

The Educational Review

Vol 38

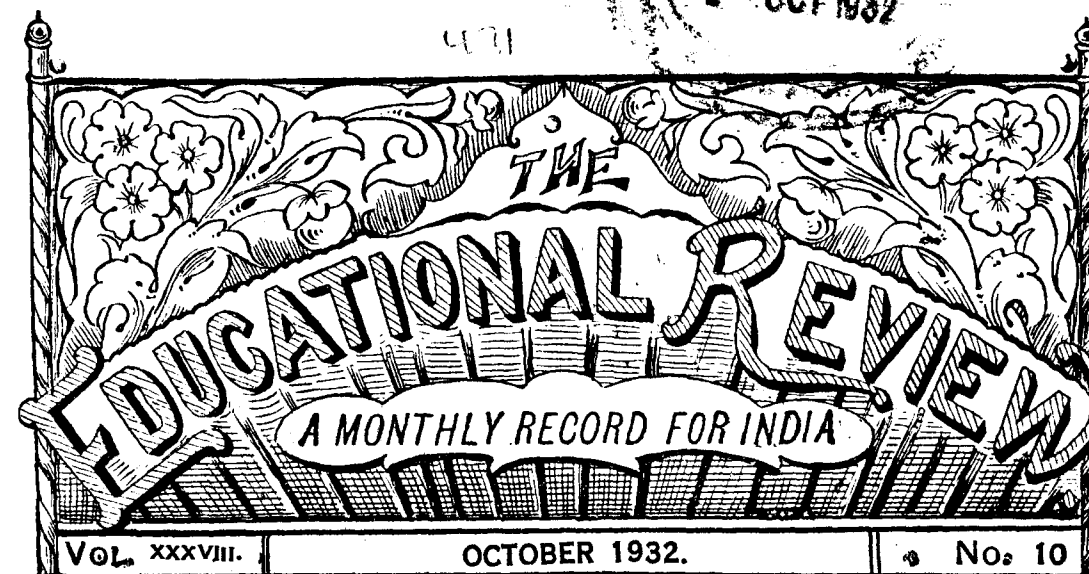
No 10

October 1932

JL
Tom 2, M15.
N32.38.10.

126 703.

10 OCT 1932



CONTENTS.

PAGE

THE TREE OF LIFE AND THOUGHT POWER. By Dr. ERNEST J. STEVENS, A.M., M.Sc., San Francisco, America	705
SHANTINIKETAN UNVISITED. By Mr. R. BALAKRISHNA MUDALIAR, B.A., L.T., Sankari- drug	709
INTEREST AND INDIVIDUALITY IN MODERN EDUCATION. By Mr. N. SESHADRI SHARMA, B.A., Kolar	713
EXAMINATIONS. By Mr. SRIPADA BUCHANNA PANTULU, B.A., B.Ed., Cocanada	729
THE WORLD WE LIVE IN. By Mr. K. VEN- KATAPPAYYA, B.A., B.L., B.Ed., Sullurpeta	736
THE TEACHING OF MATHEMATICS. By Mr. P. V. SUBBA RAU, B.A., Peddavadugur	742
ELEMENTARY EDUCATION. By Mr. GOTETI RAJAGOPALA RAO, Vallur	750
TENNYSON'S IDEA OF THE TRUE POSITION OF WOMAN. By Mr. T. S. THIAGARAJAN, Dharapuram	755
THE TORCH OF WISDOM. By 'WALKER'	757
PLACES OF EDUCATIONAL INTEREST—XVI. EMBERUMANAR TEMPLE. By Mr. L. N. GUBIL SUNDARESAN, Trichy	759

OUR SCIENCE COLUMN—A SCHOOL HELIO- STAT. By Mr. V. N. VISWANATHA AIYAR, M.A., L.T., Madras	760
NEWS AND NOTES	763
REVIEWS AND NOTICES	771
Best Short Stories of India—2 Vols. Selected and Edited by P. Atkinson; The Modern World by S. A. Pakeman; The Last Essays of Elia by Lamb, edited by G. E. Hollingworth; The Splendour of the East, selected from the Travels of Marco Polo; For Teachers of To- day by J. Eades; How to write Stories for Cinema, Published by B. G. Paul; Botany for Schools by E. R. Spratt and A. V. Spratt.	
MADRAS UNIVERSITY LIBRARY — LATEST ADDITIONS	773
EDITORIALS	775
English studies at Indian Universities; Shakes- peare through Eastern Eyes; The late Sir Mark Hunter; The Late Prof. P. Subramania Iyah; The Cinema in National Life; An Ex- periment in University Extension: Unemploy- ment in India; Teachers in Madras; An Economic Survey.	

Annual Subscription inclusive
of Postage, Rs. 5.
Half-yearly Subscription,
Rs. 3.

MADRAS:
SRINIVASA VARADACHARI & CO.
[All Rights Reserved.]

Foreign Subscription inclusive
of Postage, Rs. 6-8-0.

THE NEW INDIA ASSURANCE CO., LTD.

(ESTABLISHED, BOMBAY, 1919)

Capital paid up	...	Rs. 71,21,055
Reserves	...	Rs. 75,61,739
Total Funds	...	Rs. 1,46,82,794
Its Subscribed Capital is	...	Rs. 3,56,05,275
It has paid in claims up-to-date (about)	...	Rs. 5,50,00,000
Total premium income in 1931-1932 exceeds	...	Rs. 78,00,000

"THE NEW INDIA" is admittedly the largest General Insurance Company in India. From the Capital point of view, it may claim to be one of the largest Insurance Companies in the World." **Indian Insurance**-June 1929.

LIFE BUSINESS.

1st Year 1929-30	2nd Year 1930-31	3rd Year 1931-32
Paid up business exceeds Rs. 38 lakhs	Paid up business is Rs. 71 lakhs	Paid up business exceeds Rs. 88 lakhs

"This achievement for the 2nd Year and 3rd Year also is to the best of our knowledge another record without a parallel in Life Insurance in India.

Agencies available for all classes of Assurances—Life, Fire, Marine, Motor Car, Accident, etc. in unrepresented parts.

K. K. SRINIVASAN,

Branch Manager, 4, 1st Line Beach, Madras.

The College Classics Series of Shakespeare's Plays.

GENERAL EDITOR: F. W. KELLETT, M.A.

Henry V, by P. H. Sturge, M.A., Professor, Nizam's College, Hyderabad. Cloth Re. 1-6-0.

Tempest, by E. E. Kellett, M.A., Master, Leys School, Cambridge. Cloth Re. 1-6-0.

Midsummer-Night's Dream, by Rev. R. Scott, M.A., Professor of English, Wilson College, Bombay. Cloth, Re 1-6-0.

As You Like It, by the late F. W. Kellett, M.A. Cloth Re. 1-6-0.

King John, by Mark Hunter, M.A., Principal, Rajahmundry College. Cloth Re. 1-4-0.

Julius Caesar, by Mark Hunter, M.A., Principal, Rajahmundry College. Third Edition—Cloth Re. 1-12-0.

Merchant of Venice, by J. H. Stone, M.A., Principal and Professor, Presidency College, Madras. Cloth Re. 1-6-0.

Othello—The Moor of Venice, by Michael Macmillan, B.A., late Principal and Professor of English, Elphinstone College, Bombay. Cloth Re. 1-6-0.

Hamlet, by W. J. Goodrich, M.A., formerly Principal and Professor of English, Pachaiyappa's College, Madras, and afterwards Principal and Professor of English, Ahmedabad College, Bombay. Cloth Re. 1-10-0.

Macbeth, by Dr. J. Morrison, M.A., late Principal and Professor of English, General Assembly's Institution, Calcutta. Re. 1-6-0.

Twelfth Night, by Michael Macmillan, M.A., D.Litt., I.E.S. (Retired), English Lecturer in the University of Birmingham; formerly Principal and Professor of English, Elphinstone College, Bombay. Cloth Re. 1-12-0.

Richard II, with Introduction and Notes, by Prof. J. C. Rollo, M.A., Mysore University. Price Re. 1-12-0.

The Taming of the Shrew, with Introduction and Notes, by K. Deighton, M.A. Re. 1.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

142349-
Oct. 1932.]

ADVERTISEMENTS.

A TEXT-BOOK OF ARITHMETIC

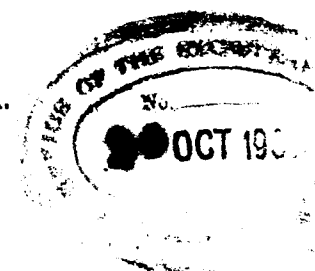
for Lower Secondary or Middle Schools

BY

The late S. RADHAKRISHNA AIYAR, B.A.
Principal, Maharajah's College, Pudukotah

AND

K. VAIDYANATHASWAMI AIYAR, B.A.
Retired Headmaster, Board High School, Tiruvalur.



This book which had long been recognised for use in Schools under private management and has passed through 23 big editions in about 30 years, is now recognised for use in Schools under public management also.

2. In its 21st edition it was thoroughly revised and brought into line with the *Syllabus in Elementary Mathematics* recommended by the Director of Public Instruction, Madras, for Forms I, II and III of Secondary Schools, and will be found to be a most suitable and satisfactory Text-Book of **Elementary Mathematics** for Forms I, II and III of all Secondary Schools both in the Madras Presidency and in the Indian States of Mysore, Travancore, Cochin, Hyderabad and Pudukotah.

3. The book is issued from the 21st edition in two *complete and independent* parts written on the *Concentric System*, Part I being intended for Form I, and Part II for Forms II and III.

PART I—23rd Edition for Form I. Price As. 12.

PART II.—24th Edition for Forms II & III. Price As. 12.

Prescribed as a Text-book for 1930-31, in the first and second year classes of Middle Schools in the Mysore State, vide Notification D. No. 49, dated 23-12-29.

Approved for use in ALL Schools

(Both under Private and Public Management.)

TAMIL EDITION

Part I-A—(Pages 240 + xvi). Price 12 as. 6 pies.

Parts I-A & B in one volume. Re. 1-10-0.

Approved as a suitable Text-book for School use.

(Fort St. George Gazette, 24th July 1923, page 668).

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

XXXVIII—a

ELEMENTARY MATHEMATICS

BY

RAO BAHADUR P. V. SESHU AIYAR, B.A., L.T., I.E.S.,

Retired Principal, Govt. College, Kumbakonam.

AND

V. VENKATASUBBAYYA, B.A., L.T.

Headmaster, High School Dept., Pachaiyappa's College, Madras.

Part I for Forms I to III. 8th Edition, Cr. 8vo. 550 pp. Rs. 2.

Approved as a Text-book for Secondary Schools, *Fort St. George Gazette*, 4th June 1912, and *Cochin Govt. Gazette*, 15th June 1912, and for Schools under Public Management, *Fort St. George Gazette*, 3rd December 1913; also at p. 642, Part I-B, dated 21-6-21.

Part II for Forms IV to VI. 6th Edition, Cr. 8vo. 612 pp. Rs. 2.

Approved as a Text-book for Secondary Schools, *Fort St. George Gazette*, June 1915; and for Schools under Public Management, *Fort St. George Gazette*, July 1917; also at p. 642, Part I-B, dated 21-6-21.

TAMIL EDITION.

Adapted and translated by S. Sivaraman, B.A., L.T., Mathematics Assistant, Salem College.

Part I for Form I. Cr. 8vo. 292 pages. 12 As.

Approved as a Text-Book suitable for School use, vide *Fort St. George Gazette*, Part I-B, dated 1-11-27.

Part II for Form II. Cr. 8vo. 208 pages. 10 As.

Approved as a Text-Book suitable for School use, vide *Fort St. George Gazette*, Part I-B, dated 1-11-27.

Part III for Form III. Cr. 8vo. 300 pages. 12 As.

Approved as a Text-Book suitable for Class use, vide *Fort St. George Gazette*, Part I-B, p. 513, dated 18-11-1928.

TELUGU EDITION.

Adapted and translated by A. Jayaram Rao, B.A., L.T., and S. Krishna Rao, B.A., L.T.,
Board High School, Kavali.

Part I for Form I. Cr. 8vo. 294 pages. As. 12.

Part II for Form II. Cr. 8vo. 208 pages. As. 10.

Approved as Text-Books suitable for School use, vide *Fort St. George Gazette*, Part I-B, p. 513, dated 18-11-28.

Part III for Form III. Cr. 8vo. 303 pages. As. 12.

Approved as a Text-book suitable for School use, vide *Fort St. George Gazette*, Part I-B.

SRINIVASA VARADACHARI & CO, 190, MOUNT ROAD, MADRAS.

A COURSE OF GENERAL MATHEMATICS FOR SECONDARY SCHOOLS

Suiting the Syllabus in Elementary Mathematics for the S. S. L. C.
Public Examination

By V. RAGHUNATHA AIYAR, B.A., L.T.

Dy. Inspector of Schools, Ambasamudram.

6th Edition. Cr. 8vo. over 570 pages and 200 diagrams. Rs. 2.

Approved as a Text-book for Schools under Public management,
vide *Fort St. George Gazette*, Part I-B, p. 641, dated 21-6-21.

Approved as a Text-book suitable for school use,
vide *Fort St. George Gazette*, Part I-B, p. 877, dated 21-9-21.

ADAPTED IN TAMIL

By

V. RAGHUNATHA AIYAR, B.A., L.T.

Deputy Inspector of Schools, Ambasamudram.

The adaptation in Tamil of the above book is specially made to encourage the study of the subject in Tamil. The publishers will be delighted if they hear that pupils understand the subject with ease through Tamil as the medium of instruction. Special efforts are made to present the subject in simple clear Tamil. English equivalents for the scientific terms are set side by side with the Tamil terms. Test papers and copious problems are added to give enough drill.

