.	Object Lessons.	Numeration to 10.	The girls should be taken out every day for object lessons.
1st ...	Gujarátí Book.	1st Singing in a circle.	Do. ...	Numeration to 100, and tables to 10 × 10.	.....	.....	.....	.....	Oral composition. Talking simple sentences.	.....
2nd ...	Gujarátí Book.	2nd Singing 30 lines from Garbawali.	Do. ...	Numeration to 1,000, and to subtraction of 2 figures.	Geography of the school.	.....	Copy-writing and Dictation.	.....	Do. ...	Needlework.
3rd ...	Gujarátí Book.	3rd Singing 50 lines.	Do. ...	Numeration to 10,000, and to simple division of 3 figures.	Geography of the town and district.	... ..	Do. ...	.....	Writing complete sentences.	Do.
4th ...	Gujarátí Book.	4th Singing 100 lines.	Do. ...	Numeration to 100,000, to compound division.	Geography of Gujarát.	.....	Do. ...	.....	Writing substance of lesson.	Do.
5th ...	Gujarátí Book.	5th Singing 150 lines.	Elementary Science and Sanitary Primer.	Numeration to 1 million and to simple rule of three.	Geography of the Presidency.	History of Gujarát to Whagela Kings.	Do. ...	.....	Writing narrative paragraphs.	Needle-work, cutting and embroidery.
6th ...	Gujarátí Book.	6th Singing 200 lines.	Elementary Domestic Economy. General knowledge of the rearing of children and nursing of the sick and children.	Numeration to 100 millions, double rule of three, interest and fractions, native, accounts and book-keeping.	Geography of India.	History of India to Mogal dynasty.	Do. ...	Parts of speech from analysis of sentences.	Writing short essays and letters.	Do.	

PAPER READ BY RA'O SA'HEB S. K. RODDA

The revision of the present Ka'narese Standards.

MR. PRESIDENT AND GENTLEMEN,

Allow me to take the liberty of expressing my sincere thanks for the permission that has been so kindly granted to me to read this short paper on this occasion, which is, in the Educational Annals of the Southern Division, the second of the kind. The first occasion was in 1885, when no papers were read but mere discussions took place. The present one surpasses the former by its being more representative in its character.

The reason why I took up the subject, which is "The revision of the present Kánarese Standards," is that during my tour I have often had the pleasure of meeting the parents of children, the educated people of the district, and a number of native officials, and these men, during the course of our conversation, often touched upon the school curriculum, sometimes commenting unfavorably on the same. They often condemned History and Geography and stories of animals and birds in the Reading books. By a long line of arguments and dwelling upon the necessity of some general knowledge of the subjects, I had to satisfy them; but still many left the talk without arriving at any conclusions. Fully believing that some discussion of this subject at this important meeting will remove any unfavorable impression that might exist, this paper is brought before you. As far as my opinion and experience go, I have no hesitation in asserting that our Kánarese Departmental Standards have been framed after a good deal of trouble and a full consideration of best advice and sound experience and that they require no fundamental change. I, however, beg to state that as time advances there ought to be progress. Nothing human is perfect and can be made perfect. There may be, therefore, a few defects or errors which further experience brings to light, and all these should be remedied after consulting eminent educationalists and the experienced officers of the Departmental Inspecting staff. The revision of standards, several times, since their first introduction, bears testimony to what I have said just now.

Now taking the Standards, one by one, let me place before you, gentlemen, a few observations on them.

STANDARD FOR INFANT CLASSES.

Considering that the age of admission in the school is the 5th or 6th year, the standard meets with all that is required. It comprises to a small extent the Kindergarten system; the recitation of household songs; the narration of short, simple, interesting and instructive stories; simple drill; and in fact everything that makes the school life of infants pleasant. The Kindergarten system cannot be introduced in all its completeness, owing to the expensive nature of the materials required and the incompetency and, in some cases, inadequacy of the staff to handle the same.

Standard I.

This does not require any modification. Paunaki may be added without any inconvenience to the boys.

Standard II.

First Head.—Fractional multiplication tables may be learnt to end and not up to 50 only. It is therefore desirable to omit the words "up to 50".

Second Head.—Experience has shown that the boys of the 2nd standard are quite unable to understand the meaning of poetry. At present the boys learn the meaning of verses by rote and do not understand a bit of what they recite. The masters resort to stuffing the memory of little children with matter which is not easily assimilated. I hope, gentlemen, you will all agree with me when I say

that everything that is taught should be in accordance with the children's capacity, and I assure you that after years of personal experience, I have found that understanding of poetry is beyond the capacity of students of Standard II., inasmuch as Kánarese poetry is written in old Kánarese with a number of Sanskrit words and is classical in its nature. A clear understanding of poetry requires a knowledge of the rules of Sandhi and of the several compounds.

Third Head.—Reading plain Kánarese manuscripts may be altogether omitted. Kánarese orthography is only of one kind and the written and printed characters are the same. Manuscript reading is therefore unnecessary. To make the boys read manuscripts, is to place before them writing much inferior, often incorrect, and in almost all cases wrongly spelt. That such worthless stuff be laid in the hands of little children is not at all desirable. I do not think that in any country where written and printed characters are of one kind, manuscript reading is prescribed for any standard. I think there are bad writers everywhere, and to decipher their writing should not form a part of school instruction. I know of many high officials who write illegibly and their own clerks often find it a matter of much trouble to read their drafts; yet for no public examination in English has this subject (manuscript reading) been prescribed. When such is the case, what necessity is there that manuscript reading should be a subject of school course in our elementary schools?

Fourth Head.—Geography of the District. The knowledge required from the boys in this head requires to be limited or defined. Principal towns is rather indefinite. Mere Táluka and Petha Stations will be quite sufficient.

Standard III.

Requires no modification, except that instead of towns, chief towns should be inserted under the 4th head.

Standard IV.

This standard is the highest that is taught in small Local Board Schools in outlying villages. The standard just provides for the ordinary educational wants of our village life. And as it is the entrance standard for the High School course, the subjects as set down are necessary.

Standard V.

Requires no modification.

Standard VI.

This is the highest standard of the Vernacular school course, and is in a modified form the standard of examination for eligibility for Lower grades of Public Service. This difference in standards interferes with the progress of Vernacular schools. Were the standards of examination the same in both the cases, it would make the masters devote their whole teaching power to one object, and the teaching will be thorough. Standard VI. should therefore be made in its entirety the Public Service Certificate Standard. This is the view of many, and deserves consideration.

2. In connection with Standards 4, 5, and 6, there is a general complaint that the present text-books on History are difficult and beyond the comprehension of boys and that reading books under Standards V. and VI. are too difficult to understand owing to the large number of scientific lessons in them. But if teachers attach due importance to these subjects and master the subjects themselves and come to school with adequate preparation as required, there will be little room for this complaint. I admit that the comprehension of a part of the texts on History calls for a thorough explanation on the part of the Master, and, therefore, I beg to suggest that the History of the Province of the Kárnataka and Hunter's Indian History may be used as reading books, so far as the ancient period is concerned; in addition to 200 pages of the several reading books prescribed for each standard. By this arrangement the boys will derive the advantage of having read two authors.

3. As regards Urdu standards, I am of opinion that under special standards the Kánarese portion may be defined by limiting the pages of each book, as the Mahomedan boys feel some strain as they have to learn two languages.

4. I have, as far as practicable, and considering the views of several friends of mine, noted what is to be omitted from the several standards. With regard to additions, I have to make one suggestion which has been found highly desirable. It is the introduction of the teaching of Balbodha characters in our Kánarese standards. At present a slight knowledge of Modi is laid down in the standards as an optional subject, and the present suggestion is simply to make it compulsory in place of Kánarese manuscript reading.

Dhárwár is the head-quarter station of the Southern Marátha Country, and having been long under the Peshwas, Maráthi still forms the home-writing of some families, though speaking is all in Kánarese. The shop-keepers keep their accounts in Maráthi, and official communication being chiefly with Poona, the seat of Government for several months in the year, and with Bombay, the seat of the High Court and the commercial city of the Presidency, at least a slight knowledge of Maráthi and Balbodha is necessary. Many newspapers of the Dekkan are printed in Balbodha, and form the reading literature of the province. Besides, boys have to learn Sanskrit in the High School and the Training College. All Sanskrit books are printed in Devanagari character, and it is necessary for boys to learn the alphabet and "*Barakhadis*." All religious books are, for the most part, written or printed in Devanagari, and there should be no room for complaint that the exclusion of Devanagari from the curriculum of our schools prevents a boy from religious knowledge, so indispensable for his moral advancement. As a knowledge of colloquial Hindustani is found necessary in the case of Europeans, so is a slight knowledge of Maráthi and Balbodha character required for the pupils of our schools. Mere reading of Balbodha books, without much attention to the Maráthi language, will meet the requirements. I therefore beg to propose that Balbodha "*Barakhadis*" should be introduced in Standard II. Reading Balbodha 1st book in Standard III., reading the Balbodha 2nd book in Standard IV., and reading the 3rd book in Standard V. As some writing is also necessary, Balbodha Pustis may be required in Standards III, IV. and V.

With these observations, and fully believing that my suggestions will be adopted and sanctioned, I take leave of all of you and resume my seat, after once more thanking the President and the gentlemen present for the patient hearing they have kindly given to my humble suggestions.

S. K. RODDA.

TECHNICAL EDUCATION.

- (1) MANUAL TRAINING BY DR. A. W. THOMSON.
- (2) PRIMARY TECHNICAL EDUCATION BY MR. JOHN WALLACE, C.E.
- (3) NOTE ON TECHNICAL EDUCATION BY THE HONOURABLE MR. RANCHODLAL CHOTALAL, C.I.E.

PAPER READ BY DR. THOMSON AT THE EDUCATION CONFERENCE
HELD IN POONA ON 1ST OCTOBER 1896.

Manual Training in Primary and Secondary Schools.

The subject Manual Training is receiving more and more attention every day. New schools on a large scale are being opened up in Great Britain, in America, and on the Continent of Europe.

If the people of any country wish to successfully take part in the industrial war which is constantly raging now-a-days, they must see that their children are properly trained for the fight.

The most important part of this training will always be, must always be, a good general education for all the children; and for those who have a liking for, or whose future duties are likely to be of a practical kind, it will certainly be a great advantage if the subjects Drawing and Manual Training are added.

In the ordinary school course, the head receives all or nearly all the training; in the Manual Training Class, the head, the eyes, and the hands all get a share; the pupils are taken away from their books and get some acquaintance with things.

2. In a Manual Training School or Class, the object is not to make things for the bazar. This is often tried, but in my experience the results are bad, just in proportion as this method is followed. What we want is a set of graduated exercises, and each operation should be repeated just as often as is needed to enable the pupils to perform the operation, whatever it may be, well; and then pass on to something more difficult. The very same method that is adopted for teaching other subjects should be adopted for ours—nothing more and nothing less. If we teach arithmetic we begin, say, with addition; and whenever the lads can do sums, we put them into subtraction; whenever this subject is understood, we pass on to multiplication; and so on. In other words, we lead the pupils along a progressive course. The actual work done by the boys is of no value in the bazar, and at the end of the year we have nothing to show except that our pupils can do quite a number of different operations in arithmetic. This however is the reason why the class is begun and continued, and we are well satisfied with the results. Similarly in our Manual Training Class, we must not expect an outturn of work which we can sell. All our time is to be taken up in training our pupils to do the different operations well; and whenever they can do any operation well, we pass them on to something more difficult. It may be arranged that some of the exercises consist in the construction of small ornaments or small pieces of furniture; this is not necessary, but no doubt some advantage is derived from such an arrangement of work, as the interest of the pupils is sustained better than would be the case if such exercises were not introduced. These exercises also show the practical application of the operations that have just been taught, in the same way that little tunes given to piano-forte pupils show the application of the somewhat tiresome five-finger exercises and scales.

3. Let us now consider what are the best kinds of operations and the best materials for our Manual Training Course. First of all we think that we should arrange to plan and draw on paper what we propose to make; and afterwards construct the thing exactly to correspond with the drawings; and secondly, the material used in construction should be somewhat easily worked and not very expensive. Operations such as the following fall under these two heads:—construction of carpentry joints, wood-turning, wood-carving; turning and fitting in metal; moulding in metal; moulding or modelling in clay; stone cutting and carving; enamelling; weaving; and some others.

The first of these operations, *viz.*, the construction of carpentry joints, is I think far and away the best, and should in my opinion be taken by every boy in our technical schools, whatever else he may have to take. My experience shows me that if a boy has learned to make carpentry joints well, he soon learns to

do work of any other kind, and that in a superior manner. We do not require any labour-saving or complicated machinery; these are for the workshop, not for the school. Our appliances, whatever they are, must be simple and inexpensive. The question now arises, how should this subject be introduced into our primary and secondary schools.

In our larger towns a special school or schools may be opened and maintained, in which some of the subjects mentioned in paragraph 3 may be taught. This has already been done in several of the larger towns of the Bombay Presidency; such schools have been in existence for many years, although in nearly all of them the methods adopted do not altogether commend themselves to the writer of this paper.

A school called the Victoria Jubilee Technical School, Poona, was started about nine years ago; the progress made by it was much retarded on account of the want of suitable buildings. About five years ago I was elected Chairman of the School Board of the Poona City Municipality; during the first three years I kept the subject of a suitable building before the Municipal Commissioners, and in the end had the satisfaction of having the plans and estimates for the new school sanctioned by the Municipality and by Government. The foundation stone was laid by His Excellency the Governor, Lord Sandhurst, in November 1895, and the buildings were completed about three months ago. The school has been modelled on lines which I have proposed or approved, except that I should have preferred the Municipal workshop to have been located in a separate compound.

A short description of the Poona Technical School will exactly explain my views of what such a school, for a city like Poona, should be. The buildings which accommodate about 120 pupils, or say three classes of 40 pupils each, consist of—

(a) The school about 60' x 35', two storeyed, the ground floor being used for carpentry and wood-turnery classes, the upper floor for drawing and vernacular classes.

(b) A long shed containing engine, boiler, smithy, and fitting shop.

The cost of buildings and ground was about Rs. 30,000, of which Government and the Municipality gave equal portions. The engine, boiler, machinery, and furniture cost about Rs. 20,000, of which Government provided one-third and the Municipality two-thirds.

We begin to-day, 1st October 1896, a new Session in the new buildings. We are at present enrolling pupils for the three years' course, and intend to limit the number of entrants to forty.

The age of admission has been fixed at ten years and upwards, and pupils must have passed the second vernacular standard or higher, before joining the school.

The time table allows $3\frac{1}{2}$ hours a day for Vernacular Subjects; 1 hour a day for Drawing; $1\frac{1}{2}$ hours a day for Carpentry during the first two years of the three years' course; and $2\frac{1}{2}$ hours a day for Carpentry and Workshop practice during the third year. Pupils will receive the school certificate who

- (a) regularly attend the school for three years;
- (b) pass the highest examination in carpentry and practical work;
- (c) pass the fourth (or higher) vernacular standard.

The vernacular school instruction includes three heads of the Maráthi Standards III. IV. V.—namely, Reading, Writing, and Arithmetic; the latter subject having special importance given to it. Arrangements are now being made for starting special carpentry classes for pupils of the Poona Secondary Schools, for school teachers, and for students of the Training College. These classes will meet three times a week, each lesson will be of $1\frac{1}{2}$ hours duration, and the time, probably in the morning, will be arranged so as not to interfere with the school work of the pupils. At the end of a two years' course, an examination will be held, and pupils who pass will receive the manual training certificate instituted

by Government. Pupils will also be prepared for the manual training portion of the Bombay University School Final Examination.

The teaching staff consists of a

- (1) Superintendent,
- (2) Drawing Master,
- (3) Two Maráthi Masters,
- (4) Carpentry Master,

and some of the workshop maistries give a portion of their time to teaching smithy, iron-turning and fitting, painting and printing. The annual expense of the school is about Rs. 3,000, and Government pays one half of the salaries of the teachers.

This school is, in the meantime at least, suitable and sufficient for Poona. the work of the school is being supplemented by having drawing taught in most of the Municipal schools. Later on we may have carpentry classes introduced into some of them, if we find that more pupils are desirous of joining the technical school than can be accommodated therein. The Superintendent of the Poona School is a passed student of the Victoria Jubilee Technical Institute, Bombay; to that Institution and to the Poona College of Science we must look for our Superintendents. The drawing master is a passed student of the Sir Jamsetji Jijibhoy School of Art, and holds the drawing teacher's certificate.

The special arts and handicrafts of any town or district should be kept in view when we are fixing the subjects of the practical course for its manual training school. In every one of these schools, drawing and carpentry should be compulsory subjects, as they form the foundation of any practical course; nothing else so far as I know can take their place, so as to yield the same advantages.

Let us now consider how teachers may be trained for the two subjects—Drawing and Carpentry—so that these subjects may be introduced into the ordinary day schools in our smaller towns and villages.

Obviously the amount of money for these schools at our disposal is not great, and we must make the most of it.

The arrangements just described in connection with the Poona Technical School are much too expensive for such schools and are quite unnecessary.

Our hopes lie in our future vernacular teachers, and strong efforts should be directed towards their education on lines which will fit them for the new work.

Drawing should be made a compulsory subject in all our training colleges; and after their college course is completed, the passed students should be encouraged to study for the second grade certificate of the Sir Jamsetji Jijibhoy School of Art, Bombay, and for the drawing teacher's certificate. At present this certificate (the Drawing Teacher's) is given after a candidate passes an examination in drawing through the medium of English. This puts it altogether beyond the reach of our teachers, and I think the rule which requires English might with advantage be relaxed in favour of teachers of two years' standing or over in the training college, and who have passed the Second Grade Art Examination.

In our training colleges, the course might be arranged to include certain subjects to be taken by all the candidates, and certain other subjects from which each candidate would have to select one or more; carpentry should be made one of the subjects from which the selection may be made.

After a two years' course in carpentry some of the students would be able to pass the examination for the manual training certificate; and if they do not pass at the end of the second year, they might easily arrange for more practice and appear at a later examination.

By these means it will be possible for us to get teachers of drawing and teachers of carpentry from among our teachers passed from the training

colleges. This arrangement has been introduced for some years in Great Britain with good results.

6. Drawing should be introduced as soon as possible into all our primary schools; simple freehand should be given to children in the second vernacular standard; during their primary school course, many of the children might be expected to pass the First Grade Examination in Art.

Three lessons per week, one hour each, would be enough.

7. Manual training in woodwork should be introduced into some of our primary and secondary schools as funds permit. The subject should as a rule be optional; and if pupils of the primary or secondary schools take this subject, they should be exempted from some portion of the ordinary school course proportionate to the time occupied in the workshop. We cannot expect many pupils to take carpentry as an extra subject. I know that the pupils themselves feel this to be unfair, and, as a rule, they will not attend the workshop on such terms.

In our primary schools pupils who are ten years of age and who have passed the second vernacular standard should be admitted to the workshop; the class should meet every day for one and a half hours. At the end of three years, some of the pupils would be able to pass the examination for the Manual Training certificate which should be made available for pupils of such schools; at present it is intended for pupils of secondary schools, but I fail to see any reason for making such a distinction.

In our secondary schools three lessons per week, $1\frac{1}{2}$ hours each, will be enough; these lessons should be given during three years in three consecutive standards, preferably the IV. V. and VI.; but the particular standards in which the workshop teaching is to be given should be fixed by the Department and the managers of any school in which manual training is introduced.

8. The cost of introducing manual training in carpentry into a school, leaving out the cost of the workshop, may be taken as follows:—

For thirty pupils all working at one time—	Rs.
Carpenter's benches, vices, and special tools to be used by all the boys ...	500
Thirty sets of individual tools—one set for each boy @ Rs. 7-8 each.	225
Total for thirty pupils ...	725

For 60 pupils in two classes of 30, each meeting at different times, the benches, &c., would cost Rs. 500 as before, and 30 additional sets of individual tools would be necessary; the total cost would therefore amount to about Rs. 950.

The above estimate is for a really good outfit; if funds are not forthcoming, some of the items might be curtailed, and the whole cost may not be defrayed at one time, it may be spread over two or more years.

The annual up-keep of these tools may be taken at ten per cent of the initial value. The charge for timber &c. for the pupils of a primary school with a manual training lesson every day is about annas 12 per month per pupil; for our secondary schools with three lessons per week about annas 8 per month will be sufficient.

9. For many years Government has dealt liberally with our Technical Schools; the number of these is small, only about a dozen in the whole Presidency excluding Sind. The Code rules require the boys to attend the workshop for two hours a day; if in some of our primary schools arrangements are made for introducing a manual training class, and if the pupils are taught drawing and spend $1\frac{1}{2}$ hours a day in the workshop; I think the grant for passes or for half the teacher's salaries might be extended to such schools.

In secondary schools less time will be needed; each pupil will spend $4\frac{1}{2}$ hours, or it may be six hours a week in the workshop besides taking lessons in drawing. I would ask that Government be as liberal as it can with these

schools, as the results of the teaching in the manual training classes is certain to be successful ; splendid work is now being done in the Mission High School, Ahmednagar, on lines of which I thoroughly approve.

10. I wish now to recapitulate very shortly the important points in this paper, and to state what changes in the Code appear to me to be necessary.

(a) Do not let our manual training schools degenerate into workshops ; while our pupils are learning to perform the operations underlying whatever trades are taken in the school, let the boys be protected against the grasping desires of all who would require them to help to defray the expense of their education either in whole or in part by making things for the bazar. There is no objection to allow passed pupils of our classes to take part in the production of things for the bazar, but as a rule I think this should be left to private enterprise.

(b) The introduction of carpentry into our primary and secondary schools is not recommended with the slightest wish that our boys should become carpenters in after-life ; all we want is a hand training, and this can best be given in wood and by carpentry joint construction ; certainly some of the boys will become carpenters ; but in whatever walk of life they choose, their manual training will be of the greatest use to them. Suppose they become agriculturists—will they not be better able to repair their wells, their bullock-carts, their houses ; and in many ways add to their usefulness and happiness.

(c) Drawing is the foundation, is the key-note of our system. Let us have teachers from our training colleges able to take this subject. Give them some facilities for getting the drawing teacher's certificate and encourage them to take it by abolishing the English test, which is properly required of other candidates.

(d) Let us have manual training in woodwork made an optional subject along with one or more other subjects, and one subject from among them be selected by the pupils in our primary schools and in our secondary schools, and by the students of our training colleges.

11. In conclusion I wish to recommend this subject to the Native Princes and the wealthy gentlemen of this country. We must have pecuniary help, no doubt Government and local bodies will do what they can, but I hope that wealthy native gentlemen will cordially assist.

In Great Britain and in the United States of America, many colleges and manual training schools have been founded and are supported by private gentlemen ; this to some extent is the case here, but only in few cases. Names like Readymoney, Parekh, Jijibhai, Petit, and others we could mention stand out as examples to others blessed with wealth. You could not spend your money with greater advantage to your countrymen, and your names will be handed down to posterity, and you will have the satisfaction of knowing that you have assisted in helping forward one of the most important elements in the education of to-day.

A. W. THOMSON.

PAPER READ BY MR. J. W. WALLACE, C.E., AT THE EDUCATIONAL CONFERENCE HELD IN POONA ON 2ND OCTOBER 1895.

Primary Technical Education in India.

THE PRESENT CONDITION OF TECHNICAL TRAINING.

The commercial utilisation of raw products and the progress of industries and manufactures have of late years excited much attention in India, and this has brought the subject of technical education into very prominent notice, and has at the same time disclosed a great diversity of opinion regarding the methods that should be employed in order to increase the industrial capacity of the artificer classes.

The necessity for good technical training.

It is generally recognized that industrial progress is based on the skillfulness of the workman and upon the excellence and cheapness of his methods of work, and it concerns India as much as any other country that her people should be skilful and economical of their time, labour, and material.

It has been found, however, that with few exceptions the Indian workman, when compared with the European, is under many disadvantages through defective training and methods, and that with the same physical exertion he performs much less work. The difference between the Indian and European, each working in his own country, varies with different classes of labour, but in proportion as skill and method are employed the superiority of the European is manifest, giving advantages that no difference in wages can compensate, as for instance, in the making of parts of textile machinery and fine instruments. Generally speaking the Indian artificer has also a low standard of workmanship and finish, and in this respect is far behind the Japanese, who with a very similar kit of tools, and without the use of sand paper, turns out the beautiful cabinet work which we all know.

The inferiority of the Indian workman to the European and Japanese.

The present system of education in India has had no appreciable effect on the workman.

Before dealing in any detail with the defects of the Indian artificer, or with the training he requires, it will be well to consider what has been done so far to promote a higher standard of workmanship in the country.

The system of education in India has been hitherto almost exclusively literate, and has had no appreciable effect on the workman. The instruction in primary and secondary schools has no direct bearing on any art or handicraft, and unless supplemented by direct technical instruction its effect on skilled labour is not beneficial. There are, it is true, drawing classes in a number of these schools, but of the students who learn drawing only a small number are or ever will be artizans, the great majority of them being indeed past the age for acquiring a knowledge of any handicraft. Besides these schools there are a few isolated industrial schools and classes, but these in no way meet the necessities of the country for technical instruction. There are also a few science and technical colleges, but these have practically no effect on the workman, because the students being trained there

Education in India too closely follows that of England.

to direct and supervise work are not themselves skilled artizans. Our educational system follows too closely that of England, and it has been too readily assumed that a system based on the needs of people in Europe is suitable also for India, and on this presumption a great deal of money has been spent with results that have come very far short of what was expected.

In this respect we have dealt with education very much as we did in our attempt to burn the refuse of cities with furnaces of European model, until after several failures it was tardily discovered that the Indian refuse was quite different from that in England, and would only burn properly in a furnace designed in India after a thorough study of the material.

The study of the material from the educational point of view has not been entirely neglected in India, for I find in the *Calcutta Review* for April and October 1893 an excellent paper in which Mr. I. C. Nesfield, lately the Director of Public Instruction, North-Western Provinces and Oudh, tells some of his experience of education in that part of the country. It will be seen from what he says how little bearing the present system of education has on the necessities of a large part of the community, and also how capable and skilful a man the entirely illiterate Indian artizans may become with proper technical training. Speaking of the effects of primary education on the children of cultivators Mr. Nesfield finds that it makes them less contented with their lot in life, less willing to work, and more litigious. They go back to the plough with the greatest reluctance and some positively refuse at first to work, their ambition, if they have done well at school, being to get clerical employment.

*The educational material.
Experience of Mr. Nesfield.*

The present system of primary instruction not adapted to the conditions of agricultural life.

Mr. Nesfield stated that out of 3,024 scholars who had left school he found 2,165 with whom he could communicate, and these he invited to be examined in the subjects in which they had received instruction. Out of these 1,037 accepted his invitation, with the result that 16 per cent passed in one or more of the three subjects (reading, writing, and arithmetic) and in one or other of the three more difficult grades, while the remaining 84 per cent failed to pass in any one subject or in any of the three more difficult grades. It appeared that the instruction imparted to them at school was of no use to them in their daily avocations, as they had neither reading, writing, nor calculating to do, and they forgot their schooling as people forget other things that they do not practise. Education did not make better agriculturists of them because their instruction did not include any thing directly bearing on agriculture—on the contrary, they seem to have been the worse rather than the better for their schooling, as the most receptive period of their lives had been occupied with almost useless studies.

In strong contrast to the above Mr. Nesfield gives a picture of another educational establishment, the workshop of the Oudh and Rohilkhand Railway at Lucknow, where the instruction is directed exclusively to the business of bread-earning by non-literary methods. Here he went round the workshops with one of the chief European officers of the Company, and had personal conversation with the men, of which he took note. Among his notes are particulars of seventeen foremen and leading hands, all picked men of superior ability, having each charge of from 15 to 400 workmen. These foremen, says the writer, are the most intelligent, the most skilful and the most trustworthy Indian workmen in the Company's service, and only one of them had ever seen the inside of a school and that in his early boyhood. Mr. Nesfield remarks finally that "probably if Professor Huxley were now (1883) in Lucknow he would affirm that the Railway workshops, which are employing some 2,000 men and some 80 boys, are doing more to educate the masses than the municipal schools; and he would be the more convinced of this if he looked to the good which these workshops are doing in teaching punctuality, application to details, thoroughness of workmanship—in short, forming the character, which, after all, is the main result that education is intended to secure." This from a man high in the Education Department must have caused considerable surprise when it appeared.

The effect of good training on the illiterate artizan.

Let me add another instance of technical education on a large scale which for more than thirty years has been in active progress among us. I refer to the cotton mills whose operatives have nearly all been taken from the agricultural class and instructed by specialists who until recently came all from England. These specialists had been trained in the mills, and beginning at the very bottom of the factory scale had mastered every detail of their department and had thus become competent instructors. The training given by them in the mills here soon increased the wage-earning capacity of the operatives, so that it was, and still is, common to see a boy whose value before entering a mill was only Rs. 2 per month develop to Rs. 6 value within one month in the spinning room.

The railways keep all their good men, and the mills do much the same, but beyond training their own employés they do very little towards supplying the enormous wants of the country for better workmen.

TECHNICAL TRAINING ON THE NON-LITERATE PRINCIPLE REQUIRED.

The railways and the mills, though they have done little beyond training their own workmen, have done enough to alter, to a very important degree, the ideas that have hitherto been too prevalent on the subject of Technical Education, for they have proved that it is far more easy to raise a man's wage-earning power by a non-literate than by a literate method of instruction. And as good workmen are a first necessity in a country which would increase and develop its industries, the most effective method of training them should be recognised and adopted by the Educational Department in all cases where it is desired to raise the standard of workmanship.

Good workmen and not a literate people the first necessity of a country.

It should not be forgotten that the progress of the industries in Europe has been from below upwards, and the richest manufacturers as well as most of the men of scientific genius have sprung from the ranks. It is within the memory of many of us that poor and illiterate youths have become wealthy manufacturers, and also truly educated men in a general sense, and yet, in spite of all this experience, the principal efforts of the Government in India for the advancement of local industries have been directed to educating masters. The result, so far, has not been encouraging. The educated masters have not been able to impart the requisite knowledge to their subordinates, and progress has not followed as was expected.

The training of workmen on the non-literate principle may now claim a trial.

THE TRAINING OF THE ARTIZAN.

This paper would not be complete without some attempt to indicate in more detail what I hold to be the proper way of training the artizan, and as the subject of technical education is one with which some present are probably not very familiar, what I have to say under this head may serve to explain and elucidate statements previously made.

The training of the artizan may be broadly divided into two stages. In the first he should acquire a thorough knowledge of the use of ordinary hand tools, and in the second learn to use and construct for himself cheap and simple labour-saving appliances. The training of the Indian workman is very defective in the first of these stages, and of the second he is practically quite ignorant.

Two stages of training.

With regard to work belonging to the first stage of training—the use of hand tools—we find that the average Indian artificer in the building and repair of houses is chiefly remarkable for the inaccuracy of all he does, for the blunt condition of his tools, and for his ingenuity in making excuses. Away from large towns he is usually without a foot rule, and has never seen a grindstone.

The use of hand tools.

Let us take the wood-worker as a typical example, and enquire into what he most needs in the way of education. His methods are very defective. His tools are blunt as a normal condition—so blunt as to greatly retard his speed and ease in working. This arises from his defective means of sharpening them. His whetstone is too small and is never level in surface, so that he produces always a rounded cutting edge. If provided with a good and smooth grindstone he straightway cuts it into grooves, and otherwise abuses it, until it is unfit for use. He then returns to the original method without a thought of putting the grindstone in order. This may be seen at Bombay at the present time. It has been urged that the grindstone is too expensive a tool for a native carpenter who has a small fixed workshop; but this is absurd, as it can be made of any sandstone, and mounted entirely in wood, including axle-bearings and handle. All sand-stones are not equally good, but any is better than the existing stone as at present used. The sharpening of saws comes next in order. It involves an outlay on files which the carpenter is loth to make. I have only met one Indian workman who without compulsion kept his saws in good order. The general result is an enormous amount of needless labour that a sharp and well-set saw would obviate. Cutting up to a pencil line or cutting it out altogether, an operation that any European apprentice can perform, is an unknown art among most Indian workmen. Accuracy in measurement is similarly neglected, because the Indian workman

has yet to learn that it is more easy to be correct than incorrect; that is to say, the correct man loses the least amount of time. Again, in his attitudes, at work the Indian is frequently wrong. He sits to certain operations, such as hand-sawing and planing, that would be done with less expenditure of muscular force when standing. Of drawing he knows little or nothing, but he is capable of learning to make hand sketches of details of work, and of placing dimensions on them in a very short time if the subject is properly presented to him at the right age.

All the things I have mentioned may be taught—and well taught—to boys without the intervention of the spelling-book; and their utility is so obvious, and so suggestive of good wages, that the business of the school would be much more agreeable than in classes where the three R's are the sole material of mental nourishment.

The matters just dealt with all come within the scope of the first stage of technical instruction,—they all belong to that part of the art of labour which no literary study will impart, and which can only be acquired by practice with the hand and eye. The second stage, which, although usually associated with literary acquirements, is really quite independent of them, enters into the economy of labour, and deals with machines and appliances for expediting work—not the expensive machine tools that are imported from Europe, but such machines as may be made by the workman himself with the aid of the hard and durable woods so common in India.

The disregard of accuracy of our local workmen results in their being unable to make anything exactly to pattern or to make any number of things alike. Each separate operation involves separate measurement, each with a strong probability of error in it. To obviate this gauges must be used for work that has to be repeated, and when the gauge is fixed mechanically on a work table, and the cutting instrument is rigidly fixed in a certain relation to it, instead of being held in the hand, we have together the elements of a machine tool that will perform the same operation any number of times in exactly the same manner. It does not matter mechanically of what material the machine tool is made, so long as it fulfils its purpose, but the difference in cost of a good home-made appliance and that of a machine-made in Europe for the same purpose may be enormous. The latter as an article for exhibition and sale may be far superior to the former, and capable of doing a great variety of work, but if the variety is not needed, the advantage of it is destroyed.

Brass-workers in Bombay, Poona, Násik, and elsewhere are importing elaborate slide and screw-cutting lathes entirely of steel and iron to do work which is done to-day in Birmingham on lathes with a bed and fly-wheel of wood, each turner treading his own lathe instead of employing another man to do this. Gas-fittings, garden-syringes and numerous other articles are thus made in Europe for the Bombay bazaar.

The principal machines a workman may make for himself are the lathe, the circular saw, the fret-saw and the drilling machine; and among the many uses to which these may be put the following may be mentioned.

In the making of doors, windows and shutters, the small circular saw with two blades cuts and shoulders tenons with speed and accuracy, while the drill prepares the mortises by making parallel holes at each end of the recess. Jhilmil slates are cut to length and shouldered by the circular saw, while a tube-saw made of sheet-iron or steel, and fixed in the lathe, cuts the pins at each end to cylindrical form and of standard diameter. The drilling machine makes the holes for these pins all in the right position in the shutter frame and parallel to each other, without measurement when once adjusted.

The foot lathe, which every pupil should learn to use, may be made largely of solid bamboo, with wooden fly-wheel, axle, bed, and head-stocks. It is good for both wood and brass-turning, and screws may be cut on it with hand tools. Small circular saws from 4 to 6 inches in diameter are often used in the lathe for a variety of work. The extension of the No. 1 stable of the Bombay Tramway Company, carried out by the writer, was joinered in this way. The

circular saws used were old blades out of a worn-out cotton gin, mounted in a very common joiner's lathe, and the tube-saw for forming the pins of the hundreds of Jhilmil shutters was of common iron. No paring was necessary on the work. The device was afterwards used for making the frames of notices hung in the tram cars.

The object to be aimed at in the training of workmen is to make them self-reliant, and as independent as possible of machine tools which they cannot make themselves and which are only to be found in the large towns and manufactories. Men so trained have no difficulty in learning the use of machine tools when this becomes necessary. The training of blacksmiths for instance should be such as would enable them to do their work almost exclusively on the anvil, like those smiths of the 18th century in Europe who were only proud of such work as shewed no trace of file, chisel, or reveting. A first class smith can forge every detail of a rose spray out of charcoal bar iron, and weld them together afterwards into a complete and beautiful representation of the flower. Reveted and clasped work, as seen in grills of all sorts, may be taken up at any time after the smith's real training is over.

The European machines now used in Technical Schools are quite beyond the means of any ordinary workman, so that a student, when he leaves the school, finds himself the worse rather than the better for having acquired the habit of using them, unless he can get employment in some large workshop fitted up with these machines. Such workshops in India only give employment to the smallest fraction of the whole number of workers in wood and iron, and unless primary technical instruction is adapted to the needs of the vast majority of the workmen, the hoped-for general improvement in methods of work, on which industrial progress really depends, must be indefinitely delayed.