D. Cr. 16 mo. 396 pages. Price Re. 1-4-0.

This is a Tamil edition of the very useful text-book on Mathematics for High Schools prepared by Mr. Raghunatha Aiyar and published a few years ago. The fundamental principles are explained in easy language and the examples set in the several exercises are of graded difficulty and calculated to take the student easily on from one problem to another. The book is made interesting to the student, by relating the problems as far as possible to actual life. In this Tamil edition, the author has employed Tamil equivalents for the technical terms of Mathematics; and to facilitate their use, he has also given the English terms in brackets.—*The Hindu*.

SRINIVASA VARADACHARI & CO. 190, MOUNT ROAD, MADRAS.

INTRODUCTORY ALGEBRA

The Most Elementary Principles Fully Explained
and Illustrated by Model Solutions

WITH
ONE THOUSAND EXAMPLES

BY

JOHN COOK, M.A., F. R. S. E.,

Principal, Central College, Bangalore; Fellow of the Madras University, etc.
Sixth and the latest Edition—Revised. Price 10 Annas.

RUDIMENTS OF ALGEBRA

With a Chapter on Graphs

by the late S. SRINIVASA IYER,

Author of "Problems in Arithmetic."

Revised by B. HANUMANTHA RAU, B.A.

Professor of Mathematics, College of Engineering, Madras.
Sixth Edition. Price Re. 1.

13th Edition.

A MANUAL OF ARITHMETIC

By the late S. RADHAKRISHNA AIYAR, B.A.

Principal, Maharajah's College, Pudukotah.

Approved as a Text-book for all Classes and Forms.

Vide Fort St. George Gazette, 24th Jan. 1907.

Very useful for School-Leaving Certificate Examination.

Price—Rs. 2.

PROBLEMS IN ARITHMETIC

WITH

SOLUTIONS AND EXAMPLES

CLASSIFIED AND ARRANGED

BY

S. SRINIVASA AIYAR,

Late Headmaster, Pachaiyappa's High School, Conjeevaram.

TENTH EDITION—REVISED AND ENLARGED.

Price Re. 1-4-0.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS

A PREPARATORY ALGEBRA

**Prepared in accordance with the Syllabus in Optional Mathematics
(C. Group) for the Madras S. S. L. C. Public Examination**

BY V. RAGHUNATHA AIYAR, B.A., L.T.,

Dy. Inspector of Schools, Tirukurungudi Range (Tinnevely Dt.); author of 'A Course of General Mathematics.'

D. Cr. 600 pages with 49 diagrams. Price Rs. 2.

Approved as a Text-Book suitable for School use.

vide Fort St. George Gazette, Part I-B, p. 545, dated 1-11-'27.

OPINIONS.

RAO BAHADUR P. V. SESHU AIYAR, B.A., L.T., *Retired Principal, Govt. College, Kumbakonam*, writes:—"I am glad to find that 'A Preparatory Algebra' by Mr. V. Raghunatha Aiyar, B.A., L.T. (published by Srinivasa Varadachari & Co.) is well planned and written very carefully so as to meet the requirements of pupils in the S. S. L. C. classes for whom it is mainly intended. The expositions and illustrations are clear and lucid and there is a good collection of nice examples and exercises. The appendices A and B are really well-written and add much to the usefulness of the book. * * * I hope the book will meet with the encouragement it well deserves."

Mr. A. TIRUVENKATATTAIYANGAR, B.A., L.T., *Headmaster, O. R. O. High School, Pursawakam Madras*, writes:—"Mr. V. Raghunatha Aiyar, B.A., L.T., has laid the student population under obligation by his Preparatory Algebra. The plan of the book is commendable. The chapter on Directed Numbers is in its proper place and is well written. What a student will find of greatest value in the book is the large collection of exercises following theorems. There are a few typographical errors, which, it is hoped will be removed in a subsequent edition. The book is a useful addition to the books on High School Algebra and will supply a real want."

Fourth Edition—Revised and brought up-to-date.

IMPORTANT TO INTERMEDIATE STUDENTS.

INTERMEDIATE GEOMETRY

(THEORY AND PRACTICE)

Containing a detailed and exhaustive treatment of the matter for the Intermediate Examination with special reference to the Syllabuses of the Madras and Mysore Universities.

BY M. SATYANARAYANA, M.A., L.T.

Chief Lecturer in Mathematics, Maharajah's College, Vizianagaram

AND

K. S. PATRACHARIAR, M.A., L.T.

Chief Lecturer in Mathematics, Government College, Kumbakonam.

Crown 8vo. 360 pp. with over 130 diagrams. Price: Rs. 2-8-0.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS

Approved as a Text-Book suitable for School use,
vide Fort St. George Gazette, Part I-B, p. 513, dated 13-11-28.

A NEW GEOMETRY FOR HIGH SCHOOLS

BY

A. A. KRISHNASWAMI AYYANGAR, M.A., L.T.,
Chief Lecturer in Mathematics, Intermediate College, Mysore.

WITH A FOREWORD

BY

DR. R. VAIDYANATHASWAMY, M.A., D.Sc., F.R.S.E.,
Reader in Mathematics, Madras University.

Price Rs. 2-8-0.

CONTENTS.

Book I. Chapter I. Introductory; Chapter II. Angles at a Point; Chapter III. Parallel Straight Lines; Chapter IV. Angles of Triangles and Polygons; Chapter V. Relation between the Sides and the Angles of a Triangle; Chapter VI. Congruent Triangles; Chapter VII. Parallelograms; Chapter VIII. Construction of Triangles and Quadrilaterals from given data; Chapter IX. Loci.

Book II. Areas. Chapter X. Areas of Parallelograms, Triangles and other Rectilinear Figures. Chapter XI. Identities. Chapter XII. Pythagoras' Theorem and its Extensions. Revision Papers.

Book III. The Circle. Chapter XIII. Properties of the Circle. Chapter XIV. Construction of Circles. Revision Papers.

Book IV. Ratio and Proportion. Chapter XV. Ratio and Proportion. Chapter XVI. Trigonometrical Ratios. Revision Papers.

OPINION.

The Journal of the Indian Mathematical Society, February 1930:—This a Text-Book designed or use in Indian High Schools and meets the requirements of C. Group Geometry of the Madras B. S. L. C. It is really a "new" geometry containing several distinctive features among which may be mentioned: the new ordering of theorems enabling related propositions and constructions based on them to be treated side by side, the emphasis on the application of geometrical results to practical needs of man, and the historical notes imparting an oft-neglected human touch to the subject. The reference to the contributions of great Hindu mathematicians like Aryabhata, Brahmagupta and Bhaskara is an original feature which must make the book specially valuable to Indian students. The section on Trigonometrical Ratios is a welcome addition to a Text-Book for the High School classes. We may echo the hope, expressed by Dr. Vaidyanathaswami in his Foreword, that the book may set the fashion—not only in text-book writing, but also in actual teaching.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

Supplementary Readers

(Books for Non-detailed Study in English)

* Books Approved for School Use by the Text-Book Committee are marked with an asterisk.

GRADE I

* **The Sky Falls!** Large Type. Short sentences. Very simple English. With Picture Devices for Unaided Reading in Class V or Form I. A Story that can be used in a Project Scheme. (*The Cub and Scout Series*, No. I. A first step in Social Education). As. 2.

GRADE II

Stories for the Days of the Week. Seven Stories designed to induce in pupils a certain self-regulation and honourable relationship with one another in their school life, making a little beginning for citizenship. Large Type. Well Illustrated.

Form I. (*The Cub and Scout Series*, No. II. A second step in Social Education.)

GRADE III

* **The Adventures of a Billy-Goat.** By W. H. Warren. Large Type. Illustrated with four pictures. A humorously told story in charming, simple, straightforward, idiomatic English. Form II. As. 2.

Dimma Long Tail The Story of a Monkey King and his Kingdom, giving a sense of Common Weal. (*The Cub and Scout Series*, No. III. A third step in Social Education.) Form II. In the Press.

GRADE IV

The Trial of Mārjālan. The Story of a Cat 'Committed to the Sessions' and tried by a Jury of Birds and Animals. A touch of sympathy for the fallen. Form III. (*The Cub and Scout Series*, No. IV. A fourth step in Social Education). In the Press.

GRADE V: For Forms IV and V

* **Across India: Stories of Cities and Shrines, Old and New** By A. C. Clayton. Illustrated with a Map and several Pictures. Gives an account of the route taken and the places visited by two pupils under the guidance of an observant teacher. A book of historical, geographical and literary usefulness. As. 6.

* **The Wise Boy Judge.** Four typical Stories of Mariyathal Rama. By A. C. Clayton. As. 4.

* **Stories of Heroism.** By G. Davies-Watkins, Professor of Geography. The Christian College, Madras. Stories of deeds of heroism of ancient Greeks inspiringly told. As. 6.

* **Stories and Legends of Old India.** By A. J. Appasamy, M.A. (Harvard), D. Phil. (Oxon). With an Introduction on the value of Folklores and Legends and Questions and Exercises in Composition. As. 6.

The Entertainment of Lalita. Grade V. A Prose Drama. In the Press.

The Story of Lalita, spurned, when poor, by her brother's wife, but gorgeously welcomed by her when rich. The play contains the joint-message of Lalita, combining in herself the devotion, patience and dignity of Indian womanhood, and her husband, a product of indigenous Indian and Western culture, to the present-day Indian student—boy or girl. (*The Cub and Scout Series*, No. V. A fifth step in Social Education)

Books for College Classes and School and College Libraries

* **The Unifying of Civilization.** (*The League of Nations*). By G. Davies-Watkins, B. Sc. (Econ.), F.R.G.S., *University Reader in Geography*, University of Madras. Re. 1.

For the Pass and Honours Courses in History, Philosophy and Law and for all interested in the achievements as well as the problems and work ahead of the League. Covers most of the Syllabus of the University of Madras in the subject of *The League of Nations*.

Agricultural Co-operation in India. By John Matthal, B. Litt., D. Sc., formerly Professor of Indian Economics, University of Madras, and Member, The Tariff Board. Paper Cover Re. 1-8; Cloth, Rs. 2. For the Pass and Honours University Courses. "Brilliantly written...The best introduction to the Rural Co-operative Movement in India."—Harold H. Mann, Director of Agriculture, The Bombay Presidency.

Student Life in the West. By A. J. Appasamy, M.A. (Harvard), D. Phil. (Oxon). As. 8.

"Very useful for those intending to go overseas for further studies."—*The United India and Indian States*. "Delightful pen pictures."—*Rural India*.

THE CHRISTIAN LITERATURE SOCIETY FOR INDIA, P. B. 501, PARK TOWN, MADRAS.

UNIVERSITY TUTORIAL PRESS

BOOKS FOR TEACHERS.

PRINCIPLES AND METHODS OF TEACHING.

By JAMES WELTON, D.LIT., M.A. *Third Edition.* 8s. 6d.

Will help members of the teaching profession in all the phases of their daily work, and assist those preparing for their professional examinations.

TEACHING: ITS NATURE AND VARIETIES.

By BENJAMIN DUMVILLE, M.A., F.C.P. *Second Edition.* 6s. 6d.

Analyses the processes of teaching as they occur in all subjects. A special chapter is devoted to recent developments in individual teaching; the Montessori Method and the Dalton Plan receive particular attention.

FUNDAMENTALS OF PSYCHOLOGY.

By BENJAMIN DUMVILLE, M.A., F.C.P. *Second Edition.* 6s. 6d.

An account of the nature and development of mental processes with reference to actual school work, which deals fully with recent developments in psychology, mental tests, psychoanalysis, and the study of dreams in so far as they apply to school life.

THE GROUNDWORK OF PSYCHOLOGY.

By G. F. STOUT, LL.D., M.A. *Second Edition*, Revised by R. H. THOULESS, PH.D., M.A. 5s. 6d.

Gives a general view of mental process and mental development and deals briefly with recent progress in psychology. New matter has been added dealing with Instinct, Attention, and the perception of external objects.

AN INTRODUCTION TO EXPERIMENTAL PSYCHOLOGY.

By C. W. VALENTINE, D.PHIL., M.A. *Second Edition. Revised.* 4s.

An introductory course in experimental psychology for the use of teachers, students in training colleges, and private students. For the second edition the book has been revised in the light of recent investigations and additional experiments have been included.

CHILD MIND.

By BENJAMIN DUMVILLE, M.A., F.C.P. *Second Edition.* 4s.

A clear account of the nature and development of the mind of the child so far as it is understood. A chapter dealing with the "new psychology" and its influence on educational theory and practice is included.

THE HYGIENE OF THE SCHOOL.

By Dr. R. A. LYSTER. 5s. 6d.

A reliable and modern introduction to the subject of the hygiene of the school and the scholar, intended primarily for teachers and students in training, but useful to all who are interested in the health of children generally.

LONDON: UNIVERSITY TUTORIAL PRESS, LTD.

INDIA: OXFORD UNIVERSITY PRESS:

Bombay (Head Office): B. I. Building, Nicol Road.

Madras (Depot): Kardyl Buildings, Mount Road.

Applications for specimen copies should be addressed to the Head Office, Bombay.

The publications of University Tutorial Press may be obtained from the principal booksellers in India.

The Educational Review

A MONTHLY RECORD FOR INDIA

VOL. XXXVIII.]

OCTOBER 1932.

[No. 10.]

THE TREE OF LIFE AND THOUGHT POWER.

By DR. ERNEST J. STEVENS, A.M., M.Sc.,

San Francisco, America.

"And he shall be as a tree planted by the rivers of water that bringeth forth his fruit in his season; his leaves also shall not wither; and whatsoever he doeth shall prosper." *Psalms*, I. 3.

WE are assured that this is the spiritual human tree symbolized, for other trees wither and pass on, or as our dear friend, Dr. Rawson, would say,—are "like moving mists of matter."

Do you ask what it is that keeps this tree from withering? It is Spirit-Thought, the regenerating, activating principle of the Universe. Without the spirit of thought, no human tree or being can survive.

Aristotle said: "The greatest gift of God is life," and may I humbly add—the greatest gift of the Spirit is Thought. Remember, as a man thinketh in his spirit centre, so is he. His Spirit-Thoughts create, serve and govern his spiritual tree. Everything within, around, above and below is the garb of some thought. Spirit-Thought is the greatest of forces and actors; it becomes a dynamic

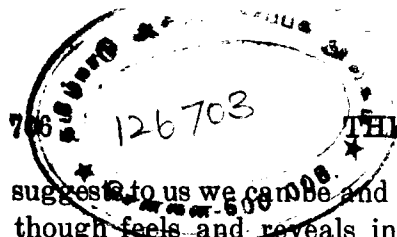
messenger of the greatest of all universal things—"Spirit."

Demosthenes once said: "In God's name, THINK." I believe the man who thinks is God's best friend. The measure of a man's soul is the measure of his thoughts. The slow thinker is called stupid, the narrow thinker is ignorant or bigoted, while the original thinker is bright and individualistic, and the super-thinker, inventor or teacher is crowned a GENIUS. Thus we find that the men and women who have the best positions are the thinkers who control their thought processes and destiny.

Our Spirit-Thoughts also govern our mental tree and our physical, manifesting tree.

We are, because we think; cease thinking and we cease to be here; therefore, we are what we think. Our acts are our thoughts manifesting and making.

Thought, too, is an instrument for becoming; we become what we feel and what we perceive. All that thought



suggest to us we can be and do. All that though feels and reveals in us, we can become, because the creative spirit dwells in our tree-home within our temple called "Kingdom of Heaven"; therefore, let us not be continually repeating, imitating and dwelling upon what our forebears have done, but let us build on our new experiments and realize our own master-pieces. Let us develop our tree of life with original, independently-dependent creative thoughts.

Let us turn our spirit search-light toward our feelings and feelers, as these are the tree branches behind the thought power of action. Feeling is the power behind the throne in our kingdom. It is the force that turns our conscious search-light toward the desirable, and is the INNER FEELING you maintain toward what you want.

Thought is mind in motion, just as wind is air in motion. When a thought is expressed, it combines with similar thoughts thus forming an idea, which when it becomes an organic seed-thought in the world and when it finds congenial soil, begins to sprout and grow into a fruitful tree, bringing forth the fruit of its kind.

"Just as soon as we plant the thought in the proper medium, that is, within the Infinite Mind within us, the creative Principle which is an aspect of Infinite Intelligence, begins to clothe that thought."

Our seed-thoughts need the directing agent of the mind, which is the soul's

medium to instruct them to organise and to bring them into a higher, harmonious plane of development. Thought-seeds begin their growth in the spiritual tree and reach their fruitfulness in the field of conscious realization. Therefore, let us—

THE SPIRIT'S REALIZATION

Sow the seeds of truth, sow the seeds of love,
In thought-furrows of preparation;
Then your reapers will harvest the golden fruit—

A rich reward and compensation.
Then spread thy thought-wings and soar
and sing,

And continue the soul's migration—
To tropical realms of your spiritual sun,
'Tis thy Spirit's realization.

—(E. J. S.)

Do we not affirm in our Declaration of Principles of the INTERNATIONAL NEW THOUGHT ALLIANCE, that "the windows of the individual soul must be kept open and his mind be always hospitable to each other's new inspirations? And again we affirm that man's body is his holy temple. Every function, every cell of it, is full of health and energy.

The functioning of man's spiritual tree and holy temple depends upon a clean, clear blood and air supply, which spells godliness and which includes physically and mentally eliminating poisons and narcotics and any waste matter which clogs the thought-cells of our tree of life. I prophesy that instead of occasionally soaring the mountain tops of inspiration and intellectuality, that this will be man's usual, rather than a rare, ex-

perience—Why not? And eventually, (why not now?) your cultivated Tree of life will function far beyond its present cell-clogged-up capacity of seventy-five to hundred years.

Reality, potentiality, and actuality, a treasured trinity, belong to the soul's root-and-branch principle of the tree of life. This spiritual tree is surcharged with real, dynamic, potent and sustaining substance we call love, which comes from the sub-soil of truth and reality; therefore this truth and realization depend upon the active principle of the tree of life, which is Spirit.

First, we have the spirit-tree developing emotions through its feelers; these produce feelings, then thoughts with desires, which produce ideas and action, and which co-operate with mind, space, time and environment; thus we develop the divine human tree of life. We cultivate our consciousness within, then we feel, think and act. Our world exists because the spirit-thought-seeds began to develop into a definite consciousness. So—

A FLASHLIGHT INSPIRATION

When thought seeds come to your mind,
Choose wisely which you'll take,
For what you plant, will sprout and grow,
And express the life you make.
—E. J. S.

Our soul's thought-seeds which develop into imagination, are for service, first for our present world, then for our planetary system of worlds—including our new neighbour planet "Pluto" and then, why not radiate to the unlimited

spaces of our universe? "He who aimeth at the sky, shooteth higher than he who aimeth at a tree." Low aim, not failure, is crime.

Our friend, Farrington says, "What we think of others, we are," and adds, "Before you can broadcast a thought you must first have that thought. So if we hold thoughts of love, we produce a rate of vibration of that which is broadcast into the atmosphere." When we broadcast high and fine thoughts, we attract heavenly, harmonising messages. Is not each individual an instrument through which flows the spirit-energy and by rightly understanding the laws that govern thought forces, are we not enabled to rightly direct the course of our actions?

A new thought-idea is often of more real value than the wealth of a bank. Thought is not only the essence of creative supply, but reproduces itself the same as any germ, seed or cell. This creative thing is continually trying to express itself in some form. For this reason, our thoughts lead to our action and to our environment; likewise destructive thoughts will create discordant conditions, just as readily as they create a super-conscious race idea.

The fear of thoughts, dear friends, and the insidious slave-thought of being afraid, or of even being afraid to think for oneself because of other's thoughts, becomes the most enslaving of all attachments. Oh, God, help us to cast out all fear-weeds from our "Garden of Thoughts!"

In that dear little book entitled "Thought Power" which I saw on the book table in the Vestibule, this is what you will read: "It is in abundant life that the soul delights. Assimilate the thought that this life is yours, that you have an open, courageous mind, that the religion of truth, the strength of fact, the joy of reality, are your abiding possessions; that vindictive gods and flaming hells (and I will add "You miserable sinners" and "worms of the dust" idea) no longer cast their dismal shadows athwart the golden way of life."

We are living in a new and inspiring era, an era of science, of new thought, philosophy and miracles, with new light-bearers and color banners, an era of unlimited potentiality and probability. Friends, our past and present thoughts create a new world, and a new race.

New thought and science are unlocking the storehouses of knowledge and wisdom; the lash of circumstances and the lash of present day competitive requirements, are increasingly impelling men and women to think. The logic of life no longer has its basis on man-made religion and false optimism, but on the practical basis of a seven-days-in-the-week service, which is more practical and appealing, and will bear the acid tests of the one reality and the one universal religion of the soul. This is the Master Christ way, the way of the man of spirituality, the new thought of absolute divine science way.

The spiritual changes of thought and discernment to us, as new thinkers, is on the continuous upward trend, choosing between the lower and the higher ratings of spirit; therefore, we should welcome new ideas that open new doors of radiant truth. This is the developing way of illumination.

THE WAY.

When we go beyond the animal instinctive thoughts, we think with the

light of knowledge,—for Perception is the way.

When we pass beyond exoteric book-teaching, we shall discern a thing—for Differentiation is the way.

When we go beyond mere personalising, we shall then find the soul, for Individualization is the way.

When we go to the spirit-tree source of the cause of thoughts, feelings and truth—then Intuition is the way.

Do you wish more fruit on your tree of knowledge? Then create and cultivate renewing thoughts—for Initiation is the way.

THOUGHT POWER.

Transfer the surplus animal and mental energy into spiritual power—this is Ideal.

Transform thoughts of sense and materiality to thoughts of sentiment and spirituality—this is Ideal.

Transmute physio-mental vibrations to rhythmic, balanced emotions—this is Ideal.

Transcend emotion and passion into control, sympathy, gentleness and strength—this is Ideal.

Descend into the soulful and spiritual and express the I am of individuality—this is Ideal.

Ascend and sublimate your tree of life forces to flow radiantly and affirm I AM LIGHT; I AM LIFE; I AM LOVE; for this is the Sublime Ideal.

Thus we have our tree planted by the river of life.

Great Spirit of Light and Life and Love surround and quicken our souls and let not thy spiritual tree-likeness, undeveloped within us—lie!

Great Master of Universal Intelligence, illuminate us with THY infallible spiritual light and let not the Thought-Power within us—die!

SHANTINIKETAN UNVISITED.

BY MR. R. BALAKRISHNA MUDALIAR, B.A., L.T.,

Sankaridrug.

SHANTINIKETAN is an ideal. It is the fragrance of a flower of thought. It is a return to nature that bares her bosom to the hungry lips of the child kicking and crying unencumbered by the 'man-made manacles of life.' It is a rejuvenation of the ashram schools of old—the forest colonies. It seems as though it were an avatar on earth to redeem mankind from spiritual decadence. It is the song of a koel amidst the din of artificial existence—a strange melody that floats and keeps the world in thrall.

Originally three tall-towering trees adorned the secluded spot and the poet Rabindranath's father, the Maharshi, after his many wanderings in quest of solitude, fixed the place as meet for meditation. Many ardent disciples gathered round him and the place became a Tapovana—of course more trees now growing up round the hoary trio, as their youthful disciples, filling the place with shade and fragrance and towering to the skies and offering with their reverent boughs, at the altar of heaven, 'fresh blown flowers washed in dew.' So too the Maharshi and his new disciples wreathed out fumes of prayer to the Lord from the censer of their heart, and worked towards a common ideal—the attainment of the Supreme Bliss—of becoming one with the Godhead.

Even as the poet Tagore has sprung out of the philosopher Devendranath, so has the Shantiniketan of to-day come out of the Tapovana of yesterday. For, the two different institutions are but the tangible out-growths of the inner spiritual evolution of father and

son. The Tapovana with its philosophy and meditation so near and dear to the Maharshi with his chosen few, has now developed into a tremendous world-power—not in the sense of material, but spiritual magnificence, with all its poetry of life.

It is a living In Memoriam of the poet to his saintly father. So it is a holy place, Shanti-niketan, meaning an abode of peace.

A couple of miles' drive from the Bolpur station through an almost barren country gets you along to Shantiniketan. It was only thirteen years ago Dr. James H. Cousins with his little Hindustani and less Bengali had to jolt his way through to the ashram from the station in a native bullock bandy—'a springless affair that announced every unevenness of the road to his spine.' But now a fine fry bus awaits you at the station to roar its way back to the ashram in a trice!

The ashram with its dreamy spire of a temple keeping vigil over a sprinkle of huts nestling amid 'the amalaki groves and stately sal trees' inspires in us awe and respect even at a distance.

When you alight at the gates of the ashram—not necessarily at the wrong side and after telegraphing to the poet in vain for a reply as in the case of Dr. James H. Cousins*—you find yourself merged in solicitude, for the fawn-eyed youths of the ashram cluster about to lead you along as if into the very paradise of nature. The poet's personality seems to pervade the whole atmosphere, for

* Vide his entertaining essay on 'A Visit to Shantiniketan Ashram' in his book entitled 'The Kingdom of Youth,' (Ganesa and Co., Madras.)

though he sits at his desk in a hut, somewhat removed from the other hamlets, yet you feel as though he greets you austere-ly at every step. The easiest approach to the poet's presence, we are told, is through the tender lead of one of the youths of the ashram.

Though one of the chief objectives of the visitor be the interview with the poet, yet one understands him better by associating oneself with the masters and pupils at work beneath the blossomed bowers of the ashram.

Attend the art or music class if you will. You do not find the rigidity of discipline obtaining in the common trend of schools. There is no compulsion of attendance. Those who will may come, sit and enjoy—sit anywhere they like, say even on the overhanging boughs, for classes are held not within the dead walls of brick and mortar but under the whispering trees of the ashram. The song of a caged bird man-tutored falls like a jar upon the ear of one accustomed to the joyous madrigal of a bird 'whose nest is in a watered shoot.' So a professor of the ashram would be disgusted to find himself in the cramped confines and dull monotony of our so-called modern schools. But fortunately, nurslings as we are from schools of the latter type, we find the change for the better when we get into the paradise of the ashram. The songs of the pupils are songs of freedom—I mean to say they are natural and pleasing as songs of birds in their nests—there is nothing forced or artificial about them. The ashram seems, in other words, to be an emphatic protest against the tyranny of the modern school with all its paraphernalia of dead rigidity of discipline, killing curricula and the nightmare of examinations!

It is the case of a *school* in a garden, not of a *garden* in a school, as it is with our schools generally. Nature has her legitimate share here in the education of the young and the old.

The sight of a squirrel scrambling up the trunk of a tree while masters and pupils are absorbed in prayer, both morn and eve, which is another noteworthy feature of the ashram, the sudden outburst of songs of birds from the treetops that drowns even the shrill voice of the poet at his lecture, the freakish sallies of the soft south wind, rich with its burden of fragrance from the lips of shivli flowers, the brilliance of the dawn and the glory of the setting sun, the twinkling stars that 'swim into our ken' to shed their grace upon our head, the golden showers of a July afternoon, the tripping clouds overhead, the whisper of the leaves and the solemnity of a silent December-night, these ever-changing phases of nature have quietly found their way into the very make-up of the inmates of the ashram and have found adequate expression in art, music and poetry.

The poet sits at his desk by the side of a mystic murmuring tree and composes his verses to the tune of an early bird singing in budded foliage. A fawn-eyed youth comes on tip-toe, like a woodland elf bent on mischief and peeps over the poet's shoulders glancing over the verses in the making. The poet turns round with a smile catching the juvenile trespasser redhand and the youth blushing soon asserts himself by requesting the Gurudev to turn overleaf so that he could go through what was written before. The poet not only does so with pleasure but also sings out his songs for the pupil in a soul thrill melody.