The only technical knowledge, therefore, which can be usefully given in schools is that which can be turned to practical use by the ordinary workman in his own workshops, and such knowledge consists chiefly of good and expeditious processes of work which are quite within the means of the artificer.

This knowledge deals first with the making and sharpening of hand tools, the making and testing of straight edges, squares, and plumb levels, the handling of tools in the best manner for work, accuracy in making and measuring, and the use of many simple devices for holding materials while work is being performed on them. The next stage includes the construction of such machine tools, principally of hard work, as the artificer can make for himself and move about in a cart to temporary work, like the joinery work in new houses. The most important of these, as I said before, are the lathe, the circular saw, the fret-saw and the drilling machine, all of which, except the saw-blades, could be made in such workshops as those of the School of Art in Bombay.

THE PROMOTION OF TECHNICAL EDUCATION BY GOVERNMENT.

The promotion of Technical Education is in all progressive countries now regarded as one of the vital functions of Government, and such an organized system of training as is required to develop the abilities of the great body of Indian workmen can best be initiated by Government even if the work of carrying this out devolves on municipal and local authorities. Within the present system of education are institutions which can be made use of for giving such technical training as I have advocated, but we must recognize that the conditions in India are not favourable to the carrying out of any new scheme of instruction on a large scale. These conditions suggest the necessity of first establishing in a chief centre a school capable of turning out thoroughly well trained workmen who shall be competent to take charge of technical classes in the larger towns, and in this way, as opportunity and means permit, a sound training adapted to the needs of Indian artizans may be carried into the smaller towns and ultimately spread through the country.

Efficient training in improved methods of work need not be costly. The manipulation of all joiner's tools, for instance, may be learned in the cutting up of firewood, which in the end will be at least good enough for burning. A workshop containing all the necessary elements for instruction could be made on the model of those at the Reay Art Workshops. Such a workshop (or the Reay Art Workshops themselves under effective technical supervision) could supply all the simple wooden machine tools required for the outfit of district schools, and at a cost of from one-fourth to one-tenth of such machines as are at present in use in schools and colleges; and with the tools could also supply teachers competent to instruct students how to use and make them, and thus the mechanical appliances used for assisting work could be brought within the reach of the workman who was willing to make his own outfit.

J. WALLACE, C.E.

September 1896.

MEMORANDUM.

In these days of keen competition between India and foreign countries, it is very desirable that the people of India should receive sound technical education to enable them to compete with the articles imported from foreign countries.

By the introduction of steam power and many labour-saving machines, the cost of manufactures in foreign countries, and that of transit is so much reduced that many trades formerly carried on in this country by hand labour are being supplanted. The majority of the population of India depends on agriculture, but as the success of this occupation mainly depends upon rain which is so uncertain, it is very desirable that more persons should follow the line of manufacture and commerce, and the art of agriculture should be greatly improved by all the modern methods.

To obtain these desired ends, it is advisable that Government and the well-wishers of the country should do their best to introduce and encourage technical education of a practical nature.

Mechanical engineering with a model practical workshop should be started in different important centres of the Presidency to train young persons.

At present hundreds and thousands of young persons are taught writing, reading, and arithmetic, but they do not see how to earn their livelihood. It cannot be expected that Government can provide employment for all these people. They must follow some practical work of reproductive nature requiring physical labour or serve under some manufacturing establishments.

A young man moderately educated can make himself qualified to hold the position of a Mechanical Engineer of a Third or Second Class in the course of two or three years, and then he can command a remuneration of Rs. 30 to 50 per month, with a prospect of rising up to Rs. 200 or 300 per month, which will not be available for some years to a Graduate in Government service. Such an Engineer can work a steam engine of from 10 to 100 indicated horse-power. One indicated horse-power will save the labour of 8 men or 4 animals, and as the working cost of one indicated horse-power will not be more than 4 or 5 annas per day, there will be a great saving by introducing and extending the use of steam-power in the country.

Just at present water is very urgently required for the crops, and at the same time we see that most suitable water is running in the rivers and wasting itself into the sea. If steam-pumping engines can be erected and worked along the bank of our Sábármáti river, an immense advantage can be derived at a comparatively very small outlay. Taking the recurring expenses of the Ahmedabad Water Works into consideration, we can lift to a height of about 30 feet, with a good modern pumping engine, about 300,000 gallons at a cost of about Rs. 3 or Rs. 4 for fuel. This work will be equal to about 25 pairs of bullocks lifting water by "kos" whole day. What a saving it will be to substitute steam power for animal power, and there is no doubt that the services of persons capable of working such pumping engines will be eagerly sought and appreciated.

There are many other trades which can be carried on successfully with our cheap labour if we avail ourselves of the advantages of modern improved machinery and appliances. The Japanese are competing successfully in many articles which were formerly imported from Europe, and there is no reason why the Indians should not be able to do what the people of Japan are doing if proper technical education is introduced in India.

RUNCHORELAL CHOTALALL.

P.S.—We observe that in many important towns in England and Europe many technical schools are working with success, and it is, I think, desirable that India should follow the example in this respect.

R. C.

I may just mention that a lad of the Lohar caste, who had received a moderate English education, was employed in the workshop of our cotton mill on a salary of Rs. 15 per month. He in a short time qualified himself for the post of Mechanical Engineer, and is now drawing Rs. 250 per month in our mill as 1st class engineer. The same can be said about some young persons of other castes who are employed in other branches of cotton industry.

R. C.

SECONDARY EDUCATION.

- (1) PAPER ON THE TEACHING OF ARITHMETIC IN HIGH SCHOOLS BY THE REV. G. P. TAYLOR.
- (2) ANGLO-VERNACULAR STANDARDS AND TEXT BOOKS BY MR. V. S. DESHMUKH, B.A.
- (3) STANDARDS AND TEXT BOOKS IN EUROPEAN SCHOOLS BY THE REV. G. ENGEL.

On the Teaching of Arithmetic in High Schools (Gujarat).

I think I may safely assume that those of us who have had experience of the working of the upper classes in the High Schools of this Province will admit that the results attained in the subject of Mathematics are distinctly unsatisfactory; and, when we bear in mind that pupils in the candidate classes have for many years, in some cases for ten years or even more, regularly devoted several hours of each week to the study of Arithmetic, we shall probably agree that of the various branches of elementary mathematics the results in arithmetic are the most unsatisfactory of all. It is unfortunate that the Bombay University Calendar does not supply information regarding the number of failures in the several subjects prescribed for the Matriculation Examination, but there can be no manner of doubt that a very large proportion indeed of the total failures will be found to be due to a defective knowledge of arithmetic. For this defective knowledge I feel pretty certain that the bad methods in vogue in High Schools for the teaching of that subject are in the main responsible, and hence my desire to bring this matter before the present Conference for their consideration.

That the study of Arithmetic should be thus, I shall not say neglected, but conducted on such singularly ineffective lines, must be to the Educationist a matter of deep regret; for whether considered with reference to the discipline it affords or with reference to its more tangible results, the study of Mathematics, and of Arithmetic in particular, yields in importance to no other form of study. When, despite the correct spelling of the word, Arithmetic has availed to compel recognition for itself as one of the three R's essential for even the most elementary training, then assuredly any failure in this branch of study becomes a very black blot indeed on the educational system.

Then, again, for us in this country failure in just this direction is especially to be deplored, for we are unwilling to forget the evidence the past so abundantly affords of the high degree of proficiency in Pure Mathematics that once obtained in India, a proficiency marked, as Weber declares, "in Algebra and Arithmetic in particular." The historian of Mathematics cannot but assign a very honourable place to the Hindus. It is indeed popularly believed that the early home of the science of numbers was Arabia, a belief strengthened by the fact that such terms as cipher and zero, tare and ream, azimuth and nadir and zenith, elixir and algebra, are all of Arabic origin. But this should not prevent our recognition of Arabia's still earlier indebtedness to India. It is surely significant that the Arabic term for Geometry is *هندسة*, *handasat* from *هند*, *Hind*, an Indian. What are known as the Arabic numbers are by the Arabs themselves called *Rakum Hindi* to distinguish them from the *Rakum Arabi*. It is accordingly not to the Arabs but to the Hindus we owe the invention of the numerical symbols, and to them also is due the ingenious device known as the decimal scale of notation. According to Laplace, the simplicity and facility thereby imparted to numerical calculations raise the arithmetical system of the Hindus to the rank of the most useful inventions. It is a melancholy reflection for us of to-day that the land of Bandháyana (fourth century B.C.), and Áryabhaṭa (born 476 A.D.), of Brahmagupta (flourished 628 A.D.), and Bháskarácárya (born early eleventh century A.D.), and Srídharma (?) should have so signally failed to fulfil the promise of her past, and that the sons of those who by pre-eminent genius and brilliant achievement rendered a science of arithmetic possible for the people should have neglected so noble a heritage and let it drift ingloriously to far distant shores.

Then has not a like fate befallen the science of Grammar too, for whom of the Hindu grammarians of to-day can we venture to place side by side with Páṇini (? fourth century B.C.) and Kátyáyana (? 25 B.C.) and our own Hemacandra (1088—1172 A.D.), and who in the critical study of either Sanskrit or Prákrit a vernacular grammar is not obliged to turn either to the very early Hindu sources, or to the quite modern European text-books? But this is a digression, and however instructive the subject might prove, the exigencies of time will not permit of extending our excursion therein.

But if the realities of the past appear now like dreams, you will remember it is *your* past, and may we not take heart of hope from this? Why should not these very dreams become the realities of *your* future? As presaging that happy day, we can already point to a few distinguished mathematicians of modern India. Some of you have heard, I doubt not, of Asutosh Mukhopádhyaýa of Calcutta, and all of you, I feel sure, of the lamented Kero Latchman Chatre of this Presidency. And having these as first fruits, may we not look forward to a harvest of many others? Yet in order to that harvest it behoves us to see well to our implements of husbandry and be solicitous to adopt only the best methods of production.

This brings us to the immediate consideration of the methods of teaching Arithmetic that at present obtain in the High Schools of this Province. Now, from an experience dating back nearly twenty years, it seems to me that the chief defects attaching to the present methods are three. First, the teacher is too often quite content if his pupil, after varied manipulations of figures, is able at length to hand up the required answer. Not infrequently that answer lies buried in the midst of a veritable tangle of numerical symbols, but in such cases all that the pupil need do is to draw a very heavy line under the answer, or write beside it that significant word of charm *व्युत्पत्ति*.

The second serious defect—and it is a defect derived from the first—consists in the slovenly, slipshod style of work. Time and again I have had presented to me a whole slate covered with figures in the most inextricable confusion, looking for all the world like some hideous conglomerate of hieroglyphs, with no pretension to the name of figuring save its disfigurement. Yet should the correct answer be evolved therefrom by brute force, this terrible medley will more frequently than not be accepted as “Right,” and full marks will be assigned it. So long as the teacher demands only the answer, rest assured he will get neither logical order nor elegance of style, and losing these he runs great risk of losing the answer too; for manifestly the inordinate length of the processes to which, for the want of a little thinking and skill, many pupils subject themselves must prove a severe test of accuracy. The teacher having failed to recognise that the great value of arithmetic lies in its discipline, at least as much as in its results, the pupil, as might be expected, directs his sole attention to the ultimate evolution of the answer, in blissful disregard of the clumsy way in which he makes for that goal.

The third defect has reference to the neglect of the time-element in working out a problem. A question is dictated to a large class, the first boy done puts his slate down and waits with nothing to do till perhaps the majority of the boys in the class are able to present some sort of answer. He may have done his work well in, say, three minutes, while others have spent thrice that time. Now in many classes no account is taken of quickness in calculation, and yet this is certainly an element of great importance in estimating skill in arithmetical operations.

In order to the correction of these main defects, it has long seemed to me that teachers should aim more than they do at cultivating in their pupils elegance of style, or neatness of method, side by side with accuracy and speed.

First as to speed. This in the elementary processes of addition, subtraction, multiplication, and division will be attained only by constant practice. Also frequent exercises in mental arithmetic prove invaluable in this respect. But for problems that admit, as most do, of more than one method of solution, it becomes of the highest importance, with a view to speed, to select that precise method which will give the answer with the least expenditure of effort. It is just here that the born mathematician will out-distance his fellows, recognising by what would seem to be almost an intuitive glance the shortest and most effective method to adopt for a given problem. Practice will, of course, do much, and without it even the most brilliant mathematician will fail to do himself justice, yet mathematical talent tells, it seems to me, more in this connection than in that of either accuracy or elegance of style.

As to the second requisite—accuracy—I submit that in the majority of schools preparing for the Matriculation Examination far too little attention is given to

the earlier parts of the subject. Boys are set to work what are called problems to the neglect of questions involving mere calculation. A greater mistake than this could not be made. Pupils in the upper forms should be repeatedly drilled in addition, subtraction, multiplication, and division, simple and compound. All the ordinary arithmetical operations depend ultimately on these four processes, and to be an accurate arithmetician means in the last instance to be able to add, subtract, multiply, and divide accurately. So important is this one feature of accuracy held to be for certain branches of the Home Civil Service, that in examinations for appointments to it one of the papers in arithmetic consists, or twenty years ago used to consist, of merely twelve long questions in simple or compound addition.

But it is the third requisite—method marked by elegance and neatness—I desire specially to emphasize, inasmuch as in our High School classes this seems to be conspicuous by its absence. The pupil should be given clearly to understand that the disorderly and illogical way in which the various steps in the solution of a problem are too often presented by him cannot by any possibility be tolerated. He must come to learn that the solution of an arithmetical question should consist of sentences, and sometimes paragraphs, as carefully constructed as those of an essay,—sentences as capable of complete analysis as any in his English Reading Book. In the Mission High School, I have often required the boys to let me have, in addition to their answer to an arithmetical question, a statement of the number of sentences contained in the solution. In these arithmetical essays the employment of a few symbols may well be conceded, but it should be clearly recognised that such symbols are to be used only as abbreviations for words. Especial care should be taken to see that references are clear and the sentences properly connected. A pupil, if directed to write an essay on some prescribed subject, would not for a moment think of writing down in a haphazard way a number of disconnected words, even should they be capable of arrangement so as to form a luminous exposition of the subject. Yet in the majority of cases this is the very treatment accorded to solutions of arithmetical questions. The pupil fails to realise that what he writes is to be read by another, and, more important still, he altogether loses, by such confused and disorderly work, the benefit in mental discipline and training that arithmetic is so well adapted to confer.

Let me now indicate a few of the more common cases of this inelegance of work. How often do we find the figuring, say, of a multiplication or of a division, necessary to the solution of a problem, obtruding itself into the body of the work! And such calculations had better be relegated to a broad margin running right down from top to bottom of the slate or paper. This will allow of the different steps in the solution following in a natural and unbroken sequence one after the other, and will thus tend to clearness and neatness.

Then again cancelling might well be brought into service more frequently than it is at present. Real facility in cancelling may perhaps come only after long practice, yet familiarity with the factors of all composite numbers included in the multiplication table and with one or two simple rules regarding the division of numbers should, even from the first, enable most pupils to simplify operations considerably. Nor is it too slight a matter to remark that in crossing out figures to be cancelled, the strokes employed should all be parallel one with the others, and the cancelling strokes should be so lightly made as to admit of the original figures being easily read. The neglect of such elementary precautions as these tends to a general disfigurement that certainly detracts from elegance.

Further, it is absolutely necessary to clearness, if not of method, at least of thought, that the denominations of the different articles dealt with should be specified. The figure 2 followed by the figure 0 will always represent 20, but if we are treating of twenty definite articles, be they 20 grains or 20 bushels or 20 pence, this should be distinctly expressed by adding after the 2 and 0 letters indicative of the precise denomination. In a sum properly worked out such letters have just as much right to a place as the figures with which they are associated. Very especially in giving the final answer to a question, the denomination should be clearly shown.

Again, in the statement of a proportion how often do we find only the first three terms expressed, the fourth being entirely omitted! A proportion so drawn up must read thus:—A is to B as C——a broken sentence without any meaning whatsoever. In order to sense, the missing term is essential, and moreover that term ought itself to be indicated with precision. Instead of writing, as is too commonly the case, $A : B :: C :$ the answer, it is much to be preferred that the statement take the form $A : B :: C :$ the required number of grains or bushels or pence, as the case may be.

And now that I am on the subject of proportion, let me take the opportunity of putting in a plea on behalf of the old method of solution as being, especially from a practical point of view, very much superior to the unitary system which now-a-days seem to be gaining popular acceptance. Professor Morren of Madras, who has had large experience as an Examiner in Arithmetic for the Matriculation of the Madras University, could write so long ago as 1889—“Not only are the solutions of candidates who use the method of proportion neater than those of candidates who use the rival method, but a much larger proportion of them are correct. I have all along had a pretty well-defined idea that this is really so, and this year I took the trouble to verify it by special reference to the papers. In a station where the two methods are used with about equal frequency, the ratio of the number of correct solutions to the total number of attempts is very much higher when the proportion method is used than when the unitary method is employed, and the same fact is even more clearly brought out in stations where the latter method predominates.” Regarding the subject not merely from the standpoint of results, but also from that of mental discipline, Professor Morren further writes—“All will agree that one of the main objects to be attained from instruction in any subject is to get students to think for themselves. Now if thinking *much* is what is most desirable, the unitary method is superior to the other, but if thinking *well* is to be aimed at, then the method of proportion is the better. For, obviously the kind of thinking required in the statement of a proportion is of a higher and less simple order than that required in the round-about processes adopted by those who use the unitary method. But I hold that the trouble expended both by teachers and students in mastering the former method will be more than repaid by the increased elegance, rapidity, and accuracy with which results will be obtained.”

Summing up now these cursory observations (for I am anxious not to transgress the time-limits imposed upon the papers read at this Conference), rapidity, accuracy, and having regard to the present distress, very especially elegance of method, these three, it seems to me, are the chief desiderata to the attainment of which by his pupils the teacher of arithmetic should mainly direct his efforts. Failure in any one of these is so far failure in arithmetical proficiency, while on the other hand, the quick, correct, and neat solution of an arithmetical problem evidences unmistakably a mind not fruitlessly schooled and disciplined.

As illustrating the methods advocated in this paper, the following sample solution is appended:—

A, B, and C go round a field, each at a uniform rate, in 20, 5, and 2 hours respectively. If they set out from the same point at the same time, and go in the same direction, when will they be next together?

C goes ten times round the field, while A is going once round. Hence C is abreast of A, nine times in 20 hours,

at intervals, therefore, of $\frac{20}{9}$ hours.

Again, B goes four times round the field while A is going once round. Hence B is abreast of A three times in 20 hours,

at intervals, therefore, of $\frac{20}{3}$ hours.

Accordingly A, B, and C are all three abreast at intervals of time equal to the L. C. M. of $\frac{20}{9}$ and $\frac{20}{3}$ hours,

at intervals, therefore, of $\frac{20}{9}$ hours.

Hence after start they are for the first time all three abreast after an interval of 6 hours 40 minutes.

Ahmedabad, 22nd October 1896.

GEO. P. TAYLOR.

Anglo-Vernacular Standards and Text-Books.

To

THE PRESIDENT, EDUCATIONAL CONFERENCE,

Poona.

*Poona High School,
30th September 1896.*

SIR,—We are all grateful to the Director of Public Instruction and to the Educational Inspector, Central Division, for organising an Educational Conference, and the Head Master of the Poona High School for inviting us to draw a paper, and thus affording us all an opportunity of placing our views before this assembly with regard to that branch of education with which we are directly connected. I have already communicated to you that I shall read on behalf of my brother-Assistant Masters a paper on the results of our actual experiences in teaching so far as Standards and Text-books are concerned.

At the outset I am asked to move this Conference to press upon the proper authorities the necessity of appointing a committee of educationists to revise the present Anglo-Vernacular Standards in the light of suggestions that will be received from gentlemen who have had actual experience in imparting secondary education.

Should this suggestion not meet with the approval of the Conference, I am desired to place for the consideration of the Conference the following suggestions in the hope that it will invite the attention of the authorities to such of them as will generally be approved of.

It need not be stated here that some of the suggestions are general, while others are special. Moreover, it is necessary to state here that the following observations are to be taken as mere suggestions made with the object of helping the cause of Secondary Education and not as reflections or criticisms on the working of the Department nor on the system of Secondary Education as it obtains on this side of India. With these remarks I am desired to observe as follows.

GENERAL.

1. Unless boys are well-grounded in their vernaculars they find it difficult to learn English. It will, therefore, be well if a rule be made that no boy should be admitted into any secondary school unless he has completed Vernacular Standard V. Some such rule will enable students to devote more time to their vernaculars and will not fail in producing a salutary effect in the case of the majority of students.

2. The University prescribes books beforehand for University Examinations. These are the same for students attending any college, whether Government or private. This course has been found to work well. If a similar course were adopted with regard to secondary education and books prescribed by the Department in consultation with the heads of Government and private schools, it will check to a certain extent the untrammelled choice of books. It will also save the unnecessary expense of buying new and different books, entailed on students leaving one school and joining another under special circumstances, such as the transfer of the guardian, or the change of school in the same town at the end of the term &c. Moreover, it would save the labour of students, inasmuch as they would not have to begin anew and of masters, inasmuch as they would not have to bring up the new students to the level of their classes. To make the meaning clear I cite one example. In one school the Royal History of England is studied, in another the Empire History, in the third Arabella Buckley's History, while as to Prose and Poetry books there is no end of them. Such a state of things is, in our humble opinion, not desirable.

It may be contended that such choice of books is necessary as it serves to encourage the growth of healthy competition among authors generally and the growth of healthy literature particularly. But the question is whether the attainment of the object is worth the extra expense entailed on the poor students.

It should not be understood that we are averse to change. What we wish to emphasise is that frequent changes of text-books should be avoided as far as possible.

3. The apportionment of marks, in our opinion, requires revision. According to the standards in use 50 marks are assigned to Geography to which one or at the most two hours need be devoted every week; while only 40 marks cover the important sub-head of English, which includes Reading, Recitation, Explanation of Prose and Poetry, Parsing, Analysis and Etymology, which demand more than four times the energy of the students. The English heads should, in our opinion, have more marks assigned to it than other heads as has been done by the University in the case of the Entrance Examination. What we have now to propose is that 100 marks should be assigned to the above English sub-head and 50 or 60 to English Composition and Translation, so as to keep a reasonable proportion between the value of the energy demanded by the subject on the one hand and the number of marks on the other.

SPECIAL SUGGESTIONS.

1. At present History and Geography are taught as a separate head. These subjects can, we think, be entirely dispensed with in the first three Anglo-Vernacular standards, if general information in these be imparted to boys by means of specially prepared Readers, three in number, which should also serve as their Vernacular Reading Books. These new Readers may also include some interesting information in science and some general rules of hygiene. Experience has shown that the present system does not create any interest in the subject, at least in the young students of the three lowest standards, but on the contrary encourages much cramming and creates aversion for the subject. The change, if effected, will reduce the hours of work from five to four and will be of much use to the young students, who can devote this additional leisure to physical exercise. Three hours' continuous work in a school room is, in our humble opinion, a great hardship to the juvenile workers.

2. The Maráthi language has made considerable progress during the last twenty-five years. The grammar of a language should keep pace with the progress of the language itself. Dadoba's Grammar, which has been regarded as a standard work on the subject, was compiled more than twenty-five years ago, and served its purpose then. But now it has become antiquated in several parts. Many things, such as Analysis of sentences, Prosody, &c., which are to be found in large English grammars, find no place in Dadoba's. Teachers are required to dictate notes every now and then to supply the students with the information now demanded of them at examinations. This process involves unnecessary waste of time on the part of teachers and students. A new grammar suited to the present wants has, therefore, become a necessity.

3. Dnyaneshvari is one of the subjects prescribed for 6th Standard students who take up Maráthi as their second language. This subject is, as is well known to Maráthi scholars, too metaphysical and abstruse for young students. Such students find it very difficult to master it. Instruction in this subject taxes the energy both of the teacher and the taught, without any corresponding advantage. Dnyaneshvari is in itself good, but it is beyond the comprehension of students, who are of tender age. It will be much better if some portions from Moropant or Váman be substituted instead. The selection of Akhyánas should be such as would be useful to students who take up voluntary Maráthi for the University School Final Examination.

4. University Sanskrit Examiners demand more of Sanskrit Grammar than can be studied with the help of Dr. Bhandarkar's 1st and 2nd Books, as well as with portions from Dr. Kielhorn's Grammar and Apte's Guide. This high standard in grammar necessarily encourages cramming and produces aversion in students to Sanskrit. Moreover, it leaves them little time to study Sanskrit literature. The grammar portion, which treats of minute exceptions and counter-exceptions, which are not generally met with in standard works, being unnecessary, should therefore be dispensed with, and the study of Sanskrit literature be encouraged by prescribing such books as Balakanda, Ramayana, Raghuvansa, &c.

5. 'Karima,' the text-book of poetry appointed for Standard V. in Persian, being highly philosophical, is difficult for students learning that standard. The whole of 'Karima' should not be made obligatory on the students of the V. Standard. The first half should be prescribed for the V. and the second half for the VI. Standard, instead of the 'Sadhikayet,' as there is no poetry book prescribed for the latter standard.

6. The University has recommended Roscoe's Elements of Chemistry as a text-book in Voluntary Chemistry for the University School Final. But this book has been found by experience more difficult than Cooke's for students studying for that examination. Matriculation students were first asked to read Cooke's Chemistry, but now they have been recommended to read Roscoe's Primer, probably because Cooke's chemistry was found more difficult. As a general rule University School Final boys are inferior to Matric students in every way. To ask such boys to study a book admittedly more difficult than Cooke's chemistry, which has been replaced by a simpler one, *viz.* Roscoe's primer, is in our opinion very hard on them. It will be thus seen that necessity has arisen for substituting a simpler work on chemistry for Roscoe's elements. But as chemistry is a voluntary subject for University School Final boys, we have to suggest that Cooke's chemistry, which omits many unimportant details and presents a comprehensive and systematic view of the subject necessary for the standard, may be substituted for Roscoe's elements.

7. Electricity is the most important subject in Natural Philosophy, and it is desirable that students should be familiar with it. But as that subject has to be coupled with magnetism, which is much allied with it, the two together increase the quantity considerably. Owing to this increase almost all students are naturally inclined to take up either of the first two groups. If, however, some portions from this group of electricity and magnetism be omitted and the quantity practically reduced to the level of the first two groups, students will have a free choice in the selection.

8. It may be objected that the last two suggestions deal with a matter which is under the control of the University. But we beg to observe that it is really an anomaly that the Department should have no voice in the selection of books for the Matriculation and the University School Final Examinations, though the examinees for the same have to be taught in the High Schools. It is true that the Department is represented by a few Fellows, but practically it is very difficult for these Fellows and the considerable number of Educational officers, great as well as small, who are directly concerned with bringing up the above students to correspond with each other every time a change is contemplated in the curriculum. With due deference to the members of the Senate, it may be observed that they are less likely to know the real difficulties in the teaching of the several subjects than the teachers themselves. We, therefore, suggest that the Department should through Government move the University to consider the above suggestions and also to obtain the opinions of the Heads of different Institutions, Government and private, who teach up to the Matriculation and University School Final standards, whenever a change in them is contemplated by that body.

V. S. DESHMUKH.

1st October 1896.

A PAPER READ BY THE REVEREND G. ENGEL AT THE EDUCATIONAL CONFERENCE HELD AT POONA ON THE 2ND OCTOBER 1896.

European Standards and Text Books.

It was not my intention originally to read a paper on European Standards and Text-Books, but on either the one subject *or* the other. Both were, however, combined on the programme, and thus my subject has been largely extended. I propose, first, to review *our European Standards*, and in connection with that to make remarks about text-books just in passing, when I shall take the liberty of giving this question of text-books a peculiar aspect at times; lastly, to say something about *European Standards in general*.

I. A very good and striking feature of the Code of European Standards is that it is evidently guided by that old educational principle "*Non multa, sed multum.*" The Code has confined itself to a few studies, and evidently thoroughness in these is the chief aim. These subjects are the ordinary school subjects which, if mastered fully by a pupil, will form a very good outfit for life and may be considered sufficient for ordinary requirements in office work and even in our University. It is further to be observed that the standards are well graded, with very few exceptions, and that the Code leaves ample scope for modifications in minor details; besides, the administration in the hands of our Educational Inspector has not been severe, but on the contrary liberal. In view of these circumstances, my task is not a very difficult one. I have not to make an assault on a law of the Medes and Persians, which indeed would be the most detestable task I could imagine; but I find myself in the agreeable position of expressing my suggestions and my opinions—not grievances, for we have none—to men with large sympathies, and can hope that they will be received in a liberal spirit.

I first turn to the particular subjects as laid down in the Code and begin with *Arithmetic*. This subject is carefully graded. Of course, there is always difference of opinion as to where some of the particular portions of this subject ought to be placed, *e. g.*, one might wish to have the Decimal Fractions taught at once after Vulgar Fractions; but these points are of such minor importance that they do not fall within the exact provisions of a Code, and even if a teacher should wish to teach the Decimals in that place, he can do so without sinning against the law, as the Code requires him simply to teach the pupils of the V Standard in "Simple Interest, Compound Proportion, and Decimals." Indeed it would be a good thing for teachers to sometimes allow themselves to make such slight changes, simply in order to satisfy themselves, whether the one arrangement or the other is more suited for the pupils. There is indeed such a variety of opinion as to the arrangement of arithmetical portions that—to my knowledge—there are no two text-books alike, and there is none that follows exactly the course of our European Standards, and even if it did, it would not be of very much advantage to the Anglo-Vernacular Standards; for the subject is there differently arranged. Of course, there may be some English text-books on Arithmetic that fall in with our arrangement, but not any that contain Indian moneys, weights, and measures. It would be a desirable thing if our two Codes, European and Anglo-Vernacular, could be arranged in the same way; for publishers might then be encouraged to undertake the publication of an Arithmetic text-book for our Presidency. The reason why I emphasize the desirability of a text-book adapted to our needs is that we find great difficulty in supplying our pupils with a text-book in Arithmetic for the particular standard in which they are reading. I do not believe in putting a complete Arithmetic book into the hands of pupils; first, it is too expensive all at once, more expensive still if it gets torn or lost; second, it is cumbersome. I believe in supplying the pupils with portions. Now Messrs. Macmillan and Co., *e. g.*, have an Arithmetic for Standards, but based on the English Code. I feel sure that this firm would be glad to publish an Arithmetic in separate portions for the various standards of our Presidency, if they could be sure to introduce it in both European and Anglo-Vernacular schools. But here lies the great difficulty. It is doubtful whether such an adjustment is practicable.

In *Algebra* I would suggest the removal of the Greatest Common Measure and the Least Common Multiple from the VIII Standard to the VII, to be taught before fractions.

Hitherto it has been left optional to begin with either *Euclid* or *Algebra* in the VI Standard, but from my experience I can say that both subjects might be begun in that standard with advantage. If this is done, the Second Language might be introduced already in the V Standard without difficulty, to avoid the introduction of three new subjects in one year.

As to the *Second Language* itself, great choice is allowed; the pupils, or schools rather, can choose between "Latin, Sanskrit, Persian, French, German, or any local Indian vernacular." I do not think that this freedom of choice was meant for the individual pupils; for then it might happen that at least five or seven languages might be studied in the same class. What a chaos of languages that would produce can only be imagined! To my knowledge, such a case has not occurred nor is it likely to; for the schools themselves will check any overgrowth on this line.

As a rule it might be said that boys take up *Latin* and the girls *French*, though there are some exceptions reversing this arrangement. *Sanskrit* and *Persian* are rarely taken up, so is *German*. The latter perhaps is chiefly excluded, because it is not among the languages admissible for the Matriculation Examination, though it is for the University School Final. Another obvious reason is the scarcity of teachers of German available in India. It not very rarely happens that a pupil takes up *Marathi* or *Gujarati* or *Urdu* for his second language, which is a very good thing for any one that expects to live in India.

It may, however, be said that if pupils want to pass the Matriculation test with an Indian vernacular, they run a great risk, as the test is the same for both natives whose mother-tongue it is, and Europeans. This test is by no means made easier for the latter by a more lenient consideration on the part of the University Examiners; on the contrary, it appears that those gentlemen expect as thorough and idiomatic a knowledge of the vernacular from Europeans as they do from natives. And to a certain extent they are right, as no one that is not prepared for this severe test ought to appear for it. Some one might also say that the native students have to do all *their* examination papers in English. They have to, it is true, but then their Code has provided a seven years' study of English; further, once they have got over their English paper, they can be pretty free in style in the other papers, and the English paper itself allows them the choice between English paraphrase and translation from their own vernacular, and I am told they as a rule prefer the latter. The conclusion at which I arrive is that the time as now provided by the Code is not long enough for European students to attain to comparative perfection in the Indian vernaculars, so as to be able to paraphrase in Marathi or Gujarati. I do not blame the Code for this; but I think that due allowance and consideration might be made by the University Examiners, so as to encourage European students to take up the study of Indian vernaculars instead of deterring them from it.

I do, however, think that a reading and writing knowledge of an Indian vernacular—and specially for our division—of Marathi should be part of the ordinary school education. Many boys and girls never finish their school course to appear for any University Examination; they are often by various circumstances compelled to leave school after completing the studies of the 6th or 7th Standard, and these very circumstances compel them also to seek a livelihood very early. Now to this class the knowledge of Marathi might be as valuable as their ordinary education, and they would be able to acquire a sufficient knowledge of it if it was begun earlier in school. It seems to me also that one object of the Senior European Scholarship Examination is just this, to encourage the early study of Marathi. This examination does in other subjects not go beyond the requirements of the VI Standard, also the age limit corresponds with that standard, so that the study of Marathi should be begun in the III Standard. The schools of course are left free to introduce this language in any standard without trespassing on the Code, and this liberty is so pleasant that I scarcely venture to

recommend the insertion of this subject in the curriculum required by the Code. It is the consideration of universal equality only which might make this insertion advisable.

In regard to Maráthi text-books, I wish we possessed a good series. The Balbodha is for European children not carefully graded and advances too quickly to difficult constructions. Bhide's Primer is good for European adults, but does not dwell long enough on simple forms to be used to advantage by children, though I am sure that with a little modification and by breaking up those long exercises at the end into smaller pieces, this primer may become very useful.

In French, I can heartily recommend Macmillan's French Course by Fashacht, consisting of three books and two special readers. When a pupil has mastered the 3rd book, I am sure he, or rather she, is equal to anything in that language. It contains more than what is required for matriculation, but that need not deter any one. I think the two books of Bué, though sufficient for a pass in matriculation, are hardly advanced enough.

From Second Languages I now turn to *the* language. Nothing need be said about the grading and the amount required in this subject. Though certain writers are specified for the standards, we have been left at liberty to use the ordinary Readers, of which there has been quite a flood lately pouring into India owing to the praiseworthy efforts of the first English firms. So well have these firms supplied us that it is difficult to decide which has done better than the others, and even which is the best series among those offered by the same firm. There is, however, one series which I consider specially suited for European schools, and that is Macmillan's New Literary Readers, which besides on account of their copy-right matter are at a decided advantage over others. In connection with English I sometimes wish that the VII and VIII Standard might be made acquainted with *History of Literature*. I do not mean that this should be taught very extensively, not as fully as in Stopford A. Brooke's Primer of English Literature; it should be accompanied by suitable extracts, and in this respect Macmillan's Sixth Book (English Code), which is intended for Standards VI and VII in England, would answer our purposes very well. I think you are all agreed with me that it is a lamentable fact that boys and girls pass their matriculation without having any connected knowledge of the great authors of English literature.

There remain two subjects to be noticed in this review, *History and Geography*. In English History I would prefer to have a two years' course in Standards VII and VIII, so that one year the VII Standard would begin at the beginning, the next year in the middle, say before or after the Tudor period. In a similar manner I would like the arrangement of Indian History in Standards VI and VII. It is already a two years' course, but not with the practical advantage to the teacher or the school; *i. e.*, the Code requires the VI Standard to begin each year with the early Indian History, and the VII Standard has simply to continue where the VI left off, at the year 1761. If the other arrangement was made, the same teacher could easily take both standards together and thus save a great deal of time, *i. e.*, just half of the time that is required now for the subject in the two standards. It would make also his preparation easier and perhaps more thorough, as he would have for one lesson the time of two at his disposal. I am sure that if any school asked for such a modification which is very common in Europe, the Department would most willingly grant it, and I trust too that there will be no difficulty in introducing this modification in the Code. [I may add that it would be a practical advantage to have the two years' course of English and Indian History in the same standard, either VI and VII, or VII and VIII.]