The pupil has not only the advantage of the personality of the poet with his sonorous voice and his poetic surroundings but also of reading the poems in the process of composition. Scribbings and strikings off in the manuscript, with space for additions, first and second drafts, hints and such like which as against the perfection of print and the awe it inspires, give a helping hand to the novice in the art to compose verses of his own and to hope for perfection in spite of temporary failings in his compositions.

I quite well remember a graduate teacher, who after once carefully observing an artist working at the portrait of Swami Vivekananda, tried his hand, when the artist had left, at the same work. Though he was responsible for the *execution* of at least half a dozen Vivekanandas on paper, yet he succeeded at last in drawing a true portrait of the Swamiji and his very successful portraits of Pandit Motilal and Tagore drawn subsequently now adorn the beautiful hall of a school in Chettinad!

If only we care to see that occasionally at least, in or out of school hours, we produce our works of art in the presence of pupils without compulsory attendance, as at Shantiniketan, the result would be surprising.

It is a pity that the aesthetic side of education is almost neglected in our schools. It is indulged in occasionally as an alien—a siren, viewed oftentimes with suspicion. Such a wrong conception has been at the root of many an evil such as lack of interest in education, lethargy, atrophy of genius and individuality and last but not the least hatred of the hum-drum and artificiality of school-routine.

A lawyer of some repute in one of the premier agricultural districts of the presidency, once took his son—then a pupil of the higher forms—on a holiday visit to the country side. And the youth coming across a number of fields filled with water before ploughing, expressed his surprise at the existence side by side of so many ponds in the village! The parent was justly roused to wrath at the artificiality of the instruction imparted in schools and the poor knowledge of agriculture the pupils possess in an agricultural country like India!

Excursion in schools is not an impossibility even under the present financial crisis. The stupendous amount of money spent on buildings and furniture may with advantage be cut down to a minimum and the pupils brought within easy reach of mother nature by the growing up of beautiful gardens, and taking pupils on holiday trips during sowing and harvest seasons to country parts and to places of scenic and historic significance. These are things quite familiar to the ashramites at Bolpur!

The economist in education is agreeably surprised to find his problem so easily solved at the nature school of the ashram with its sparse buildings and furniture.

Co-education of boys and girls, we find experimented upon here with great success. Manual training, co-operative work, agriculture, adult education and rural reconstruction come within the purview of the ashram.

Illustrated magazines both for the senior and the junior pupils have been started here and thus talented young pupils find enormous facilities for the development of their genius. How many of our schools can boast of a

magazine worth the name and how many have instituted prizes for original productions in art, music and poetry? An example has been set at Shantiniketan and why not we follow suit?

Here the rod of discipline is the rod of love and persuasion. The pupils of the school form their own court of justice and they look to the maintenance of discipline.

We are told of a funny experience the poet once had with some of his juvenile offenders. Angry at their mischievous pranks one day, the poet rushed up determined to punish them. When he was at the very brink of flaring up, he saw before his mind's eye the ghosts of his youthful mischiefs falling into line and grinning at his very face. His anger soon relaxed into a smile, and he retraced his steps gracefully without one word of rebuke escaping his lips! Would that it were so with our masters too and in our institutions!

Plain living and high thinking are the ideal of the ashramites. The building up of character comes easily to the pupil, as easily, as unconsciously 'as leaves to a tree.' An inmate of the school who strays into the crowd could easily be identified from the sublime simplicity of his dress, the loftiness of his bearing and the eye for beauty about him. In other words he is seen to walk among mortals as a great immortal.

The pupils get up early, have their prayer, bale out water from the well themselves, and bathe and go about their morning lessons. The frequent mingling of masters and pupils intellectually within the sacred precincts of the ashram and the inspiring songs and lectures given by the poet and other eminent

educationists from foreign countries, the enactments by pupils of scenes and plays of their own and of their Gurudev's making, and their singing in chorus on a quiet moonlit night,—such activities as these enrich their minds and make school-life a pleasure rather than a burden.

As a fresh blown flower with honey in its cup gathers to itself numerous humming bees, so the poet's ashram—the rarest bloom in the field of education—has drawn to its fold many a distinguished scholar and teacher of either sex from distant isles and ports.

So it has become the true meeting place of the East and the West and an international University is being evolved out of the humble ashram school of old which had for its strength only half a dozen pupils to start with and for its staff the poet!

It is only about three decades since the school was started and the speed with which it has developed to its present position of universal attraction is eloquent testimony to the fact that this is the sort of school that would satisfy the spiritual hankering of the modern world and the educational needs and the native genius of our country.

If our one ideal be 'under Heaven one Family,' then more Universities of the type—the free training ground for world citizenship—should soon spring into existence in each clime and country and be chiefly instrumental in striking a harmony of peace and good-will among nations.

We can end our cursory essay with the remark that not to have visited Shantiniketan is a stigma to any modern educationist worth the name, and not to have bestowed any thought on it is a sacrilege.

INTEREST AND INDIVIDUALITY IN MODERN EDUCATION.

BY MR. N. SESHADRI SHARMA, B.A.,

Kolar.

I. THE MEANING AND VALUE OF INTEREST.
(Kan.: *Svārasya* or *Abhiruchi*, Paras 1—13).

I. INTRODUCTORY.

INTEREST (Kannada: *Svārasya*, *Ruchi*, *Abhiruchi*, *Aadara*, *Priti*, *Aasakti*) is the one thing which an object should have before it can have any appeal to us. The sight of a crowd at once attracts us, if we have no particular or pressing engagement on hand. A pleasant song, a beautiful dress or a smiling face, or a big picture attracts us; so too does a new scenery, a new language, face or dress, a new house or garden. Why, even an old one seen after a long time has the same appeal to us, and we are anxious to see it. A great or a new speaker, a great or a new book, anything sudden or unexpected, all these draw our attention towards them, and fix it or lose it according to circumstances of one kind or the other. Ordinary people rarely care to study or understand this question, and have generally no need to trouble themselves with it; but not all men can do so. Teachers and politicians, merchants, industrialists, scientists, preachers and philosophers or thinkers cannot afford to do so. Let us therefore study the question a little and see what is its nature, what is its origin and development, and what are its purpose, function, value, scope and relations, of how many kinds or varieties it consists, and what are its chief characteristics or distinguishing marks with reference to Individuality and Modern Education.

2. EVERY ONE ASKS FOR INTEREST, OR THE IMPORTANCE OF INTEREST.

"Interest is the greatest word in education," says J. G. Schurman; and it has become a great question in modern education. Many books and articles are written on the subject, but at present we cannot go far into the subject and will content ourselves with saying a word or two on some of the points in question. Every one, from the small child to the old man, wants everything to be interesting from beginning to end. You must talk kindly and softly to the baby at home, and this rule of the still-ungrown child seems to be the rule everywhere in the world. Every one at home and in the neighbourhood, in the market and at the office, the school, the play-ground or the theatre, the temple, church or station, everywhere people want fine things to be said and done. But experience shows how little we find it anywhere and how variously it tries to shine everywhere in borrowed feathers, or in one disguise or other. A father or elder relative talks boringly, we must put up with it, and often say it is interesting. But sooner or later our actions give the lie to our words; for no one can conceal one's real or inner thought for long. All life is a big commentary on this point, and we need not wait to dilate on such points here alone. They meet us everywhere in the words and actions of our friends, neighbours and relations, in the newspapers and books (like novels), in the words and actions of

our teachers and superior officers, whether of the Government or of those outside it. We know them and they know us; and that is enough for the purpose. Sufficient unto the day is the evil thereof.

3. THE NATURE OF INTEREST.

What, then, is the nature of Interest, and how is it connected with Individuality and Education? It is the pleasure, the pleasant tone or feeling which an object gives us when we are contemplating it or enjoying it, and thereby attracts us towards itself. Not every pleasure or pleasurable feeling is itself interesting, and not every object of such a feeling is the object of interest. What pleases or interests us to-day may not please us or interest us to-morrow, but not so pleasure or pleasurable feeling. For, pleasure is a permanent thing like any taste, smell, colour, sound or touch which are the products of the different senses when they are in contact with their respective objects. A rose smells sweet, and a mango makes our mouth water. Light attracts us even when there is some ailment in the eye. A loud sound throws us from our seat, and velvet is soft. Age does not affect these things, nor time nor place, nor circumstance either. Grass is ever dear to cows and sheep, and sandal sticks never lose their value. But not so the lecture of yesterday or the song of to-day or the rude idol or carving of the poor countryman yonder. The hotel and the playground, the theatre and the race-course of our youth have no longer their old attraction to-day. The poems and novels of Sir Walter Scott which made even princes and soldiers vie with each other in honouring the author, have lost much of their early charm for the public of to-day. The *Review of Reviews*

and the *Times Illustrated Weekly of India* have no longer their hold on the people to-day. The political hero of yesterday is often nowhere to-day. What power and sway have people like Lloyd George and Annie Besant to-day? But what was it in 1917-18? Interest thus is not a quality inhering permanently in the object itself as in the different objects of our senses and primal feelings or pleasurable and painful sensations, nor is it merely or mostly dependent upon the soundness or otherwise of our sense-organs. It is connected with our mind and its culture and development and the work it has got on hand. The ordinary man gets no pleasure in the intricacies of advanced music, and the ordinary graduate can get no pleasure from a work or lecture on Relativity. How many people care for Astrology, and what value or charm has Law to ordinary good people who meddle not, nor are closely connected with the affairs of other people? Clearly their interest in these things depends upon their intellectual and practical culture and upon their association, relation or concern with them.

Suffice it for the rest to say with De Garmo "that Interest is a feeling that accompanies the idea of self-expression. It has its origin in the exhilaration, the sense of power, of mastery, that goes with every internally impelled effort to realise a condition for the survival of the self, whether such survival touch one aspect of the man or another. Interest is therefore dynamic in character. It has its primary root in inherited impulse. We have impulses to eat, to run, to hunt, to work, to talk, to play, to avoid dangers, to seek pleasures. But these impulses with modern men, as with primitive peoples, are always directed towards some object, in the

approach of which we find the realisation of some aspect of our mental or physical being. There is, as Dr. Dewey says, no break between the impulse and the self; for the impulse is nothing more than an involuntary and perhaps almost unconscious effort at self-expression." (*Interest and Education*, 1903, pp. 18-9).

"Etymologically the word Interest indicates that the thing that attracts us is what we are mingled in, and form a part of. It concerns us. To set up interest in a matter is to get into contact with it at as many points as possible." (J. Adams: *Modern Developments in Educational Practice*, 1926, p. 209).

4. ITS BEARING ON MODERN EDUCATION: SCIENTIFIC.

What then is the bearing of this question upon Modern Education and the Individual? It is the strength of the new Education, as Effort was the strength of the old Education. But in a world where the duties are often disagreeable, effort must not go. Mere interest leads to flabbiness of character, as mere effort to narrowness and severity of character. Children want interest, but adolescents would not object to effort, because they want activity. Elementary School work must be essentially interesting in character, if the attention of the children is to be had at all. But effort is necessary to carry out the work undertaken during one's interest or zeal in a thing especially when after a time the interest flags or disappears. For, the true end of interest is not play, but work or productive occupation. Interest begins the process which effort ends. As Horne puts it, "Interest is the path, and effort the destination. Thus Interest is the means to effort and effort is the end of interest." (*Psychologi-*

cal Principles of Education, 1924, pp. 320-4).

"The introduction of the element of purpose into the work of the school certainly rouses Interest, but it does not dispose of the need for hard work. There will always be enough of the intrinsically uninteresting to supply all the material strain that is necessary. The uninteresting cannot be altogether eliminated." (J. Adams, *op. cit.* p. 210). As that good-old grinder, Prof. Bain, remarks with unseemly satisfaction: "Then comes the stern conclusion that the uninteresting must be faced at last; that by no palliation or device are we able to make agreeable everything that has to be mastered. The age of drudgery must commence; every motive that can avert it is in the end exhausted." (*Education as a Science*, p. 184).

Bagley too comes to the same conclusion in his *Educative Process* (1923, pp. 106 ff):—"Apperception functions most along the lines of Interest. Primitive interest is the pleasurable affective state that accompanies primary passive attention. Acquired interest is the pleasurable affective state that accompanies secondary passive attention. The latter are developed only under the stress of active attention. To see to it that the child's development is not arrested on the plane of play is the serious business of Education. . . . No race with whom the conditions of life were too easy has ever reached the higher planes of development. . . . What we commonly call "work" is, biologically, the central feature of Education. . . . The doctrine of apperception emphasises work or effort as the fundamental factor; yet interest is necessary. . . . One of the watchwords of

modern civilisation is 'elimination of waste'. . . . There must be an adjustment, a compromise. Education consequently does not neglect the instincts, the primitive interests. . . . The business of the school is to overlay the lower systems of apperception with those of the higher degree. . . . If the pupil does not sometimes find his school-work disagreeable, then something is radically wrong either with the pupil, or with the school, or with both," because it omits or neglects Effort which is so necessary.

5. EXPOSITION AND APPLICATION OF THE SAME TO INDIA.

What have we learnt so far? Things attract and charm us, or interest us naturally, and so far is interest instinctive or impulsive. The self expresses itself through such instincts, impulses or interests, and there is joy or pleasure in such self-expression. But interest is not everything, and effort too is necessary. We want not merely the passive will or primitive interest, but also, the active will, effort or secondary and cultured or cultivated interest. It may be fully enlightened, as in the case of Christ, Buddha, Shankara, Vivekananda, and other saints and sages, who have attained self-realisation, or it may be working on the ordinary worldly plane (of the opposites or *Dvandvas* and ignorance or *Avidya*).

Almost all people daily seek this lower interest, or hanker after it. No wonder that when they get it, sooner or later they are tired of it and seek something new, till at last they reach the Interest of Interests, the Fountain of Interests, namely self, spirit or the Divine, the Absolute in which it is we all do ever live and move and have our

being. Well did Plato call this the Beauty of Beauty, the Good of Good, and the Truth of Truths; for, it is through this Absolute, God or the Divine that all things get their Beauty, Truth and Goodness. Only he did not so clearly bring out the identity between God and the self, as the ancient Indians who taught it in famous formulas like तत्त्वमसि (= That Thou art), अहं ब्रह्मास्मि (= I am Brahman or the Absolute), and अहं देवो न चान्यो ऽस्मि, ब्रह्मैवाहं न शोकाभाक् । सच्चिदानन्दरूपो ऽहं नित्यमुक्तस्वभाववान् ॥ [= I am God and none but He; Brahman himself am I, and not one born to suffer. Myself am all Being, Truth and Joy (or Existence, Knowledge and Bliss), and I am for ever free by nature]. Calm thinkers need therefore never lose their joy and seriousness in trying to serve their fellowmen. Their ideal should ever be the calm and unperturbed sages and seers of old like Vyasa, Shuka and Vasistha, or Yagnavalkya Janaka, Sri Rama and Krishna who are so rightly said to be the Avatars or Incarnations of the highest God or the Absolute spirit itself; and they should serve humanity and the world like "Purusha" himself, who according to the great *Purusha Sukta* or hymn sacrificed himself in order to create and sustain the world, or as the philosophers would say like the One becoming the Many. Monists, Idealists and Advaitins may object to the idea of "becoming" but I think they would do well to ponder over the implications of this *Sukta* before committing themselves to their pet doctrines once again.

People may talk much of an "Art for Art's sake" doctrine, and some capable spirits may even try to practise it. But in the end it is always the other view of "Art for Morality"

sake" that will gain the day. For "in Good is everything established," and the Good is nought but Truth, even as Keats said "Beauty is Truth, Truth is Beauty." The Indians have therefore rightly said "सत्ये सर्वे प्रतिष्ठिते ।" (= In Truth is everything established) and "धर्मे सर्वे प्रतिष्ठितम् ।" People who do not know these things or care for these things may continue to have their own idea of Interest, of Individuality and Education, as of what else they have not? and they may lead whatever life they like; but in the end they are bound to come to the path of true Self-Realisation which is nought but Monism, Idealism or Advaita. Secretarians may differ from this view in their philosophy and religion, but they cannot for ever cut themselves from the springs of Reality, which are rooted nowhere but in the single and Absolute Spirit or Self, which is beyond all the empirical states, namely the three, waking, dreaming and sleeping. Their intellectual and practical or moral requirements may ask for a dualism or pluralism, but this cannot remain for long. For, in the night all cows are black. In the world or sphere of experience beyond Intellect and attainable only by pure intuition, all distinction is lost, and the Ineffable for ever shines as the one, even like the self of man which is beyond all his empirical selves or forms as seen in the *Buddhi, Manas, Ahankara, Indriya* and *Deha* (= Intuition, Intellect, Ego, Sense, and Body) and as the Yogin says beyond the *Chitta* (= Mind) also, as in योगः चित्तवृत्तिनिरोधः । (Yoga or Unison is the control of the varying states of Mind, Patanjali's *Yoga Sutras*, (1,2.) The Self is God or Brahman, and केवल (= Single, Alone or Absolute) or शान्त as in शान्तो ऽयमात्मा । (The self is Quiet or full of

Peace.) To say more is not germane to the question on hand, and may look like a mere assertion, because of its necessary brevity.*

* Instinct is not everything; and whether people call their highest principle in psychology and philosophy "Libido," "Elan-Vital," or "Prakriti" all alike have to note considerations like the following. Psycho-analysts of the Freudian school may see the source of Interest in sex; Behaviourists of Watson's School may see it in response or adaptation to stimuli, in other words, in environment, circumstances and system or organisation; Social Psychologists like McDougall see it in society; Idealists like Plato and Hegel, Rousseau and T. H. Green in what is called the "General Will" as different from the Will of All or the Many; students of Impulse like B. Russell in the altruistic or creative impulses; those of the Unconscious and Abnormal Mind like Bernard Hart, Dr. Rivers and A. G. Tansley in the Herd and Ego-Complexes as different from the sex complex, into which three complexes they divide the whole mind; and students of Sentiment and Characterology like A. F. Shand and J. Ward. Instinctivists like Bergson and Bernard (of *Instinct*, 1924), students of Suggestion and Auto-Suggestion like Emile Coue and Budouin, and others like Drever may see the source of Interest in something else; but one and all of these have only to ask what is the chief thing, the central or fundamental principle in all life and experience and then they will know the real source of Interest.

It is the Self, which is beyond all complexes, whether of the sex, the herd or the ego, though in fact, the last is more comprehensive and includes the other two within itself. For, what value and reality or meaning is there in either sex or herd, as apart from the Ego, though at times the Ego can be rooted in itself, in its own feelings and sentiments, its own body and environment, as different from these two? The Ego is thus greater or more fundamental than both the principles of sex and herd, but yet is not the last word in itself. For, can we stop here alone, and are we not perforce asked to go further till we rest in the Self, which is beyond mere "Ahankara" and "Vyakti" or lower "Jiva," and is none but the highest ultimate and absolute or infinite and unconditioned self whose nature is existence, knowledge or consciousness and bliss? The self is beyond all "Chitta" (Memory), "Manas" (Mind), "Buddhi" (Higher Intellect and Intuition) and "Ahankara" (Ego); and it is beyond all sheaths or "Koshas," including the "Anandanayakosa"

6. THE LIMITATIONS OF INTEREST AND THE NEED OF EFFORT OR HARD WORK.

People who have never tasted the presence of the Holy of Holies, the Light of Lights may preach and hold their own doctrines of Art and Interest, of Science and Philosophy, of Culture and Progress, the Individual, State and Education, of Trade, Society and Economics, but to them it is unnecessary to point beyond our previous books and articles like the "*Bharata Dharma*," "Progress and the Unfit," and "Modern Education and Reading Rooms" (the last two being published in the *Educational Review*, Madras, in 1931 and 1932.) For variety and humility's sake we may however refer them to that classical work in excellent and easy Kannada verse called *Anubhavamrita* of Mahalinga Ranga of the 17th century A. D. Bertrand Russell

(Sheath of Joy or Bliss): and it is only in this highest or 'Paratattva' (Ultimate Truth) that all things including the Mind and its various forms and activities can take root and continue to act and thrive. For more, see the second part on Individuality, a term nearer and dearer to the mind of the modern educated man than the self of the early spiritually inclined man; for it is so full of the implications of Duty, Self-Control and Exertion, which the modern man in his unceasing thirst for pleasure, power and show would fain discard, and turn to something else more close to his heart or his inmost wishes.

Instinct is not the guide and conditioner of all life and experience; and Interest has its ultimate source in the Self, the Atman. This is set forth most convincingly by that greatest philosopher of India, Yagnavalkya in the *Bṛhadāraṇyaka Upanishad* when he says,

"न वा अरे कस्युः कामायपतिः प्रियो भवति, आत्मनस्तु कामायपतिः प्रियो भवति।.....न वा अरे सर्वस्य कामाय सर्वं प्रियं भवति, आत्मनस्तु कामाय सर्वं प्रियं भवति। आत्मा वा अरे द्रष्टव्यः भोतव्यो मन्तव्यो निदिध्यासितव्यो मैत्रेयात्मनो वा अरे दर्शनेन भवणेन मत्याविज्ञानेनैवं सर्वं विदितम्।" (4, 5)

too has a good word for them, if only they will listen, for in his *Principles of Social Reconstruction* he rightly distinguishes between the possessive and the creative impulses, and classifies the State, War and Property among the embodiments of the possessive, leaving Education, Marriage and Religion to embody the creative impulses.

Students, teachers, inspectors, parents and the public may like to have nothing but the interesting things always, but the work determines its own future, irrespective of their wish. Almost all people wish to buy things cheap; but have they always got it, and can they always have it? Cheap things they may often get, but they will mostly be bad or nasty; and so too with Interest. Interesting things we may always wish to have and always wish to do; but sooner or later we will have to pay a heavy price for this, our own and great longing. All value, all stamina will have been lost, and we will have nothing but mere husk or chaff. There will be only text-books with simple, easy, pure and graceful language, and a clear, detailed, analytical account of things necessary, as in our numerous 'Notes'; and even works like Tout's *English History* or Hudson's *Introduction to the Study of*

"Not for the sake of the husband's wish is the husband dear, but it is for the sake of the Self that the husband becomes dear.....Not for the sake of everything is everything dear, but it is for the sake of the Self that everything becomes dear. The Self is, therefore, to be seen, is to be heard and thought over and should be meditated upon; for O Maitreyi, by seeing it, by hearing it, and by knowing it, namely this Self or Atman with deep and clear thought everything is understood" (cf. R. D. Ranade's *Constructive Survey of Upanishadic Philosophy* (1928, p. 56), Galaganath's *Katyayani* (1919, p. 89), and the various popular books on Maitreyi, the great female philosopher and the wife of Yagnavalkya, the court philosopher of Janaka.

English Literature will give place to others which aim or pretend to be more simple and interesting. But will they have at least as much value as these?

7. INTEREST, TRUTH AND CREATIVE WORK.

This may look a little gloomy; for it seems to go against the possibility of more and more Text-books and Notes in the near future. But really it is not the case. Our view is not against good and creative work as seen in the rise of such excellent and useful works like the *Short History of the English People* by J. R. Green and the *Short History of English Literature* by G. Saintsbury. In Kannada we have even novels like *Māḍiddunṇo Mahārāya* of Mr. Puttanna, the short story *Subbanna* of Mr. M. Venkatesa Iyengar, the poem *Aḷāru* like Goldsmith's *Deserted Village* by Mr. K. V. Puttappa. Many others may be cited, but this is enough for the purpose. We want humour, story, garrulity, simple, chaste, and dignified style, and this is what we are having to-day in Kannada prose and poetry, though from another stand-point modern Kannada Literature has not got the permanent and enduring value of several ancient works. People may like Suggestion or Implication, especially that of the social and political kind but when practised often, it is sure to lead to communal, social, domestic or personal trouble. Conversation may be sought to be brilliant, but not long can the conversationalist free himself from the evils which his audience, hearers or friends, perhaps all too unconsciously wish to inject into him. The great kings of the Raghu dynasty were said to have spoken little, because they wanted to be true to their word, सत्याय मितभाषिणाम्; and Gandhi is praised because he talks little and practises

all or almost all that he says. Yet, how many follow such excellent examples of right talk and conversation? Let alone young men, even old people who should know their duty better, often if not almost always, delight in loose talk, back-biting, petty politics (of official or domestic life) and the like; and often spend or wish to spend their time in ways like these. How, then, can society ever get on? and how can we have a better batch of students and teachers, inspectors, administrators and other people, not merely in Education, but in all the different walks of life? No one can have whatever he likes, and only the all-seeing, all-knowing and omnipotent God should help it. Then only will Interest have gained its own purpose or end and aim, and then only can it truly serve Individuality and Modern Education.

8. INTEREST AND LIFE:—

(a) BEAUTY, CHARM OR INTEREST IN SPEECH.

Rightly does Shankara say:—

बालस्तावत् क्रीडासक्तः ।

तरुणस्तावत् तरुणीसक्तः ॥

वृद्धस्तावत् चिन्तासक्तः ।

परे ब्रह्मणि कोऽपि न सक्तः ॥

(*Bhaja Govindam Stotra*: The boy is ever taken up with play, the young man is taken up with the thoughts of his young mistress, the old man is lost in cares and anxieties, and no one is absorbed in God or Brahman); and Anandagiri voices the obverse or the other side of the same view when he says:

योगरतो वा भोगरतो वा ।

संगरतो वा संगविहीनः ॥

यस्य ब्रह्मणि रमते चित्तं ।

नन्दति नन्दति नन्दत्येव ॥

(*Chaturdasa Manjarikā Stotram*: Whether he is seated in yoga (= unison with God), or is taken up with enjoyment, whether he is taken up with society, or is without society of any sort, he whose mind is ever filled with the joy of God or Brahman, he is truly filled with joy and is lost in it. He alone is truly happy]. Hundreds of people know these things and repeat them and even use them in arguments and counter-arguments; but the world would have been much better if only they had practised half of what they know and talk about with so much ostensible zeal.

It may be pointed out in this connection that the Indian rule of *मिथं ब्रूयात्* (speak pleasantly) with *सत्यं ब्रूयात्* (speak truly) is most necessary. For, the man who attends only to Truth tends to become intellectual and sooner or later gets far removed from the ordinary people round about him. He tends to live in a world of his own, and people cannot easily understand him, as in the case of a Kant and Hegel, or the Vyasa of the *Brahma Sutras* and the Panini of the *Vyākaraṇa Sutras*. But to correct all such defects and limitations of people who have thus dedicated their lives to the service of Truth, it is most necessary that they attend to some extent at least to the service of Beauty, Charm or Attraction, which only makes your words sink and live in the hearts of others. Very rightly therefore does the Italian philosopher Croce say that Beauty comes first, and that Truth follows it. For, people first of all want Beauty, and then only Truth. It is but right therefore that we should speak not merely the Truth, but should speak the pleasant Truth so that all can take interest or find charm in us and say with the poet "A thing of Beauty is a

joy for ever." Further, by trying to pleasant or interesting we will be attending to the necessary culture or development of our own feelings and emotions, and through them to some extent to the beauty and charm of Character or Will also. The ancient Greeks were therefore quite right in asking for the cultivation of Beauty as much as for that of Truth and Goodness. Interest thus should be a very cardinal factor of life; though merely because this, it should not be allowed to assume all importance to itself to the detriment of other necessary qualities of true and high life or great life like effort and character, health and strength, humility and confidence, initiative, purpose and perseverance. Well therefore does Kalidasa call Dilipa, the first great King of the Raghu dynasty, *वदतां वरः*, the best of speakers" though from another standpoint he had to speak less *सत्याय मितभाषिणाम्*, that is to say, "for the sake of Truth." Further, this adherence to the requirements of good and true speech does not take away from the worth of true Individuality, but itself forms a regular and necessary part of it. The ancient sophists taught their students to speak ably and well or pleasantly, but they generally neglected the requirements of Truth. So Socrates and his famous line of students like Plato and Aristotle corrected their defects; and modern Education cannot neglect what they have done in the cause of true Education, Individuality and Beauty or Interest.