To judge from what has come under my observation, teachers in India are too pedantic in tying themselves and their pupils down to the very words and sentences of their text-book, being very careful when "examining" their class next day "or the portion set for preparation" to put a question on each sentence, even sometimes secondary clauses of those sentences. No wonder the pupils have forgotten everything after a fortnight. Would it not be far better to give the skeleton of the particular portion in an outline of dates and events on the

black-board, letting the pupils themselves supply the needed information which can be elicited by questions for which at this stage the pupils may refer to their text-books, and next day to let one or two pupils reiterate the skeleton, and another may give a fuller account in his own words? What an advantage this would be for teachers and pupils, for the subject itself, and for the general training of the mind. Far less time would be needed for this subject than teachers now consider indispensable. I may say that both History and Geography are in England included in the English course which in High Schools does not receive much more time than five periods a week from among about thirty-five periods, *i.e.* one-seventh. There is no doubt that we need more time for History than schools in England, because we have Indian History in addition.

In the way of text-books, I am glad to note that Prof. Macmillan has lately presented to us an Indian History for Indian students. It supplies a want in our Presidency, and as a Shorter History appeared with it, we can congratulate ourselves on having thus a series for our schools. The only defects are the high language which requires a teacher to spend special time on the explanation of expressions, and the want of lucidity in the dates which might have been printed on the margin.

In *Geography*, the Code on the whole followed the requirements of modern educational science, from which it apparently somewhat deviated in Standard II. Still if a teacher does not mechanically follow it, but begins with a map of the school-room; the school-compound; the town, village, or cantonment; district, and then of India, the child will be made acquainted with the "easy geographical definitions" in the course of instruction. There then devolves on the teacher only the duty of putting all these into orderly shape; later, the general information about our globe can be given, and after that the teacher and the class can return to India. The only danger arising from the arrangement in the Code is that a teacher may slavishly follow the order and so may text-book makers. Perhaps at a future revision of the Code this may be somewhat remedied.

Here too I would say that the teachers should not mechanically follow the text-book, nor expect the pupils to adhere to it too closely. Of course to a certain extent they will have to adhere to the text-books, but an intimate and intelligent knowledge of the *map* are the first requirements. I believe there exists a universal Geography text-book, the so-called "Geography Manual". It is the best available one at a low cost. Besides, the text-books used in England are not adapted to our needs, and while they deal with India sparsely they give for Indian pupils too much about England. There exists also a nice little series by G. Duncan, which is very useful.

We all know also that *Drawing and Gymnastics* have received every encouragement from our leaders, and most of the schools, if not all, have readily taken them up, so that their formal recognition in the Code is only a question of time.

II. In the introduction I made some remarks about the scope of work achieved in our schools as they now are. We cannot, however, close our eyes to the fact that a boy who passes the Bombay Matriculation is intellectually less developed than his English or Scotch brother who has received his education under the home system. In 1892 before coming out to this country for educational work I went to Scotland and England to study the system there, and I was very favourably impressed with the work done there. In Edinburgh I specially visited the Royal High School and George Watson's College, of which Dr. Ogilvie was the head master. I have kept the time-table of the Royal High School of Edinburgh as a valuable document, for it enables one to get a general idea of the work done.

From this we note that in Scotland they separate the boys in the III Standard (corresponding to our V) into three classes, Commercial, Modern, and Classical. The *Commercial* class studies Mathematics, English, German, French, Science (Natural History and Physical Geography), and Book-keeping, and have gymnastic instruction, which all the classes have to take; in Standard IV a two hours' attendance in the workshop, which is a manual training class, is added; in Standard V they begin Chemistry and Drawing. The *Modern* class, which is I

believe generally the course pursued by girls too, takes up Mathematics, English, Latin, German, French, and adds Book-keeping in Standard IV. The *Classical* class goes in for Mathematics, English, Latin, French, Greek. We see that from about the 12th year an English or Scotch boy can begin to specialise. He can choose a distinct course, following his inclinations or his parent's directions in this. This plan provides a liberal education for various classes, preparing them for their peculiar work afterwards. We need skilled craftsmen and engineers; merchants in Europe cannot get on without a good education either; we need Civil Servants; and there is another class that will prefer literary work or professional pursuits. It would be a mistake to have one class only, to let all go in for the study of ancient or Oriental languages, or to tie all down to the study of science. We, too, have to some extent a specialisation of study, at least in our Anglo-Vernacular schools, I mean the division in Matriculation and U. S. F. Classes two years before the final examinations. European boys and girls rarely prepare for the U. S. F. Examination. Perhaps, if we did something more towards the development of this examination, we might induce them also to specialisation.

As regards the scope of the home schools, we notice that all the classes study at least two foreign languages; the Commercial take up German and French, for one of which Maráthi might be substituted in India; the Moderns Latin, German, and French, and the Classics Latin, French (or German), and Greek. I may also add that the boys commence with Latin and French when entering the high school. The Classical course corresponds in the subjects—though not quite in the scope—to the course pursued in the Gymnasium of Germany, the Modern and Commercial to that of the Real Gymnasium.

Thus we see that European boys and girls receive a far more extensive education than their Anglo-Indian brothers and sisters. Now, for any one that intends to spend his life in India we may say that our course might be sufficient and truly great difficulties are in the way of a radical change in this direction. Yet, there is this difference staring us in the face, and it would be a very good thing if we faced it and the difficulties too. India is not a country that can be colonised by Europeans, as America or Australia were. The Anglo-Indian community dies out in its fourth generation. Children of European parents cannot get that education in our schools which the latter received at home. In competition with a European boy in certain branches, the Anglo-Indian is at a disadvantage and has to feel it. If he wants to receive the same education, he has to go home and be separated from parental influence for years, or, if he completes his course in India and then goes home to study further, he sees what he lacks, specially if he should require several languages for his particular studies. For all this I do not blame the Educational Department: they do their best. The blame lies with the University: the Matriculation standard is decidedly low, at least for a European. No one can deny this. Of course we are at liberty to prepare our pupils for the London Matriculation for which arrangements have been made in Madras; but not all students can afford to go afterwards to London, nor is it advisable for all to pursue their studies by correspondence. If India itself afforded some local opportunity, it would be a decided advantage, and Hindus and Parsees would gladly avail themselves of it too.

My time is too short to allow me to go into the details of this important question. I must content myself with these few remarks and suggestions, but I trust that in due time some good may result from our considerations and opinions expressed here.

G. ENGEL.

MAHOMEDAN EDUCATION.

- (1) PAPER BY KHAN BAHADUR MAHOMED YAKUB (SIND).
- (2) EDUCATION OF MOHAMEDANS BY KHAN SAHEB
SHAIKH JAFFER.

PAPER WRITTEN BY KHA'N BAHADUR MAHOMED YAKUB.

Mahomedan Education.

I am of opinion that the mosque schools, or the Mullahs' schools as they are also called, have failed to do good. This was anticipated by many from the beginning, and I have been one of them.

2. These "Maktabs" have always existed, and will always exist, only to teach the "Koran." The Mullah will not learn *more* than he now does, and it is impossible to introduce generally better educated Mullahs who can impart Sindhi education to a useful limit. The principal functions of the Mullah are of religious nature, connected with prayers and religious rites. He depends on charity and different kinds of dues and offerings. Teaching the boy is his secondary function, and that is confined as a rule to the Koran. A little of Sindhi reading is taught by the Mullahs it is true, and that is done for the sake of name only, and we can never expect that they will ever be able to teach anything useful.

3. All those who learn at the Mullah's school leave it when they are most imperfectly taught. The Koran is forgotten by more than 80 per cent after they stop learning, and the very little of Sindhi picked up is of course forgotten likewise. Hundreds and hundreds of boys leave the "Maktabs" every year, and as many new boys join the institutions yearly—the numbers on the rolls are always very large, but no one is taught sufficiently long and to any limit of practical usefulness.

4. Accordingly, a very large number of Musalmans is shown in the educational returns as receiving secular education in the Mullahs' schools. The figures show very high statistics; but the fact remains that the benefit to the Mahomedan community from these schools is absolutely nothing, for no useful education is imparted. It is therefore unfair to the Musalmans of Sind to say that those attending the mosque schools are *receiving education*, if education means anything of any use.

5. In 1892 it was expressed that the Mullahs' schools will be contributories to Local Fund vernacular schools, and their usefulness will be judged from the numbers so sent up. In this respect also no satisfactory results have been realized. In 1892 I found in the Nára Valley Division that the Mosque schools had not sent a single boy to the Local Fund schools; and in the year 1893 I collected information for the Sehwan Division, with the result that about twelve boys were shewn as sent up to the regular schools; but when I examined the circumstances closely, I found that these boys were either residents of villages in which the mosque school and the regular Local Fund school were both situated, or the boys happened to belong to such parentage that they were bound to go to a regular school in any case. The conclusion I then arrived at was that the mosque school in a way actually detained the progress of the boys for a year or two. For otherwise the boys would have straight joined the regular school earlier, and I dare say that if the statistics are closely examined even now the same conclusion will hold good.

6. For these reasons I think that the money given as grant to these institutions is not well spent, and the results are not satisfactory, and will not be.

7. Next I will notice here the important question whether the present system of education sufficiently meets with the requirements of the Province. I need hardly say that the rural masses, who form the backbone of the country, are not sufficiently reached by the present means of education. I have said already that the mosque schools as they are now are of no value; and it is well known that the Local Board schools are very few. In a taluka consisting of some 300 villages of different sizes and of the total population of about 60,000 people at an average, there will be found about four or five schools only with the average number of thirty boys. This is undoubtedly not sufficient.

8. On the other hand, it is not practicable to open in each taluka more schools of the type of the present Local Board schools. This is due to several reasons. Firstly, the present schools have not secured popularity; secondly, an average school of the present type must have at least more than twenty boys on the roll; and, lastly, the expenses of a regular school under different shapes are so high, that funds will not be found if schools at the present scale were increased much.

9. As regards the want of popularity, I have to say that the zamindár or cultivator or the village bania always says, "Your school teaches lessons on elephants, horses, machines, or metals; your boys pass the certificate examination, they will get Government service; but nothing is taught which will be useful to our boys in their own proper line." Experience has no doubt shown that there is some truth in the statement that those who do not go up to the certificate examination learn little which is of practical use to them in their own line. So the schools are properly looked upon by the people as meant only to train for the Government service.

10. I think for small villages there should be small and simple institutions suited for the education of the rural population. I would say, a school of ten or fifteen boys in a small village will do. In such places one teacher on Rs. 12 will answer. The boys should be taught up to the 4th standard of vernacular only. The zamindár or ráj will be willing to give a small ráj-building for its use. No chairs, benches, or furniture will be required; the mator's gádi and matting for boys will do. The reading books for the 3rd and the 4th standards should be chiefly devoted to subjects of agricultural interest; and in these standards more attention should be given to hand-writing of the boys. In these two standards the boys should be taught how to write private letters of different kinds, and to write petitions of the descriptions in which zamindárs and cultivators or village banias are concerned. Besides in the same two standards they should be taught to write the account of "Batai," i. e., sharing of produce between the zamindár and his cultivators, and should be acquainted with simple method of the village bania's "Khanda" account, so that they may be able to keep up a counterpart of their account with the village bania. Further, simple measurement of area of a field (not by cross staff), and simple measurement of clearance of canal may also be taught in these standards.

11. I propose, therefore, that there should be such small schools at as many villages as will be found possible, teaching up to 4th standard of vernacular, including in the course the things mentioned which are very useful to the rural population. I limit the course to the 4th standard in these small schools for two reasons, the principal one being that they will cost little, and so their number can be large enough, and yet they will teach to a practically useful limit; and the other reason is that many rural boys leave the schools after the 4th standard. If a boy who will pass the 4th standard in this small village school joins a larger school, well and good; but if not, he will be still useful to his father, and to the village community, and the villagers will then fitly appreciate education.

12. Since the rural population consists almost wholly of Musalmans, it will be a great advantage to appoint teachers who will be able, in order to gain popularity among the ráj, to make the boys revise their Koran-reading if they have read it before or to teach them to read it. This is not a new thing, as experience has fully shown that the vernacular schools in which the Koran is also taught have been the most flourishing and popular schools.

13. The small Local Fund schools proposed should be opened at villages where there is no Koran school, or if there is a Koran school, the village is large enough to support besides a small school of secular education of the kind suggested.

14. But in the case of most of the Koran (or the Mullahs' schools) efforts should be made to convert them imperceptibly into small secular schools of the kind I propose. This can be done with tact, and I am strongly of opinion that it can be effected. The Mullah should teach only the Koran: he should do this in two hours daily. A teacher paid Rs. 12 or so by the Local Funds should

be appointed to teach the boys for six hours of the day as in Local Fund schools. As a rule, the Mullah does not teach in the masjid itself, but in a room attached to or close to the masjid. The Mulla should be responsible for proper attendance: in the Local Fund, teacher's hours and his remuneration will be on the condition that the boys attend the secular classes. The Mulla's remuneration may be in the shape of grant as at present, for it will depend upon the numbers attending secular teaching. The pay of the Local Fund teacher will be about Rs. 12 to Rs. 15, according to numbers.

15. The additional subjects which I have proposed to be taught in the 3rd and 4th standards of the rural small schools should be extended to the regular Local Board mofussil schools also. It may be said that the additional work will be heavy, and time will not be found for it; but I think if a close examination is made, it will be found that the addition is only moderate. The boys will have to be put in the way of writing petitions or letters or to understand the form of writing "Batai" or "Khanda Account," and measurement of land or excavation by simple process will not be troublesome. In Tando Adam a bania has set up his school in which he teaches in only three months' time the methods of trade book-keeping, arithmetic, ready calculation, and all requirements of a trader-boy. He charges Rs. 2 per month, which the parents gladly pay. The high fees paid illustrate the sense of appreciation of education if it is of practical usefulness.

16. In conclusion, I will now sum up what I have proposed: First, that the mosque schools as they are can never teach more than the Koran usefully, and that they have failed to do any good. Second, that in order to popularize secular education among the masses, Koran-teaching should be allowed to go side by side as a *secondary training*. Third, that in the standards of secular education certain subjects of practical usefulness should be taught well and early enough (*i. e.*, in 3rd and 4th standards) which the rural population are inclined to appreciate. Fourth, that small schools teaching in this manner up to the 4th standard should be opened as largely as possible, and the Koran schools should be converted into such institutions as extensively as can be done.

MAHOMED YAKUB,

Deputy Collector, Nára Valley, and
Member, District Local Board, Thar and Párkar.

Primary Education of Musalmans in the Central Division.

A PAPER READ BY MR. SHAIKH JAFAR MUHAMMAD, B.A., BEFORE THE
EDUCATIONAL CONFERENCE HELD AT POONA ON THE 2ND OCTOBER 1906,

WITH THE SPECIAL PERMISSION OF MR. T. B. KIRKHAM, THE ABLE PRESIDENT OF THE
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AUTHOR, BY THE "ANJUMAN-HIMAYAT-TUT-UDADA" OF POONA.

MR. PRESIDENT, LADIES AND GENTLEMEN,

In 1885-86 the number of Musalmans in all sorts of public institutions in the Presidency was 57,747; in 1894-95 it rose to 105,035. But on the contrary during the identical period the percentage of Musalmans receiving higher education fell from 2.88 to 2.42. Thus within a single decade, though the quantity has nearly doubled, the quality which was already very poor became poorer still. Some gentlemen attribute this deterioration in quality to the poverty of the community, but I am of humble opinion that this allegation is only partially true. For we often find that though scholarships are offered to enable promising Musalmans to prosecute their studies in secondary schools and in colleges, few Musalmans come forward to compete for them, while those who obtain them generally fail to turn them to good account. This fact shows that there are other causes besides poverty, and equally potent with it, which are responsible for retarding the progress of the Musalmans. Now, primary education being but a necessary preliminary for the acquirement of the secondary and the collegiate education, it is plain that so long as the primary schools fail to send out annually a large number of qualified Musalmans, the number of Moslem students in secondary schools and in colleges must continue to be very small; and hence an investigation into the causes of the unsatisfactory progress of Musalmans in higher education necessarily leads to a consideration about the sort of progress they are making in primary education. I therefore beg to dwell upon the latter subject, and in doing so I would confine my observations to the causes of backwardness in primary education of those Musalmans who live in the Central Division.

Now, if we examine the total number of Musalmans attending primary schools in each sub-division as well as their number in each of the six standards and in the infant classes thereof, for the last ten years, it will be found that though the total number in question has during that period nearly doubled, the percentage of Musalmans in the higher primary stage remained nearly the same, about 25 per cent only being in the 3rd to the 6th standards put together. This fact sufficiently accounts for the remarkably small number of Musalmans who figure in secondary schools and in colleges. Here is a matter for serious consideration. Moslem parents cannot be held responsible for this great stagnation in the progress of their children. They have sufficiently evinced, I may venture to say, their appreciation for the modern education by sending to schools of late twice as many children as they sent some ten years ago. The causes of this highly unsatisfactory progress of Musalmans in respect of primary education must, therefore, be properly traced to the shortcomings in the system of education which is in vogue at present. I am afraid the limited scope to which I am obliged to restrict the address will not permit me to do more than refer briefly to some of the principal causes which I beg to describe under the following headings:

- (a) The Departmental Reports.
- (b) The Urdu Schools.
- (c) The Poona Male Training College.
- (d) The Moslem Assistant Deputy Educational Inspectors,

(a) DEPARTMENTAL REPORTS.

The extreme brevity of the remarks as to the primary education of Musalmans which of late years appear in the annual reports of the Department and which are confined not so much to quality as to quantity, as well as the total absence therefrom of a statistical information regarding the number of

Musalms in each sub-division, the classification of such pupils according to the various stages of primary and secondary education they have reached, and much other important information of a similar nature tends to create erroneous impressions about the progress of Musalms and thereby to disarm criticism. It also encourages, I may venture to say, the Educational officers and the Municipal bodies to take, as it were, their cue from them and sacrifice quality to quantity to the detriment of poor Musalms. The Poona Municipality furnishes a good example in this respect. This evil will not be removed, I am sure, so long as the authorities continue to devote so little of attention to a matter of such vital importance to an important section of the population of the Presidency.

(b) THE URDU SCHOOLS.

For educational purposes the Moslem population may be roughly divided into two classes, Rural and Urban. Rural Musalms live chiefly in villages, speak either Maráthi or highly corrupt Urdu at home, and possess very little knowledge of Urdu proper; while urban Musalms live chiefly in towns, speak Urdu at home, and are but poorly acquainted with Maráthi. Now primary Maráthi schools prove of great use to rural Musalms, but inasmuch as they generally live in places and under conditions unfavourable for the acquirement of higher education, their progress in primary education, though often satisfactory, is, in a sense, barren of good results. But the reverse is the case with urban Musalms who form the most important section of the community. Many of them live in district towns where they have every facility for acquiring higher education and yet they fail to acquire it. Thus for instance Poona, with its largest Moslem population in the Division except Bombay, did not produce a single graduate up to this time, while as to undergraduates who passed therefrom they can be counted on fingers. The reason for this unsatisfactory state of things is as follows:—All district towns possess primary Urdu schools, and urban Musalms, for obvious reasons, prefer them to primary Maráthi schools. But owing to certain serious defects which exist in them at present these very Urdu schools, instead of doing them any good, hamper their progress to a great extent. For, in the first place, these schools are generally managed by low paid and incompetent teachers, many of them being untrained and unpassed, while those who are trained are, in the majority of cases, far from being properly qualified for their duties, as I shall presently have occasion to show. Secondly, the Urdu standards which are in use at present, go very hard both with the teachers to teach and with the pupils to learn. Urban Musalms go to these schools in the hope of learning everything there through their mother tongue, but soon find to their detriment that reverse is the case, and that the course prescribed in them is very complicated and calculated to put extra strain on their time and energy; in fact, it is a misnomer to call them Urdu schools, inasmuch as Maráthi plays the principal part in them, while Urdu is taught in addition to Maráthi simply as a second language. By joining these schools the difficulty of receiving their early education through a foreign tongue is, therefore, in no way lessened. It is for these reasons that these so-called Urdu schools instead of doing any good to the pupils attending them tend to check their progress at the very threshold of their educational career. Few of those Musalms who attend secondary schools may be found to have received their primary education in Urdu schools solely. It will perhaps be argued that if these schools prove of no avail to Musalms they may as well be totally abolished. But I beg to submit that such a step will in no way remove the grievance of urban Musalms. It is very essential for Musalms to learn Urdu. For, though a study of the vernacular languages will be of use to them to earn their bread to-day, the ultimate salvation of the Indian Musalms lies to a great extent in clinging to Urdu for their mother tongue, as it forms one of the strongest bonds of union between them. It will be therefore as inadvisable to oblige urban Musalms to receive their early education through Maráthi as it will be to compel a Parsi or a Hindu to receive his through Urdu. What they want is sound education through their own mother tongue, and not merely superficial linguistic attainments. Nothing can be a more reasonable demand. When every non-Moslem subject of H. M. the Queen-Empress enjoys the advantage of receiving his early education through his own mother tongue,

it is a pity that Musalmans alone be withheld from a share thereof. Those urban Musalmans who wish to receive their early education through Maráthi have, of course, Maráthi schools open for them, but the question is, "How to supply the want of those who cannot and would not take advantage of the Maráthi schools?" and the Urdu schools should therefore be placed in a position to meet their want adequately. The present tendency to bring about, in a systematic way, a state of things that would justify the total abolition of Urdu schools should therefore be early checked; Urdu standards be thoroughly revised, making them as nearly as possible an exact counterpart of primary Maráthi standards so as to meet the requirements of the urban Moslem pupils; and lastly, Urdu schools be placed under the management of really competent and well paid Musalman teachers. Moreover, Anglo-Urdu schools should be opened in those district towns where primary Urdu schools are in a position to send out annually a sufficiently large number of qualified Moslem pupils.

(c) THE POONA MALE TRAINING COLLEGE.

This college, though it can annually send out a superior class of Hindu teachers, has failed hitherto to turn out an efficient class of Musalman teachers. The fact that though both Hindus and Musalmans receive in this institution nearly the same sort of training under a common staff of teachers in all subjects except the languages and have to pass a common test before obtaining certificates of qualification, the Hindus should prove in the majority of cases successful teachers, whereas the Musalmans should turn out the reverse, has tended, I fear, to produce an unfavourable opinion regarding the teaching capacities of the latter. It was perhaps upon some such view of the case, I fear, that steps were taken some four years ago which were calculated to reduce the Urdu branch of this college to a state similar to that which its sister branch in the Female Training College has been brought to, *viz.* that of extinction. A knowledge, however, of the different conditions under which the Hindu and the Musalman students of this college receive their training will convince an impartial judge that things are decidedly in favour of the former and unfavourable to the latter. I beg to exemplify this by referring only to two points, *viz.*, the selection of the candidates of both classes for admission into the college, and the disparity of the course of studies prescribed for each of them. There is admittedly a very wide field for the selection of the Hindu candidates and by the eliminating process of three examinations only the best of them are generally selected for admission into the college. The reverse, however, is the case in the selection of the Moslem candidates. The authorities being fully aware of the difficulty of securing properly qualified Musalmans for admission into the college had formerly adopted the wise course of maintaining a fixed number of paid Musalman students in the Practising School. They were subjected there to a special course of instruction and drafted afterwards into the college branch. But unfortunately this course has been given up since the last four years, as I have observed above, and the result was that matters grew from bad to worse. But the authorities, I am glad to say, are now trying to retrace their steps, though in a half-hearted way, I fear, but I am sure nothing short of complete restoration of the old conditions will remove the difficulty. Secondly, the Musalmans besides being but partially qualified for prosecuting their studies in the Urdu branch of the college, are beset in the very beginning with another difficulty which their Hindu fellow-students are quite free from, the Hindus having to learn all the subjects in their mother-tongue (Maráthi) while the Musalmans are required to learn exactly the same course, within the time prescribed, but with this material addition that they have to learn all the subjects except languages *through Maráthi*. Now, it is rare that a Musalman who enters the college possesses a fair knowledge of both Urdu and Maráthi alike. Generally it so happens that some Musalmans who join the college know Maráthi well and therefore cut a good figure in those subjects which are to be studied through Maráthi, while they have to commence with the alphabet in Urdu. Others again start with a respectable acquaintance with Urdu, having only a smattering of Maráthi. And yet somehow or other these students are dragged through the prescribed course, granted certificates of qualification and sent out to take charge of Urdu schools, and it is therefore not to be wondered at that

their careers as teachers should generally prove failures to the detriment of the large number of Musalmans who attend those schools. Instances are not wanting of Musalmans who though granted certificates of qualification to serve in Urdu schools know that they cannot with any degree of efficiency discharge their duties therein, and therefore gladly accept appointments in Maráthi schools. In order to remedy this evil and to ensure a regular supply of really competent Musalman teachers for Urdu schools, it is necessary that some changes be effected in the course prescribed for them and also the period during which they are to complete it be slightly enhanced.

(d) THE MUSALMAN ASSISTANT DEPUTY EDUCATIONAL INSPECTORS.

The first question which naturally arises about these officials is, "What are their duties in connection with the primary education of Musalmans, and how far and to what good they are discharging them?" Theoretically they have to inspect all the Urdu schools—an inspection which it is desired by the Department may at the same time serve as a model object lesson on good teaching to Urdu teachers,—they have to encourage Moslem parents to send their children to schools; to guard the educational interests of the Musalmans against any wilful discouragement by others, and to do many other things of the like nature. Practically, however, they are hardly doing anything of the kind, nor are they in a position to do so even if they had ability or wish to do. Though Government seems to have conferred a great boon on Musalmans by appointing one Moslem inspecting officer in each sub-division, yet for the following reasons Musalmans fail to derive any benefit therefrom. Formerly there were two Moslem inspecting officers who were Graduates and held the rank of a Deputy Educational Inspector. By virtue of their superior rank and education they exercised great influence over their co-religionists, and their opinions in matters connected with the education of the Musalmans carried great weight with the higher departmental authorities. Moreover, their services were devoted solely to the cause of Moslem education as they had nothing whatever to do with the inspection &c. of Maráthi schools. But their places were abolished and in lieu thereof the present system was introduced by which the number of Musalman inspecting officers was raised from two to eleven. To a superficial observer this may seem to be a move decidedly in favour of the Musalmans, while the reverse is the case. For Government has by this seeming generous but really economic innovation effected a net yearly saving of something like Rs. 6,000, which were formerly spent solely in the cause of Moslem education. The eleven Moslem Assistant Deputy Educational Inspectors, who are but shadows in every respect of the former Moslem Deputy Educational Inspectors, do not hold places specially created for them, but they are simply substituted for the Hindu Assistant Deputy Educational Inspectors, and in fact have to do much more of the work of the said Hindu officials than to discharge the duties more legitimately connected with purely Moslem education. Moreover, as a class they are far less educated staff of officers than the former Graduate Deputy Educational Inspectors; have no voice in matters connected with Moslem education; are never officially consulted by the Educational Inspector; and hardly ever, even orally, consulted by the Hindu Deputy Educational Inspectors under whom they are placed. At times they are given so much work in connection with Maráthi schools that they are hardly able even to examine Urdu schools, and the work which should legitimately be their own is done by their Hindu colleagues with results which can better be imagined than described. Besides, the selection which has been made of the Musalmans to hold these places is such that many of those who are Assistant Deputy Educational Inspectors at present have little or no sympathy for Musalmans at all. Thus, in short, in the present state of things these places of Moslem Assistant Deputy Educational Inspectors are in no way useful in promoting the cause of education of the Musalmans. To make this branch of the service really useful to the Moslem community it is necessary that two things be done. In the first place steps may be taken to allow Moslem Assistant Deputy Educational Inspectors a free hand in giving priority to their legitimate work of examining Urdu schools and also those Maráthi schools which are largely attended by Musalmans, as well as always to consult their opinions in matters connected with the education of their co-religionists, as

the Hindu Deputy Educational Inspectors being totally ignorant of the peculiar constitution of Moslem society and of the requirements of the members thereof, in venturing to give their own opinions in respect of their education, commit mistakes which in the long run prove or are likely to prove detrimental to the cause of the educational progress of the Musalmans. Secondly, to ensure further improvement in the general tone of Moslem education, both primary and secondary, a new place of an Assistant Educational Inspector should be created and filled by an experienced officer of superior qualification who has real sympathy for Musalmans and who is fully aware of the constitution of their society and of their peculiar needs and requirements, and that he should be entrusted with the work of general supervision over Moslem education and also be empowered with some control over the Moslem Assistant Deputy Educational Inspectors.

In conclusion, I beg to affirm that the present defective system of primary education is greatly responsible for retarding the progress of Musalmans, and I believe I have sufficiently demonstrated the necessity of a speedy reorganization thereof.

SHAIKH JĀFAR MUHAMMAD, B.A.,
Late Asst. Depy. Educational Inspector, Poona, S. D.,
and at present Head Clerk O. T. Dept., Bombay.

Poona, 2nd October 1896.

REPORT

OF THE

BOMBAY VETERINARY COLLEGE

FOR THE YEAR

1905-1906.



BOMBAY:

PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1906.

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No. 572 of 1906.

*Bombay Veterinary College,
Parel, 31st May 1906.*

From

M. H. SOWERBY, ESQUIRE, I. C. V. D.,
Acting Principal,
Bombay Veterinary College;

To

THE DIRECTOR OF PUBLIC INSTRUCTION,
Poona.

SIR,

I have the honour to submit the Twentieth Annual Report of the Bombay Veterinary College dealing with its administration during the official year 1905-06. Lieutenant-Colonel Brodie-Mills was in charge of the College up to 21st January 1906. A brief outline of the duties performed in connection with the Bai Sakarbai Dinshaw Petit Hospital for Animals for the year ending 31st December 1905 is embodied in the report.

2. Government appointed the following officers
Professional Examinations. to serve on the Board of Examiners for this year :—

President.

Captain J. Farmer, I. C. V. D., Superintendent, Government Cattle Farm, Hissar.

Members.

Captain W. O. Dawson, I. C. V. D., Superintendent, Civil Veterinary Department, Sind, Baluchistan and Rájputána.

Mr. K. Hewlett, I. C. V. D., Acting Superintendent, Civil Veterinary Department, Bombay Presidency.

However, on account of the serious illness of Captain Dawson, he was unable to serve on the Board and, therefore, the examinations were conducted by the remaining two officers.

The examinations were held from the 4th to the 15th December, the results (*vide* Appendix A) being declared and prizes awarded on the latter date.

From the Appendix it will be observed that of the three College classes, out of 72 candidates that presented themselves for examination, 52 passed, a percentage of 72.22 as against 74.24 and 70.49 in 1904 and 1903, respectively. The total number of students that presented themselves from all the three classes has increased and the percentage of passes has not materially decreased as compared with the figures of last year. The results compare favourably with previous years.

A revised curriculum of studies was introduced this year and the examinations were conducted according to that curriculum.

The practice at the Punjab Veterinary College that a student, who fails in one subject at a Professional Examination but obtains the required aggregate number of marks, should again be examined in that subject within three months, was brought into force at this College with the sanction of Government and a supplementary examination for 7 men from different classes, who failed in one subject in December last but were eligible for re-examination under this concession, was held in March by Mr. Hewlett, Acting Superintendent, Civil Veterinary Department, Bombay Presidency. Out of these seven men three again failed and were compelled to revert to their former classes.

In Appendix A, results of the examinations held in December and the supplementary examination held in March are amalgamated.

It has been ruled that a candidate for admission to any examination by the College Board must have attended three-fourths of the lectures and not two-thirds as before.

The Board also examined the students of the Second (Final) year of the Salutri Course. Out of 25 students that presented themselves for the examination 24 passed.

During this year an honorary degree of G. B. V. C. was conferred upon Mr. D. D. Sanga, Veterinary Lecturer, College of Science, Poona, on account of his long teaching experience.

3. At the beginning of the year there were 86 students on the rolls of the Diploma Course. There were 37 entries during the year as against 41 and 25 in 1904-05 and 1903-04, respectively. This year no student joined Class B or C under concession. Thirty-four students left the College. Out of these, 14 passed the Diploma Examination and 4 left Class C on having failed at the examination. One from Class B died, 2 left in the middle of the year and one after having failed at the examination. Nine from Class A left in the middle of the second session of the Collegiate year 1905. One left after having failed at the examination, and two who had joined in January last and competed for the Government scholarships left because they were not finally selected for the scholarships. The number of students at the close of the official year attending the College was 89 as against 86 and 68 in 1904-05 and 1903-04 respectively, *vide* Appendix B.

Out of the 89 students on the rolls at the end of the year, 1 each belonged to the following :—Cochin, Berar, Jamnagar, Janjira, Rajpipla, Wankaner, Dhrangadra, Sangli, Burmah, Bilka, Baroda, Ceylon, Indore and Kolhápúr; 2 each to Goa, Cutch, Bhávnagar, Sind; 3 each to Madras and Junagadh; 5 to Travancore; 14 to Mysore; and the remaining 42 to the Bombay Town and the several Districts of the Presidency Proper.

This year the number of students that presented themselves for admission was only 56 as against 97 in the last year. Out of these students, only 37 joined and only 9 out of this number have passed either the Matriculation or the School Final Examination. It is a matter of regret that this year the College did not attract a number of students sufficiently large from which a better selection of candidates for admission could have been made. This scarcity of men presented is probably due to the misapprehension regarding the change in the scale of pay of Graduates which has been under the consideration of Government.

Out of the 37 students that joined, 17 belonged to the Bombay Presidency and 5 to the Native States in the Bombay Presidency; 7 came from Mysore, 3 from Madras, 2 from Travancore and 1 each from Goa, Cochin and Indore.

In the new admissions 2 are scholars from Mysore and 1 from Indore.

A report to what extent the several Native States have utilized the College during the last ten years has been submitted to Government under their orders.

It was resolved that candidates of inferior physique should not be admitted, and a standard of height and chest measurements was fixed for students for admission.

Appendix C shows the different nationalities of students on the College rolls at the end of the year.

Out of the 15 men who were on the list of Government scholars in January 1905, one from Class A discontinued to attend during the second session, 2 from Class B failed at the second Professional Examination and 3 from Class C passed the Diploma Examination. For the 6 vacancies thus caused, 8 out of 14 students who presented themselves as candidates for Government scholarships were allowed to join. These men were examined by the Superintendent, Civil Veterinary Department, Bombay Presidency, and myself in the month of March and were tested for their fitness for Veterinary work and 6 of them were finally selected, but the Director of Public Instruction has approved of the nomination of five of these only.

Under the revised College Rule 11, which was brought into force this year, the system of allotting scholarships to certain districts every year has been abolished and the scholarships are left open to candidates coming from any districts. However, if compared with previous years, the number of candidates who presented themselves for admission as scholars was on the decrease instead of on the increase, although it was advertised that students from any district of the Presidency were eligible to compete for the scholarships. It seems, therefore, necessary to impress upon the Collectors of different districts that they are under the revised rules at liberty to recommend students for scholarships even if they are not allotted to their districts. Out of the 14 men who presented themselves, 2 each were from Poona, Surat and Broach; 3 from Kaira; and 1 each from Kolába, Sátára, Belgaum, Ratnágiri and Cutch. Out of these men, 6 were Matriculates and 1 had passed the U. S. F. Examination. Out of the 5 who were finally selected whose selection was approved of by the Director of Public Instruction, 1 came each from Broach, Kolába, Surat, Sátára and Kaira. Three of them have passed the Matriculation Examination.

Twenty-five students attended Class B of the Salutri Certificate Course until the Final Examination was held in December last, after which the course was abolished.

Fifteen bullock drivers from the Supply and Transport Department of the Bombay Presidency and a similar number from the Madras Presidency attended a course of training as dressers for a period of 3 months. All of these men were considered competent to perform the work of dressers at the end of the course. According to Government orders the course extends over the vacation period of 3 months. But during this year 15 of these men were sent in the middle of April and 15 in the middle of May. This greatly interfered with the teaching and practical work of the College course. The inconvenience thus caused was brought to the notice of the Military authorities, who were asked to make arrangements in future to send men for this course regularly on the 1st April.

4. On approaching Government with a proposal to start a Class at the College for training farriers, they have ordered that the starting of the Class should be notified to the Deputy Adjutant-General, Western Command, the Collectors and Political Agents in the Presidency, the Agents to the Governor General at Baroda and in Central India and the Chief Commissioner, Central Provinces and Berar, on whose assurances to send a sufficient number of stipendiary students every year the establishment of the Class depends.

5. This year 14 students passed the Diploma Examination. Out of these three have been appointed in charge of Local Board Veterinary Dispensaries before the date of this report—one at Ratnágiri, one at Lárkána and one in the United Provinces. One has obtained the appointment of Veterinary Inspector under the Bangalore Municipality; two have been appointed on temporary rinderpest inoculation duty; two have engaged themselves in private practice in Bombay; and two are appointed as Assistant Veterinary Officers at the College.

An appointment of Itinerating Veterinary Assistant was created in the Dhárwár District and given to a Graduate of the last year. One Graduate was appointed in charge of Veterinary Dispensary of the Society for the Prevention of Cruelty to Animals, Bellary, and one was appointed temporarily in charge of Veterinary Dispensary, Madura, in the Madras Presidency. Appointments of Veterinary Inspectors for the Native State of Perak in the Federated Malay States on a salary of £120 rising to £180 per annum were given to 2 Graduates of this College. Also a Graduate was appointed to the charge of Veterinary Dispensary at Jacobabad. But the expected Dispensaries in Sholápur, Bijápur and Panch Maháls Districts have not as yet been opened. It is, however, hoped that the number of Local Board appointments for our Graduates will soon be increased.

Ten Graduates including those who are in temporary service are unemployed.

An application for the services of a Graduate for King Menelek was received from His Britannic Majesty's Minister, Adis Ababa.

Two Graduates passed the Sanitary Surveyors' Examination in June last, but they have not as yet obtained any appointment as Sanitary Inspector. Five Graduates are at present undergoing the Sanitary Course which commenced in February last.

Twenty-four men passed the Salutri Certificate Examination this year; out of this number two have obtained employment.

Nine Salutris obtained appointments as Veterinary Duffadars, 4 were appointed as compounders and 4 obtained appointments in the Native States.

Extra duties.

6. (a) Controlled the Glanders and Farcy Department in Bombay.

(b) Inspected horses in Bombay and Bandra stables, at the Harbour and Sewri Lazaretto.

(c) Treated sick animals for the Commissariat Department.

(d) Performed the duties of receiving and despatching stallions for the Superintendent, Civil Veterinary Department, Bombay Presidency.

(e) Advised the Commissioner of Police and the Bombay Light Horse regarding the purchase and casting of horses.

(f) Lieutenant-Colonel Brodie-Mills and myself acted as Examiners in Veterinary Science at the Examinations in Agriculture at the Bombay University.

(g) Thirty bullock drivers were trained as dressers by the Instructors of the Salutri Course.

7. On the 13th May 1905 Mr. Hewlett, Assistant Principal, was transferred to act as Superintendent, Civil Veterinary Department, Bombay Presidency, and I was appointed to act in his place as Assistant Principal. Lieutenant-Colonel Brodie-Mills having proceeded to Europe on one year's combined leave from the 22nd January 1906, I was appointed to act as Principal during his absence pending further orders. In consequence of this appointment, Mr. Dhakmarvala, Professor of Bovine Pathology, acted as Assistant Principal, and Mr. Vakharia as Professor of Bovine Pathology up to 29th January, when Mr. Dhakmarvala was relieved of his acting duties by Mr. W. A. Broad, L.O.V.D. During Mr. Vakharia's acting promotion Mr. P. Miranda, G.B.V.C., Inspector, Glanders and Farcy Department, acted as Assistant Professor of Chemistry.

In consequence of the illness of Mr. DeMonte, G.B.V.C., temporary Instructor to the Salutri Class, Mr. D. G. Haji, G.B.V.C., was appointed as Instructor on the 15th October 1905 and remained in the appointment until the Class was abolished.

The teaching staff have been performing their duties very satisfactorily, and Mr. Dhakmarvala and Mr. Shaikh appear to have been doing justice to the new subjects they have been called upon to teach.

Three appointments of Assistant Veterinary Officers on a salary of Rs. 25 each have been changed to 2 appointments, one on Rs. 50 and another on Rs. 25, the former to perform day duty and the latter to be on night duty. This change is effected with a view to secure the services of one experienced Graduate for the performance of Hospital duty.

Branches of study.

8. Facilities for teaching different subjects are being obtained.

The Museum has been shifted to the upper lecture hall, and the specimens and models have been re-arranged. Mr. Shaikh, Assistant Professor of Anatomy, has been placed in charge of this branch of the Institution and a Museum attendant has been provided to work under his guidance.

From the grant of Rs. 7,000 models and instruments were obtained from England. This has made the Museum more attractive and its usefulness has greatly increased.

The Patho-Bacteriological Laboratory has been re-arranged and the microscopic work has been carried on there on a larger scale.

In consequence of the addition of a Professor of Bovine Pathology, the work of teaching Bovine and Equine Pathology has been separated.

Twenty-six subjects were obtained for dissection and operations as against 29 and 25 in 1904-05 and 1903-04 respectively.

Government having again sanctioned excursions and having provided a grant of Rs. 500, I took the senior students on an excursion tour to Ahmedabad during the month of March when a Horse Show was held there. I also took them to the Charodi Cattle Farm. The students greatly profitted themselves on account of this tour, as they found opportunity to study by demonstration different breeds of animals and their management at the farm as well as at the Horse Show.

Additions have been made to the Library and a proposal to arrange for the due performance of the Library work has been re-submitted.

9. As usual senior students of the College went through a course of equitation at His Excellency the Governor's Body-Guard Menage, Chowpati. Cricket, football and other games were played by students under the auspices of the College Gymkhana.

Government intend to provide a proper play-ground for students when the new quarters for them are ready.

10. Sir D. M. Petit, Bart., and the Bayley Memorial Fund Committee contributed to the Prize Fund and thanks are due to them for the same.

11. The following gentlemen visited the College and Hospital during the year :—

His Excellency Lord Lamington, the Governor of Bombay.

The Honourable Mr. E. M. H. Fulton.

The Honourable Mr. E. Giles, C.I.E., Director of Public Instruction.

Colonel J. W. A. Morgan, I.C.V.D., Inspector-General, Civil Veterinary Department.

H. S. Lawrence, Esquire, I.C.S., Director of Agriculture.

12. The records of the Hospital give the following information relative to patients, etc. :—

(a) In-patients 2,975 were admitted in 1905 as against 2,809 and 2,532 in 1904 and 1903, respectively, showing an increase of 166 over the last year.

The various classes of animals admitted were as follows :—Horse 741, cattle 1,790 and dogs 444. The daily average was 215, showing an increase of 5 over the last year.

(b) Out-patients 672 were treated in 1905 as against 610 and 604 in 1904 and 1903, respectively, showing an increase of 62 over the last year.

(c) *Mortality*.—The mortality in horses during 1905 was at the rate of 3.37 per cent., in cattle 2.9 per cent. and in dogs 27.05 per cent. as against 3.65 per cent., 2.52 per cent., and 25.63 per cent., respectively, in 1904, and 2.98 per cent., 2.19 per cent., and 30.26 per cent., respectively, in 1903.

(d) The number of operations performed during this year was 377 as against 317 and 354 in 1904 and 1903, respectively.

(e) A new Dog Ward to accommodate 9 patients and a shed for operations on dogs have been built and are now in use.

The Principal impressed the necessity for using horse traction for the Hospital ambulance and managed to procure a pair of cast Artillery horses for use in the ambulance.

On the recommendation of the Principal, the Hospital authorities contemplate building an Operating Theatre, which is an urgent necessity, but the money they propose spending for this purpose (Rs. 8,000) is altogether insuffi-

cient. It would be far better if the Hospital authorities spent this sum on the improvement of the existing buildings and Government allotted an adequate amount for the building of the Operating Theatre on the new Government site.

Mr. M. D. Doctor, Secretary of the Hospital, should be thanked for the ready manner in which he renders assistance in carrying out measures in connection with the patients in the Hospital.

The Manager and Assistant Manager also promptly carry out the orders given to them.

13. The Conference held in November 1904 had proposed that the residential and educational buildings of the College should gradually be located on a site in the grounds of Government House, Parel. But the idea of extension on the Government House site was given up in preference to the adjoining premises of Mr. Framji Bomanji Jeejibhoy, which have been bought at a cost of Rs. 1,00,023-7-8 and the building of the College and students' quarters at an estimated cost of Rs. 2,08,000 has been sanctioned. The work has already commenced and it is expected that the buildings will be ready for occupation by the end of the official year.

Rs. 1,147-4-11 were spent during the year for the repairs of the present College buildings.

14. A proposal has been submitted for the revision of pay of the clerical establishment. From my experience of the office work for the last four months, I find Mr. Ranade, second clerk, competent in his work, and Mr. Phatak a very useful head clerk.

15. Appendix D is the Financial Statement and Appendix E is the Statement showing the Main Results of the College for the year under report.

I have the honour to be,

Sir,

Your most obedient servant,

M. H. SOWERBY, I.C.V.D.,

Acting Principal, Bombay Veterinary College.

APPENDIX A.

BOMBAY VETERINARY COLLEGE.

Results of Professional Examinations, 1905-06.

Examinations.	First Class.	Pass.	TOTAL CANDIDATES		Percentage of Passes.
			Examined.	Passed.	
<i>Diploma Course.</i>					
First Professional	12	13	31	25	80.64
Second Professional	6	7	20	13	65.00
Third Professional	6	8	21	14	66.66
Total	24	28	72	52	72.22
<i>Vernacular Salutri Certificate Course.</i>					
Second Professional	3	21	25	24	96.00
Total	3	21	25	24	96.00
Grand Total	27	49	97	76	78.35

N.B.—One student of Class A, who was permitted to appear but did not appear for the First Professional, has not been shown in the Statement; also one student who attended Class B under concession and appeared for the Second Professional as well as for Handling at the First Professional has not been shown under the heading of First Professional.

APPENDIX B.

BOMBAY VETERINARY COLLEGE.

Return showing Changes in the Number of Students in 1905-1906.

Class.	Number of Students on 1st April 1905.	WITHDRAWN.		ENTRIES.		Number of Students on the 31st March 1906.	REMARKS.
		Number of Students left the College.	Number of Students transferred.	New entries.	Number of Students transferred.		
<i>Diploma Course.</i>							
Class C	21	18	...	...	13	16	
Do. B	23	4	13	...	25	31	
Do. A	42	12	25	37	...	42	
Total	86	34	33	37	38	89	

Parel, Bombay, 31st May 1905.

M. H. SOWERBY, I. C. V. D.,
Ag. Principal, Bombay Veterinary College.

APPENDIX C.

BOMBAY VETERINARY COLLEGE.

Return showing the Number and Nationality of Students for the year 1905-1906.

Caste.	Paying.	Native States, Local Boards and Municipalities.	Government Scholars.	Total.	REMARKS.
<i>Class C.</i>					
Hindus	4	2	3	9	
Pársis	2	...	1	3	
Buddhists	1	...	...	1	
Europeans and Eurasians	2	...	...	2	
Native Christians	1	...	...	1	
Total	10	2	4	16	
<i>Class B.</i>					
Hindus	18	3	4	25	
Native Christians	1	...	...	1	
Mahomedans	2	2	1	5	
Total	21	5	5	31	
<i>Class A.</i>					
Hindus	24	3	4	31	
Mahomedans	4	...	1	5	
Native Christians	5	...	...	5	
Pársis	1	...	...	1	
Total	34	3	5	42	
Grand Total	65	10	14	89	

Parel, Bombay, 31st May 1906.

M. H. SOWERBY, I. C. V. D.,
Ag. Principal, Bombay Veterinary College.

APPENDIX D.

Financial Statement of the Bombay Veterinary College for 1905-1906.

Budget Sanction.			Actual Expenditure.										
Heads.	1904-1905.		1905-1906.		Heads.	1904-1905.		1905-1906.					
	Rs.	a. p.	Rs.	a. p.		Rs.	a. p.	Rs.	a. p.				
From Government Salaries—					Teaching Staff	39,140	13	2	37,755	13	8		
Teaching Staff	35,730	0	0	41,325	0	0	Establishment	2,574	8	4	2,784	8	6
Establishment	2,580	0	0	3,156	0	0	Contingent Expenditure ...	1,564	10	0	1,430	0	0
Contingent Expenditure ...	1,228	0	0	1,228	0	0	Scholarships	1,600	0	0	1,610	0	0
Scholarships	1,800	0	0	1,800	0	0	Chemicals, etc.	172	15	1	166	8	6
Chemicals and Apparatus ...	200	0	0	7,200	0	0	Riding Fees	288	0	0	288	0	0
Examiners' Fees	300	0	0	300	0	0	Examiners' Fees ... ..	.....			288	0	0
House Rent Allowance ...	1,440	0	0	1,440	0	0	House Rent Allowance ...	1,440	0	0	1,401	4	8
Books, Periodicals, etc. ...	450	0	0	450	0	0	Travelling Allowance to Officers.	720	8	0	267	6	0
Travelling Allowance to Officers ...	300	0	0	300	0	0	Furniture and Apparatus and Repairs to Furniture ...	618	8	6	531	15	3
Furniture and Apparatus ...	394	0	0	394	0	0	Buildings and Repairs	4,900	2	4	1,147	4	11
Buildings and Repairs... ..	4,890	0	0	1,118	0	0	Books and Periodicals	377	6	0	420	7	0
Honorarium to two Assistant Veterinary Officers	900	0	0	900	0	0	Honorarium to two Assistant Veterinary Officers.	900	0	0	900	0	0
Charges for Instruction in Dairy Work, Cattle, etc. ...	500	0	0	500	0	0	Rents, Rates and Taxes ...	87	13	1	74	4	11
Rents, Rates and Taxes ...	82	0	0	83	0	0	Conveyance Allowance to Assistant Professor of Anatomy	180	0	0	180	0	0
Conveyance Allowance to Assistant Professor of Anatomy	180	0	0	180	0	0	Riding Fees	300	0	0	300	0	0
Riding Fees	300	0	0	300	0	0	Special grant for the purchase of Implements, etc. ...	750	0	0	.....	
Special grant for the purchase of Implements, etc. ...	750	0	0	.....			Purchase of Implements, etc. ...	750	0	0	.....	
Excursion charges ... ..	.....			500	0	0	Excursion charges ... ..	.....			230	1	8
Total	52,024	0	0	61,174	0	0	Total	55,315	4	6	49,475	10	8

Notes.—The cost of purchase of the new College premises and the building material bought is not shown in the statement. Also the cost of instruments and models obtained from the grant of Rs. 7,200 under the heading of Chemicals and Apparatus is not shown.

Statement of Receipts on account of the College credited to Government.

Heads.	1904-1905.		1905-1906.			
	Rs.	a. p.	Rs.	a. p.		
Municipal contribution	2,500	0	0	2,500	0	0
Fees from students	3,840	0	0	4,200	0	0
Rent of students' quarters	144	0	0	141	0	0

Parcel, Bombay, 31st May 1906.

M. H. SOWERBY, I. C. V. D.,
Acting Principal, Bombay Veterinary College

APPENDIX E.

BOMBAY VETERINARY COLLEGE.

Showing the main results of the Veterinary Colleges and Schools during the year ending 31st March 1906.

Veterinary Colleges and Schools.	Name of course of instruction if more than one course followed.	Number of Students						Students admitted during the year, classed by educational qualifications.			Receipts.		
		Admitted during the year.		Passed Final Examination during the year.	Failed to pass Final Examination.	Remaining under instruction at end of year.		Matriculated with higher qualifications.	Knowing some English but not Matriculated.	Knowing no English or very little English.	From fees.	From other sources.	Total.
		Scholarship holders.	Paying students.			In ordinary Course.	Instruction prolonged by reason of failure to pass.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		No.	No.	No.	No.	No.	No.	No.	No.	No.	Rs.	Rs.	Rs.
Bombay Veterinary College.	Diploma Course.	5	32	14	7	75	14	9	28	...	4,200	2,500	6,700
Do. ...	Salutri Course.	...	...	24	1	...	...	...	...	...	...	...	...
Total ...		5	32	38	8	75	14	9	28	...	4,200	2,500	6,700

Veterinary Colleges and Schools.	Expenditure.			Employment of students who passed out during the three years preceding.					Remarks.
	Salaries of instructing staff.	Other expenses.	Total.	Total number passed.	In service of Government or local bodies.	In service of other bodies or institutions.	In private practice.	Number unemployed.	
1	15	16	17	18	19	20	21	22	23
	Rs. a. p.	Rs. a. p.	Rs. a. p.						
Bombay Veterinary College.	36,755 13 8	11,719 13 0	48,475 10 8	38	18	5	5	*10	* Includes the number in temporary employ. This course has been abolished from the commencement of the Collegiate year, i. e., 1st January 1906.
Do. ...	1,000 0 0	.....	1,000 0 0	67	25	11	...	31	
Total ...	37,755 13 8	11,719 13 0	49,475 10 8	105	43	16	5	41	

M. H. SOWERBY, I. C. V. D.,
Acting Principal, Bombay Veterinary College.

Parel, Bombay, 31st May 1906.

Administration Reports.—

Annual Report of the Bombay Veterinary College for the year 1905-06.

Educational Department,
No. 1667

Bombay Castle,
8th September 1906.

Letter from the Director of Public Instruction, No. 3926, dated the 2nd August 1906.

"With reference to your No. 1368 of July 23rd, 1906, I have the honour to forward herewith the report of the Bombay Veterinary College, Parel, for 1905-06, which was received in this office on 19th ultimo. The report is signed by Mr. Sowerby as Acting Principal at the close of the year, but was submitted by Major Joslen, Acting Principal.

"2. I forward also a letter from the Director of Agriculture, Poona, reviewing the report. I concur generally with Mr. Lawrence's remarks in paragraphs 2 and 3, and I am decidedly of opinion that he is correct in stating that the present condition of the College is far more satisfactory than it was a few years ago. It is, I think, an institution which is steadily improving in numbers and efficiency.

"3. I also support the suggestion of the Director of Agriculture, made in paragraph 4 of his letter, as to the increase of the scholarship allotment. It is most desirable that more students from British districts should join the College, and the number of scholarships now given is very small. Mr. Lawrence's remarks in paragraph 5 refer to the closing portion of paragraph 3 of the report, and it would, I think, be advisable that Government should address the Military authorities on the subject.

"4. From the foot-note to Appendix D it would appear that the sum of Rs. 7,200 granted for chemicals and apparatus was spent, but the actual sum disbursed was not reported by the Accountant General in his statement of receipts and expenditure of the College. It is not, therefore, entered. If the sum of Rs. 7,200 is added to Rs. 49,475-10-8, the total expenditure for 1905-06, the total is Rs. 56,675 out of a Budget allotment of Rs. 61,174. Petty savings are usually made on various items in the Budget and the discrepancy between provision and expenditure is not large.

"5. The Principal of the College and the Director of Agriculture both bring to notice the cordial co-operation of Mr. Doctor, the Secretary of the Hospital, in all the work of the College. I concur in the suggestion that this might be noticed by Government.

"6. I note that of the 14 students who passed the Diploma Examination 8 obtained employment at once, but of these 2 were temporarily employed on rinderpest inoculation duty. Paragraph 5 of the report shows that 10 graduates of the College were without permanent employ, but as the number of district dispensaries increases, the prospects of employment for the graduates of the College will presumably be adequate."

Letter from the Director of Agriculture to the Director of Public Instruction, No. A.—4166, dated the 27th July 1906.

"I have the honour to return the report forwarded with your letter No. 3547, dated 21st July 1906.

"2. The chief feature of the year's work is the purchase of extensive premises adjoining the present College and the commencement of the construction of the new College buildings and the students' hostel thereon. These improvements result from the recommendations of the Conference held in November 1904 and the grant of Rs. 3½ lakhs per annum for agricultural development made by the Government of India. Provision is also being made for the proper equipment of the museum and laboratory. The principal matter that remains for attention is the improvement of the material for training, especially in regard to the educational qualifications to be required of students before admission. It is to be hoped that the proposals which are now under the consideration of the superior authorities for revising and enlarging the service of Veterinary graduates will secure this result. The Principal however reports that some misapprehension exists in regard to these proposals, and it is advisable to ascertain what this misapprehension is and to remove it by a public announcement in the Press.

"3. The number of students who obtained the diploma amounted to 14. A few years ago the average was only 8. The total number of students attending the College now

amounts to 89. The Committee which met in November 1904 estimated that the attendance should approximate 100 and the annual outturn 15. The College is, therefore, approaching the standard anticipated and is in a far more satisfactory condition than it was a few years ago. Of the 89 students one-half only (44) come from the British districts of this Presidency. Of the remainder a fair proportion hold scholarships from Native States.

"4. In 1900 Government sanctioned the grant of 5 scholarships per annum of Rs. 10 each per mensem. At that time the number of students entering the College was about 15. The number of boys sent to the College from up-country districts is far too small, and I have the honour to suggest that Government may be pleased to raise the number of scholarships to 10 per annum and to increase the grant accordingly from Rs. 1,800 per annum to Rs. 3,600. If this is done, the number of students from British districts may be expected to increase and the scholarship-holders may amount to about one-half. Since the average cost to the State of every Veterinary graduate educated exceeds Rs. 3,500, it is advisable to expend a small additional sum in order to secure better material for education.

"The Principal should also address all Collectors annually and invite them to recommend students for scholarships since otherwise the matter is likely to escape the attention of Collectors.

"5. The training of drivers for the Supply and Transport Department should not be allowed to interfere with the teaching of the College, and the Principal may be authorised to refuse admission to men who are not sent to the College at the time arranged for the course, *vis.*, the beginning of April.

"6. I observe that of the Budget allotment of Rs. 61,174 only Rs. 49,475 were expended. It is not clear whether the grant of Rs. 7,200 for chemicals and apparatus was allowed to lapse. The College authorities have from time to time complained of the inadequacy of their grants, and it is true that the College still stands in need of improvement in many ways. The Principal should be instructed to watch carefully the progress of expenditure from his Budget grant and, when savings are expected, to apply for sanction to re-appropriations to other useful purposes. The improvement of the museum and the laboratory is satisfactory.

"7. The co-operation given by Mr. Doctor, Secretary of the Hospital, to the College authorities may be brought to the notice of Government. The efficiency of the College was hampered in the past by unnecessary friction and it is hoped that the cordial relations now established may long continue."

RESOLUTION.—The report shows that the progress made by the College is satisfactory; and Government concur in the favourable opinion expressed by the Directors of Public Instruction and Agriculture.

2. The Director of Public Instruction should submit a separate report to Government on the subject of increasing the allotment for scholarships.

3. It is not understood why a sum of Rs. 7,200 expended on chemicals and apparatus has been omitted from the accounts. All such items of expenditure should find a place in the statements attached to the report in future.

4. Government note with satisfaction the cordial relations subsisting between the College authorities and Mr. Doctor, the Secretary of the Society for the Prevention of Cruelty to Animals, and the Sakarbai Dinshaw Petit Hospital for Animals.

5. The report was due on June 15th. It was not received till August 3rd. The officers concerned should arrange for a more punctual submission of the report in future.

H. O. QUIN,
Secretary to Government.

To

The Director of Public Instruction,
The Accountant General, Bombay,
The Commissioners of Divisions and in Sind,
The Principal, Bombay Veterinary College,
All Collectors, including the Collectors and Deputy
Commissioners in Sind,

} With copies of
the Report.

The Political Department,
 The Agent to the Governor in Kathiawar,
 The Political Agent, Cutch,
 The Political Agent, Kolhapur and Southern Maratha
 Country,

The Political Agent, Mahi Kantha,
 The Political Agent, Rewa Kantha,
 The Political Agent, Savantvadi,
 The Political Agent, Palanpur,
 The Political Resident, Aden,

The Director of Agriculture,
 The Superintendent, Civil Veterinary Department,
 The Principal, College of Science, Poona,
 The Compiler of the General Administration Report,
 The General Department,

The Revenue Department,

The Public Works Department,

The Sanitary Commissioner for the Government of Bombay,

The Deputy Adjutant General, Western Command, Poona,

The Editors' Table, Bombay,

The Editors' Table, Poona,

The Editor and Proprietor, *Dharwar Vritt* (for his own use
 and for circulation to other Editors of newspapers in
 Dharwar),

The Editors' Table, Belgaum,

The Editors' Table, Karachi,

The Municipal Commissioner for the City of Bombay,

The Superintendent, Government Central Press,

(With a request that the copies of the Report required by this Department may
 be sent as soon as possible.)

The President, Municipal Corporation, Bombay,

The Secretary to the Society for the Prevention of Cruelty
 to Animals,

The Government of India,

The Inspector General, Civil Veterinary Department,

The Librarian, Imperial Library, Metcalfe Hall, Calcutta,

The Reporter on Economic Products to the Government
 of India.

} With copies of
 the Report.

} By letter.

**Statement showing the several heads of business conducted
by Government in the Educational Department.**

1 Heads of business, i. e., subjects.	2 Budget heads under which revenue and expenditure fall.	3 Law, Code of Regulations or rules or instructions of the Government of India under which the business is conducted. Brief explanation of the sections of such law or articles of the Code under which the Government of India have power to regulate or control the action of the Local Government.	4 Memorandum dealing with the method of recruitment, leave, disciplinary control, suspension, dismissal and pension of the service and the control exercised over it by the Government of India.
<p>1. Bombay University matters including—</p> <p>(a) Amendments to the Indian Universities Act, 1904.</p> <p>(b) Additions to and alterations in the regulations.</p> <p>(c) Appointments of ordinary fellows and approval to elected fellows, etc.</p> <p>(d) Schemes for carrying out reforms necessitated by the Indian Universities Act, the cost of which is met from Imperial grants to the University.</p> <p>(e) Affiliation and disaffiliation of colleges.</p> <p>2. The maintenance of the existing and the establishment of new Government educational institutions as under (including hostels and boarding houses attached to them, play-grounds, gymnasia, etc.):—</p> <p>(a) Arts and professional colleges (Law School, Engineering College, College of Commerce, Secondary Teachers Training College, Royal Institute of Science, Bombay, and Ahmedabad Science Institute).</p> <p>(b) Secondary schools.</p> <p>(c) Primary schools, including special schools for factory children, policemen's children, children of the backward and depressed classes, practising schools attached to the training schools, etc.</p> <p>(d) Special schools, including primary training colleges and schools, technical and industrial schools, schools of art, reformatory schools.</p>	<p>This does not involve any financial transactions.</p> <p>Do. ...</p> <p>Do. ...</p> <p>This does not involve any receipts but the grants made to the Bombay University are provided in the budget under the head "22, Education".</p> <p>This does not involve any financial transactions.</p> <p>Receipts generally fall under "XIX—Education". Interest on Government securities forming part of the endowment funds of certain institutions falls, however, under the head "XII—Interest".</p> <p>Expenditure falls generally under (i) "22, Education" (so far as recurring expenditure on salaries and allowances, establishment, supplies and services and contingencies and non-recurring expenditure on furniture, etc., are concerned); and under (ii) "45, Civil Works" (so far as non-recurring expenditure on buildings is concerned); (iii) the expenditure for Dakshina Fellowships in Government and aided colleges, and certain boarding house charges at the Dharwar and Poona Training Colleges fall under "2, Assignments and Compensations".</p>	<p>The Act in question is an Act of the Imperial Legislative Council and any amendment to it can be passed only by that Council.</p> <p>Under section 25 of the Act the sanction of the Local Government is quite sufficient for this item.</p> <p>Under section 6 of the Act the power of nomination of fellows and of approval of elected fellows are however given to the Chancellor. At present, in the case of imperial grants the Government of India specially reserves to themselves the power of approval to the schemes for their utilization. This reservation is made in the communications announcing the grants.</p> <p>Under sections 21 (3) and (4), 22 and 24 (5) of the Act, the power of passing final orders in these matters is wholly vested in the Local Government.</p> <p>(i) The Educational Despatch of 1854 by the Court of Directors of the Honourable the East India Company.</p> <p>(ii) The Resolution of the Government of India on the report of the Education Commission of 1882.</p> <p>(iii) The Educational Policy Resolutions of the Government of India issued in 1904 and 1918.</p> <p>(It may be noted however that the instructions contained in the above papers are invariably in the nature of suggestions rather than of mandates to be implicitly obeyed by the Local Government.)</p> <p>(iv) The rules in the Civil Service Regulations and the Civil Account Code (as regards the creation of posts, the grant of allowances, etc.) as also those in the Public Works Department Code (as regards construction of buildings).</p> <p>As regards reformatories all administrative functions are assigned to Local Government [vide sections 5, 7, 8 (1) and (3), 12, 13, 14, 17 (1), 25, 26 and 32 of the Reformatory Schools Act, VIII of 1897, as amended by the Decentralization Act, IV of 1914].</p>	<p>Vide item 6 below and the remarks against it ...</p>

<p>Category under which the subject falls, viz. :-</p> <p>I. Matters which are of wholly provincial concern.</p> <p>II. Matters which are primarily provincial but in respect of which some statutory restriction on the discretion of the provincial Government may be necessary.</p> <p>III. Matters provincial in character in point of administration but as to which it is advisable that the right of legislation should be in the hands of Government of India.</p> <p>IV. Matters which are wholly imperial.</p> <p style="text-align: center;">5</p>	<p>Nature and extent of the relaxation of the control of the Government of India entailed by the classification of each subject.</p> <p style="text-align: center;">6</p>	<p>Intra-provincial classification of subjects into Reserved and Transferred.</p> <p style="text-align: center;">7</p>	<p style="text-align: right; font-size: 2em; font-weight: bold;">S/481</p> <p>Remarks.</p> <p style="text-align: center;">8</p>
<p style="text-align: center;">III</p> <p style="text-align: center;">I</p> <p style="text-align: center;">Do.</p> <p style="text-align: center;">II</p> <p>The subjects under this item fall generally under category I.</p> <p>Reformatories, however, fall under category III.</p>			

Heds of business, i.e., subjects.	Budget heads under which revenue and expenditure fall.	Law, Code of Regulations or rules or instructions of the Government of India under which the business is conducted. Brief explanation of the sections of such law or articles of the Code under which the Government of India have power to regulate or control the action of the Local Government.	Memorandum dealing with the method of recruitment, leave, disciplinary control, suspension, dismissal and pension of the service and the control exercised over it by the Government of India.
1	2	3	4
<p>3. Grants-in-aid to—</p> <p>(a) Arts Colleges.</p> <p>(b) Secondary schools (including European, English-teaching and Anglo-Vernacular schools).</p> <p>(c) Primary schools (including municipal, local board and private institutions, schemes for the introduction of free compulsory education).</p> <p>(d) Special schools (technical and industrial schools, reformatory schools, etc., especially the V. J. T. Institute, Bhandarkar Oriental Research Institute).</p>	<p>These items do not involve any receipts. The expenditure is provided for under "22, Education".</p>	<p>The Local Government has full powers of control, subject only to the principles of policy laid down by the Government of India for its guidance (<i>vide</i> remarks against item (2) above). As regards free and compulsory education in municipal areas, it will be regulated by the Act recently passed by the local Legislative Council and the rules to be made by this Government thereunder.</p>	
<p>4. (a) Scholarships in all classes of institutions including arts and professional colleges, secondary schools, primary schools and special schools.</p> <p>(b) Special State scholarships for technical education, for members of the domiciled European and Anglo-Indian communities, for scientific study of Sanskrit and Arabic and for European and Anglo-Indian girls and women and scholarships for higher study in England placed at the disposal of the University of Bombay.</p>	<p>This item does not involve receipts but the expenditure is provided for under "22, Education".</p> <p>The expenditure is treated as an imperial charge.</p>	<p>The Local Government enjoys full powers of control as regards this item.</p> <p>The Local Government virtually acts merely as the agent of the Government of India [<i>vide</i> (1) the Resolution of the Government of India, Department of Education (Education), No. 399, dated the 1st May 1916, and the appendices to it, referred to in Government Memorandum No. 1465, dated the 8th June 1916; (2) this Government's Memorandum No. 572, dated the 8th March 1917; (3) Government Order No. 1505, dated the 20th June 1917; (4) letter from the Government of India, Department of Education (Education), No. 175, dated the 18th March 1918, and its accompaniment, appended to Government Order No. 2098, dated the 12th August 1918].</p>	
<p>5. Miscellaneous including—</p> <p>(a) maintenance of the Sind Book Depot;</p> <p>(b) arrangements in connection with Indian students going to England;</p> <p>(c) encouragement of literature ...</p> <p>(d) examinations (London Chamber of Commerce, Cambridge Senior Local, Secondary Teachers' Certificates, Government scholarships, and Drawing and Arts);</p>	<p>Receipts fall under "XIX—Education" and expenditure under "22, Education".</p> <p>No receipts. Expenditure falls under "22, Education".</p> <p>No receipts. Expenditure falls partly under "22, Education" and partly under "2, Assignments and Compensations".</p> <p>Receipts fall under "XIX—Education" and expenditure under "22, Education".</p>	<p>(a), (b), (c), (d), (e) (f) and (g). The Local Government enjoys full powers as regards these items (subject only to the rules in the Civil Service Regulations and the Civil Account Code).</p>	

<p>Category under which the subject falls, viz:—</p> <p>I. Matters which are of wholly provincial concern.</p> <p>II. Matters which are primarily provincial but in respect of which some statutory restriction on the discretion of the provincial Government may be necessary.</p> <p>III. Matters provincial in character in point of administration but as to which it is advisable that the right of legislation should be in the hands of Government of India.</p> <p>IV. Matters which are wholly imperial.</p> <p>5</p>	<p>Nature and extent of the relaxation of the control of the Government of India entailed by the classification of each subject.</p> <p>6</p>	<p>Intra-provincial classification of subjects into Reserved and Transferred.</p> <p>7</p>	<p>Remarks.</p> <p>8</p>
<p>I</p> <p>Do.</p> <p>IV</p> <p>(a) to (g) — I</p>			

Hheads of business, i. e., subjects.	Budget heads under which revenue and expenditure fall.	Law, Code of Regulations or rules or instructions of the Government of India under which the business is conducted. Brief explanation of the sections of such law or articles of the Code under which the Government of India have power to regulate or control the action of the Local Government.	The memorandum dealing with the method of recruitment, leave, disciplinary control, suspension, dismissal and pension of the service and the control exercised over it by the Government of India.
1	2	3	4
(e) preparation, publication and sale of departmental books and readers for boys and girls;	Receipts fall under "XIX—Education" and expenditure under "22, Education".		
(f) allowances to mauvis and shastris in connection with the encouragement of Oriental learning;	No receipts. Expenditure falls under "22, Education".		
(g) donations to scientific societies.	No receipts. Expenditure falls under "26-B, Scientific and Miscellaneous Departments".		
(h) preservation and translation of manuscripts;	No receipts. Expenditure falls under "26-B, Scientific and Miscellaneous Departments".	The Local Government enjoys full powers as regards this item (subject to the rules in the Civil Service Regulations and Civil Account Code).	.....
(i) public works accounts examination; vernacular final examination and accountancy diploma board charges (including those for examinations).	Receipts fall under "XXI-B—Scientific and Miscellaneous Departments". Expenditure falls under "26-B, Scientific and Miscellaneous Departments".	Do.	.....
(j) Sanitary Surveyors' examination.	Receipts fall under "XX-B—Sanitation". Expenditure falls under "24-B, Sanitation and Vaccination".	Do.	.....
6. Arrangements for the maintenance of a staff of teachers for Government educational institutions, an inspecting staff for all classes of institutions, Government as well as private, and for the direction of the work of the Educational Department as under (including clerical and menial establishment) :—			
(a) Maintenance of the post of the Director of Public Instruction (which is special and outside the recognized Educational Services);	No receipts. Expenditure falls under "22, Education".	Vide the former portion of the remarks against item 2 above, also concluding portion of paragraph 7 of the Resolution of the Government of India, Home Department, No. 4-Edn.—204—215, dated the 23rd July 1896 (for a summary of the above instructions vide paragraph 8 of Part II of the original memorandum placed before the Public Services Commission).	As regards the method of recruitment and leave and pension rules, please see paragraphs 8, 15, and 16 of Part II of the original memorandum and paragraph 8 of the supplementary memorandum, placed before the Public Services Commission (copies attached). As regards disciplinary control, suspension and dismissal, there are no special rules relative to this post, which will be subject to the general rules applicable to all Departments (viz., Government Servants Conduct Rules, etc.).