Next, it is necessary to point out that merely because of the necessity of Interest and of institutional service, whether of Government or of anything else people should not sacrifice Truth for the sake of mere Interest, or for the sake of getting on in the

ordinary or worldly way. They should at the least follow the brilliant path of serving Truth under the trammels of institutional service as held out by great workers like Chāṇakya, Vidyāranya and Abul Fazl in earlier times, and Bankim Chandra Chatterji, R. C. Dutt, Sir Ganga Ram (of the Punjab), Sir M. Visveswariah and Sir S. Radhakrishnan in our own times. For, there is no need always to write and act in any way that might provoke the ire and rough handling of those in power above us, as was done by Milton and Bertrand Russell; and we may serve Truth in the better way pointed out by the other people cited above. On the other hand, when circumstances necessitate a great sacrifice on our part, we must be prepared to undergo it cheerfully, as was done by the two great men just mentioned, namely, Milton and Russell. Suffice it to say that people like B. G. Tilak, Mahatma Gandhi and Lajapat Rai belong to this order, and that not all and sundry can try or may try this hard and difficult path with impunity. Their own individual and domestic, or limited social interest must teach them to do well and save their dependents, friends and associates from needless trouble and persecution. Not all need be Gandhis and Harischandras, and yet, if only they will, they can one and all be honest, good and respectable, noble people. Great and unselfish Individuality need not always mean suicidal Individuality, and may well go together with a wise and exemplary life; for, true Interest and Individuality which too like all other things consist in wise self-realisation, are never against such a good and useful life.

9. INTEREST AND LIFE : (b) WHEN THE WORLD CAN MAKE A DEMAND UPON US.

The defects and limitations of Interest are in this way, pointed out to some extent. So

it need only be pointed out that in a world of conflicting wills and activities, desires and feelings, capacities and conveniences, where it is not always smooth sailing, Interest has but a limited scope or sway, and Effort or active work controls the rest. Men and institutions are not always easy to please and carry through; for, there are often deep policies, plans and purposes behind, which cannot be easily overcome. Almost equally often are they otherwise engaged; and it is not well to disturb them or attract them for our own purposes, except when it is quite necessary, or when there is not much harm in doing so. The flippant or idle man may not object to it; and the advertiser, the dramatic actor, the songster, the industrialist and similar other people may have often to live by rousing or exploiting the latent interests of such people. But people who are engaged in great or serious work, or who are serious by nature should not be disturbed by every Tom, Dick and Harry to cater to their interests which are often so vulgar, "brutish, short and nasty" as Hobbes, rightly pointed out long ago (*Leviathan*, Ch. XIII, p. 81). For seriousness is never so great a crime as it is often thought to be. It runs like a golden thread in all the works of Croce, the great Italian philosopher of to-day, and it shone as true and enlightened Shraddha, Bhakti, Sēva and Tapas in ancient India; and the life of the people then was not all so void of joy and humour as it is often held to be to-day. On great or momentous occasions every one will have to be roused, perhaps from their torpor, or from even their otherwise serious and important work, and made to share in the common lot or the joys and sufferings of humanity. Feasts and fasts, shows and celebrations, weddings and mournings, and

all such pairs of opposites or *Dvandvas* have a right or place in the economy of the world as suggested so well in the wedding of Sage Ishwara and lovely Parvati for the birth of Lord Shanmukha, the Generalissimo of the divine forces, or in the appeasing and rousing of Achilles's anger at the battle of Troy by the death of his dear friend Patroclus. Art too may and often does help in such noble work, as seen in the work of Orpheus while bringing the Golden Fleece, or of Sri Krishna, the Cowherd Boy at Brindavana and other places near by, of Shakespeare and Spenser in Elizabethan England, Milton, Goldsmith, Wordsworth, Browning, Tennyson and others later on, or of Voltaire in rousing the national consciousness of France to remedy the evils that existed before the great Revolution there, and of Rabindranath Tagore in modern India.

10. LACK OF INTEREST :

WHAT IT MEANS AND WHAT IT LEADS TO.

We have next to think of lack of zest and Interest, or the "Bejāru" of the Kannada country. Other equivalents to this are ennui, boredom and getting flagged; but none of these brings out the force of the Kannada word meaning "lack of Interest." So I have introduced the Kannada word itself. Why have people at times no zest or Interest in anything? Because they are not yet out of the grip of *Dvandva* and *Avidya* (Ignorance, Nescience) which fix them to this mundane, practical world of pleasure and pain, and permit them not to live in the immediate presence of God, Self or the Spirit. Almost always they live in the world of the dualistic and practical Intellect, Will and Feeling, and have no great ideals. They always or almost always want and hanker after enjoy-

ment or *Bhoga*, which generally means the catering to the senses, *Vishaya Bhoga* or *Indriya Bhoga*; and in this hot pursuit of pleasure and enjoyment of the worldly, low sort sooner or later tire out and kill all their senses, organs and even the Mind, which too like other things often needs good and long rest. No wonder they lose health, wealth and prosperity, lose friends and future and become dependent upon servants, slaves and drugs, or vicious habits like drinking and smoking, and at times lose even their mental balance and unity. We then get the numerous cases of abnormal psychology which have given so great a vogue to the modern sciences of Psycho-Analysis and Auto-Suggestion. The single Personality is broken, and we have what are called multiple personalities, depicted so well in R. L. Stevenson's strange story of *Dr. Jekyll and Mr. Hyde*. People therefore should ever be on the alert against this excessive strain on either their body or mind; and so too should all wise Society and Government, Church and Family make provision to see that their several duties do not involve this hard and unnecessary strain on their workers and the other members that come into contact with them. Students, Teachers, Schools and the Education Departments should particularly note this danger, and from the beginning guard against it, as they are already doing in Western countries, which have not failed to profit from the useful lessons of these new Sciences.

11. INTEREST IN THE WORLD.

We may now say a word or two on people taking Interest in others. We must be interested in our fellowmen, especially our near and dear ones and in the world about us. This Interest is necessary, because of the

love we have or must have in them and because of a certain minimum knowledge or acquaintance we must have in the men and things about us. It is necessary and desirable to have this interest, even if it means a little tax on our time and purse; for, if we mix wisely with the world and spend our time well, sooner or later this association with others and the world about us will prove useful in one way or the other. Merchants, advertisers, religious, social and political workers, artists, scientists, philosophers and literary men know how useful company is to them, in spite of its demand upon their precious time. Ruskin was noted for his ready response to friends and visitors who went to see him at all times, and never did they find him too busy to see them, or not in a mood to talk and move freely with them. No wonder, therefore, that the late Mr. F. Harrison speaks of him as the greatest man he had ever seen, and Harrison had seen almost all the greatest men of his time. This is no small praise, and no one should discard the practical application of this view to himself and his friends and neighbourhood.

Similarly we must take a real and necessary interest in our near relations, and must express this love and interest in suitable terms on important occasions. Hence does the great law-giver Manu lay down as a regular injunction that we must show our real love and interest in the women-folk about us, namely our sisters, mothers and other relations, by giving them pleasing presents, without an undue tax on our purse (*Manusmriti*, Ch. III, verse 59). It is true that almost all people are attending to this advice by the usage of centuries; but yet if there is any one who does not know this rule, he will do well to

take counsel, and begin to practise it at once. For, then only will he have all the joy and freedom from others that he would like to have. For, when others are well pleased, you will surely be left to yourself and you can develop yourself or realise yourself in any way you please, without much discomfort from others, whether these are your own friends and relations or anybody else like your junior colleagues and superiors in office and elsewhere, who might affect your future or your interests in one way or the other. Better then to be well equipped against all such odds from the beginning alone.

12. APPLICATION OF INTEREST TO (1-2) MEMORY AND THE IMPROVEMENT OF CHARACTER.

But is this all the value of this view of Interest, and has it no other value or application to Life and Society? No. It is of immense use. For instance we may well apply it to the study of Memory, the improvement of character or the cardinal points of Religion like Prayer and Worship, or the question of Poverty and the way out of it. We all want a good memory, but how many of us really try for it, and how many of us deserve to have it? It is unnecessary at this point to go into the defects of the various systems existing at present for the development of memory or so called Memory Training. But be it enough to say that almost all of them have an empirical outlook and are out for an exploitation of mere Memory without going deeper and seeing Memory in its true place in the economy of the world. For, who has got the greatest and most excellent Memory, and why and how has he got it? It is the highest and truest Yogin and Vedantin that have got this perfect

Memory, and can remember all their past lives like Bhagavān Jaigeeshavya, as instanced by the author of the *Maniprabha* commentary on Patanjali's *Yogasutras* (III, 18 : सत्कारसाक्षात् करणात् पूर्वजाति ज्ञानम् ॥ "By perceiving the impressions, knowledge of past life (is attained)," *Swami Vivekananda's Works*, Part I, 1923, p. 276). They have this extraordinary, perfect or infinite Memory, because they ever live and move and have their being in the Absolute, which is the heart of their hearts and the spirit of their spirits. Well do they say, "आहारशुद्धौ सत्वशुद्धिः । सत्वशुद्धौ धृवास्मृतिः । "When the food is pure, character or life becomes pure ; and when life is pure, Memory becomes strong and reliable); " and well does Sri Krishna tell us "क्रोधात् भवति संमोहः । संमोहात् स्मृतिविभ्रमः ॥ स्मृतिभ्रंशात् बुद्धिनाशः । बुद्धिनाशात् प्रणश्यति " ॥ (*Bhagavad Gita* II. 63 : "From anger proceedeth delusion ; from delusion confused Memory ; from confused Memory the destruction of Reason ; from destruction of Reason he perishes." *Trans.* by Annie Besant). That is to say, good Memory is the result of good life, through eating pure food and leading a good life, and this hard-earned Memory fails when the mind is rent asunder by various or conflicting thoughts and desires, and to that extent is really confounded. On the other hand, still the mind, keep it pure and holy, have great aims or ideals and lead a good and noble life, and sooner than you expect you will have gained a marvellous Memory. It is due to the turning or orienting of the mind towards its own centre, or fountain of life and growth, namely, the self or spirit ; and the moment our interest is thus directed towards the self, nothing can escape us without our notice, and nothing is or can ever be forgotten.

Thus, it is true and great Interest that ensures good and great Memory, though by natural gift or artificial stimulus some people may enjoy it empirically to a great extent. But unless they turn to the self and try to realise themselves sooner or later this Memory and intellectual gift or strength will prove of no great use to them and they will count for nothing.

Similarly none need be afraid that early improvement in character is an utter impossibility. No doubt early habit and bad company do count for much, but nothing can stand against the force of will to rescue itself and lead a better life ; or else contrition has a meaning, and the "Tapas" or austerities of sages like Valmiki who were at first no better than ordinary men counts for nothing. The worst sinner can, if he wills and really wills, turn over a new chapter in no time and you may call it a "conversion of heart," but words and names do not matter much, where the result is all-important and good is achieved without fail.

But how is this great good or conversion affected ? By the simple process of what modern psychology calls "Sublimation" or Reorientation and elevation of the will for an object now newly determined as worthy of our best and most necessary effort, because we must at once give up the old path now found out to be so poor, bad and loathable and must take up the new path or the one new path which is sure to save us and guarantee a good and glorious unending future. The forest freebooter like Valmiki need only think for a while of what would be his future at the rate he is now proceeding ; and at once he will turn from this dark and ugly path, and freely and eagerly come to

follow the excellent path of the good and noble. And why is this ? Because the new path is full of the joy and peace and strength of the Spirit divine, and none can compare with it. It is the Life and Soul of everything, and there is no value beyond it or outside it. All thought and will, all joy and value have their life and being only in and through it. No wonder then that the moment we look at it, it draws us and fixes us to itself like the lovely face of a beautiful child, or the excellent song of an able songster. Hence is it said "ते ये शतं प्रजापतेरानन्दः स एको ब्रह्मणः आनन्दः । श्रोत्रियस्य वा कामहनस्य " ॥

(*Taittiriya Upanishad*, II, 8. "That which is hundred times the joy of Prajapati, that is the joy of Brahman, of the man well learned in the Vedas and who is not worsted by the monster of Desire.) Hence does the ardent pupil pray to his great and loving teacher:

ब्रह्मानन्दरसानुभूति कलितैः पूतैस्सुशुतैर्युतैः ।
युग्मद्वाक्कलशोद्भिन्नैः श्रुतिमुखैर्वीक्यामृतैस्सेचय ॥
संतप्त भवत्ताप दावदहनज्वालाभिरेनं प्रभो ।
घन्यास्ते भवदीक्षणक्षणगते पात्नीकृताः स्वीकृताः ॥

[“O Lord, sprinkle me, heated as I am by the Forest-fire of birth and re-birth, gratify the ear with ambrosial words as they flow from the vessel of thy voice mingled with the essence of thy experience, of the pleasure afforded by Brahmagnāna, (the consciousness of the Absolute,) sacred and cooling. Happy are they who come into thy sight, even for a moment, for, they become fit recipients and are accepted (as pupils)—Sri Shankara's *Vivekachūdāmani*," 41, *Trans.* by M. M. Chatterji, in *A Compendium of the Rāja Yoga Philosophy*, Bombay, 1888.] It is Brahmānanda, the highest and purest Bliss, or Joy divine and ineffable and no one can say nay to it.