<p>Category under which the subject falls, <i>vis.</i> :—</p> <p>I. Matters which are of wholly provincial concern.</p> <p>II. Matters which are primarily provincial but in respect of which some statutory restriction on the discretion of the provincial Government may be necessary.</p> <p>III. Matters provincial in character in point of administration but as to which it is advisable that the right of legislation should be in the hands of Government of India.</p> <p>IV. Matters which are wholly imperial.</p> <p style="text-align: center;">5</p>	<p>Nature and extent of the relaxation of the control of the Government of India entailed by the classification of each subject.</p> <p style="text-align: center;">6</p>	<p>Intra-provincial classification of subjects into Reserved and Transferred.</p> <p style="text-align: center;">7</p>	<p>Remarks.</p> <p style="text-align: center;">8</p>
<p>I</p> <p>Do.</p> <p>Do.</p> <p>II</p>			

Hheads of business, i. e., subjects.	Budget heads under which revenue and expenditure fall.	Law, Code of Regulations or rules or instructions of the Government of India under which the business is conducted. Brief explanation of the sections of such law or articles of the Code under which the Government of India have power to regulate or control the action of the Local Government.	Memorandum dealing with the method of recruitment, leave, disciplinary control, suspension, dismissal and pension of the service and the control exercised over it by the Government of India.
1	2	3	4
<p>(b) Maintenance of inspecting and teaching staffs divided into Educational Services as under:—</p> <p>(i) The Indian Educational Service (including appointments recruited in England though technically excluded from that service).</p> <p>(ii) The Provincial Educational Service (including gazetted appointments of similar status though technically excluded from that service).</p> <p>(iii) All other appointments broadly referred to as the Subordinate Educational Service.</p> <p>(c) Maintenance of the Committee of Direction for Technical Education.</p>	<p>No receipts. Expenditure falls under "22, Education".</p> <p>Do.</p> <p>No receipts. Expenditure falls under "22-Education".</p> <p>Do.</p>	<p>(1) Paragraphs 6, 8—10, 13 and 14 of the Resolution by the Government of India, Home Department, No. 4-Edn.—204—215, dated the 23rd July 1896, containing orders regarding the re-organization of the Superior Educational Service.</p> <p>(2) Government Resolution No. 3028, dated the 23rd November 1912.</p> <p>(3) Government letter No. 1495, dated the 4th October 1900, and Government Resolution No. 729, dated the 17th April 1902.</p> <p>(4) Government Resolution No. 1768, dated the 13th December 1899, and letter from the Government of India No. 4719-P., dated the 5th August 1903.</p> <p>(5) Government Resolution, Financial Department, No. 5161, dated the 28th December 1907.</p> <p>(6) Government Resolution No. 720, dated the 25th April 1905.</p> <p>(7) Government Resolution No. 210, dated the 3rd February 1903.</p> <p>(8) Government Resolution No. 2228, dated the 24th December 1901.</p> <p>(9) Government Resolution No. 006, dated the 12th July 1899.</p> <p>For a summary of the above papers, vide paragraphs 6, 7, 10—14 and 17—20 of Part II of the original memorandum placed before the Public Services Commission.</p> <p>Paragraphs 6 and 7 of the Resolution of the Government of India, Home Department, No. 4-Edn.—204-215, dated the 23rd July 1896. For summary of the instructions vide paragraphs 6, 21 and 22 of Part II of the original memorandum placed before the Public Services Commission.</p> <p>The Subordinate Educational Service is entirely under the control of the Local Government.</p> <p>Do. ... This is only a quasi-official body and the remarks made against item 3 above apply to this also.</p>	<p>As regards the method of recruitment and leave and pension rules attention is invited to paragraphs 1—3, 5, 6 and 9 of the supplementary memorandum and paragraphs 15 and 16 of Part II of the original memorandum placed before the Public Services Commission. As regards disciplinary control, suspension and dismissal there are no special rules for the Indian Educational Service which is subject to the general rules applicable to all departments (i.e., Government Servants' Conduct Rules, etc.).</p> <p>As regards the method of recruitment and leave and pension rules, attention is invited to paragraphs 25-28 of Part II of the original memorandum and paragraphs 4—6 of the supplementary memorandum placed before the Public Services Commission. As regards disciplinary control, etc., vide remark against item (i) above.</p> <p>The Subordinate Educational Service is entirely under the control of the local Government.</p>
<p>7. Additions to, and alterations in, the several educational codes, especially the Grant-in-aid Code with its schedules containing the standards for primary and secondary schools, etc., the Code of Regulations for European Schools, the Codes for Vernacular Masters and Mistresses and the Training College Codes.</p>	<p>This does not involve any financial transactions.</p>	<p>Vide remarks against item 2 above</p>	<p>.....</p>
<p>8. Additions and alterations in the rules regulating admission to the lower grades of the Public Service.</p>	<p>Do.</p>	<p>No control is exercised by the Government of India at present.</p>	<p>.....</p>
<p>9. Endowment funds (including acceptance of donations, vesting of securities in the Treasurer of Charitable Endowments and keeping of accounts of the following funds):—</p> <p>(a) Sir J. Sassoon Fund.</p> <p>(b) Sir Cowasji Jehangir Fund.</p> <p>(c) Sir Currumbhoy Donation Fund.</p> <p>(d) Sir Currumbhoy Scholarship Fund.</p> <p>(e) Sir. Vasanji Tricumji Moolji Library Fund.</p> <p>(f) The Dharwar Arts College Fund.</p> <p>(g) Sir Mahomed Yusuf Donation Fund.</p> <p>(h) Baigrie Memorial Fund.</p>	<p>Do.</p>	<p>No control is exercised by the Government of India though the Charitable Endowments Act under which the powers of Government are exercised is an Act of the Imperial Legislative Council.</p>	<p>.....</p>

<p>Heads of business, i. e., subjects.</p> <p>1</p>	<p>Budget heads under which revenue and expenditure fall.</p> <p>2</p>	<p>Law, Code of Regulations or rules or instructions of the Government of India under which the business is conducted. Brief explanation of the sections of such law or articles of the Code under which the Government of India have power to regulate or control the action of the Local Government.</p> <p>3</p>	<p>Memorandum dealing with the method of recruitment, leave, discipline, control, suspension, dismissal and pension of the service and the control exercised over it by the Government of India.</p> <p>4</p>
<p>10. Pensions to gazetted and non-gazetted officers including commutation of pensions.</p>	<p>No receipts. Expenditure falls under "29. Superannuation allowances and pensions".</p>	<p>The rules in the Civil Service Regulations and the Commutation of Pension Rules.</p>	
<p>11. Educational arrangements in Aden.</p>	<p>Receipts fall under "XIX—Education". Expenditure falls under "25—Political (Imperial)".</p>	<p>The rules in the Civil Service Regulations and the Civil Account Code.</p>	

Accompaniment to Government Resolution, Educational Department No. 342,
dated 20th February 1908.

*Reprinted with subsequent changes up to 31st July 1918 as per Govern-
ment Order, Educational Department No. 2241, dated 31st August 1918.*

EDUCATIONAL DEPARTMENT.

Bombay Castle, 20th February 1908.

No. 345.—His Excellency the Governor in Council is pleased to direct that the following Code of Regulations for European Schools in India and Burma prescribed by the Government of India with the modifications approved by them should be brought into force in this Presidency from 1st April 1908:—

Code of Regulations for European Schools in the Bombay Presidency.

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CHAPTER I.

PRELIMINARY.

1. A sum of money is annually granted by Local Governments and Administrations for European education in India:

The object of the grant is to aid local exertion in maintaining efficient schools for European children, and institutions for training teachers for such schools. This grant is administered by the Education Department of each Local Government or Administration, hereinafter called the Department.

2. The term "European" in this Code signifies any person of European descent, pure or mixed, who retains European habits and modes of life; but the Local Governments shall in all cases of doubt decide the proper application of the term. The term "scholar" signifies European scholar.

The term "Director" signifies the Director of Public Instruction.

3. A list of recognized schools is kept by the Department. Any school seeking recognition must satisfy the Department that it is actually wanted; that its financial stability is assured; that its managing body, when there is one, is properly constituted; that it teaches the proper subjects up to a proper standard; that due provision has been made for the instruction, health, recreation and discipline of the pupils; that the teachers are suitable as regards character, number and qualifications; and that the fees to be paid will not involve such competition with any existing school as will be unfair and injurious to the interests of education.

4. Only those schools which are recognized are eligible to send up pupils to the examinations regulated by this Code, or to receive scholars in enjoyment of Government scholarships, or to share in any other benefits of the Code.

5. Every school to which aid is given shall be under the management of a governing body hereinafter called the managers, who shall be responsible for the maintenance and control of the school and for the fulfilment of all the conditions upon which the grant is made.

The managers of a school must appoint a correspondent with the Department, who must in every case be approved by the Department.

In communicating with the Department the correspondent should invariably address the Inspector.

6. Every school aided by Government in any form whatever under the provisions of this Code shall be open at all times and in all its departments to the visits of the Inspector made with or without notice, but it shall be no part of his duties to enquire into any instruction in religious subjects given at such school, or to examine any scholar therein in religious knowledge, or in any religious subject or book.

7. No grant is made—

(a) on account of instruction in religious subjects ;

(b) to any school which is not subject to the inspection of the Department ;

(c) on account of scholars under 4 or above 20 years of age ;

(d) to any school in which the number of non-Europeans exceeds 20 per cent. of the total number of scholars, or such smaller percentage as the Local Government may, by special order, prescribe for any particular school or place.

NOTE.—Children who speak a recognized vernacular of the Presidency of Bombay and Sind will not be admitted to a school unless they produce a certificate from the Department that they have passed Boys' Vernacular Standard IV and Girls' Vernacular Standard III provided that instruction in such vernacular is available in the locality in which the school is situated.

(e) to any school with an average daily attendance of less than 15 European scholars except in places where there is only a small European population or where in the opinion of the Department such a school is necessary ;

(f) to any school or section of a school which the Department declares to be unnecessary, or unsuited to the requirements of the locality ;

(g) to any school the income of which from all sources is sufficient, in the opinion of the Department, to maintain it in efficiency ;

(h) to any school which is conducted for private profit ;

(i) to any school which is farmed out by the managers to a teacher or teachers.

NOTE.—A school is "farmed out" to a teacher if the fees are handed over to him to make what profit he can out of them. This applies to boarding as well as to day schools.

8. When a school desires a grant in-aid, an application shall be made to the Department on the prescribed form (see Appendix I), giving the following particulars :—

(a) Class of school.

(b) Names, salaries and qualifications of the teachers.

(c) Number of scholars in each standard.

(d) Scale of fees, class by class, and the number of free students.

(e) Probable annual income from all sources other than the grant.

(f) Proposed annual expenditure.

(g) Names of the managers and the correspondent.

9. Should the Inspector report favourably on the school after seeing it, the Department will inform the managers from what date the school will be regarded as coming under the Code, and the amount of grant temporarily awarded.

If the application is rejected, the grounds of rejection shall be notified by the Department to the managers.

10. The amount of the temporary grant referred to in the preceding article shall be the amount which, in the judgment of the Inspector after visiting the school, it would be likely to receive under the ordinary rules and shall be paid monthly. As soon as the permanent character of the school is established, it shall be made subject to the provisions of Chapter V.

11. Unaided schools which are recognized or desire recognition are subject to such inspection as may be necessary in order to satisfy the Department of the observance of the conditions stated in Article 3.

12. The interpretation of any article in this Code shall rest with the Department.

13. Local Governments will issue this Code and its appendices with such further explanatory notes and instructions as they may consider necessary.

14. Local Governments may cancel or modify any articles or schedules of this Code, or may introduce new articles.

CHAPTER II.

GRADES OF SCHOOLS.

15. All recognized schools shall be graded by the Department as Primary, Middle, or High.

16. A Primary School is one which teaches up to Standard IV inclusive.

A Middle School is one which teaches up to Standard VII inclusive.

A High School is one which teaches up to the Standard of the High School Examination.

17. In grading a school the Department will take into consideration—

(a) the standard up to which there is a real, and likely to be a permanent, demand for instruction in the school ;

NOTE.—To any school now receiving a grant under the Code, which would be debarred from such grant by the operation of clause (b), this clause shall not apply so long as the school remains in the possession of its present proprietors.

(b) the competence of the school staff to teach up to that standard, and its sufficiency for the number of classes in the school. As a general rule, the staff will be regarded as insufficient if any teacher is required to instruct more than 30 scholars or more than two classes at one and the same time.

18. Scholars shall be arranged in sections or divisions as follows :—

In any school the scholars below Standard I shall form the Infant Section of that school. Scholars studying in Standards I to IV or any equivalent standards specially recognized by the Local Government for this purpose shall form the Primary Section. Scholars studying in Standards V to VII or any equivalent standards specially recognized by the Local Government for this purpose shall form the Middle Section. Scholars studying beyond Standard VII for the High School Examination, or such other examinations as may be specially recognized for this purpose by the Local Government, shall form the High Section. No school shall be allowed to prepare pupils for any other than the High School Examination without the express sanction of the Inspector, who must be satisfied that proper provision for efficient instruction has been made.

19. Schools graded as Primary shall only be entitled to teach scholars in the Infant and Primary Sections. Schools graded as Middle shall only be entitled to teach scholars in the Infant, Primary and Middle Sections. Schools graded as High shall be entitled to teach scholars in the Infant, Primary, Middle and High Sections.

20. If the circumstances of a school change, its grading may be altered by the Department.

CHAPTER III.

PROMOTION OF SCHOLARS.

21. The promotion of a scholar from the Primary to the Middle Section and from the Middle to the High Section will be determined by the teacher and managers, subject to the general approval of the Inspector.

CHAPTER IV.

COURSES OF STUDY.

22. The curriculum in aided schools shall be as follows :—

In the Infant Section the instruction shall be preparatory to Standard I, and shall also include simple Kindergarten lessons, singing and physical exercises. In the Primary Section the following subjects shall be compulsory :—

English, including Reading, Writing, Grammar, &c.

Arithmetic.

Drawing.

Geography (from Standard II).

English History (from Standard III).

Needlework (for girls only).

In addition instruction may be given in observation lessons.

In the Middle Section the following subjects shall be compulsory :—

English.

Arithmetic.

Drawing.

Geography.

English History.

Practical Geometry (in Standard V only).

For Boys only.

Algebra and Geometry (from Standard VI).
Latin (from Standard VI).

For Girls only.

Needlework, including cutting out.

Two of the following subjects :—

- (1) Domestic Economy (from Standard VI).
- (2) Algebra and Geometry (from Standard VI).
- (3) Latin, French or a local vernacular (from Standard VI).

In addition at least one of the following optional subjects shall be taught to boys from Standard VI :—

Elementary Science.
French or a local vernacular.
Nature Study.
Manual Training.
Indian History.

One of the following optional subjects may also be taught to girls from Standard VI :—

Domestic Economy (when not taken as a compulsory subject).
Algebra and Geometry (when not taken as a compulsory subject).
Latin, French or a local vernacular (when not taken as a compulsory subject).
Elementary Science.
Nature Study.
Theory of Music.
Indian History.

In the High Section the following subjects shall be compulsory :—

English.
Arithmetic.
Geography.
English History.
Indian History.

For Boys only.

Algebra and Geometry.
Latin or Elementary Science.

For Girls only.

Two of the following subjects :—

- (1) Domestic Economy.
- (2) Algebra and Geometry.
- (3) Latin, French or a local vernacular or Elementary Science.

In addition at least one of the following subjects shall be taught :—

For Boys only.

Elementary Science or Latin (when not taken as a compulsory subject).
French or a local vernacular.
Drawing.
Manual Training.
Book-keeping and commercial correspondence.
Shorthand and Typewriting.

For Girls only.

Domestic Economy (when not taken as a compulsory subject).
Algebra and Geometry (when not taken as a compulsory subject).
Latin, French or a local vernacular (when not taken as a compulsory subject).
Elementary Science (when not taken as a compulsory subject).
Drawing.
Botany.
Theory of Music.
Shorthand and Typewriting.

Provision shall be made in all sections for some form of physical exercise, e.g., drill, gymnastics or games. It is recommended that instruction should be given in class-singing.

NOTE.—The above curriculum may be altered at the discretion of the Government of Bombay.

23. In all schools the compulsory subjects specified in Article 22 must be taught to every scholar, as one of the conditions for the recognition of the school as "efficient," except in schools for the poor, which may, with the previous sanction of the Department, substitute a course of

training in various kinds of useful practical work, such as those specified in Article 14 (d) for one or more of the subjects included in Article 22.

24. Optional subjects are not allowed to be taught without the sanction of the Inspector, who will require in the case of each subject that the teacher or teachers concerned are competent to teach it properly, that it is a suitable subject for the class of scholars attending the school, and that its introduction into the curriculum of the school will not prejudicially affect the teaching of the compulsory subjects. Optional subjects thus sanctioned may be taught either to selected scholars or to whole classes.

In special cases instruction in a compulsory or optional subject may, with the sanction of the Inspector, begin in a lower standard than that laid down in Article 22.

25. The Department will publish syllabuses or detailed schemes of study in each subject, which shall ordinarily be followed; but they may, with the sanction of the Inspector, be modified to suit the special circumstances of a school.

CHAPTER V.

GRANTS-IN-AID.

SECTION I.—General.

26. Grants-in-aid are of the following kinds:—

(a) ordinary grants, calculated in accordance with the rules given in Section III of this Chapter.

(b) supplementary grants, where ordinary grants are insufficient.

(c) fixed grants, to take the place of ordinary and supplementary grants.

(d) boarding grants for orphans, the indigent, and for the poor in places where schools are not available.

(e) cadet grants.

(f) special grants.

(g) grants to night schools.

(h) building grants.

27. Special grants and building grants are payable at whatever time and in whatever manner may, in each case, be determined. All other grants are annual grants for the year beginning on the 1st April, and are payable to the school in one sum on or after the 1st April. In special cases the grants may be paid in two instalments at the direction of the Inspector of European schools.

28. Grants may be reduced or withheld for sufficient reason shown in the Inspector's report. A copy of the Inspector's report shall, in such cases, be communicated to the managers, who shall have an opportunity of making to the Department such representations as they may desire.

NOTE.—Grants will be liable to lapse if not claimed within one month of the date of the Inspector's certificate.

29. The amount payable under Section III of this chapter shall in no case exceed one-half of the local assets or one-third of the total expenditure of the institution during the previous official year.

NOTE.—In calculating the income of the school under this article boarding fees shall not be included.

SECTION II.—Conditions of Aid.

30. No grant will be given to any school that does not conform to the rules of the Code.

31. Grants are continued to such schools only as satisfy the following conditions:—

(a) That the school is open to visits of the Educational Inspector as laid down in Article 6.

(b) That the school premises are properly drained, and healthy in other respects; that the buildings are well constructed and safe; that the rooms are properly lighted, ventilated, and (if need be) warmed, and that they are, as far as possible, well arranged for teaching; that in the case of boarding schools, proper arrangements are made for boarders; that the school is provided with all necessary offices, and that these and the premises generally are kept clean; that it contains sufficient accommodation for the scholars attending the school.

NOTE (1).—The Inspector may call upon the Civil Surgeon to furnish him with a report upon the sanitary arrangements of the school.

NOTE (2).—Rooms used for teaching purposes should provide 12 square feet per scholar where only one class is taught, and 16 square feet per scholar where more classes than one are taught in the same room, the calculation being made for each room on the average daily attendance of scholars taught in that room. The average daily attendance for any period is found by adding together the daily attendance of all scholars for that period and dividing the sum by the number of days within the same period, the quotient being the average daily attendance.

NOTE (3).—The sleeping space allotted to each boarder must be declared by competent medical authority to be sufficient for the purposes of health. In administering this article the Department will endeavour to secure a provision, for each child under 12, of not less than 40 superficial feet and 400 cubic feet; and for each child above 12, of not less than 48 superficial feet and 480 cubic feet. When a boarding school is hereafter erected with the aid of a building grant, the internal space provided for each boarder must be in accordance with the measurements stated in this article.

(c) That the school is properly equipped with furniture, books, maps and other apparatus, including a complete set of class books for each teacher supplied from school funds.

(d) That efficient provision is made for physical training, which shall, in boys' schools, fit pupils to join a cadet corps.

(e) That the staff of teachers is sufficient and competent and qualified under the rules.

(f) That the studies are conducted in accordance with a time-table, of which a copy shall be submitted to the Inspector at the time of his inspection for approval as to the subjects of study and to their arrangement. The time-table must show fully the work of the school, the times at which each subject is taught in the different standards, and the distribution of work among the teachers. A time-table for each class must be hung up in the class room in a conspicuous place.

(g) That the scholars are satisfactorily taught in accordance with the provisions of Chapter IV.

(h) That the organization and discipline of the school are approved by the Inspector.

(i) That fees are levied from the scholars except in the case of recognised orphanages and free schools.

NOTE.—Schools shall only be considered efficient when they satisfy the conditions laid down in Article 31 (b), (c), (d), (e), (f), (g) and (h).

32. Should an aided school cease to be efficient, the managers shall be warned of the fact and the grounds on which it is considered to be inefficient fully stated. A reasonable time, to be determined by the Department, shall then be allowed for improvement, after the lapse of which further Government aid will be withheld, should the school be still inefficient.

33. Every school receiving a grant shall comply with the following requirements:—

(a) Any change in the constitution of the governing body, or any addition to or reduction in the school staff, shall be at once reported to the Department. In the case of a change of correspondent the out-going correspondent must at once inform the Department of the name of his successor.

(b) All returns called for by the Department shall be duly made.

(c) The admission, daily attendance, and withdrawal of the scholars shall be entered by, or under the supervision of, the principal teacher.

(d) Accounts of income and expenditure shall be kept by the managers in a form prescribed by the Department, and submitted to the Department at the time of the annual inspection. The Inspector may, if he finds it necessary, cause the accounts to be audited by a competent person not connected with the school. The expense of such audit will be charged to the school.

(e) The school shall be open to inspection throughout all its departments, in order that the Inspector may satisfy himself that the conditions specified in Article 31 are complied with.

SECTION III.—*Ordinary Grants.*

34. The ordinary grant will be assessed in the following way:—

Due regard being had to the special circumstances of each school and locality, schools will be tested by the Inspector under the following heads:—

- (1) Buildings and equipment.
- (2) Attendance, including regularity of attendance.
- (3) Adequacy and qualifications of teaching staff.
- (4) Range and quality of education given.
- (5) Discipline and conduct of students.
- (6) Provision for recreation and physical exercise.

The quality of education given will be invariably tested by a searching examination.

Rule 29 defines the maximum grant attainable. Failure to satisfy the Inspector under the heads enumerated above will entail a proportionate reduction of the maximum grant.

35. In calculating the attendance at a school the Inspector will take account of those pupils only who have been present in the school or in another school under the same management for at least 100 days in the 12 months immediately preceding his inspection. All pupils on the rolls who have attended 100 days must be presented at the inspection.

A day of attendance shall mean not less than 4 hours of secular instruction given in the same day: provided that once a week instruction for two hours a day will be accepted as a day of attendance.

36. In calculating attendance, the Inspector may take account of children between the ages of 4 and 7 who are suitably taught in infant classes.

37. The grant thus assessed will ordinarily be continued to a school from year to year: provided that the aforesaid conditions are maintained.

Re-assessment of the grant is admissible on the application of the managers, provided that the Department recognizes that the existing grant is inadequate and has funds available to meet the application. Similarly, the grant may be reduced or withheld, on the grounds mentioned in Articles 28 and 32.

SECTION IV.—*Supplementary Grants.*

38. In addition to the grants mentioned above, supplementary grants may be made, on the recommendation of the Inspector, to any school for the efficient maintenance of which the ordinary grants are not sufficient. In considering the assignment of supplementary grants the Department shall have regard to the improvement of the quality and pay of the teaching staff; and it shall be a condition of such grants that they shall not be applied to the reduction of fees or of voluntary subscriptions. Such supplementary grants shall in no case exceed 33 per cent. of the ordinary grant earned under Chapter V, Section III, of this Code. They shall be exempt from the limitation imposed by Article 29 of this Code on the ordinary grants and may be continued from year to year at the discretion of the Inspector.

SECTION V.—*Fixed Grants.*

39. Instead of the grants which may be payable under Sections III and IV of this chapter, grants fixed in amount for a term of years may be given to schools, under conditions which shall be determined by the Local Government.

SECTION VI.—*Boarding Grants for (1) Orphans and Destitute Children and for (2) Children of the Poor in places where Schools are not available.*

40. A special grant of Rs. 8 per mensem for each child in addition to ordinary grants of all descriptions is made in aid of boarding charges to orphanages and schools which, in the opinion of the Department, provide an education suitable for children of these classes. The place of birth and residence shall not be taken into consideration in awarding such grants. Grants not exceeding Rs. 3 per mensem in aid of fee payments for each day scholar whose parents or guardians are in a destitute condition may also be made at the discretion of the Department.

41. The following conditions govern the bestowal of this grant in the case of orphans and destitute children:—

(a) For every child on whose account a grant is claimed, a certificate must be furnished by the manager, certifying to its destitution to the satisfaction of the Inspector who will determine whether the grant shall be given.

These certificates must be filed in the school for reference.

(b) No boy over the age of 16 or girl over the age of 18 years shall be eligible.

(c) No scholar reading beyond Standard VII shall be eligible for this grant unless in very exceptional cases sanctioned by the Department.

(d) Schools cannot claim this grant for military orphans for whom special military allowances are given (such children must, unless specially exempted, read in military asylums) or for children paid for from any other public or private funds.

42. In the case of children of the poorer classes of Europeans in out-of-the-way places where no suitable education is available, arrangements will be made by the Inspector for the education of such children at the nearest suitable school, the entire cost of such education or such part thereof as may be deemed necessary and of conveyance to and from the school being met by Government, provided that the necessity of this is certified by some responsible person to the satisfaction of the Department.

SECTION VII.—*Cadet Grants.*

43. A grant may be given at the rate of Rs. 6 per annum for every cadet in the school who is certified by the Commanding Officer of the Corps as efficient, and at the rate of Rs. 8 for every cadet similarly certified as extra-efficient.

SECTION VIII.—*Special Grants.*

44. Special grants may also be made on the recommendation of the Inspector—

(a) to schools in places where there is a small or poor European population;

(b) to schools newly established or newly brought under the Code;

(c) towards the purchase of school furniture and apparatus, books for school-libraries, &c.

(d) towards the purchase of appliances and materials for the teaching of carpentry, smith's work, cookery, household duties, shorthand and typewriting, drill, gymnastics, and such other subjects as the Local Government may approve;

(e) towards the cost of instruction in any of the subjects specified in (d): provided additional expenditure is incurred on that account, and that the ordinary grant is considered insufficient;

(f) towards the cost of adequate instruction in a vernacular language;

(g) for any other reason which the Local Government may consider sufficient.

45. Every application for a special grant will be dealt with on its merits, and according to the funds at the disposal of the Department, and shall be given subject to such conditions as the Department may impose. Such grants will, in no case, exceed one-half of the total expenditure to be incurred.

46 The managers must undertake to refund the amount of any grant made for furniture, apparatus or appliances, if the school ceases to exist within three years from the date of payment.

SECTION IX.—Grants to Night Schools.

47. Grants may be given to night schools for boys, provided that the scholars admitted to the school are certified by the managers to be engaged during the day in some occupation which prevents them from attending a school.

48. The grants are given under the following conditions :—

(a) By a "full school meeting" is meant a period of not less than one hour of secular instruction.

(b) The number of full school meetings in the year must not be less than 80.

(c) A night school may adopt any graduated course of studies suitable to its requirements, subject to the previous approval of the Inspector.

49. Grants to night schools are calculated on the following scale :—

Rupees 15 for each of the first twenty scholars in average attendance.

Rupees 10 for each of the remaining scholars in average attendance.

SECTION X.—Building Grants.

50. Grants may be given to managers of schools, in aid—

NOTE.—Expenditure on the purchase of buildings may be treated as expenditure on the erection of buildings.

(a) of erecting or enlarging school buildings;

(b) of executing extensive repairs equal to renewals;

(c) in special cases, of paying off debts incurred in erecting or enlarging school buildings;

(d) of acquiring land for school purposes.

51. Except in the cases provided for in Article 50 (c) no grant shall be given for a building regarding the erection or purchase of which the Department has not been consulted, or for which aid in full has not been promised previous to its erection, enlargement or purchase.

52. The sum to be allotted annually for building grants to schools will be fixed provisionally from time to time for terms of five years.—The amount will be notified by Government to the Department. It will not in ordinary circumstances be reduced during the term except in case of great financial pressure though it may be increased provided funds are available for any year during the term. The allotment of the sum between the different classes of schools will be fixed for each year by the Director of Public Instruction with the sanction of Government. Applications in each class of schools will be considered according to priority of receipt, and the Department reserves to itself the fullest discretion in disposing of them according to the funds available. Applications for grants should be made to the Director who has authority to dispose of the same in accordance with these rules and with the means at his disposal.

53. Every application for a grant must be submitted to the Department not later than the 1st of August, if the grant is to be admissible for payment in whole or part during the following financial year. It must contain a certificate from the managers that the funds at their disposal will, when added to the grant applied for, be sufficient to meet the full cost of the work. If the grant be sanctioned, the managers will be informed by the 1st of October of the amount of aid they will receive. If not so sanctioned the reasons shall be notified to the managers.

54. When a grant is sanctioned, the managers shall be informed whether it will be payable in full from the allotment for the next year, or if not, in what years and by what instalments.

55. In the case of an application for a grant for repairs under Article 50 (b) the managers will be required to show that the necessity for such a grant has not arisen from the neglect of current repairs in previous years, or that failure to make such repairs was due to unavoidable lack of funds.

56. In making an application for a building grant, the managers shall undertake to execute a trust-deed in the standard forms given in Appendix III to the Code, or in such other form as may be sanctioned by the Local Government. Every such trust-deed shall be prepared at the charge of the managers by the Law Officers of Government.

57. Grants under this section shall not ordinarily exceed one-half of the total cost. In places where there is a small or poor European population, the maximum grant shall not exceed two-thirds of the total cost.

58. Before a grant is sanctioned under the preceding articles the Department must be satisfied—

(a) that the European population of the locality is sufficiently large to render the existence of the school necessary, and to give a reasonable probability of its permanence;

(b) that the school is suited to the requirements of the locality;

(c) that the school is likely to be maintained in efficiency;

(d) that the school will be conducted in accordance with the rules and regulations of the Code for European schools ;

(e) that the site and plans are suited to the school, and the title to the property is clear ;

(f) that the plans, estimates and specification have been approved by the Public Works Department.

59. The trust-deed must provide for the legal ownership of the premises, for the proper maintenance and insurance* of the building, and for the inspection and management of the school, and must declare the building or the land, on account of which a grant is to be made, to be held in trust for school purposes only.

NOTE (1).—The execution of trust-deeds need only be insisted upon in the case of the erection or purchase of buildings, or in other cases where the Local Government considers such a document necessary.

If the total amount of the building grant does not exceed Rs. 1,000 and the building is, in the opinion of the Director, of such a description that it is not worth while requiring the execution of a trust-deed, he may accept from the managers a written agreement engaging—

(a) to maintain the building in proper repair ;

(b) to manage the school in accordance with the rules and regulations of the Educational Department ; and

(c) to subject the school to inspection by that Department.

NOTE (2).—This article does not preclude the managers from using the building for other purposes when not required for the purposes of the school.

60. If any building, towards the erection, purchase or repair of which a grant has been made by the Government, is subsequently diverted to other than educational purposes, the Government shall have a prior lien upon the building for the recovery of the grant, and a provision to this effect shall be made in the trust-deed.

NOTE.—If Government are satisfied that the school was closed through no default of the managers, account may be taken of any depreciation in the value of the building after expert revaluation which will take account of the state in which the building has been maintained by the managers, and a proportionate reduction may be made in the amount to be claimed from the managers. If the Government grant extends to the acquisition of a site, account may be taken, after expert revaluation, of any enhancement in the value of the site, and the proportionate share in such enhancement may operate as a set-off, either total or partial, against the reduction to be made in the refund due in respect of the grant for buildings.

61. Advances may be made from time to time out of the sanctioned building grant on receipt of a report from the Public Works Department that the work is proceeding satisfactorily.

62. The building grant shall not ordinarily be passed in full until—

(a) a report has been received from the Public Works Department, certifying that the building has been satisfactorily completed, in accordance with the approved plans and specifications ;

(b) the trust-deed has been duly executed, registered, and forwarded by the managers to the Department for safe custody.

CHAPTER VI.

TEACHERS AND CERTIFICATES.

63. Teachers in recognized schools will be regarded as qualified if they—

(a) have five or more years' approved service as teachers. Such approval will be given by the Department on the report of the Inspector and will specify the subjects and the grade of the school for which the teacher is to be employed ;

(b) are graduates of a recognized University, in Europe, America, or the British Empire ;

(c) have obtained the Bombay Secondary Teachers' Junior or Senior Certificate in accordance with the rules for that examination ;

(d) have received a certificate of educational training from any recognized educational body in Europe, America, or the British Empire.

64. No teacher may be permanently employed in any aided school who is under 16 years of age.

* In the mofussil grant-in-aid buildings of the value of Rs. 80,000 and upwards should be insured for a sum representing the value of all work above plinth level including flooring in the names of the school managers and the Secretary of State jointly. In Bombay all educational buildings for which grants are made by Government should be similarly insured (Government Resolution No. 1106, dated 8th July 1901, Educational Department).

CHAPTER VII.

TRANSFER RULES.

65. No recognized school shall admit a pupil without a transfer certificate from the last school which he attended; and in no case shall a scholar be permitted to attend a class pending formal admission.

66. The form of certificate is given in Appendix V.

67. Before any scholar is admitted, the parent or guardian shall be supplied with a copy of the school rules, clearly stating the fees which he will be called upon to pay, while the scholar remains in the school, and in case he leaves without notice.

The copy thus supplied shall be signed by the head of the school on behalf of the managers. A similar copy, signed by the parent or guardian, should be preserved in the school.

68. All the fee rules of the school shall be printed on the back of the bill form.

69. Application for a transfer certificate must be made to the head teacher by the parent or guardian of the pupil. Whenever possible, he should apply in person; if he cannot do this, he should apply by letter.

70. The certificate must be either granted or refused on the day on which the application is received. The only ground on which it may be refused is non-payment of fees due. Refusals must be given in writing, and must state the amount and nature of fees due, and must be signed by the head teacher.

71. No transfer certificate is valid unless it is in the authorized form.

Application for a duplicate certificate must be made to the Inspector. Should he authorize the issue of the certificate, a fee of Re. 1 shall be paid to the school for it.

72. If a scholar has been expelled from a school for misconduct, and a transfer certificate be called for and given, the certificate shall bear the word "Expelled for misconduct."

73. When a scholar is admitted on a transfer certificate, he shall not be placed in any class higher than that for which the certificate shows him to be qualified, nor shall he be promoted before the end of the school year, without the previous sanction of the Inspector.

74. All transfer certificates must be filed and submitted to the Inspector at his visits. Each certificate shall bear a serial number, which shall be entered against the scholar's name in the Admission Register.

75. All questions arising between one school and another respecting the enforcement of these rules shall be referred to the Inspector, whose decision shall be final.

76. Wilful transgression of any of the foregoing rules will render an aided school liable to suspension, reduction or withdrawal of grant; to forfeiture of the right to send up pupils to the public examinations, and the right to hold scholarships; and in the case of a recognized unaided school to the loss of recognition and attendant privileges.

77. The rules in this chapter are inter-provincial in their application. Each province shall therefore annually supply the rest with a list of recognized schools.

CHAPTER VIII.

RECORDS.

78. In every recognized school the following records in prescribed form must be maintained:—

- (a) the latest edition of the Code;
- (b) an admission register;
- (c) attendance registers;
- (d) salary and scholarship acquittance rolls;
- (e) a log-book, stoutly bound;
- (f) a portfolio to contain official letters and documents.

79. The principal teacher should from time to time make entries in the log-book recording the chief events in the history of the school year and any other information which may be useful for future reference.

80. The only persons authorized to make entries in the log-book are the principal teacher and the Inspector. The log-book shall be kept in the custody of the principal teacher, but shall be open at all times to the inspection of the managers. No entry once made in the log-book may be removed, nor may it be altered otherwise than by a subsequent entry.

NOTE.—A visitors' book may be kept for the remarks of other persons visiting the school.

81. At the commencement of each calendar year the name of every teacher who is to form part of the school staff for the year, and the distribution of the work among them, shall be entered in the log-book signed by the principal teacher. Any subsequent change in the staff, or in the distribution of the work, shall be recorded in the log-book.

82. The books of every school should be kept so as to show month by month the fee actually paid for each scholar; these entries should be verified by the auditor; and a nominal list should be prepared annually by each school and submitted to the Inspector, showing the cases in which reductions have been made in the fees exacted, with a brief statement of the reasons; and showing what school (if any) the scholar has previously attended and what was the rate of fee paid for him there.

83. The Inspector is entitled to examine all school records at any time.

CHAPTER IX.

EXAMINATIONS.

84. Examinations will be held for the purposes (1) of awarding scholarships at the conclusion of the Primary, Middle and High School Standards, respectively, (2) of testing the attainments of the scholars at the conclusion of their school career on completing the High School course. These examinations are called the Primary Scholarship, the Middle Scholarship, and the High School Scholarship Examinations.

85. The Final or High School Examination will be open to all scholars from recognized schools, but competition for all grades of scholarships awarded under this Code is reserved for candidates who are Europeans. *Bona fide* private candidates for scholarships who are Europeans must have studied privately under conditions approved by the Inspector. No scholar from an unrecognized school, and no one who has been a scholar at any school within one year of the examination, can be admitted as a private candidate.

86. The examination for scholarships and the High School Examination shall be held annually at such centres and time as the Educational Department shall direct.

87. The fees charged for admission to these examinations will be at the following rates:—

	Rs.
Primary Scholarship	... 2
Middle do.	... 6
High School Scholarship	... 12

88. The examination for Primary Scholarships will be in the following subjects:—

English—The course prescribed for Standard IV

Arithmetic—The course prescribed for Standard IV.

Geography—The course prescribed for Standard IV.

89. The examination for Middle Scholarships will be in the following subjects:—

English—The course prescribed for Standard VII.

Arithmetic—The course prescribed for Standard VII.

History and Geography—The course prescribed for Standard VII.

Practical Geometry—The course prescribed for Standard VI.

In addition, boys will be examined in Theoretical Geometry and Algebra and in Latin and girls will be examined in two of the following subjects:—Domestic Economy; Mathematics (Theoretical Geometry and Algebra) and a second language (Latin, French or a local vernacular), the course in each subject being that prescribed for Standard VII.

90. The examination for High Scholarships and Certificates will be in the following subjects:—

English, including prescribed books, Composition, Grammar, Etymology, and General Knowledge.

Arithmetic—The whole (including Simple Mensuration).

Geography—The world, with special reference to the British Empire. Physical Geography.

English History—The whole.

Indian History—The whole.

In addition, boys will be examined—

in Algebra and Geometry (the course prescribed for the Matriculation Examination of the Bombay University),

and in either Latin, including Grammar, the translation of unseen passages into English and Composition,

or Elementary Science (the course prescribed for Standard IX);

and girls will be examined in two of the following subjects:—Domestic Economy, Mathematics (Algebra and Geometry), and a second language (Latin, French or a local vernacular). Elementary Science may be offered instead of a second language.

Boys may also offer not more than one of the following subjects:—

Elementary Science, when not taken as a compulsory subject.

Latin

Drawing—The course prescribed for Standard IX.

French or a local vernacular—The course prescribed for Standard IX.

Manual Training—The course prescribed for Standard IX.

Girls may also offer not more than one of the following subjects:—

Domestic Economy, when not taken as a compulsory subject.

Algebra and Geometry

Latin

French

A vernacular

Elementary Science

Drawing.

Botany.

Shorthand and Typewriting.

91. Successful candidates at the High School Examination will be arranged in three classes:— Those who gain 60 per cent. of the possible aggregate shall be placed in the first class; those who gain 45 per cent. but less than 60 per cent., in the second class; and the remainder in the third class. Candidates who gain not less than 75 per cent. of the possible marks in any subject shall gain distinction in that subject.

92. The course of the examinations for Primary, Middle and High Scholarships and High School Certificates may be modified with the approval of the Bombay Government.

93. Ordinarily, no candidate may appear for the High School Examination until he has received two years' instruction in the High School standards.

94. The names of candidates who gain scholarships will be published in the *Government Gazette*. In the case of the High School Examination the results for boys and girls will be shown separately, and will be gazetted. Certificates will be given to those who pass the High School Examination, showing the subjects in which they pass.

CHAPTER X.

SCHOLARSHIPS.

95. Scholarships are of three grades—Primary, Middle and High. The number of each grade and their value will be determined by the Local Government.

The following have been sanctioned:—

Seven Primary of the value of Rs. 8 per mensem, tenable for 3 years.

Seven Middle of the value of Rs. 12 per mensem, tenable for 2 years.

Three High of the value of Rs. 20 per mensem, tenable for 4 years.

The value of the High Scholarships may be increased by the Director in special cases up to a maximum of Rs. 40 per mensem and the tenure to 6 years.

96. Primary, Middle and High School Scholarships will be awarded on the results of the examinations detailed in the preceding chapter.

97. Primary Scholarships are tenable for three years in a school of a higher grade than Primary. Middle School Scholarships are tenable for two years in a High School, or for a recognized course of study not exceeding five years in a technical or professional institution. High School Scholarships are tenable by students pursuing a recognized course of study in a college affiliated to the University of Bombay.

98. Candidates for Primary Scholarships must be under 12 years of age, for Middle Scholarships under 15 years of age, and for High Scholarships under 17 years of age, on the 31st of December in the year of examination.

99. Scholarships may be allotted to boys and girls, respectively, before each examination in such proportion as the Local Government may decide.

100. Proportionate deductions may be made in the amount of a scholarship for every day's avoidable absence from school.

101. A scholarship may be reduced or withdrawn in cases of misconduct, of continued absence or of insufficient progress in studies.

102. A scholarship may be transferred from one school to another with the sanction of the Department; or from one province to another, provided that the Department is satisfied that the circumstances justify the transfer.

103. Any additional rules regarding scholarships may be made with the sanction of the Local Government.

CHAPTER XI.

TRAINING INSTITUTIONS.

SECTION I.—*Preliminary.*

104. A training institution must include a practising school, working under the Code, having a staff of teachers sufficient in number and fully competent to carry on both the ordinary work of the school and the training of students according to the following rules, having also the requisite accommodation for doing so.

105. No grant will be given to a training college until the Department is satisfied on the following points:—

(a) That the building is well suited for the purpose, namely, that it satisfies the conditions of Article 31 (b); that a sufficient number of the rooms in which classes are taught are large enough for the students to be present and to watch the teaching of a class, and are in other ways adapted to that purpose; and that there are sufficient and suitable additional rooms in which the students can receive further instruction and training.

(b) That the institution is satisfactorily furnished and equipped with all necessary school appliances, with scientific and other apparatus, and with a good educational and reference library for the use of the students.

(c) That the institution is staffed with good teachers, fully competent to conduct the work of the school and to train and teach the students in the manner explained in Article 109 and sufficient in number for that purpose.

(d) That the school satisfies the conditions of Article 31.

(e) That the school classes are sufficiently large to serve the students for practising purposes.

(f) That approved arrangements are made for the boarding and the home supervision of the students in hostels or otherwise.

SECTION II.—*Admission to Training Colleges.*

106. A candidate for admission to a training college must produce a satisfactory certificate of moral character, and must also satisfy the following conditions:—

(a) That he is at least 18 years of age. [In the case of training schools, he shall be of such an age as the Department shall fix].

(b) That the state of his health is satisfactory and that he is free from any infirmity or bodily defect likely to interfere with the profession of a teacher.

(c) That he has passed the High School Examination or is considered by the Inspector to be educated up to that standard or that he is certified by the Inspector as likely to benefit by the training. [In the case of training schools, such initial literary qualifications as the Department may prescribe.]

107. Selected candidates will be on probation for two months, at the end of which time the Principal shall state whether the student is likely to profit by further instruction.

SECTION III.—*Course of Studies.*

108. The course of studies will occupy not less than two years.

109. The daily routine of the students will ordinarily be as follows:—During one school meeting the students will occupy their time in the practising school. During the time of the other meeting, the students shall be occupied in their own class-room, in work connected with their training in the art of teaching and school management, in the class study of other subjects, or in private study under the superintendence and with the help of the masters. The subjects of class study will include:—Class instruction and practice in reading aloud, recitation, English composition, singing by note, drill, and the reading and study of a short, selected course in English literature intended to create a love of literature in the minds of the students and not to prepare them for any examination. All male students will be required to undergo a course of instruction in a vernacular language. Opportunities will always be afforded to the students to obtain help from the masters in subjects such as drawing, science, or a second language, or in subjects of ordinary instruction in which they may be backward.

110. At the termination of his college career, each student shall receive a letter from the Department, certifying that he has received the complete training college course of instruction in the science and art of teaching. The letter shall also state whether the student has satisfied the Inspector in his practical test at the close of his college course, and also whether he has passed the written examination on school management and the art of teaching.

SECTION IV.—Hostels and Boarding Arrangements.

111. All students under training must reside in the boarding house, unless specially exempted by the Inspector on the recommendation of the Principal.

112. The hostel must satisfy the conditions :—

(a) That the building is healthy and sufficiently commodious to allow of quiet, uninterrupted home work.

(b) That the rules of the hostel, and the arrangements for the general supervision of the students including their moral training, comfort and recreation, are approved by the Department.

(c) That it has a reading and recreation room, properly supplied with papers and magazines, especially periodicals bearing on educational subjects.

SECTION V.—Grants.

113. Aid will be given to training institutions in the form of fixed grants (Article 89).

SECTION VI.—Stipends.

114. Each student shall be given a stipend by Government, the amount being fixed by each Local Government.

115. Government may, in special cases, pay the boarding fees of students who have been educated in orphanages or free schools.

[Code of Regulations for European Schools in the Bombay Presidency.]

APPENDICES.

APPENDIX I.

Form of Application for a Grant-in-aid (Article 8 of the Code).

Name of School _____

Class of School (Article 15 of the Code) _____

Names of Teachers.	Monthly Salaries.	Certificated or not (Chapter VI).	Examinations passed.

Number of Scholars in each Section (Article 18 of the Code); and Scale of Fees.

	In- fants.	Standard I.	Standard II.	Standard III.	Standard IV.	Standard V.	Standard VI.	Standard VII.	High Section.
Boys ...									
Girls ...									
Total ...									
Fees ...									
Number of free scholars ...									

Probable Annual Income (excluding Government Grant).			Probable Annual Expenditure.		
	Rs.	a. p.		Rs.	a. p.
Fees (excluding boarding charges).			Rent and Taxes		
Subscription ...			Teachers		
Grants from Municipalities*			Servants		
Grants from Railway Companies*			Furniture and Apparatus (Re- newals and Repairs).		
Grants from other Sources*			Books and Stationery		
			Repairs to the building		
			Miscellaneous		
Total ...			Total ...		

*[NOTE.—In the case of these grants full particulars should be given in the letter from the Correspondent.]
Names of Managers (Article 5 of the Code).

Correspondent.

APPENDIX II.

Form of Application for a Building Grant (Articles 50 to 62 of the Code).

Name of the School _____

Object of the Grant * _____

Sources and Amount of the Proposed or Actual Expenditure.

Source.	Amount.	
(1) Endowments	...	If a building grant has already been received specify the amount and the date.
(2) Subscriptions	...	
(3) Other private sources (to be specified).		
(4) Grant applied for (this should not exceed the limits prescribed in Article 57).		
Total ...		

CERTIFIED—

1. That there is a reasonable certainty of the school being permanently maintained in efficiency.
2. That the school will be conducted in accordance with the rules and regulations of the Code for European Schools.
3. That there is a reasonable certainty of the funds necessary to complete the work being forthcoming.
4. That plans, estimates and specifications for the work are sent herewith.

(Signed) †

* Here enter (a), (b), or (c) in accordance with the following:—

(a) The purchase, erection, or enlargement of school buildings or the purchase of land for school purposes.

(b) The execution of extensive repairs to school buildings.

(c) The paying off of debts incurred in purchasing, erecting, or enlarging school buildings.

† To be signed by all the Managers.

APPENDIX III.

FORM No. I-A.

TRUST DEED TO BE EXECUTED BY A PRIVATE PERSON OR BODY.

*(Building Site not granted by Government.)*THIS INDENTURE made the _____ day of
One thousand nine hundred and _____ BETWEEN

(hereinafter referred to as "the ^{Manager} Managers") of the one part and the SECRETARY OF STATE FOR INDIA IN COUNCIL (hereinafter referred to as "the Secretary of State" which expression shall include his successors in office and assigns unless such interpretation shall be excluded by or be repugnant to the context) of the other part WHEREAS the ^{Manager is} Managers are possessed of and absolutely entitled in perpetuity free from incumbrances to the piece of Land described in the Schedule hereto and intended to be hereby assured AND WHEREAS the ^{Manager} Managers applied to the Secretary of State for a Building Grant-in-aid of _____ and ^{has} have satisfied the Director of Public Instruction Bombay that the Building is intended for and will be devoted to educational purposes and in part to secular education, that the plans estimates specifications are satisfactory, and that the title of the ^{Manager} Managers to the piece of land described in the Schedule hereto is good and in order and that the Building _____ constructed AND WHEREAS by the rules now in force in the Presidency of Bombay for regulating the application of grants made by Government in aid of schools it is provided (*inter alia*) as follows:—No portion of a Building Grant shall be paid to the Managers of a School unless and until they execute a Trust Deed as in the said rules provided AND WHEREAS the Secretary of State has through the Government of Bombay sanctioned a Building Grant of Rupees _____

in consideration of the ^{Manager} Managers execut- ing to the Secretary of State such conveyance and assurance as is hereinafter contained which ^{he has} they have agreed to do and which grant is to be paid as follows, namely:—

NOW THIS INDENTURE WITNESSETH that in consideration of the premises and of the sum of Rupees _____ now paid and the sum of Rupees _____ to be hereafter paid as aforesaid by the Secretary of State to the ^{Manager} Managers he the said ^{Manager} Managers doth hereby grant convey and assign unto the Secretary of State ALL THAT piece or parcel of Land described in the Schedule hereto TOGETHER with all and singular the building and erections now being or which may hereafter be thereon expressly including the said Building to be erected as aforesaid and all rights easements and appurtenances whatsoever usually held or occupied therewith or reputed to belong or be appurtenant thereto and also all fittings and fixtures being in and belonging to or used or to be used for the said School AND ALL the estate right title interest claim and demand of the ^{Manager} Managers into and upon the said premises TO HOLD the said piece of land chattels and effects and all other premises expressed to be hereby assured unto and to the use of the Secretary of State according to the nature and tenure thereof respectively AND the ^{Manager} Managers doth hereby ^{for himself his} for himself his heirs exe- cutors and administrators covenant that ^{he hath} they have power to grant all the said premises to the Secretary of State in manner aforesaid free from incumbrances and that he and they and every other person claiming through or in trust for him or them will at all times at his or their costs execute and do all such assurances and things for the further or better assuring the said premises to the Secretary of State as aforesaid as shall be reasonably required AND IT IS HEREBY DECLARED AND AGREED that the Secretary of State shall hold the said premises upon the trust and to and for the intents and purposes following that is to say UPON TRUST to permit the ^{Manager} Managers to enter upon the said premises for the purposes and on the conditions, following, viz., that ^{he} they or other the ^{Manager} Managers for the time being shall—

(1) construct within _____ months from the date hereof buildings thereon according to the plans and specifications approved of or as may be approved of by the Director of Public Instruction Bombay for and on behalf of the Secretary of State;

(2) maintain and keep at all times in good and substantial repair and condition all the buildings now being or which may hereafter be on the said piece of land to the end that the same may be always efficient for use for the purposes of a school;

FORM No. II-A.

TRUST DEED TO BE EXECUTED BY A PRIVATE PERSON OR BODY UNDER GRANT-IN-AID CODE.

(Building Site granted by Government.)

THIS INDENTURE made the _____ day of
One thousand nine hundred and _____ BETWEEN

(hereinafter referred to as "the ^{Manager} Managers") of the one part and the SECRETARY OF STATE FOR INDIA IN COUNCIL (hereinafter referred to as "the Secretary of State" which expression shall include his successors in office and assigns unless such interpretation shall be excluded by or be repugnant to the context) of the other part WHEREAS the ^{Manager} Managers have applied to Government for a Building Site for a School at _____ and for a Building Grant-in-aid of such School and ^{has} _{have} satisfied the Director of Public Instruction Bombay that the Building is intended for and will be devoted to educational purposes and in part to secular education that the plans estimates and specifications are satisfactory and that the building constructed

AND WHEREAS by the rules now in force in the Presidency of Bombay for regulating the application of grants made by Government in aid of Schools it is provided (*inter alia*) that no portion of a Building Grant shall be paid to the Managers of a School unless and until they execute a Trust Deed as in the said rules provided AND WHEREAS the Secretary of State has agreed to allot the piece or parcel of land valued at _____ Rupees described in the Schedule hereto and to hold the same for the purposes of the said School in manner hereinafter appearing and has through the Government of Bombay sanctioned a building grant of Rupees _____ to be paid as follows:—

and the ^{Manager} Managers ^{has} _{have} agreed to execute these presents NOW IT IS HEREBY DECLARED AND AGREED by and between the parties hereto that the Secretary of State his successors and assigns shall hold and stand possessed of the piece of land described in the Schedule hereto and all Buildings which now are erected or may for the time being be erected thereon and also all fittings and fixtures which now are or may for the time being be on the premises upon the trusts and to and for the intents and purposes following, that is to say, UPON TRUST to permit the ^{Manager} Managers ^{he} _{they} or other the ^{Manager} Managers for the time being shall—

- (1) construct within _____ months from the date hereof buildings thereon according to the plans and specifications approved of or as may be approved of by the Director of Public Instruction, Bombay, for and on behalf of the Secretary of State;
- (2) maintain and keep at all times in good and substantial repair and condition all the buildings now being or which may hereafter be on the said piece of land to the end that the same may be always efficient for use for the purposes of a School;
- (3) pay all rates charges assessments and expenses leviable or chargeable in respect of the premises and buildings;
- (4) use all the premises and buildings as and for the purposes of a public School to be devoted wholly to education and in part to secular education;
- (5) manage and conduct the said School in all respects in accordance with the rules and regulations for the time being in force of the Educational Department in Bombay;
- (6) keep the said School at all times open to the inspection of the Inspecting Officers of the Bombay Educational Department;

PROVIDED ALWAYS and it is hereby declared and agreed that in the event of default being made by the ^{Manager} Managers or other the ^{Manager} Managers for the time being of the said School in the performance of any of the conditions hereinbefore mentioned the said Building Grant and any future Building Grant from time to time made by Government for the said School or so much of the same as shall not then have been made shall lapse and it shall be lawful for the Secretary of State at any time thereafter to enter upon and take possession of the said premises and all buildings fittings and fixtures thereon and the same shall be and become absolutely the property of the Secretary of State discharged from the trusts hereof and free from incumbrances and from all claims of the ^{Manager} Managers ^{his} _{their} successors representatives and assigns and all other persons whomsoever.

IN WITNESS WHEREOF the said
hath hereunto set his hand and seal and
have their hands and seals and
Esquire, hath by order of the Right Honourable the Governor of Bombay in Council hereunto set
his hand and his official seal for and on behalf of the Secretary of State for India in Council.

THE SCHEDULE ABOVE REFERRED TO

Description and boundaries of property:—

The piece or parcel of Land measures in superficial area

square

be the same a little more or less

situated in the town of
village of

and bearing

Number

in the Taluka of

in the District of

and in the Registration

Sub-district of

in the said

District and measures from North to South

feet and from East to West

feet, be

the same a little more or less, and is bounded as follows:—

on the North by _____

on the South by _____

on the East by _____

on the West by _____

Signed Sealed and Delivered by the above-named



in the presence of

Signed Sealed and Delivered by

Esquire



in the presence of

APPENDIX V.

Form of Transfer Certificate.

This is to certify that _____

_____ was admitted into this school, _____
 on the _____, on a transfer certificate from _____ School
 and left on the _____ with a _____ character. H _____ was then
 reading in the* _____ Standard.

All sums due† to this school on _____ account have been paid, remitted or satisfactorily
 arranged for.

H _____ date of birth, according to the Admission Register, is _____.

[The following additional information must be supplied if the scholar left at the end of the school year.]

Promotion has been ‡ _____.

(Sd) _____ Head Teacher,
 _____ School.

Dated _____.

* To be given in words.

† Sums due to the school shall include all payments for which provision is made in the rules supplied to the parent or guardian when the scholar was admitted into the school (Art. 67 of the Code).

‡ Promised or Refused.

APPENDIX VI.

[G. R., E. D. No. 1309 of 22nd July 1910.]

(Approved provisionally.)

Course of studies in Primary, Middle and High School Standards of European Schools.

(Vide Article 25 of the Code of Regulations for European Schools in the Bombay Presidency, 1908.)

STANDARD I. (Primary Section).

*Compulsory Subjects.**English—**Reading.*—One or more easy reading books not confined to words of one syllable. Special attention to be paid to pronunciation and spelling.*Poetry.*—Not less than 50 lines to be learnt by heart.*Handwriting.*—In double lines about 1/4 to 5/16 of an inch apart. Figures to be taught.*Dictation.*—Passages from the readers previously studied.*Transcription.*—May be taken occasionally instead of dictation.*Composition.*—Answering questions orally on the subject matter of the readers and on familiar scenes and subjects in complete sentences.*Arithmetic.*—Numeration and notation up to 4 figures. Simple addition and subtraction. Multiplication by numbers less than 6 and tables to 6×12 . Easy problems on the above. Mental Arithmetic.*Drawing.*—A course preparatory to the Bombay School of Art Examinations.

STANDARD II (Primary Section).

*Compulsory Subjects.**English—**Reading.*—A general or literary reader and a geographical or historical reader.*Poetry.*—Not less than 75 lines to be learnt by heart.*Handwriting.*—In double lines not less than 3/16 of an inch apart. Figures to be taught.*Dictation, Transcription.*—As in Standard I.*Grammar.*—Recognition of nouns, personal pronouns, verbs, adjectives and adverbs. Division of easy simple sentences into subject and predicate.*Arithmetic.*—Numeration and notation up to 6 figures. Addition and subtraction. Multiplication by 3 figures. Short division and long division by 2 figures. Tables to 12×12 and 16 times. Easy problems on the above. Mental Arithmetic.*Geography.*—Easy definitions, points of the compass, Meaning of a map, with special reference to the map of the locality.*Drawing.*—A course preparatory to the Bombay School of Art Examinations.

STANDARD III (Primary Section).

*Compulsory Subjects.**English—**Reading.*—A general or literary reader and a geographical or historical reader.*Poetry.*—Not less than 100 lines to be learnt by heart.*Handwriting.*—Double lines or single lines may be used. Figures to be taught.*Dictation.*—As for Standards I and II.*Composition.*—Writing a simple letter, reproducing an easy story or similar exercise.*Grammar.*—Recognition of all the parts of speech. Parsing of nouns, personal pronouns, adjectives and adverbs. Analysis of easy simple sentences.

Arithmetic.—Numeration and notation to 7 figures. Four simple rules. Reduction and four compound rules in Indian and English money and in time, long measure and weight (Avoirdupois). Easy problems on the above. Mental Arithmetic.

Geography.—The shape and motions of the earth. Continents and oceans. General geography of India. Map of India to be drawn.

History.—Easy stories and biographies.

Drawing.—A course preparatory to the Bombay School of Art Examinations.

STANDARD IV (Primary Section).

Compulsory Subjects.

English—

Reading.—A general or literary reader and a geographical or historical reader.

Poetry.—Not less than 150 lines to be learnt by heart.

Handwriting.—Double lines or single lines may be used. Figures to be taught.

Dictation.—As for Standards I, II and III.

Composition.—As for Standard III.

Grammar.—Parsing of all the parts of speech. Analysis of simple sentences.

Arithmetic.—Revision of the work of previous standards. Reduction and four compound rules in the remaining weights and measures. H. O. F. and L. O. M. Vulgar fractions. Simple Proportion by the Unitary Method. Problems on the above. Mental Arithmetic.

Geography.—Revision of the work of previous standards. The general geography of the British Isles. Map drawing.

History.—As in Standard III.

Drawing.—A course preparatory to the Bombay School of Art Examinations.

STANDARD V (Middle Section).

Compulsory Subjects.

English—

Reading.—A general or literary reader, and a geographical, historical or science reader.

Poetry.—Not less than 400 lines to be read and not less than 200 lines to be learnt by heart.

Dictation.—Passages from the readers previously studied or unseen passages.

Composition.—As in Standards III and IV.

Grammar.—Parsing.

Analysis of easy compound and complex sentences.

Arithmetic.—Revision of the work of previous standards. Decimals and the Metric System. Compound Proportion, Practice, Simple Interest, including Commercial Discount. Mental Arithmetic.

Geometry.—A course of Practical Geometry, *e. g.*, Part I of Godfrey and Siddon's "Elementary Geometry."

Geography.—General geography of Asia with more detailed geography of India. Winds and rain. Map drawing.

English History.—From early times to 1485.

Drawing.—As prescribed for the Bombay School of Art Examinations.

STANDARD VI (Middle Section).

Compulsory Subjects.

English—

Reading.—A literary or general reader or suitable prose book and a geographical, historical or science reader.

Poetry.—Not less than 600 lines to be read and not less than 200 lines to be learnt by heart.

Dictation.—As in Standard V.

Composition.—An essay on a simple subject.

Grammar.—More difficult parsing and analysis.

Arithmetic.—Revision of the work of previous standards. Approximation, Compound Interest, Discount, Profit and Loss, Mensuration of rectangular figures. Mental Arithmetic.

Geometry.—As in Godfrey and Siddon's "Elementary Geometry," Part II, pp. 1—113, or similar book. Easy exercises on the above.

Algebra.—Symbolical Notation, substitution of numerical values, simple rules, easy factors.

Geography.—General geography of Europe. The chief physical features, the divisions with their capitals, the chief seaports and the products of the continents and the chief trade routes, seasons, climate. Map drawing.

English History.—1485—1714.

Latin.—Declensions and Conjugations.

Easy reading book.

French (for girls only).—Elementary Grammar.

Easy reading book.

Local Vernacular (for girls only).—As in French.

Domestic Economy (for girls only).—A course including Elementary Physiology and Hygiene, with special reference to Indian conditions.

Drawing.—As prescribed for the Bombay School of Art Examinations.

Optional Subjects.

Elementary Science.—A course of Physics and Chemistry.

Indian History.—Upto the British period.

* *N.B.*—No school will be permitted to teach Elementary Science until it is provided with sufficient and suitable apparatus for the practical demonstration of the subject.

Schools wishing to take up other Optional subjects mentioned in Article 22 of the Code must submit courses for the approval of the Inspector.

STANDARD VII (Middle Section).

Compulsory Subjects.

English—

Reading.—Not less than one prose book and one book of verse.

Poetry.—Not less than 250 lines to be learnt by heart.

Composition.—An essay on a simple subject.

Grammar.—More difficult parsing and analysis. Prefixes and suffixes.

Arithmetic.—Revision of the work of previous standards. Square Root, Stocks, Exchange, Mensuration of the triangle and parallelogram. Mental Arithmetic.

Geometry.—As in Godfrey and Siddon's Elementary Geometry, Part II, Book I and Book II, Theorems I to VII or similar book. Easy exercises on the above.

Algebra.—Revision of the work of previous standards, H.C.F., L.C.M. Easy fractions, simple equations, simultaneous equations (with two unknowns) and easy problems on the above.

Geography.—The general geography of the world, with a more detailed knowledge of the British Isles and British possessions. Revision of the Physical Geography of previous standards, and tides, phases of the moon, volcanoes and earthquakes. Map drawing.

English History.—The whole with special reference to the growth of the British Empire.

Latin.—A reading book, e. g., Cornelius Nepos or Selections from Cæsar.

Grammar, including Elementary Syntax.

Translation of simple prose passages from and into English.

French (for girls only).—An easy reading book.

Grammar, including Elementary Syntax.

Translation of simple prose passages from and into English.

Local Vernacular (for girls only).—As in French.

Domestic Economy (for girls only).—As in Standard VI.

Drawing.—As prescribed for the Bombay School of Art Examinations.

Optional Subjects.

Elementary Science.—A course of Physics and Chemistry.

Indian History.—The whole with special reference to the British period.

* *N.B.*—No school will be permitted to teach Elementary Science until it is provided with sufficient and suitable apparatus for the practical demonstration of the subject.

Schools wishing to take up other optional subjects mentioned in Article 92 of the Code must submit courses for the approval of the Inspector.

STANDARDS VIII AND IX (High Section).

Preparation for the European High School Examination or the Cambridge Senior Local Examination.

The course for the High School Examination is as follows :—

I. *English*.—Questions on prescribed books in prose.

Explanation of unseen passages of prose and poetry.

Composition.

Analysis, Parsing, Etymology, and the history of the language.

Questions on general knowledge, e.g., current topics, literature, &c.

II. *Arithmetic*.—The whole, including the Mensuration of rectangular figures, the Triangle, Parallelogram, Circle and Cylinder.

III. *History and Geography*.—The whole of English history with special reference to the period 1638–1901 and the growth of the British Empire.

The whole of Indian History with special reference to the British period.

The Geography of the world with special reference to the British Empire. Physical Geography.

FOR BOYS ONLY.

IV. *Mathematics*—

Geometry.—As prescribed for the Bombay Matriculation Examination.

Algebra.—As prescribed for the Bombay Matriculation.

V. *Latin*.—Translation of unseen passages from Latin into English, translation from English into Latin, Grammar; or

Elementary Science.—A course in Physics and Chemistry including practical work.

VI. In addition boys may take one of the following subjects :—

Elementary Science (when not taken as a compulsory subject) as prescribed for the Bombay Matriculation.

Latin, when not taken as a compulsory subject.

Drawing, the Second Grade School of Art Examination.

French or a Local Vernacular, as under Latin.

Manual Training.

Book-keeping and Commercial Correspondence—

(i) *Book-keeping and Commercial Arithmetic*.—One paper of two hours' duration.

Double entry book-keeping, keeping the bought and sold books, the cash and bill books and the journal, and recording therein transactions involving purchases and sales, cheques, bills receivable and payable, personal accounts, real accounts, and nominal accounts like rent, salaries, interest, discount, bad debts and depreciation. Posting and closing the ledger, and preparing the balance sheets and the profit and loss account.

Single entry book-keeping, keeping the subsidiary books, posting and closing the ledger.

Preparation of invoices, account sales and interest accounts with interest products; direct exchange between India and (1) England, (2) France and (3) Japan.

- (ii) *Commercial Correspondence, Laws and Usages.*—One paper of two hours' duration.

An elementary knowledge of the laws and usages relating to cheques, bills of exchange and promissory notes, charter parties and bills of lading, general and particular average, total loss, bottomry bonds, marine insurance and documentary bills.

Indexing, docketing and cross-referencing; the letter book and press copying; filling in blank forms of mercantile letters and documents, and drafting short mercantile letters.

The inland postal rates and regulations of India and the postage rates to the United Kingdom.

Shorthand and Typewriting.—

- (i) Taking down in shorthand in ten minutes a passage of ordinary difficulty of 560 words and letter of 240 words dictated at the rate of 80 words a minute, and transcribing the same into longhand; 1½ hours.
- (ii) Typewriting a letter of 200 words and a passage of 200 words, taking out two or three carbon copies and typewriting a balance sheet or a tabular statement with not more than five columns; 1 hour.

FOR GIRLS ONLY.

Two of the following subjects must be taken :—

IV. *Domestic Economy.*—A more advanced course.

V. *Mathematics.*—As for boys.

VI. *Second Language.*—

Latin.—As for boys, or a similar course in French or a local Vernacular; or

Elementary Science.—As for boys.

VII. In addition girls may take one of the following subjects :—

Domestic Economy, Mathematics, a Second Language, or Elementary Science, when not taken as a compulsory subject.

Drawing.—As for boys.

Botany.

Shorthand and Typewriting.—As prescribed for boys.

N.B.—1. No school will be permitted to teach Elementary Science unless it is provided with sufficient and suitable apparatus for the practical demonstration of the subject.

2. The Managers of Schools wishing to teach subjects for which no course is yet prescribed must submit courses for the approval of the Inspector.

COURSE OF NEEDLEWORK.

(G. R., E. D., No. 2032 of 24th October 1910.)

Infants.

1. Needle and Thimble Drill. Needle Threading.
2. Outlining objects on perforated cardboard with coloured cotton.

Standard I.

1. Running, stitching, hemming and top sewing on coarse material with coloured cotton (Dusters, Tray cloths or needlework bags).
2. Plain knitting with 2 needles (Garters).
3. Cross stitch in straight lines on coarse canvas.

Standard II.

1. Stitches already learnt to be practised on finer materials (Handkerchief or sheet and pillow case for doll's bed). Hems to be folded on paper by class.
2. Knitting, with 2 needles, plain and purl (Kettle holder or Doll's quilt).
3. Cross stitch. Simple designs on coarse canvas.

Standard III.

1. Revision of stitches previously learnt and in addition back stitch and felling (Pillow case or Pinafore without gathers). Hems to be turned down on cloth and tacked by class.
2. Knitting simple patterns (Comforters or Doll's shawl).
3. Marking on canvas alphabet and numbers.

Standard IV.

1. Revision of stitches previously learnt, and in addition gathering, stroking and herring-boning (small petticoat, pinafore or infant's drawers).
2. Cutting out in paper a simple garment (Pinafore or Infant's drawers).
3. Hemstitch for drawn thread work on coarse linen (Tray cloth).
4. Flannel Patch; marking on flannel;

or

(for non-European girls only) Knitting or crochet (Kettle holders or comforters).

Standard V.

1. Revision of stitches previously learnt, and in addition sewing on buttons, making button holes and putting on strengthening tapes (a simple flannel garment, e.g., vest or petticoat).
2. Cutting out in cloth a simple garment (petticoat or vest).
3. Stocking web darning;

or

(for non-European girls only) Knitting or crochet (Baby's socks or vest).

Standard VI.

1. Tuck running, gusset making and feather stitching (petticoat, bodice or more elaborate pinafore. If machines are available in the school an underskirt may be substituted).
2. Cutting out (petticoat bodice or pinafore with yoke).
3. Calico patch;

or

(for non-European girls only) Knitting or crochet (Fancy socks or neckties).

Standard VII.

1. Whipping, cross-way cutting and piping (Chemise or small night gown).
2. Cutting out (Chemise or night gown).
3. Darning cross cut on table linen, hedge tear darn;

or

(for non-European girls only) Embroidery (one specimen).

N.B.—Standards IV—VII should be given abundant practice in cutting on paper and drafting to scale.

accompaniment to Educational Department Press Note no. 1978,
dated the 14th August 1917.

Education of Muhammadans.

Orders of Government on the report of the committee appointed to submit recommendations for the promotion of education among the Muhammadan community in the presidency proper.

GOVERNMENT OF BOMBAY.

EDUCATIONAL DEPARTMENT.

Resolution no. 1143.

Bombay Castle, 30th April 1917.

Letter from the Director of Public Instruction no. 7488,* dated the 31st August 1914.

INTRODUCTORY.

RESOLUTION.—In their letter no. 585-595, dated the 3rd April 1913, the Government of India drew the attention of the local Governments to the subject of Muhammadan education and observed that, although the increase in the number of Muhammadans at school had been remarkable during recent years, more especially in the sphere of primary education, in which the community now held its own, yet in the matter of higher education, their numbers were still far below their proportion to the population. The Government of India further intimated that they were anxious that all reasonable facilities should be provided for the education of this backward community. They took the opportunity to indicate the directions in which inquiry and special action would, in their opinion, be useful, and in commending to the careful consideration of local Governments the whole question of Muhammadan education suggested that local committees should be appointed to consider and submit recommendations.

2. The Bombay Government, who were in complete agreement with the Government of India in this proposal, appointed the following Committee to consider and report what special measures should be taken for the promotion among the Muhammadan community of the presidency proper of the different branches and grades of education referred to by the Government of India, viz., primary education, secondary and collegiate education and the education of girls:—

Chairman.

The Director of Public Instruction.

Members.

Mr. F. B. P. Lory, Educational Inspector, S. D.

Khan Saheb Ibrahimkhan Ismailkhan Pathan, Special Muhammadan
Deputy Educational Inspector for the Southern Division.

The Hon'ble Moulvie Rafiuddin Ahmad.

The Hon'ble Sardar Saiyid Ali El Edroos.

The Hon'ble Sir Fazalbhoj Currimbhoj Ebrahim, Kt.

The Hon'ble Mr. Fazalbhoj M. Chinoy.