It is only at first that people may not like it or care for it ; but sooner or later, with added experience and suffering, when every one has become a sadder and wiser man, no one can turn from this and all will take to the path of the Divine. Otherwise where is the need of Religion, and what real value or appeal can it have to all of us who are not at first fully bent or prepared and inclined towards it ?

13. ITS APPLICATION TO (3-4) POVERTY, PRAYER AND WORSHIP (OR RELIGION.)

So too can the poor man hope to get over his mortal misery in no time, if only he will try aright and live up to the ideal of Self-Realisation, as pointed out in our essay on "*Progress and the Unfit*." For poverty is a misnomer for Ignorance or *Avidya*, which has forgotten itself, its true self and is seeking to fill up the void created by this abandoning of itself by itself through the aid of external, concrete or tangible things like health, wealth and prosperity. Certainly we want these things, and external wealth cannot be had all for nothing. It is not altogether internal or subjective in the sense of the erring subjectivist, like the self-satisfied madcap, or the man with his senses all or almost all unhinged. Yet if only we seek it aright and are not in any foolish hurry about getting it at once, but are quite sure of having it, because of our correct calculation and effort for having it soon, as in the case in recent times of Nelson, Wellington and Napoleon, the greatest heroes of modern warfare, then poverty will have no more its spell upon us, and the worst of the early or poor Sudhāmas will within a short time become the best of the later or well crowned Sudhāmas that went and enjoyed the com-

pany of his old friend and classmate Sri Krishna Bhagavān himself. Dull and lazy arm-chair critics may say what they like, but the least attempt at self-realisation will convince them of the truth or otherwise of this view of Interest and Poverty.

It may be pointed out in this connection that there is an excellent way of developing this Interest and thereby best realise ourselves. All religions have recognised it as the service of God and of His greatest devotees. Shri Shankara calls the latter महापुरुषसंश्रयः (*Vivekachūḍāmaṇi*, 3) and Galaganatha "Sat-samāgama" (as in his *Mādhava Karuṇāvilāsa*). It is not mere 'Satsanga' or 'Golden Company' but the Service of the Great ones as pointed out in our essay on "*Our Real Culture and Progress*" (1924). The service of God is known to many; but the other point is not so well known. But Galaganatha has immortalised it by telling us how he wrote his greatest work, *Mādhava Karuṇā vilāsa*. He thought of sage Vidyaranya and by daily worship and meditation on him, was able to make his hero Mādhava live as if in flesh and blood before us in this his immortal work.

So too all great writers who write immortal epics and Puranas like Lakshmisha and Galaganatha in his *Bhagavatamrita*, *Shaiva Sudhārṇava* and *Bhāratāmrita* instinctively find it best to worship and live in his immediate presence with great *Niyama* (Rule of Life) and *Vrata* (Austerity) during the writing of such great works. The mind finds this service and daily dedication to God the best way of getting into the fountains of Life and Creative Thought and Action. We can then easily get into the levels of the Unconscious and higher or unselfish and universal, enlightened mind which sees all things and can do all things like another God; because it has now itself become divine, and at least for the

time being has cast off all its mortal and individual limitations of thought and feeling, imagination, memory, reasoning, judgment, will and intuition. Hence it is we find so much of real life, charm and inspiration in their works, unlike in those of most other writers, whether they are novelists, dramatists poets or scientific, philosophic and religious writers dealing with subjects like economics, politics, history, philosophy, religion and art, or the various physical and natural sciences like chemistry and biology. Writers like Hume and Bergson, Froude and Darwin may be great in their own fields, but can have no truly national or universal appeal and inspiration, because their purposes and interests are not of the deeper and wider kind which is seen only in the works of a Valmiki, Vyasa or Lakshmisha, a Homer, Virgil or a Dante. All great scientists and philosophers no doubt lead a high, unselfish and dedicated life, but they attain to this deeper and wider appeal only when they have come or risen to this universal form of worshipping God according to Religion and not according to mere Art, Science or Philosophy. For, this helps them to overcome the dividing lines of individuality and attain to the higher levels of universal love and dedicated service without distinction of caste, creed, community, race or nation. To this extent, religion is a real boon or godsend to all men, and no one should neglect it. Barring this, it is open to several defects, and many of them grave ones; but they are not germane to our present question and may be taken up at another time.

After this, be it enough to say that the fuller application of this view to the different fields of Life and Thought like Economics, Politics, Religion and Science may be left to the people themselves, and may be taken up at another time. So too is the study of Seriousness, of Meditation, and of Style left out for the present. It is to some extent treated elsewhere [as in the essay on "*What is History or the Philosophy of Croce*." (Appendix), the *Bhārata Dharma* and the *Introduction to R. Tagore's "Post Office."* (Kannada Version)].

THE OXFORD UNIVERSITY PRESS

have pleasure in announcing their appointment as sole agents in India, Ceylon, Burma, and F.M.S. for Messrs. BENN & Co., Ltd., London, and

THE BEACON READERS

(Published by Messrs. Ginn & Co., Ltd., London)

and will be pleased to execute orders for publications of these companies.

SOME NEW OXFORD PUBLICATIONS

1. UP FROM POVERTY IN RURAL INDIA, by Dr. D. Spencer Hatch, who has been directing Rural Demonstration Centres in Travancore and Cochin. Lord Willingdon, the Viceroy, contributes a Foreword and the price is only Rs. 2 8 0
2. PRACTICAL COMMERCIAL ARITHMETIC, by D. C. Sutaria of Davar's College of Commerce, which supplies a real want of a Practical Book on this subject by a practical teacher with sound Indian experience Rs. 4 0 0
3. EDUCATION IN DENMARK, the intellectual basis of a democratic Commonwealth, by Boje, Borup and Rutzbeck 7s. 6d.
4. INSTRUCTION IN INDIAN SECONDARY SCHOOLS, formerly edited by A. H. Mackenzie, now completely revised and enlarged under the editorship of E. A. Macnee, M.A., I.E.S., Principal, Spence Training College, Jubbulpore Rs. 4 0 0
5. SUGGESTIONS FOR PRIMARY SCHOOL TEACHERS, by H. Dippie, M.A., D.S.O., Inspector of Schools, Behar and Orissa Rs. 2 8 0
6. HISTORY OF SECONDARY EDUCATION—A Study in the Development of Liberal Education, by I. L. Kandel, M.A. Rs. 7 3 6
7. PROBLEMS FOR THE SCHOOL-ROOM, by Herbert McKay Re. 1 14 0
8. MEDIEVAL INDIA—Social and Economic Conditions, by A. Yusuf Ali Rs. 3 7 0
9. THE ENGLISH IN INDIA, A Problem of Politics, by Sir John A. R. Marriott Rs. 8 9 6
10. GEOGRAPHY OF EVERYDAY THINGS, by Sandon & West, Books I, II and III each. Re. 1 2 0
11. EXPERIMENTAL BIOLOGY, by E. P. Smith Re. 1 2 0
The book is planned on the same lines as Frewin's New Experimental Science.

THIS SEASON'S NEW PRIZE BOOKS

SPECIAL NOVELTY BIG BOOKS, each Re. 1 14 0
 Tail Waggoner's Big Book
 The Big Book of Stories from Grimm
 The Big Book of Adventure Stories
 The Big Book for Boys
 The Big Book for Girls
 Big Book for Children
 Big Book for Tinies, &c.

THE GREAT BOOKS each Re. 1 2 0

The Great Book for Boys, Girls, Children, Tinies, and Fun, etc.
 NATIONHOOD FOR INDIA, by Lord Meston Rs. 3 7 0
 MODERN INDIA, A Cooperative Survey, by Sir John Cumming Rs. 2 6 6
 PICTURES FOR SENTENCE METHOD, Sets I and II. 12 as. each.

Each set contains 16 full colour pictures.
 PICTURES FOR STORY-BUILDING. Re. 1 8 0. A Packet of 12 stories.

OXFORD UNIVERSITY PRESS
 BOMBAY MADRAS CALCUTTA

FOR SELF-EDUCATION AND CULTURE

LIBRARY OF MODERN KNOWLEDGE.

BENN'S SIXPENNY SERIES.

SCIENCE — HISTORY — ECONOMICS — SOCIOLOGY.

These are *the* books for the general reader who wishes to keep abreast of the times in modern knowledge and thought on all serious subjects. 150 volumes in a bright and popular style by writers of recognized standing. As. 6 each.

AFFIRMATIONS

A brilliant and thoughtful series of essays by eminent thinkers on the various social, ethical, religious and philosophical problems which agitate the modern world. As. 12 each.

AUGUSTAN BOOKS OF POETRY

This series forms an attractive anthology of the choicest verse in English, modern as well as ancient,—each volume representing a celebrated poet—Greek Anthology to Rabindranath Tagore. As. 6 each.

CLASSICS FOR THE YOUNG

STEAD'S BOOKS FOR BAIRNS

STORY — BIOGRAPHY — ADVENTURE — INVENTION

Approved by the Department of Public Instruction in Mysore.

This famous library which, including the Masterpiece Series, was started by the world-renowned publicist and humanitarian, W. T. Stead, continues to this day to enjoy a unique degree of popularity throughout the English speaking world, as the entertainer and instructor of juvenile readers. The series comprises about a hundred titles. Clear Printing. Good Paper. Profusely Illustrated. Catalogue free on application. Prices vary from As. 3 to As. 6 a volume.

We are Agents for:—

MESSRS. ERNEST BENN, LTD., LONDON
UNIVERSITY OF MYSORE
GOVT. OF INDIA PUBLICATIONS

MESSRS. SRINIVASA VARADACHARI & Co., MADRAS

And several other popular series of Masterpieces of Fiction, Drama, Poetry, Essay, History, Economics, Education and other branches of Literature and Science.

We also stock:—

CLEAR-TYPE POCKET CLASSICS
ILLUSTRATED WONDER BOOKS
RATIONALIST PRESS LIBRARY
SHORT STORIES OF ALL NATIONS

STATIONERY

We also keep large stocks of Paper, Pens, Inks, Exercise Books, Students' Note Books and all other School requisites.

Our own K. P. H. Pencils are of really Special Quality.

We can also arrange to supply you with any journal or magazine, whether technical or general, whether Indian or foreign.

KARNATAKA PUBLISHING HOUSE,

BOOKSELLERS, NEWSAGENTS, STATIONERS,

BASAVANGUDI P.O., BANGALORE CITY.

Tel. Add. "PRAKATANA."

Depot, FORT (Near Vani Vilas Institute).

EXAMINATIONS.

By MR. SRIPADA BUCHANNA PANTULU, B.A., B.ED.,

Cocanada.

It is an indisputable fact that there are a large number of failures in Elementary Mathematics and the failure, I say with emphasis, is partly due to the existing system of examinations, examinations conducted in schools by the school authorities with the expressed intention, if I am right, of coaching up students for the public examination. These examinations, of late, have come to be condemned as a test of one's knowledge and abilities as an examination is held at a particular point of the whole period of a pupil's study and as it can never bring out all he has been able to accomplish during that period.

What is the aim of an examination? If it be to estimate the progress made by pupils, to indicate the defects committed by them and to give helpful hints for future guidance, then no single examination nor two examinations in a year help us to achieve the object in view. There should be class examinations conducted by the teachers handling that subject. The readers will understand me better if I give an example. Suppose a teacher of mathematics (I am here to talk about mathematics in particular) is teaching Percentages. I suppose he finishes it in ten lessons. At the end, let him set a paper of a period duration on percentages containing two problems and two or three questions on the theoretical portion demanding word answers, *i.e.*, if discount is 10 %, what is the relation between M. P. and R. P., if gain is 10 %, form

equations connecting C. P., S. P., and gain and so on. Let the teacher closely supervise their work and value their papers and return them the very next day (Why? We should be always prompt). In valuing the papers let the teacher note down the mistakes in their papers and suggest problems of the text-book to be worked so that they may not commit similar mistakes in future. Thus if a pupil commits the mistake if $DC^2 = 250^2 + 600^2$, then $DC = 250 + 600$ (*vide* page 38, 'Handbook of Elementary Mathematics' by the writer) let the teacher write down the correct form $DC = \sqrt{250^2 + 600^2}$ and add also 'Work sums 331 to 334 of 'Companion to Manual of Elementary Mathematics for Higher Forms' by the same' if the pupils use my book or corresponding numbers of other books.

The next day the teacher should return the papers and explain the mistakes. It is no waste of time to devote a period for it. Gentlemen, we must turn out solid work, work that must have a perennial existence. If my co-mates in the field of mathematics follow this method, they will soon see that such a word as 'mistakes' would not be found in the mathematical dictionary of pupils. It would not be out of place if, in this connection, I draw the attention of my co-teachers to my 'Handbook of Elementary Mathematics for Forms V and VI' containing a list of errors which pupils generally commit. Similarly at the end of each topic let the teacher hold a

class examination lasting over a period and follow on the same lines as before. I would humbly request my brother-teachers to help me by way of making any suggestions towards the well-being of the method specified above. I am here, dear readers, to place before you my views on a topic for your careful and critical perusal.

Then I take you to the question of terminal examinations. In some schools three terminal examinations are held and in others only two. I think that three is a fitting number. Just before the three vacations it is better if the pupils be tested. We can just have an idea of their progress and can take the necessary precautions. Even these terminal examinations are not conducted in the manner in which they ought to be conducted. The aim of terminal examinations is not merely to estimate the progress of students but it is something more—indication of defects and suggestion of remedies. When I make this remark the feeling is swelling up in me, the feeling that the students are in no way benefited by the terminal examinations. If the schools adopt the method of the Government examinations for every terminal examination the results would be miraculous. For the Government examinations there is a chief examiner with assistant examiners. So let us have for Elementary Mathematics a chief examiner, preferably the Senior Assistant. To lighten the work of the Senior Assistant let the Junior Assistant be made the chief examiner for lower forms. For lower forms the Junior Assistant should set papers for all the terminal examinations and the Senior for higher forms. It is generally the case with us to be jealous of one another, one trying to poison the minds of authorities against another whose position he wants to

occupy and investigation goes to show that in a majority of cases the authorities rarely take action. (An officer should never narrow his vision by the remarks of others against his subordinates. He should see things with his own eyes and act accordingly.) So the Junior Assistant may be given a chance to be the chief examiner for Higher Forms.