Khan Bahadur Saiyid Shams-ud-din Saiyid Mian Kadri, I.S.O., Oriental
Translator to Government.

Mr. Ibrahim Muhammad Sayani, retired Head Master, Surat High
School.

It was decided that the case of Sind should be considered separately.

3. During the course of the deliberations of the Committee two of its members, viz., Khan Saheb Ibrahimkhan Ismailkhan Pathan and Mr. Ibrahim Muham-

* Copy with copy of accompaniments appended to this Resolution.

mad Sayani, died. Another member, Mr. Lory, proceeded on leave out of India. The report of the Committee, which was received by Government in the beginning of September 1914, is accordingly signed by the remaining six members, four non-official and two official, the latter, viz., Khan Bahadur Saiyid Shams-ud-din Kadri and the late Mr. W. H. Sharp, signing subject to their minutes of dissent. A minute of Mr. Lory, dated the 17th April 1914, dissenting from certain recommendations contained in the draft report is also attached to the final report. The Director of Public Instruction has, for the reason given in his covering letter, forwarded separately a rough estimate of the cost of the proposals made by the Committee. The Presidency Moslem League, the Provincial Muhammadan Educational Conference Committee and the Anjuman-i-Islam of Bombay were invited by the Committee to communicate their views or suggestions.

4. The report has been under the consideration of Government since its receipt. After prolonged deliberation His Excellency the Governor in Council has formulated his conclusions on the important questions of policy which the report raises in connection with the subject of Muhammadan education in this presidency. He is pleased to issue the following orders on the several specific recommendations contained in the report.

PRIMARY EDUCATION.

The language question: Urdu versus the local vernacular (paragraphs 6 and 7 of the report).

6. *The Committee is in favour of the experiment already initiated by Government of having all teaching in Urdu schools given through the medium of Urdu, the vernacular of the district being also taught to those who wish to study it. The Committee thinks that this should apply to the whole presidency, the different Urdu standards being started simultaneously.*

7. *The Committee is advised that adequate text-books in Urdu exist, and that all the subjects can be taught through this medium at once, except the geography of the province, for which special translations may be required.*

5. These paragraphs raise the most important question of policy connected with the education of the Muhammadan community in this presidency. In their letter of the 3rd April 1913 the Government of India observe that one of the chief obstacles in the way of Muhammadan education in the primary grade is the language difficulty; that Urdu is regarded as a *lingua franca* among the community, and some knowledge of Arabic and Persian is often required; and that when one or more of these languages has to be studied in addition to a Prakritic vernacular, the Muhammadan pupil is handicapped. They remark that it has to be recognized at the same time that there are considerable tracts in which the Muhammadans have entirely dropped the use of Urdu. They are, therefore, of opinion that it is impossible to lay down a single line of policy for every province or even part of a province, and recommend for the consideration of local Governments the suggestion that *facilities for the teaching of Urdu should be provided where that language is still a vernacular for practical purposes.*

6. The policy followed in this presidency until a few years ago in the matter of the language question has been explained in the pamphlet published by Government in February 1914, entitled "The Problem of Urdu Teaching in the Bombay Presidency." It may be observed that in 1885 and for a long time since the Bombay Government as well as the leaders of the Muhammadan community in this presidency were of opinion that, having regard to the fact that with the majority education would be popular in proportion to its utility, its progress among the Muhammadan community could be best secured only by imparting to Muhammadan children a thorough knowledge of the vernacular language of the mass of the people among whom they lived and with whom they had to compete, not only in the necessary qualifications for Government service, but also in trade and other walks of life. Accordingly it was agreed that in the case of the large majority of Muhammadans, more especially in rural areas, Urdu was more an ornamental than a useful language, and that the attempt to introduce it as the ordinary language for Muhammadans in primary schools would defeat the object which Government, no less than the leaders of the community, had in view. On the other hand, it was recognized that in places like the City of Bombay, where

the Muhammadans formed a large community and there was a considerable number of children who were in the habit of speaking Hindustani at home, the different circumstances required special treatment. At the same time stress was laid on the points that, where primary education had been given in Urdu, the boy encountered great difficulties in the higher vernacular institutions, inasmuch as the more the time spent on Urdu, the less would be given to the local vernacular, and that these difficulties were aggravated at the secondary stage of education. Having regard to these considerations, the standards which were prescribed for Urdu primary schools until recently provided for the teaching of Urdu as a second language only, the medium of instruction in those schools for other subjects being the local vernacular, as in ordinary primary schools.

7. About the year 1908, however, some of the leaders of the Muhammadan community set on foot an agitation for the encouragement of Urdu by making that language the medium of instruction in Urdu schools, the local vernacular being relegated to the position of a second language, and by the establishment of an Urdu training college. The Government of Sir George Clarke (now Lord Sydenham) were not at first inclined to accept these proposals, as they considered that they would do more harm than good to the members of the Muhammadan community, who already found it hard to hold their own with the Hindus in the struggle for existence, and who, if they made themselves unfit for the competition by abandoning the local vernaculars, would only fall still further behind. Ultimately, in consequence of continued agitation on the question and a resolution in the Legislative Council recommending the establishment of an Urdu training college moved by the Hon'ble Moulyie Rafiuddin Ahmad, the following steps were promised to be taken as an experimental measure for a period of two years, namely :—

- (1) That a set of papers entirely in Urdu would be issued at the Vernacular Final Examination to those candidates who wished to take them; and
- (2) that a special class for training Urdu teachers would be opened in the Ahmedabad Training College for Men.

The above measures predicated the acceptance of Urdu as the medium of instruction in the primary schools for Muhammadans. Accordingly instructions were issued for the preparation of revised standards for these schools in which Urdu would be the medium of instruction, the local vernacular being treated as an optional second language. These standards were ultimately approved by Government in their Resolution no. 3832, dated the 23rd December 1913, and were published in Government Notification no. 3833 of the same date. It was also decided that the Vernacular Final Examination in Urdu should be held from the year 1913 and that the Urdu training class at Ahmedabad should be opened in January 1914.

8. As indicated in the pamphlet referred to in paragraph 6 above, the two experimental measures mentioned in the preceding paragraph were adopted with a view to testing the genuineness and extent of the Muhammadan demand for education through the medium of Urdu, and the attitude of Government was defined as being one of suspended judgment until the results of those measures could be ascertained. The experimental period of two years expired over a year ago, but pending the definite settlement of the future educational policy of Government as regards the language question, both the experimental measures have been continued. Government have now considered the results obtained from these measures and have come to the conclusion that they are far from encouraging. Not only does there appear to be no indication of the genuine and spontaneous demand for Urdu education among the Muhammadan community of which Government were assured by those who claimed to represent Muhammadan opinion in the matter, but, on the other hand, from the reports of officers who have personally sounded local Muhammadan opinion as well as from the representations made to Government it appears that the community is by no means unanimously in favour of the Urdu standards, and that there are many parts of the presidency where there is actually a strong feeling against their adoption. The Anjuman-i-Islam, Kolaba, for example, in their address to His Excellency the Governor on the occasion of his visit to Alibag in November 1915 made the following remarks :—

“ We feel that the present curriculum of studies in our Urdu schools is not fully in accord with our requirements. Our mother tongue is Marathi,

though our medium of religious instruction is Urdu. Our social functions are performed mostly in Urdu, but all our other transactions—official and private—are carried out in Marathi. We would therefore lay stress on the fact that the principal educational need of the Muhammadans in the Konkan lies in a strong Marathi education supported by a sufficient acquaintance with Urdu literature.

“ We are aware that the scheme for Muhammadan Secondary Education on the lines of public schools in England is under consideration. In view, however, of the needs of the Konkan, we request Your Excellency to desire the responsible Committee to provide facilities in the shape of Marathi instruction to Muhammadan students whose mother tongue is Marathi.”

The Governor in Council concurs in the opinion of the Government of India that facilities should be provided for the teaching of Urdu *where Urdu is still a vernacular for practical purposes*, but as indicated in the dissenting minutes of the late Mr. W. H. Sharp and Mr. Lory, appended to the Committee's report, there are not, except perhaps in Bombay City, sufficiently reliable data for holding that for practical purposes Urdu is the mother tongue of the majority of the Muhammadan community in any division of the presidency. It must also be remembered that the difficulties which would be created by having Urdu as the sole medium in the primary schools for Muhammadans would be most acutely felt by the very people for whom these schools are largely intended, viz., the masses of the Muhammadan community living in the agricultural districts, and others of the same community who are likely to seek in after life positions in the subordinate service under Government or to engage in mercantile and other avocations in the districts: in the case of these persons the vernacular of the district would necessarily be neglected, if Urdu were made the only medium of instruction in all subjects, with the inevitable and universally admitted consequence that the members of that community living in the mofussil would be placed at far greater disadvantages than now, not only so far as their own prospects in life were concerned, but also with regard to their usefulness as citizens. For these reasons His Excellency the Governor in Council has come to the conclusion that the local vernacular should be restored to its old position as the medium of instruction in the primary schools for Muhammadans, except in those cases where there is unimpeachable evidence to show that the children attending the school habitually speak Urdu at home and cannot understand the local vernacular sufficiently well to be taught in and through that medium. At the same time Government are anxious that even in the majority of the primary schools for Muhammadans provision should, so far as may be practicable, be made for imparting an elementary knowledge of the Urdu language to those boys whose parents desire them to have a knowledge of that language for their religious, as distinguished from secular, needs. Urdu should, therefore, be included as an *optional* second language in the curriculum of studies for the primary schools for Muhammadans, and local bodies will be expected to make the necessary arrangements for teaching that language in these schools whenever there is a sufficient number of boys whose parents desire them to learn it.

9. The decision of Government regarding the language question contained in the preceding paragraph involves the preparation of a new set of standards which will be required for use in the vast majority of primary schools for Muhammadan children. The Director of Public Instruction should accordingly be requested to submit, for the approval of Government, draft standards for these schools as early as possible. The Urdu standards for boys and girls published in Government Notification no. 3833, dated the 23rd December 1913, should in future be restricted to those few schools where Urdu is unavoidably made the medium of instruction as indicated above, and in the case of every such school the previous sanction of the Director of Public Instruction should be obtained before these standards are continued. Similar sanction will be necessary in the case of a new school to be opened hereafter adopting these Urdu standards. The rules for the Vernacular Final Examination and for the Middle School Scholarships will also require slight alterations as a result of the above orders. The necessary draft amendments to these rules should accordingly be submitted by the Director of Public Instruction for the approval of Government.

OTHER RECOMMENDATIONS IN CONNECTION WITH PRIMARY EDUCATION.

Paragraph 8 of the report.—The Committee recommends that when a candidate at the Vernacular Final Examination offers the local vernacular as an optional subject and passes in it, his certificate should show this. The Committee is further of opinion that during the transitional period (i.e., until the new Urdu course has established itself) Muhammadan candidates should be allowed to offer Urdu as an optional at the examination, as in the past.

10. In view of the decision of Government on the language question, the recommendation made in the first portion of the paragraph will apply only to the pupils of those few schools in which Urdu is unavoidably made the medium of instruction. The Director of Public Instruction should accordingly be requested to report whether any, and if so what, action would be necessary to give effect to the recommendation in the case of these pupils. The latter portion of the paragraph does not now call for any orders from Government.

Paragraphs 13, 14, 18 and 19 of the report.—13. The Committee is of opinion that a training college should be established for Urdu teachers, and located preferably in the Central Division. At the same time qualified Muhammadans should not be excluded from holding posts in the existing vernacular training colleges. The Committee is of opinion that any Urdu training college, or any special Urdu training class such as the one recently opened experimentally at Ahmedabad, should be open to candidates from any part of the presidency.

14. *The Committee considers it desirable that the Corporation of Bombay should maintain a normal class for the training of Urdu teachers according to the special requirements of that city.*

18. *With respect to the inspecting agency, the Committee is of opinion that it might be advantageous to have a special inspector of Urdu schools for the presidency, with a special deputy for each division and also one for Bombay City; and that this inspector might for the present preferably be a European. This provision, however, should not be regarded as interfering in any way with the selection of suitable Muhammadans for appointment in the ordinary course as deputies or assistant deputies of districts.*

19. *Even without the inspector the Committee is of opinion that there might be a special Muhammadan deputy for the Northern Division, as there is already for the Central and Southern Divisions, respectively, on the understanding that the special officer will advise the Educational Inspector of the Division as to the education of Muhammadans in general, and not only as to Urdu schools. The Committee is further of opinion that the Urdu Assistant Deputy in Bombay should be raised to the status of a deputy, because he originally was a deputy, and because his department is now as large as the Gujarati one which has a deputy.*

11. The Director of Public Instruction should be asked to report how far he thinks it necessary to give effect to the proposals made in these paragraphs, after considering the orders of Government contained in this Resolution.

Paragraph 5 of the report.—The Committee is of opinion that more liberal encouragement should be given to maktabs to adopt a secular course, and that the co-operation of local Muhammadan committees or associations should be invited. The example of the Mulla Code of Sind (a copy of which is attached for ready reference) may be followed.

12. The recommendation is approved on the understanding that it will be brought into force when the financial situation improves.

Paragraph 9 of the report.—The Committee is advised that for semi-secular maktabs the Himayat-i-Islam text-book series of Lahore is better suited than the Punjab series.

13. The recommendation is accepted.

Paragraph 10 of the report.—The Committee recommends that the Muhammadan members of the vernacular text-book committees, and the Muhammadan deputy educational inspectors, in consultation with the Hon'ble Moulvie Rafiuddin Ahmad, should scrutinize the vernacular readers with a view to suggesting any lessons of particular

interest to Muhammadans which might be included in them; an equal amount of matter being pointed out at the same time to be omitted from them, as the length of each book cannot be increased.

14. In view of the decision of Government on the language question, the vernaculars will be restored to the important position which they occupied in the curriculum of the primary schools for Muhammadans. Government have therefore no objection to the Director of Public Instruction considering any suggestions for the revision of the Vernacular Readers that may be made by the Muhammadan members of the Vernacular Text Book Committees and the Muhammadan Deputy Educational Inspectors. They however think it necessary that such revision should be carried out judiciously and with restraint.

Paragraph 11 of the report.—The Committee has considered the two proposals referred to it by Government Resolution no. 1974 (Educational Department), dated the 9th July 1913. The first proposal was that, owing to the dearth of qualified Muhammadan teachers in the Urdu schools of the Kolaba and Ratnagiri Districts, the profession should be made more attractive by giving a special allowance of Rs. 5 to all qualified Muhammadan teachers, whether trained or untrained, coming from other districts, and also to local teachers (if qualified) in receipt of less than Rs. 20. The Committee begs to endorse this proposal, and recommends that it be extended to all districts where there is any difficulty in obtaining an adequate supply of Muhammadan teachers.

15. This recommendation is accepted on the understanding that effect will be given to it when funds are available.

Paragraph 12 of the report.—The second proposal was that the local supply of qualified Muhammadan teachers in Kolaba and Ratnagiri should be increased by opening a central school in each district, with stipends attached to it, for the purpose of specially preparing promising students for the Vernacular Final Examination. The Committee begs to endorse this proposal also, and recommends that similar arrangements should be made in other parts of the presidency also, as has already been done in the Broach District.

16. The decision of Government on the main question makes it unlikely that central schools will be required in each district, but Government are prepared to make adequate arrangements, when funds are available, for satisfying the demand for locally qualified Muhammadan teachers, wherever they are needed.

Paragraph 15 of the report.—The Committee recommends that liberal stipends should be allowed to Muhammadans as an encouragement to come forward to be trained.

17. This recommendation is based on a misunderstanding of the object of giving stipends to students in the training colleges. Such stipends are given not to attract students, but in order to enable them to be independent during their period of training. Their amount should therefore be regulated by the sole consideration of the cost of living. There can be no question, therefore, of increasing the stipends of Muhammadan students only, unless the cost of living in their case is materially higher than in the case of students of other denominations. This, however, is not established. In the circumstances stipends at special rates cannot be allowed to Muhammadans. There is, however, evidence to show that stipends in training colleges are, generally speaking, hardly adequate, but Government regret that the question of raising their value cannot be considered until the financial situation has improved.

Paragraphs 16 and 17 of the report.—16. The Committee is of opinion that in making admissions to the training colleges Muhammadans should be allowed a representation proportionate to their percentage of the total population of the area served by the particular colleges, and that all Muhammadans who pass the Vernacular Final Examination should be eligible for admission without undergoing any further test.

17. It is understood that already there are always Muhammadan representatives on the examining boards of the various training colleges. The Committee is of opinion that one-fourth of the examiners should always be Muhammadans; and that members of the college staff other than the Principal should be excluded from the examining board, whether for admission or for certificates.

18. As observed by the Director of Public Instruction in his dissenting minute, every reasonable concession is made to Muhammadan candidates as a

backward class to facilitate their admission to the training colleges, and only those are rejected who are obviously incapable of keeping up with the work. The proposals made in paragraph 16 of the Committee's report would tend to lower the present standards of the training colleges and are therefore objectionable. Government are also unable to accept the proposal in paragraph 17 of the report for the reasons given by Mr. Sharp in his dissenting minute thereon.

Paragraph 20 of the report.—The Committee recommends that Muhammadan orphans attending primary or secondary schools should be aided with special grants (say, of Rs. 6 per mensem), just as orphans of the domiciled community are.

19. The Governor in Council is unable to accept this recommendation.

Paragraph 21 of the report.—It has been suggested that the number of Muhammadan boys proceeding from primary to secondary schools might be greatly increased if provision were made for attaching a qualified teacher of English to the 5th, 6th and 7th standards of full Urdu schools.

20. The question whether English can be taught in selected higher vernacular schools including Urdu schools is separately under the consideration of Government.

SECONDARY AND COLLEGIATE EDUCATION.

Paragraphs 22 and 23 of the report.—22. Those who have received their primary education through the medium of Urdu will naturally be at a disadvantage on joining a secondary school in which the lower classes and the subsidiary subjects are taught through the medium of the local vernacular. The Committee therefore recommends that facilities should be given for the creation of at least one Anglo-Urdu middle school in each district and at least one Anglo-Urdu full secondary school (with a hostel) in each division.

23. The Committee is of opinion that as a beginning the Poona Camp Government school should be raised to the status of an Anglo-Urdu high school, the Gujarati side being also continued if necessary, but the two sides being kept distinct, as the Marathi and Gujarati sides are in the Elphinstone high and middle schools.

21. In view of the decision of Government on the language question, the reason for establishing a number of separate Anglo-Urdu secondary (middle as well as high) schools for Muhammadan pupils disappears, and as at present advised His Excellency in Council considers that, generally speaking, it would probably suffice for the near future if Urdu teachers are appointed in all Government high and middle schools where the number of Muhammadan boys requiring assistance through the medium of that language or instruction in it justifies the demand. On the other hand, it is likely that there will be a certain number of Muhammadan pupils who may desire to undergo a course of secondary education, but who have studied in and through Urdu only and may therefore be unable to follow the instruction in the lower Anglo-Vernacular standards, where the vernacular is, or ought to be, freely called to assistance for explanation. In these circumstances the Governor in Council would be glad to receive a report from the Director of Public Instruction whether any action is necessary at present with regard to the recommendations quoted above.

Paragraph 24 of the report.—As complaints are sometimes received that Muhammadans find it difficult to gain admission to Government secondary schools, the Committee recommends that the experiment be tried of reserving places for Muhammadans at the beginning of each term in accordance with their proportion of the total population of the district, the date of commencement being duly notified in the local press, and all vacancies remaining being filled up after the lapse of a fortnight.

22. Government concur in the opinions expressed by Messrs. Sharp and Lory that this proposal is impracticable.

Paragraph 25 of the report.—In Government secondary schools free-studentships may be awarded up to a limit of ten per cent. of the sanctioned maximum strength of the school, one-half being awarded to advanced communities and one-half being reserved for Muhammadans and other backward communities. The Committee would like to see the percentage reserved for Muhammadans alone raised to five.

23. In pursuance of a resolution carried at a meeting of the Legislative Council held in March 1916, the percentage of free-studentships awarded in Government secondary schools has been raised from 10 to 15. It has also been decided

that these free-studentships should continue to be divided equally between poor students belonging to the advanced classes and those belonging to the backward classes. The percentage of exemptions reserved for the latter classes will therefore be increased from 5 to 7½, and the Muhammadans, as a backward class, will participate in the benefits derived from this increase. In the circumstances Government consider that no further action is necessary with regard to this recommendation.

Paragraph 26 of the report.—In view of the expected extension of secondary education among Muhammadans, the Committee recommends—

that the number of middle school scholarships reserved for Muhammadans be doubled, and the number of high school scholarships quadrupled ;

that two scholarships of Rs. 20 per mensem, tenable at an Arts college for four years, be awarded for each division on the results of the matriculation to poor and deserving Muhammadan candidates ; and

that at least three scholarships (one for each division) be reserved for Muhammadans each year at each of the professional colleges except for law (engineering, commerce, agricultural, and medical).

24. At present in each district of the presidency proper six scholarships of the value of Rs. 3 per mensem each are awarded in middle schools, the cost being met from District Local Funds. Of these the first two are open to general competition, the remaining four being reserved for candidates who belong to classes which are backward in English education. These latter scholarships are equally divided between Muhammadans and the non-Muhammadan backward classes. Thus in each district there are at present two middle school scholarships entirely reserved for Muhammadans. Similarly, in the case of high and special schools Government have sanctioned from provincial revenues three scholarships of the value of Rs. 5 per mensem for each district of the presidency proper, of which one is entirely reserved for Muhammadans. The recommendation of the Committee is that the number of middle school scholarships reserved for Muhammadans in each district should be raised from two to four and that the number of high school scholarships similarly reserved should be raised from one to four. The Governor in Council is of opinion that a liberal system of scholarships especially for secondary education would do more for the Muhammadans in the present state of education among them than most of the other things which they ask for. He accordingly readily accepts the Committee's recommendation. The additional cost involved will be as follows :—

	Per annum. Rs.
(1) Cost of two additional middle school scholarships of Rs. 3 per mensem for each of the 19 districts of the presidency proper tenable for three years.	4,104
(2) Cost of three additional high school scholarships of Rs. 5 per mensem for each of the 19 districts of the presidency proper tenable for four years.	13,680
Total ..	17,784

As indicated above, the cost of the existing middle school scholarships is borne by the several District Local Funds concerned. Government, however, understand that these funds will be unable to bear the cost of the additional middle school scholarships now proposed to be sanctioned. They are therefore pleased to direct that, as a special case, the charge should be met from provincial revenues. A sum of Rs. 18,000 for the grant of scholarships to Muhammadan students in secondary schools in the presidency proper has accordingly been entered in the provincial budget estimates for 1917-18.

25. Until recently the number of middle and high school scholarships sanctioned for Bombay City (including Aden) was only 4 and 2, respectively, and two of the four middle school scholarships and one of the two high school scholarships

were reserved for the backward classes including Muhammadans. Thus none of the scholarships sanctioned for Bombay City were exclusively reserved for Muhammadans. In the revised rules for these scholarships promulgated in Government Notifications nos. 2883 and 2884, dated the 1st October 1915, Government have already increased the number of scholarships for Bombay City from 4 to 6 in the case of the middle school scholarships and from 2 to 3 in the case of the high school scholarships, and 2 middle school scholarships and 1 high school scholarship have accordingly been reserved exclusively for Muhammadans. In these circumstances Government do not consider that any further action is called for with regard to Bombay City.

26. The Governor in Council is pleased to approve the Committee's recommendation regarding the establishment of a certain number of special scholarships which will be exclusively reserved for Muhammadans and which will be tenable at any of the Arts colleges in the presidency proper whether Government or aided. Effect cannot, however, be given to this decision till the financial situation improves. Government are not convinced of the necessity for the proposed special scholarships for Muhammadans in the professional colleges.

Paragraph 27 of the report.—The Committee recommends that in each Government secondary school there should be a regular Urdu teacher in addition to the Persian teacher. The latter's time is generally taken up with his Persian work; or at any rate he is not able to do justice to the teaching of Urdu in addition.

27. The recommendation is approved on the understanding that a start will be made with those schools that are most freely attended by Muhammadans.

Paragraph 28 of the report.—The Committee recommends that Government should contribute liberally towards the building and maintenance of hostels for Muhammadans under private management, provided that they are efficiently conducted and equipped with religious teaching.

28. Under the Grant-in-aid Code a building grant at the rate of one-fourth of the actual cost is made towards the erection of hostels, but no annual grant is admissible for their maintenance. Government see no reason why the Muhammadans should be assisted in the maintenance of their hostels, more especially as the Muhammadans of this presidency are not as a whole a poor community. The question of an increase in the proportion of the cost of private hostels which may be contributed by Government as a building grant will be considered when funds are available.

Paragraph 29 of the report.—The Committee is of opinion that wherever it is possible, and where the interests of Muhammadans are concerned, a reasonable proportion of Muhammadans should form part of the committees or managing bodies of Government and aided institutions; and that at least ten per cent. of the nominated members of the University Senate might be Muhammadans.

29. The principle contained in the first portion of the paragraph is approved, but it is pointed out that there are at present no boards of managers for Government institutions, and that Government representatives on the boards of aided institutions are selected for their expert knowledge only. With regard to the second portion of the paragraph, it may be observed that, while the question of proportionate representation of communal interests is always considered in making nominations on the University Senate, His Excellency the Chancellor is not prepared to accept any rigid numerical rate in regard to any particular community.

Paragraph 30 of the report.—The Committee recommends that, as has been done in Sind, special scholarships in Arts colleges should be established for Muhammadans willing to bind themselves to serve in the educational department for a term of years; and that special initial pay should be given, when necessary, to encourage Muhammadans to join that department.

30. Government are not prepared to accept either of the recommendations made in this paragraph.

Paragraph 32 of the report.—Whereas University prizes and scholarships are awarded for excellence in Sanskrit, Hebrew, Avesta and Pahlavi, and other languages, there seems to be no corresponding encouragement for the study of Arabic. The Committee is therefore of opinion that a scholarship of Rs. 25 per mensem, tenable for

four years, might be given annually at the matriculation to a Muhammadan candidate whose second language is Arabic, and who continues to study that language up to the B. A. degree.

31. The University prizes and scholarships referred to are paid from the income derived from private endowments and are not provided from public revenues. It is open to the Muhammadans to endow prizes and scholarships for proficiency in Arabic as has been done by Hindus and Parsis with regard to the study of Sanskrit and Avesta and Pahlavi, respectively. Government cannot therefore undertake to found an Arabic scholarship, although they would be pleased to see such a scholarship founded by private endowment.

Paragraph 33 of the report.—The Committee is of opinion that a certain number of free-studentships (say, two), not to be combined with any scholarship, should be reserved for Muhammadans in each of the Government colleges; and that at the College of Engineering a Muhammadan candidate, who is otherwise qualified for admission, should be given special consideration.

32. In accordance with the principle laid down at the Simla Educational Conference of 1901 and accepted by the Government of India, free-studentships should not be, and as a general rule are not, given in Government colleges. A departure from the settled policy of Government in this respect in favour of Muhammadans is sure to be followed by similar demands from other backward communities, which it would be impossible to refuse without creating an invidious distinction between Muhammadans and other communities. In these circumstances Government cannot accept the recommendation contained in the first portion of this paragraph of the report. With regard to the second portion of the paragraph, it is observed that the technical qualification for admission to the College of Engineering is the possession of the first-year certificate of an Arts College; but in practice the college staff expects a good deal more than this minimum qualification. Many of the candidates have a higher qualification, viz., the Intermediate or B. A. certificate, and the staff looks specially to evidence of good ability in mathematics, and to physique. The recommendation of the Committee presumably means that *all* the Muhammadan candidates who possess the first-year Arts certificate should be given preference. If this is so, the proposal cannot be accepted, as Government consider that the college staff is right in insisting strongly on the other qualifications also, and that the result of the acceptance of such a recommendation would be to lower the standard of graduates turned out from an important professional college of the presidency. It is, however, understood that the Principal of the college is always ready to admit a Muhammadan candidate if his record shows that he has a good chance of being able to go through the course successfully. The Governor in Council considers that this is a sufficient concession, and that it is not advisable to admit students of inferior calibre.

Paragraph 34 of the report.—The Committee recommends that the principals of colleges should be requested to reserve adequate accommodation for Muhammadans in their hostels; that in every hostel attached to a Government institution separate cooking and dining arrangements should be made for Muhammadans; and that in every such hostel facilities should be given to the Muhammadan inmates for the performance of their religious duties, e.g., by reserving a special room for the purpose.

33. The Governor in Council regrets that he is unable to accept the recommendation in the first portion of the paragraph in the form in which it stands. He is of opinion that it would be impracticable to reserve a certain number of places in college hostels exclusively for Muhammadan students, but that the claims of the latter should be specially considered in the allotment of rooms in such hostels. This concession would, of course, be subject to the condition that Muhammadan boys should apply for admission at the same time as other boys and not later. In this connection it has come to the knowledge of Government that amongst newcomers preference is usually given in the order of marks at the last examination passed. It is a question whether such a literary test, which may fairly be resorted to in the case of boys belonging to the communities advanced in education, should be strictly followed in the case of an admittedly backward class like Muhammadans, as it would practically result in the exclusion of Muhammadan

boys from the hostels in question. In these circumstances the Governor in Council directs that the literary test referred to need not be strictly adhered to in their case. The Director of Public Instruction should be requested to communicate this ruling to the principals of all Government colleges for their future guidance. It should also be brought to the notice of the principals of aided colleges for such action as they may consider necessary. The other two recommendations made in the paragraph, namely, the provision of separate cooking and dining arrangements and of facilities for the performance of religious duties, are accepted on the understanding that effect will be given to them in the existing institutions so far as may be possible.

Paragraph 35 of the report.—The Committee recommends that in schools and colleges the time-table should be so arranged on Fridays as to permit of Muhammadans attending the midday prayers.

34. The Governor in Council thinks that the proposal would give rise to inconvenience in an ordinary institution with a small number of Muhammadans and a large number of others, and that it would probably result in the school being opened only after the hour of Muhammadan prayers, thus losing the first part of the morning. He considers that all that can be done in the matter is that the Muhammadans should be given leave of absence for the purpose if they desire it.

Paragraph 36 of the report.—The Committee is of opinion that a special scholarship for continuing their studies in Europe should be reserved for Muhammadans, as is done for the domiciled community; and that there should be some special provision for the admission of suitable Muhammadans to the Forest Service through the college at Dehra Dun.

35. Government cannot accept these recommendations.

EDUCATION OF GIRLS.

Paragraphs 37, 38 and 39 of the report.—37. With reference to the education of girls, the Committee is of opinion that in the lower primary standards girls should be taught reading, writing, arithmetic, needlework, religion, and physical exercises, and that in ordinary circumstances "pardah" is not required. In the higher primary standards girls should be taught reading, writing, arithmetic, geography, history, needlework, religion, and physical exercises. Some knowledge of cookery also may be acquired at home and tested at school. Singing is not required.

38. *The Committee is of opinion that, if the necessary teachers can be obtained, middle schools for girls with "pardah" arrangements may be started in large Muhammadan centres; and that religion and drawing should be included in the curriculum. To increase the supply of competent teachers it appears probable that a separate "pardah" normal school is required, which might develop later into one for each division.*

39. *The Committee recommends that liberal provision be made for prizes and scholarships for girls, and also for the supply of free books and writing materials.*

36. The whole subject of female education, including the question of the curriculum for girls' schools raised in paragraph 37 of the report, is separately under the consideration of Government. The Director of Public Instruction should be requested to report whether any, and if so what, effect can be given to the suggestions made in paragraph 38. The recommendation made in paragraph 39 is approved on the understanding that effect will be given to it as opportunities offer and finances permit.

GENERAL.

Paragraph 31 of the report.—The Committee is of opinion that any remarks which a Muhammadan assistant deputy has to make concerning Muhammadan education should be transmitted to the educational inspector of the division by the deputy along with the latter's annual report.

37. The recommendation is accepted on the understanding that assistants who abuse the privilege and make reflections on the Deputy Inspectors who are their superiors will not be immune from the consequences of a breach of official discipline.

Paragraphs 40 and 41 of the report.—40. The Committee is of opinion that some of the present Persian teachers as well as approved candidates for such posts might with advantage be deputed to Lucknow or elsewhere in Upper India for a course of training.

41. The Committee is of opinion that grants should be given to encourage the production of literature in Urdu.

38. The recommendations made in these paragraphs are approved on the understanding that effect will be given to them as opportunities offer and funds are available.

Paragraph 42 of the report.—Finally, the Committee is of opinion that if a clear view of the progress of Urdu education is required, separate statistics should be given for Urdu schools in the annual tables prescribed by the Government of India.

39. In view of their decision on the language question, Government do not consider that any action is called for on this paragraph. The Director of Public Instruction has already been asked to carry out the orders of the Government of India with regard to the notice to be taken in his annual report of the progress of education among Muhammadans.

40. All the measures recommended in the Committee's report have been dealt with in the foregoing paragraphs. A list of such of them as entail extra expenditure and have been approved by Government is given in Appendix A to this Resolution, while Appendix B contains a list of the measures which have been referred to the Director of Public Instruction for further consideration and report. With regard to the relative degree of urgency of the several measures included in Appendix A, the Governor in Council is of opinion that the first requisite for the promotion of education among the Muhammadans is an adequate supply of competent teachers for primary schools for Muhammadan children. The teachers at present employed in these schools are among the least qualified in the presidency, and it is as necessary as ever that better men should be recruited and trained for them. In these circumstances the proposals relating to the recruitment and training of teachers (*vide* items nos. 2 and 3) should unquestionably occupy the foremost place in any programme of expenditure on Muhammadan education. The next requisite is a larger supply of pupils, especially in the secondary stage, which can probably only be secured by a liberal system of scholarships going even beyond the Committee's proposals [*vide* items nos. 4 (i) and 4 (ii) in Appendix A]. The encouragement of *maktabs* (*vide* item 1 in Appendix A) should be taken up early, while the improvement of Persian teachers (item 7) and the entertainment of Urdu teachers (item 5) may be carried out as required. The Governor in Council further considers that the revision of the Vernacular Readers which does not involve any expenditure may be undertaken at once.

41. The relative order of urgency of the measures included in Appendix B will be settled on receipt of the further reports called for from the Director of Public Instruction, but the Governor in Council cannot refrain from observing that the question of the recruitment and training of female teachers is as important as that of male teachers, and the measures which have that end in view should have precedence over others.

**Accompaniments to Government Resolution, Educational Department, no. 1143
dated the 30th April 1917.**

APPENDIX A.

List of the measures recommended by the Committee on Muhammadan Education for the presidency proper which entail extra expenditure and which have been approved by Government.

Serial no.	Paragraph of report.	Description of measure recommended and approved.	Estimated cost.	
			Non-recurring.	Recurring.
			Rs.	Rs.
1	5	Grant of more liberal encouragement to <i>maktabs</i> adopting a secular course.	....	5,000
2	11	Grant of special allowances to Urdu teachers.	....	30,370
3	12	Establishment of central Urdu schools.	96,400	48,000
4	26	(i) Grant of two additional middle school scholarships of Rs. 3 per mensem each, for each of the 19 districts of the presidency proper tenable for three years. (ii) Grant of three additional high school scholarships of Rs. 5 per mensem each, for each of the 19 districts of the presidency proper tenable for four years. (iii) Grant of two scholarships of Rs. 20 per mensem each, in each division of the presidency proper tenable at an Arts college for four years.)	....	4,104
			....	13,680
			....	5,760
5	27	Entertainment of an Urdu teacher in each Government secondary school.	....	15,600
6	39	Prizes, scholarships, etc., for girls ..	....	6,000
7	40	Deputation of Persian teachers to Lucknow and other places in Upper India for a course of training.	750 for each teacher.	....
8	41	Grants for the encouragement of Urdu literature.	....	1,000

APPENDIX B.

List of the measures recommended by the Committee on Muhammanadan Education for the presidency proper which have been referred to the Director of Public Instruction for further consideration and report.

Serial no.	Paragraph of report.	Description of measure.	Estimated cost.	
			Non-recurring.	Recurring.
			Rs.	Rs.
1	13	Establishment of a training college for Urdu teachers.	1,00,000	15,000
2	14	Establishment of a normal class for training Urdu teachers for Bombay City.	The charge will fall on the Bombay Municipal Corporation.	
3	18	Entertainment of a European Inspector of Urdu Schools.	Not known.	14,000
4	19	(i) Entertainment of a Special Deputy Educational Inspector for Urdu Schools in the Northern Division.	Not known.	5,000
		(ii) Raising the Urdu Assistant Deputy in Bombay City to the rank of a Deputy Educational Inspector.	....	900
5	22	(i) Establishment of an Anglo-Urdu middle school in each district of the presidency proper.	50,000 (per each school)	6,000
		(ii) Establishment of two Anglo-Urdu High Schools (with hostels) in the Southern and Northern Divisions, respectively.	3,00,000	32,000
6	23	Conversion of the Poona Camp School into an Anglo-Urdu High School.	1,50,000	4,000 to 5,000
7	38	(i) Establishment of middle schools for girls with "pardah" arrangements in large Muhammadan centres.	Not known.	8,000 (per school).
		(ii) Establishment of separate "pardah" normal schools in order to increase the supply of competent women teachers.	Not known.	10,000 (per school).

No. 7488, dated the 31st August 1914.

From—The Hon'ble Mr. W. H. Sharp, M.A., Director of Public Instruction;

To—The Secretary to Government, Educational Department.

I have the honour to submit the report of the Committee appointed by Government Resolution, Educational Department, No. 1788, dated the 29th June 1913, on the subject of Mahomedan education, with two minutes appended. The report could not be signed by Mr. Lory as he is not in India, but his minute of the 17th April is attached also; with reference to this it must be explained that paragraph 15 originally recommended enhanced stipends for Mahomedans on account of their more costly style of living.

2. I also attach a rough estimate of the cost of some of the proposals, prepared in my office. Circumstances did not permit of this being discussed by the full Committee, and therefore it was decided not to incorporate it in the report.

L Edl 194—5

Report of the Committee appointed by Government Resolution no. 1788, Educational Department, dated June 23rd, 1913, to report on the measures to be taken for the promotion of education among the Mahomedan community of the Presidency proper.

The Committee has held several meetings in Poona or Bombay, and during the course of its deliberations two of the members, Khan Saheb Pathan and Mr. Sayani, have died. Mr. Lory has proceeded on leave out of India, but his minute attached to the draft report last April is appended to this report. The Presidency Moslem League, the Provincial Mahomedan Educational Conference Committee, and the Anjuman-i-Islam of Bombay were invited to communicate their views or suggestions.

2. The proceedings at Poona were opened by the Hon'ble Mr. Claude Hill, C.S.I., C.I.E., I.C.S., who urged the Committee to consider not merely the interests of the resuscitation of Urdu, but the best and most vital interests of the Mahomedan community in this Presidency.

3. Since the Committee began its deliberations, Government have sanctioned experimentally a set of pure Urdu standards for use in Urdu schools, the local vernacular being added as an optional second language.

4. The order of the Committee's recommendations follows generally the order of the suggestions conveyed in the letter of the Government of India, dated the 8rd April, 1913, a copy of which accompanied the Government Resolution constituting the Committee.

5. The Committee is of opinion that more liberal encouragement should be given to *maktabs* to adopt a secular course, and that the co-operation of local Mahomedan committees or associations should be invited. The example of the Mulla Code of Sind (a copy of which is attached for ready reference) may be followed.

6. The Committee is in favour of the experiment already initiated by Government of having all teaching in Urdu schools given through the medium of Urdu, the vernacular of the district being also taught to those who wish to study it. The Committee thinks that this should apply to the whole Presidency, the different Urdu standards being started simultaneously.

7. The Committee is advised that adequate text-books in Urdu exist, and that all the subjects can be taught through this medium at once, except the geography of the province for which special translations may be required.

8. The Committee recommends that when a candidate at the Vernacular Final Examination offers the local vernacular as an optional subject and passes in it his certificate should show this. The Committee is further of opinion that during the transitional period (*i.e.*, until the new Urdu course has established itself), Mahomedan candidates should be allowed to offer Urdu as an optional at the examination, as in the past.

9. The Committee is advised that for semi-secular *maktabs* the Himayat-i-Islam text-book series of Lahore is better suited than the Punjab series.

10. The Committee recommends that the Mahomedan members of the vernacular text-book committees, and the Mahomedan deputy educational inspectors, in consultation with the Hon'ble Moulvi Rafiuddin Ahmad, should scrutinize the vernacular readers with a view to suggesting any lessons of particular interest to Mahomedans which might be included in them; an equal amount of matter being pointed out at the same time to be omitted from them, as the length of each book cannot be increased.

11. The Committee has considered the two proposals referred to it by Government Resolution No. 1974 (Educational Department), dated the 9th July, 1913. The first proposal was that, owing to the dearth of qualified Mahomedan teachers in the Urdu schools of the Kolaba and Ratnagiri Districts, the profession should be made more attractive by giving a special allowance of Rs. 5 to all qualified Mahomedan teachers, whether trained or untrained, coming from other districts, and also to local teachers (if qualified) in receipt of less than Rs. 20. The Committee begs to endorse this proposal and recommends that it be extended to all districts where there is any difficulty in obtaining an adequate supply of Mahomedan teachers.

12. The second proposal was that the local supply of qualified Mahomedan teachers in Kolaba and Ratnagiri should be increased by opening a central school in each district, with stipends attached to it, for the purpose of specially preparing promising students for the Vernacular Final Examination. The Committee begs to endorse this proposal also, and recommends that similar arrangements should be made in other parts of the Presidency also, as has already been done in the Broach District.

13. The Committee is of opinion that a training college should be established for Urdu teachers, and located preferably in the Central Division. At the same time qualified Mahomedans should not be excluded from holding posts in the existing vernacular training colleges. The Committee is of opinion that any Urdu training college, or any special Urdu training class such as the one recently opened experimentally at Ahmedabad, should be open to candidates from any part of the Presidency.

14. The Committee considers it desirable that the Corporation of Bombay should maintain a normal class for the training of Urdu teachers according to the special requirements of that city.

15. The Committee recommends that liberal stipends should be allowed to Mahomedans as an encouragement to come forward to be trained.

16. The Committee is of opinion that in making admissions to the training colleges Mahomedans should be allowed a representation proportionate to their percentage of the total population of the area served by the particular college; and that all Mahomedans who pass the Vernacular Final Examination should be eligible for admission without undergoing any further test.

17. It is understood that already there are always Mahomedan representatives on the examining boards of the various training colleges. The Committee is of opinion that one-fourth of the examiners should always be Mahomedans; and that members of the college staff other than the Principal should be excluded from the examining board, whether for admission or for certificates.

18. With respect to the inspecting agency the Committee is of opinion that it might be advantageous to have a special inspector of Urdu schools for the Presidency; with a special deputy for each division and also one for Bombay City; and that this inspector might for the present preferably be a European. This provision, however, should not be regarded as interfering in any way with the selection of suitable Mahomedans for appointment in the ordinary course as deputies or assistant deputies of districts.

19. Even without the inspector the Committee is of opinion that there might be a special Mahomedan deputy for the Northern Division, as there is already for the Central and Southern Divisions, respectively, on the understanding that the special officer will advise the Educational Inspector of the Division as to the education of Mahomedan in general, and not only as to Urdu schools. The Committee is further of opinion that the Urdu Assistant Deputy in Bombay should be raised to the status of a deputy, because he originally was a deputy, and because his department is now as large as the Gujarati one which has a deputy.

20. The Committee recommends that Mahomedan orphans attending primary or secondary schools should be aided with special grants (say, of Rs. 6 per mensem), just as orphans of the domiciled community are.

21. It has been suggested that the number of Mahomedan boys proceeding from primary to secondary schools might be greatly increased if provision were made for attaching a qualified teacher of English to the 5th, 6th and 7th standards of full Urdu schools.

22. Those who have received their primary education through the medium of Urdu will naturally be at a disadvantage on joining a secondary school in which the lower classes and the subsidiary subjects are taught through the medium of the local vernacular. The Committee therefore recommends that facilities should be given for the creation of at least one Anglo-Urdu middle school in each district, and at least one Anglo-Urdu full secondary school (with a hostel) in each division.

23. The Committee is of opinion that as a beginning the Poona Camp Government school should be raised to the status of an Anglo-Urdu high school, the Gujarati side being also continued if necessary, but the two sides being kept distinct, as the Marathi and Gujarati sides are in the Elphinstone high and middle schools.

24. As complaints are sometimes received that Mahomedans find it difficult to gain admission to Government secondary schools, the Committee recommends that the experiment be tried of reserving places for Mahomedans at the beginning of each term in accordance with their proportion of the total population of the district; the date of commencement being duly notified in the local press, and all vacancies remaining being filled up after the lapse of a fortnight.

25. In Government secondary schools free studentships may be awarded up to a limit of ten per cent. of the sanctioned maximum strength of the school, one-half being awarded to advanced communities and one-half being reserved for Mahomedans and other backward communities. The Committee would like to see the percentage reserved for Mahomedans alone raised to five.

26. In view of the expected extension of secondary education among Mahomedans, the Committee recommends—

that the number of middle school scholarships reserved for Mahomedans be doubled, and the number of high school scholarships quadrupled;

that two scholarships of Rs. 20 per mensem, tenable at an arts college for four years, be awarded for each division on the results of the matriculation to poor and deserving Mahomedan candidates; and

that at least three scholarships (one for each division) be reserved for Mahomedans each year at each of the professional colleges except for law (engineering, commerce, agricultural, and medical).

27. The Committee recommends that in each Government secondary school there should be a regular Urdu teacher in addition to the Persian teacher. The latter's time is generally taken up with his Persian work; or at any rate he is not able to do justice to the teaching of Urdu in addition.

28. The Committee recommends that Government should contribute liberally towards the building and maintenance of hostels for Mahomedans under private management, provided that they are efficiently conducted and equipped with religious teaching.

29. The Committee is of opinion that whenever it is possible, and where the interests of Mahomedans are concerned a reasonable proportion of Mahomedans should form part of the committees or managing bodies of Government and aided institutions; and that at least ten per cent. of the nominated members of the University Senate might be Mahomedans.

30. The Committee recommends that, as has been done in Sind, special scholarships in arts colleges should be established for Mahomedans willing to bind themselves to serve in the educational department for a term of years; and that special initial pay should be given, when necessary, to encourage Mahomedans to join that department.

31. The Committee is of opinion that any remarks which a Mahomedan assistant deputy has to make concerning Mahomedan education should be transmitted to the educational inspector of the division by the deputy along with the latter's annual report.

32. Whereas University prizes and scholarships are awarded for excellence in Sanskrit, Hebrew, Avesta and Pahlavi, and other languages, there seems to be no corresponding encouragement for the study of Arabic. The Committee is therefore of opinion that a scholarship of Rs. 25 per mensem, tenable for four years, might be given annually at the matriculation to a Mahomedan candidate whose second language is Arabic, and who continues to study that language up to the B.A. degree.

33. The Committee is of opinion that a certain number of free studentships (say, two), not to be combined with any scholarship, should be reserved for Mahomedans in each of the Government colleges; and that at the College of Engineering a Mahomedan candidate who is otherwise qualified for admission should be given special consideration.

34. The Committee recommends that the principals of colleges should be requested to reserve adequate accommodation for Mahomedans in their hostels; that in every hostel attached to a Government institution separate cooking and dining arrangements should be made for Mahomedans; and that in every such hostel facilities should be given to the Mahomedan inmates for the performance of their religious duties, e.g., by reserving a special room for the purpose.

35. The Committee recommends that in schools and colleges the time table should be so arranged on Fridays as to permit of Mahomedans attending the midday prayers.

36. The Committee is of opinion that a special scholarship for continuing their studies in Europe should be reserved for Mahomedans, as is done for the domiciled community; and that there should be some special provision for the admission of suitable Mahomedans to the Forest Service through the college at Dehra-Dun.

37. With reference to the education of girls the Committee is of opinion that in the lower primary standards girls should be taught reading, writing, arithmetic, needlework, religion, and physical exercises, and that in ordinary circumstances "pardah" is not required. In the higher primary standards girls should be taught reading, writing, arithmetic, geography, history, needlework, religion, and physical exercises. Some knowledge of cookery also may be acquired at home and tested at school. Singing is not required.

38. The Committee is of opinion that, if the necessary teachers can be obtained, middle schools for girls with "pardah" arrangements may be started in large Mahomedan centres; and that religion and drawing should be included in the curriculum. To increase the supply of competent teachers it appears probable that a separate "pardah" normal school is required, which might develop later into one for each division.

39. The Committee recommends that liberal provision be made for prizes and scholarships for girls, and also for the supply of free books and writing materials.

40. The Committee is of opinion that some of the present Persian teachers, as well as approved candidates for such posts, might with advantage be deputed to Lucknow or elsewhere in upper India for a course of training.

41. The Committee is of opinion that grants should be given to encourage the production of literature in Urdu.

42. Finally the Committee is of opinion that, if a clear view of the progress of Urdu education is required, separate statistics should be given for Urdu schools in the annual tables prescribed by the Government of India.

FAZULBHOY CURRIMBHOY EBRAHIM.

SYED SHAMSUDDIN KADRI (I sign subject to my minute of dissent).

RAFFIYUDDIN AHMAD.

W. H. SHARP (subject to a note).

FAZULBHOY M. CHINYOY.

SYED ALI EL EDROOS.

For the reason that, with rare exceptions, Urdu is not the vernacular of Mahomedans in this Presidency, and that it is not to the material interest of the Mahomedan community to adopt Urdu as its vernacular, I am opposed to Urdu being made the medium of instruction for Mahomedans in primary and Anglo-vernacular schools. I therefore dissent from all the proposals which depend upon the recognition of Urdu as the vernacular of the Mahomedan community.

Paragraph 15.—I dissent; I consider that it has not been proved that the cost of living is higher for Mahomedans than for other communities.

Paragraph 21.—I am opposed to the teaching of English in vernacular schools and therefore dissent from this proposal.

Paragraph 24.—I regard the proposed measure as impracticable.

F. B. PENDARVES LORY.

17th April, 1914.

Mr. Lory seems to have been either misled or misinformed when he says "with rare exceptions Urdu is not the vernacular of Mahomedans in this Presidency."

2. From my experience as an Educational as well as a Revenue officer for a number of years and from my close contact with the Mahomedans of all grades, I can say that there is a keen desire amongst Mahomedans to learn Urdu and to have more Urdu schools. However, in connection with this subject the most important point for consideration is whether it is advisable to make the vernacular of the district optional or compulsory. After a very anxious and careful consideration I have come to the conclusion that it would not be to the material interest of the Mahomedan community to neglect the vernacular of the district. Urdu is not, and cannot be, the Court language in this Presidency and therefore it is essential that Mahomedan boys in the mofussil who receive their education through the medium of Urdu should learn the vernacular of the district as a second language. This would make them more practically useful even though they may have to undergo a little more trouble of studying a second language. To my mind this is inevitable. I would go a step further and suggest that arithmetic and native accounts should also be taught through the local vernacular. This would increase their practical utility in public offices and private business. With this knowledge of the vernacular of the district, they would be able to pull on with boys of other communities in the existing Anglo-vernacular and secondary schools. All the other subjects can safely be taught through the medium of Urdu.

3. The experiment of having all teaching in Urdu schools given through the medium of Urdu should be tried first in cities and towns; the local vernacular being taught to those who wish to study it.

4. The modification proposed in paragraph 2 above does not affect the necessity for Anglo-Urdu middle and secondary schools at suitable centres.

SYED SHAMSUDDIN KADRI.

Dhulia; 25th July 1914.

I am not convinced that, except in certain spots, it is either the desire or the interest of the great majority of mofussil Mahomedans to receive instruction solely in and through Urdu. Nevertheless, at the urgent request of some of their representatives, a set of pure Urdu standards has been framed for them. These cover a course of eight years, and a considerable period will be necessary for the full trial of the experiment. Until experience has shown that the Mahomedans are really coming forward in large numbers to study in Urdu, I am not prepared to recommend the whole of the machinery suggested in this report for the encouragement and supervision of Urdu teaching.

Paragraph 10.—The proposal that an extensive revision of the vernacular readers should be carried out in the interest of Mahomedans appears to me inconsistent with the theory that instruction in Urdu is what the Mahomedans want.

Paragraph 16.—I dissent from all proposals formally to lower the standards of the present training colleges in favour of Mahomedans or any other backward class. Every possible concession is made to them already, and of those who present themselves for admission only those are rejected who are obviously incapable of keeping up with the work.

Paragraph 17.—While I think it to be a good principle to associate external examiners with internal, I am not in favour of excluding the latter altogether.

Paragraph 20.—I see no reason for aiding Mahomedan orphans any more than Hindu or Parsi orphans with special grants.

Paragraph 21.—I am not in favour of having English taught in vernacular schools for boys; and Urdu in this report is practically treated as the natural vernacular of Mahomedans.

Paragraph 24.—I think that the proposal would be troublesome in practice, and see no reason why those who are ready to attend at the time of opening should be kept waiting for Mahomedans who may possibly turn up in the next week or two.

Paragraph 25.—I do not think that any case for increasing the percentage of free studentships has been made out at present, and that we may wait till at least the total receipts have risen well above the half-lakh on which we counted.

W. H. SHARP.

APPENDIX—SIND MULLA CODE.

Standard I. (Rs. 2 per boy.)

- (1) Arithmetic : counting up to 100.
- (2) Infants' Primer.
- (3) Writing words from the primer.

Standard II. (Rs. 3 per boy.)

- (1) Arithmetic : numeration and notation up to 1,000; multiplication tables to 5×10 .
- (2) Reading the first book.
- (3) Writing easy words from the first book.

Standard III. (Rs. 4 per boy.)

- (1) Arithmetic : addition and subtraction of not more than three figures; multiplication tables to 12×10 .
- (2) Reading the second book.
- (3) Writing to dictation from the second book.

Standard IV. (Rs. 5 per boy.)

- (1) Arithmetic : numeration and notation up to 10,000; multiplication and division, the multiplier or divisor not exceeding 90.
- (2) Reading the third book.
- (3) Writing to dictation from the third book.
- (4) General geography of the province (Sind).

N.B.—I. Girls will receive double of the grant-allowed for boys.

II. Grant will not be allowed for the same pupil more than once under the same standard.

III. For each boy sent by the mulla to the local board school Rs. 2 will be allowed for the first year, and 8 annas for each succeeding year in which the pupil receives instruction in the local board school.

IV. For girls in standard I 10 pages of Nurnamah and then the Infants' Primer should be read.

ROUGH ESTIMATE OF COST.

Paragraph 5.—A lump sum of Rs. 5,000 may be put down for the encouragement of secular education in *maktabs*.

Paragraph 11.—The cost of giving special allowances to Urdu teachers was estimated at Rs. 8,540 for Kolaba, and Rs. 1,890 for Ratnagiri; estimates for other districts, though called for last November, have not yet been received.

The cost of opening three central schools for Kolaba, Ratnagiri, and Dharwar (to serve all the Kanarese districts) was estimated at Rs. 40,000 initial and Rs. 11,000 recurring. The Northern Division estimates for five such schools Rs. 54,000 initial and Rs. 17,000 recurring; the Central Division for six schools Rs. 2,400 initial and about Rs. 20,000 recurring.

Paragraph 13.—The cost of an Urdu training school has been estimated at Rs. 1,00,000 initial and Rs. 15,000 recurring.

Paragraph 15.—If the minimum stipend was raised to Rs. 10, as was suggested in the Committee, the minimum cost would be Rs. 1,800.

Paragraph 18.—The cost of a European inspector of Urdu schools may be taken as Rs. 14,000 recurring.

The cost of a special deputy for the Northern Division would be about Rs. 5,000 recurring.

The cost of raising the Urdu assistant in Bombay to the rank of a deputy would be Rs. 900 recurring.

Paragraph 19.—As for paragraph 18.

Paragraph 20.—Taking 1,000 orphans and grants at Rs. 6 per mensem, the cost would be Rs. 72,000 recurring.

Paragraph 21.—The cost of teaching English in the full Urdu schools will fall on the municipalities or local boards concerned.

Paragraph 22.—The estimated cost of an Anglo-Urdu middle school is about Rs. 6,000. The cost of providing two high schools (for the Northern and Southern Divisions respectively) with hostels is estimated at Rs. 8,00,000 initial and Rs. 82,000 recurring. The Central Division is provided for below.

Paragraph 23.—The cost of converting the Poona Camp school into a high school, with a hostel, is estimated at Rs. 1,50,000 initial and from Rs. 4,000 to Rs. 5,000 recurring. Towards this there is an offer of Rs. 50,000 from a Parsi family, provided that the school bears the name of their father.

Paragraph 24.—There are at present 44 middle school scholarships reserved for Mahomedans. The cost of doubling the number would be Rs. 4,752 recurring. (These are paid from local funds, but the boards would certainly expect a provincial grant.)

There are at present 27 high school scholarships; the cost of quadrupling them would be Rs. 19,440 recurring. The cost of six scholarships of Rs. 20 per mensem tenable for four years would be Rs. 5,760 per annum.

The cost of three scholarships of Rs. 20 per mensem would be Rs. 720 for each year of the course. In the colleges of commerce, engineering and agriculture (three years) the total cost would be Rs. 2,160 for each, or Rs. 6,480 for all. In the medical college (five years) the total cost would be Rs. 3,600. Whole scheme, Rs. 10,080 recurring.

Paragraph 27.—The cost of adding an Urdu teacher to each school is estimated at Rs. 15,600 recurring.

Paragraph 30.—The cost of special scholarships for those who bind themselves to serve the educational department. Assuming that the scholarship is worth Rs. 30 and tenable for four years, the cost for each scholar entertained annually will be Rs. 1,440.

Paragraph 32.—If one scholarship of Rs. 25 per mensem tenable for four years is given yearly for Arabic, the total cost will be Rs. 1,200 recurring.

Paragraph 36.—Scholarship to Europe: If one scholarship of £150 tenable for two years is given annually, the total yearly charge will be Rs. 4,500 plus steamer passages; if the scholarship is of £200, the charge will be Rs. 6,000.

Paragraph 38.—The recurring cost of a middle school for girls will be about Rs. 8,000.

The recurring cost of a normal school would be about Rs. 10,000. In each case the cost of buildings and equipment would have to be added.

Paragraph 39.—A lump sum of Rs. 6,000 may be put down for annual prizes, scholarships, and free materials.

Paragraph 40.—The cost of a teacher deputed to Lucknow for a year is estimated at Rs. 750.

Paragraph 41.—A lump sum of Rs. 1,000 recurring may be put down for the encouragement of Urdu literature.

Administration Reports.

Report of the Director of Public Instruction on the progress of education in the Bombay Presidency during the quinquennium 1917-18—1921-22.

GOVERNMENT OF BOMBAY,

EDUCATIONAL DEPARTMENT.

Resolution no. P—36.

Bombay Castle, 6th December 1923.

Read report of the Director of Public Instruction on the progress of education in the Bombay Presidency during the quinquennium 1917-18—1921-22.

RESOLUTION.

General.—The quinquennium extends over the introduction of the Government of India Act of 1919 and thus covers the transition stage of the Reforms. Education, generally, during the quinquennium, has been handed over as a transferred subject to the charge of a Minister and is no longer subject to the detailed control of the Government of India. On the other hand it no longer benefits by the imperial grants and assignments specially made for the purpose of Government of India, such having been merged in the provincial revenues. As a matter of financial policy the Government of Bombay have decided not to earmark any head of income for educational purposes and the balance of all grants has been merged in the provincial revenues. But in spite of these changes and in spite of the acute financial stringency during and following the war which ~~was~~ prevailed during the whole of the quinquennium education has been liberally treated by Government and not only has the diminished value of the rupee been compensated by increase of grants but expansion and improvement have been effected at very considerable cost as the Director's report clearly shows. The expenditure on education from provincial funds alone has risen from Rs. 75,51,000 in 1916-17 to Rs. 1,69,88,000 in 1921-22.

While secondary and higher education have not been neglected even though no advance has been made, the chief development has been in connection with primary education. Gradual steps were taken for its expansion and improvement culminating in 1922-23 in the passing of the Primary Education Act as a result of the strong and representative committee set up for the purpose in July 1921. The goal of free and compulsory education has now been definitely set up and Government have undertaken a definite liability to assist local authorities financially to the extent of half the expenditure in the case of municipalities and 2/3rds of the expenditure in the case of local boards towards its attainment.

Another very marked phenomenon particularly towards the end of the quinquennium has been the political awakening of the backward classes. This has in all cases been accompanied by a demand for increased educational facilities. The provisions of the Primary Education Act are intended to supply these and Government have little doubt that the rank and file of these classes will utilise with enthusiasm when provided the facilities so keenly demanded by their leaders.

The efforts of Government for the improvement and expansion of education would have borne much greater fruit had it not been for the campaign of co-operation which, unfortunately for the people of the Presidency, was directed against existing educational institutions. The movement

began, reached its zenith and declined during the quinquennium. The incalculable harm done to the youth of this Presidency by interfering with and interrupting their education can hardly be realised until the generation thus affected grow to manhood. While there can be no excuse for the wicked heartlessness of those who engineered this movement and directed it against educational institutions Government recognise that it received support in unexpected quarters owing to a genuine desire for a greater rate of expansion of education and an improvement in the methods employed. It is hoped that these misguided enthusiasts recognising their mistake will take the opportunity offered by the Primary Education Act to assist towards realising the aim which both they and Government have in common, namely to give the rising generation of the country an education fitting them to be good citizens.

During the quinquennium the educational services have been completely re-organised and are now classified into Indian Educational Service, Bombay Educational Service and Subordinate Educational Service, each with its own standard of recruitment and its own time scale. Very considerable increases have been made in the pay of all educational officers including the primary school masters, the major share of the cost of which has fallen on Government

2. *Statistical Results.*—The steady increase in numbers in educational institutions during the quinquennium has been satisfactory. The total number of pupils undergoing instruction rose from 781,674 to 958,392. The total annual expenditure rose from Rs. 1,64,36,000 to Rs. 2,96,03,000, a rise of 80 per cent. Of this expenditure provincial and imperial funds in the first year of the quinquennium provided Rs. 79,19,000 or 48 per cent. while in the last year provincial funds provided Rs. 1,69,88,000 or 57 per cent., imperial grants having been merged in the provincial balances.

The expenditure from municipal funds increased also by 154 per cent and Government recognise the efforts which the majority of municipalities have made to provide and maintain sufficient schools in spite of the rapidly increasing cost. The great increase in the share of the burden of education borne by public funds compared with that borne by private funds is remarkable.

3. *University Education.*—The chief feature of the quinquennium has been the co-operation which has existed between Government and the University in all important matters. The reform of the University on the lines indicated by the Calcutta University Commission with its scheme of intermediate colleges is a difficult matter in view of the existing financial stringency; but the question is under consideration.

The question of the continuance of the Joint Examination Board for Matriculation and the School-Final Examinations is about to be decided after a conference of representatives of Government and the University. The equipment of the Royal Institute of Science is now practically complete. Government notice with regret the decline in the number of students of Sociology in the University School of Economics and Sociology.

The deterioration of the standard of knowledge of English amongst undergraduates and graduates, unaccompanied by any increase in the standard of knowledge of vernaculars is a matter which should receive attention both from the University and the authorities of colleges.

4. *Secondary Education.*—A similar criticism is made regarding the knowledge of English attained by pupils in high schools. The existence of a large number of secondary schools in small towns where the pupils have hardly any opportunity of meeting or hearing Englishmen is probably one of the causes of this; but Government trust that the managers of these schools and the Joint Examination Board will do all they can to resist this lowering of the standard and give special attention to the teaching of this subject on which to a great extent the future progress of India necessarily depends.

On the whole the quinquennium has been for secondary education one of marking time. The policy of having one Government

in each district has been continued and in pursuance of this a high school has been opened in the Larkana district by converting the Municipal Anglo-Vernacular School into a Government institution. The satisfactory increase in the number of Mahomedans attending secondary schools is welcomed and it is hoped that with their political revival the number of non-Brahmin Hindus will likewise increase in the near future.

After having successfully worked for three years the experiment of attaching English classes to primary schools, Government will now leave the future development of this scheme to Local bodies giving them a grant of 1/3rd of the expenditure on the classes. The expenditure is regarded as on secondary education and as an optional, not obligatory, duty of the local body.

5. *Primary Education*.—The numbers attending primary schools have increased and various valuable improvements have been effected during the quinquennium. But the enormous increase in the expenditure from public funds on the schools has not been the result of this expansion or improvement so much as of the increase in the cost of maintaining the schools and in particular the very great increase in the pay of primary school teachers. In fact the increase in pay of the primary school teachers has largely prevented the expansion and improvement of primary education. The impending changes consequent on the Primary Education Act in consequence of which the control of primary education will largely be handed over to local authorities renders it unnecessary to review at length the last quinquennium under the former conditions. The conclusions of the representative Committee which considered the future of primary education have been embodied in the Primary Education Act and Government have willingly undertaken the financial responsibility of aiding the introduction of compulsory elementary education as imposed by the Act. The success of the policy of compulsion will depend on the energy and ability with which the School Boards of the local authorities administer it and Government await the result of this great development with keen interest and high hope.

The training of teachers was very greatly developed and improved during the quinquennium but unfortunately it progressed too rapidly, in view of the additional cost of trained teachers, for the trained teachers to be absorbed by local bodies. It is with regret that Government have found it necessary to close some of the schools and classes but this has been done in such a way that they can be quickly reopened if it is found that trained teachers are required by local authorities in increased numbers. The only alternative would have been to limit the expansion of primary education under the Primary Education Act in order to save sufficient funds for the payment of the trained teachers.

6. *Professional Education*.—The post-war demand for medical education which has caused embarrassment to the medical colleges of all countries has been well exemplified in the case of the Grant Medical College. While with extreme regret and reluctance Government has had to agree to a reduction in the number of the students admitted, it is hoped that by taking steps to utilise to the best advantage the available clinical material the medical training may be kept at the standard required in the present day and worthy of the Presidency and University of Bombay. The fact that the British Medical Association felt itself constrained to issue a warning regarding the validity of Bombay Degrees in Great Britain shows how the standard of training especially in midwifery was in danger of being lowered by the overcrowding of the college.

The large expansion which has taken place in the activities and number of the Sydenham College of Commerce since it has been provided with a suitable building is a source of considerable gratification.

The expansion of the College of Engineering is still under consideration, the Government having altered owing to the opening of the Engineering section of the College.

A feature of the quinquennium has been the very great increase in the demand for professional education shortly after the war. The same phenomenon has been noticed all over the world. The sudden expansion of professional colleges is not possible in India and Government were not prepared to sacrifice the standard of training imparted in order to satisfy the sudden increased demand but the necessity for expansion is fully realised and will be carried out as funds permit.

7. *Technical and Industrial Education.*—The report of the Committee appointed to draw up a comprehensive scheme of technical and industrial education for the Presidency is still under the consideration of Government. It has not been possible to put the scheme of the Committee into operation partly for financial reasons and partly because of the very wide divergence of opinion between the majority and minority of the Committee regarding the policy to be adopted.

The rebuilding of the Victoria Jubilee Technical Institute in its new situation at Matunga has enabled the work of this institution, the chief technological institution in this Presidency, to extend very greatly its sphere of usefulness. It is now very well housed and equipped.

8. *Art Education.*—There has been a distinct revival of interest and appreciation of Indian Art in the Presidency during the quinquennium and there are signs that the Bombay School of Art is becoming the centre of a live school of Indian Art on a sound and sure foundation. The School of Architecture has been no less successful and it is very satisfactory to note that the Bombay Municipality have now recognised the diploma of the school for the grant of a Surveyor's license under section 355 (1) of the Bombay Municipal Act.

9. *Education of Girls.*—The progress during the quinquennium if slow has been well maintained though no very far reaching changes have occurred. It is satisfactory to notice the general belief that the prejudice against the education of girls is beginning to weaken.

10. *Education of Mahomedans.*—There has been a distinct advance during the quinquennium as shown by the statistics of Mahomedans attending schools compared with the total Mahomedan population. Judged solely by educational statistics Mahomedans cannot now be called a "backward" class.

11. *Education of Depressed Classes.*—The total number of children of the Depressed Classes or the so-called Untouchable Classes under instruction increased from 30,568 to 38,266 during the quinquennium, *i.e.*, by 25 per cent. against an increase of 16·7 per cent. during the previous quinquennium. The increase was specially marked in public institutions in the Central and Southern Divisions, where it amounted to 51 per cent. and 217 per cent., respectively. It is rather curious to note that in the Northern Division, where the demand for the removal of untouchability occupied an important place in the non-co-operation programme, the increase is only 4 per cent. and it is understood that it is in this Division that the prejudices against these classes remain the strongest. Among the special measures adopted during the quinquennium for the promotion of education among these classes were the appointment of a special officer to look after this matter for three of the districts in the Central Division, the institution of special scholarships in arts and professional colleges, and the raising of the value of the special scholarships in secondary schools. These measures have since the close of the quinquennium been augmented by a large increase in the number of special scholarships in secondary schools, the opening of a free students' hostel for these classes in Poona, and the institution of a large number of special scholarships in the upper standards of primary schools. For children studying in the lower standards of Local Board Schools Government have sanctioned an annual grant of Rs. 10,000 for the free supply of books, slates, etc. With the adoption of these measures and with the great awakening among the Depressed Classes, coupled with the desire for education, wh^y ^{with}

observed during the last few years, it is hoped that the spread of education among them will be even faster in the future.

12. *Text Books.*—Government have recognised how education as conducted in the vernaculars has suffered from the paucity of good text books and a special scheme for the encouragement of authors of such books has been inaugurated. If on trial it is found successful it is capable of being very largely extended.

13. *Boy Scouts.*—An important feature of the quinquennium, connected specially with secondary education, has been the remarkable progress which the Boy Scout movement has made in this Presidency. In the opening years of the quinquennium the movement was practically restricted to European and Parsi troops in Bombay and Poona and a few scattered Indian Boy Scout Association Troops. As a result of the deputation of Mr. A. C. Miller of the Indian Educational Service on special duty to organise the movement in this Presidency a scheme whereby Indian Troops could be affiliated to the Baden-Powell organisations was drawn up and approved by the Headquarters in London and is now being worked in this Presidency. A considerable number of school masters have been trained as Scoutmasters in the training camp opened at Lonavla in January 1922 and many more who had applied had to be refused admission owing to lack of accommodation. The recent successful rally of boy scouts in Poona on a large scale is a practical proof of the rapid development of the movement. As was observed by His Excellency the Governor in his speech at the Rally, in spite of the advances which have already been made in the spread of the Scout movement throughout the Presidency it is still true that the Scout organisation is not receiving sufficient support from the general public, a fact which is much to be regretted. The educative value of Boy Scout training for the youth of this country is so obvious that it is hoped that greater enthusiasm will be roused among the general public in course of time and that the progress of the movement in the future will be still greater than in the past.

14. *Education of Europeans.*—The amalgamation of the Indo-British Institution and the Bombay Education Society schools is the first step towards the reorganisation of the private agencies for European and Anglo-Indian education and the planning for the future on more efficient and economical lines. The concentration of effort in Bombay with the opening of schools in healthy surroundings in the mofussil such as the new combined school at Deolali is the policy which ought to be followed in all such cases.

15. *Conclusion.*—Government are pleased to record their satisfaction with the administration of the department under Mr. Covernton from the beginning of the quinquennium to May 1921 and under Mr. F. B. P. Lory for the remainder of the quinquennium. They note with regret the number of senior educational officers who have taken advantage of the offer of proportionate pensions as a result of the reformed Government to sever their connection with educational work in this Presidency.

By order of the Government of Bombay
(Transferred Departments),

S. N. ZIMAN,

Deputy Secretary to Government.

G. R. no. P.—36, E. D., dated the 6th December 1923.

The Commissioner, Bombay Suburban
Division,
The Director of Public Instruction,

[P. T. O.]

The Surgeon General with the Government of Bombay,

All Collectors, including the Collectors in Sind and the Deputy Commissioner, Upper Sind Frontier, and the Collector, Bombay Suburban District,

The Director of Agriculture and of Co-operative Societies,

All Political Officers who are not Collectors, except the Agent for Sardars in the Deccan,

The Compiler, General Administration Report,

The Manager, Government Central Press, Bombay,

The Superintendent of Government Printing and Stationery,

The Revenue Department,

The Development Department

The General Department,

The Home Department,

The Political Department,

The Finance Department,

The Public Works Department,

The Director of Information (with spare copies for the Editors' Tables and Editors of Newspapers),

The Oriental Translator to Government,

The Non-official members of the Legislative Council,

The ~~Separate Department~~ *Legislative Council* (for the Reading Room for the members of the Legislative Council),

*The Under Secretary of State for India.

*The Government of India, Department of Education, Health and Lands (Education).

*By letter.

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of 1923.

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