In setting papers every examiner should have in view the following points:—(1) The language of the paper should be clear and should be without ambiguity, pitfalls, and obscurity; (2) the questions should be fair and well suited to the form it is intended for; (it is better if the examiner consults the teacher in charge regarding the courses covered;); (3) the questions should, under no circumstances, be a reproduction or repetition of questions discussed in the class but may be a reiteration of the principles taught in the class. Thus on the principle profit = S. P.—C. P. any number of problems varying in quantity and quality may be set. It is deplorable to note that even veteran teachers indulge in reproducing the problems which they worked in the class. I think the whole mathematical world would condemn such an action, a dastardly action which should be nipped in the bud lest the contagion should spread through the length and breadth of the mathematical world, nay, educational world. I need hardly point out the bad effect as my experienced brothers know the cultural aim of of teaching mathematics; (4) the questions may be classified into three groups—to test memory, to test average intelligence, and to test superior intelligence. An Elementary Mathematics paper may be divided into three parts, A, B, and C. The paper should be of two hours and a half duration. Part A should contain 5 problems

of which pupils have to attempt only 3; Part B should contain 4 problems of which pupils have to attempt 3; Part C should contain 3 problems of which they have to attempt 2

As for the nature of the problems Part A should test the memory of the pupils. The teacher should see whether his pupils are carefully following his lecture in the class or not and whether they are straining every nerve to retain in mind the principles taught in the class. This being the object in view it can be achieved provided each problem contains only one principle. Thus the problem "Find the area of a triangle of sides 24 yds, 7 yds., and 25 yds." belongs to A class while the problem "The sides of a triangular field are in the proportion of 3:4:5 and its perimeter is 360 yds. Find its acreage" belongs to B class which I will take up immediately.

Coming to Part B each problem should contain two principles. This part is intended for average students, students possessing average intelligence while Part A is intended for students whose Intelligence Quotient ranges from 70 to 90. The aim of part B is to discourage cram. By this a teacher can find out whether a pupil views a thing with a mathematical eye, whether his mind is active, and whether he can draw inferences from the data. Then I come to Part C, the most vital part of the paper. Elementary Mathematics is very often devitalized by totally ignoring this part in the question paper. This part C should contain thought-provoking problems, problems, which demand independent thinking and logical reasoning. The fundamental aim of teaching mathematics is to develop in the pupils powers of independent thinking and logical reasoning. This part

is a fitting instrument. Mind is an organism and not a mechanism. A plant grows properly only when it is watered. So also the mind develops on proper lines when there is adequate nourishment and this nourishment is supplied by problems of the type in Part C.

Then comes the question of distribution of marks. Let the maximum be 100. An examiner should always be sympathetic. His motto should be to encourage students to the extent to which it is possible but in a majority of cases the motto seems to be to keep back as many as possible. Let Part A carry 40 marks, Part B 30 marks, and Part C 25 marks, the remaining 5 marks being allotted for neatness and execution. As far as my knowledge goes no school in the Presidency follows this method and much less the S. S. L. C. Board. For some years the fashion was to divide a paper into two Parts A and B, later on it was changed, then again the old fashion was renewed. It is only the Board that can expound the motive or motives that prompted it to change fashions with the change, I suppose, of chief examiners.

It often happens that there are mistakes in printing. Perhaps it may be due to the negligence of the compositors and proprietors. The boys should not be losers thereby and so the necessary care should be taken. Mathematics itself is a bugbear to many and these printers' devils strengthen it.

Another problem to which I shall refer is the valuation of papers. The aim of valuing papers is not merely to measure the attainments of pupils, but it is something more. The defects of the pupils must be found out and brought to their notice. While valuing a paper let the teacher carefully follow

the several steps of the pupil and find out where he slips and how he slips and why he slips. Make a note of it but in his paper simply underline the mistake. As for the distribution of marks for a problem give maximum for a correct solution, 75% if there be one mistake in the manipulation of figures, 90% if there be a pardonable slip in noting down the answer in the end, 50% if there be two mistakes in the manipulation of figures, and 20% to 40% according to the correctness of the several steps so long as they form an integral part of the problem. Thus in the problem "Find the cost of fencing round a square field of area $2\frac{1}{2}$ acres at 5 annas 6 pies per chain" if the pupil finds correctly the perimeter of the square, let him be given 40%, if he finds correctly the side let him be given 30% because the above problem may be split up into (1) finding side, (2) finding perimeter, (3) finding cost. If the pupil's solution betrays gross ignorance of conversion of acres into sq. yds. or chains into yds. he should not be given even a single mark. The above rule is applicable only to higher form students. Regarding lower form students unless the steps by which the answer is arrived at are correct no mark should be given for the problem. Little boys should be taught accuracy. Inaccuracy and carelessness should be nipped in the bud.

It is a pity that pupils often stoop to copying in the examination. Such malpractices should be stamped out in the early stages so that they may not grow unwieldy. There are methods of detecting such pupils but I do not want to go into the details as my paper is already too lengthy. If the examiners scrutinise the answers of pupils, they can easily detect such cases. It is

often seen that the answer is correct but the steps leading to the answer are incorrect. Thus a pupil of the fifth form shows the following steps:—

$$\left(1 + \frac{r}{100}\right) = \frac{625}{676} = \frac{25}{26} = \frac{26}{25} = \frac{4}{100} = 4.$$

$\therefore r = 4.$

From this it is plain that the pupil must have got the hint $r = 4$. Such cases of malpractice may be punished by negative marks. I am of opinion that even pretentious style, bad spelling, and guessing should not be punished by negative marks as it is illegal to do so. These negative marks would deprive the pupils of marks obtained fairly for other questions and hence should be resorted to like ordinances only in times of emergency. After valuing the papers let the examiner prepare a report on the same lines as those prepared by the S. S. L. C. examiners but rather more exhaustively and submit it to the chief examiner. The chief examiner finds out the root cause of these mistakes and makes suggestions to rectify them. Then he prepares copies of the report and sends one to the headmaster, one to the teacher in charge and reserves one for himself. I have a specimen report with me and it would be like carrying coal to Newcastle if I show the specimen to experienced teachers. Let me digress a little and say that a teacher who boasts of thirty years' service is still imperfect.

It is a fact that the sole criterion of the efficiency of a high school has come to be the number of eligibles it has been able to turn out and so education, at present, is given with an eye to the students' success at the public examination. The teachers are naturally expected to give advice to

students who are about to appear for an examination. I now confine myself to Elementary Mathematics. Tell the students the minimum they have to secure for a pass; show them the portion they have to study for the examination; tell them how to prepare for the examination; insist on their bringing mathematical instruments to the examination; (it is my bitter experience that under pretext of asking instruments the pupils ask answers); tell them how to answer an examination in Elementary Mathematics. Having given these instructions to pupils the teacher should see how far his instructions are put into practice by the students by a scrutiny of their answer-papers and he should draw their attention to the misuse of or non-co-operation with those instructions of his. For all this a teacher must have gigantic patience and indefatigable industry and composed views. Men of other professions will now know that the life of a teacher, I mean a teacher who is true to his profession, is not an easy-going life. Even among present teachers there are really keen and enthusiastic teachers. Such teachers, irrespective of caste, and creed, and community, should be given all encouragement. It is then and then only that institutions flourish and that education thrives.

There is one other problem to which I shall refer and it is promotion. At the outset I brush aside as so much nonsense the remark that promotion of a pupil into the next higher form or class solely depends on the results of the annual examination. It is a matter of every day experience that the parental world is very anxious about its sons' results. With unnecessary expenditure

of emotion they approach headmasters for favours which most of the headmasters deliberately refuse. No doubt a number of petty streams of discontent with details may in time unite and swell into a raging current. We can't help it. If a pupil is fit for the fifth form he will be promoted into fifth form. There is practically no use of raising storeys when the foundation is weak. Regarding first year students the headmasters should be strict and it is imprudence, and I may even say impudence, on the part of a parent to tease the headmaster when his son's progress is unsatisfactory.

Promotions should never be based on the results of the annual examination only but the results of the other terminal examinations should be taken into consideration. It is gratifying to see that this method is followed in some schools and on behalf of the students I render my heart-felt thanks to the headmasters of such institutions. May such institutions be a beacon light! But there is one defect in the existing system of promotions. What is it? Step-motherly treatment is accorded to class marks and the assistants have no voice in promotions. To do full justice to the students under his charge a headmaster should prepare a list of candidates that failed even after considering the results of the three terminal examinations and place them before the staff in a meeting called for that purpose. He should sound the opinion of his assistants regarding the progress of each student and weigh their opinions. If he thinks that a particular student deserves promotion the student should be promoted. This method of holding a meeting to give a sympathetic hearing to the remarks of assistants about

certain students who for reasons of physical and mental debility fare ill in the terminal examination has many advantages. It creates an atmosphere of love and loyalty in the parental world, it instils drops of courage and enthusiasm in the minds of pupils, it contributes to the popularity of the institution, it strengthens the respect of students for their teachers; it makes the students pay more and more attention to class work at least for the sake of class marks, it gives encouragement to teachers as they have now a voice in the promotions of students about whom they know more than the headmaster who in the course of his circumambulations simply sees students resulting in the formation of faint images and who hence cannot even recognise them; it blots out the impression of parents that the headmaster is unfair and unjust in his promotions, it gives a healthy tone to the administration, it brings name, fame, and glory to the institution, and lastly it changes the present unhealthy autocracy into a healthy democracy.

So far about the first year students. As for the second year students the headmaster should be more liberal in his promotions and try as far as possible to give them promotion. All students who have put in three years' service and more should be promoted. Let this be included in the Educational Rules if the educational authorities really want to encourage education. Nothing would be more disheartening to a student than to read a number of years in the same class with no hope of salvation. If a student be detained for a number of years in a class he would lose self-respect; he would become indolent and would be disposed to be troublesome. Don't you think, brother teachers, that it

reflects on our work if a student fails to obtain the required minimum even after three years' coaching from us? I think your answer is "yes." Instead of combining them with first year students, let them form a separate division. My humble suggestion, if anybody cares to follow it, is to divide a form into three sections not according to the group system as is generally done now in schools but according to the number of years a student studies in a class. Section A should contain first year students, Section B second year students and Section C third year students. Is this method workable? Yes. The question of putting an additional staff comes. In these days of unemployment the management need not meet with heavy expenditure as a graduate is ready to work for Rs. 30 per mensem. As a sympathiser of such disheartened, ill-fated, neglected Honours students I have to request the education authorities for the inclusion of the rule in their Rules and I fully hope that it would not be like a cry in the wilderness. Teachers should look at students with a sympathetic eye though veteran educationists condemn it on grounds of discipline. I speak with emphasis that good discipline can be maintained only when the students are held by the silken cord of love, but never by force, brutal force. This is applicable to any form of system.

These, in brief, are my impressions about the promotions in many of the schools of this Presidency. Though my experience is not direct, yet I have gathered the necessary information, and on the strength of it I have made the above remarks.

In conclusion, if the number of examinations, class and terminal, held in a school year be more, if the selection of examiners

be done with a critical and mathematical eye following closely the public examination system in miniature, if the question papers be set with a view to discourage cram and to encourage development of one's powers of thinking and reasoning, if the piece-meal method of coaching up students for an examination be totally omitted, if reports on the answers of pupils be prepared rather more exhaustively than the S. S. L. C. reports and if these reports be properly utilised in the constructive work of an edifice of mathematics, if the headmasters heartily co-operate with their assistants in promotions, I am sure that there would be no longer a cry, a boisterous cry, that the prospects of many students are marred by miserable

slaughter at the altar of Elementary Mathematics and that education would be in a flourishing condition, and that the atmosphere of woe and misery would quickly give place to an atmosphere of cheerfulness and happiness. Finally I would thank veteran educationists if they don't put my suggestions in the melting pot of criticism. They would be entitled to a vote of thanks from the bottom of my heart if they help me by way of making suggestions towards the workability of my methods. In a word, unless there is hearty co-operation among Mathematics assistants (which I doubt) and unless there is harmony between the headmaster and the staff (which is rather doubtful) education will never thrive.

METHODS OF LIVE-STOCK IMPROVEMENT

By TIMERI MURARI, DIP. IN AGRI., B.SC., F.L.S., A.I.R.O.

Hosur Cattle Farm

With a foreword by

COLONEL A. OLVER, C.B., C.M.G., F.R.C.V.S.,

Animal Husbandry Expert, Imperial Council of Agricultural Research.

Cr. 8vo. 372pp. + xxiv. Price Rs. 2-8-0.

CONTENTS.

Chap. 1. The History of Milk Recording in Great Britain; 2. Milk Recording in England and Wales; 3. Factors affecting Milk Recording; 4. The Ministry's Scheme of Milk Record vs. The Milk Recording System of the Scottish Milk Recording Association; 5. & 6. Shows, Clubs and Societies or the Improvement of Live-Stock; Administration of Shows 8. Regulations applying to Certain Classes only; 9. Judges and Judging; 10 to 13. Improvement of Live-Stock through State Aid; 14. Denmark; 15. Sweden; 16. Holland; 17. Belgium, Germany and France; 18. History of Live-Stock Improvement; 19. Genetical Science; 20. Modern Methods of Breeding; 21. Controversial Questions; 22. Future Possibilities. APPENDIX I. Switzerland; II. Licensing of Bulls in Great Britain; III. Pig Testing and Recording in Great Britain.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

THE WORLD WE LIVE IN.

BY MR. K. VENKATAPPAYYA, B.A., B.L., B.ED.,

Sullurpeta.

(Continued from page 670).

Man and his Achievement Man has been described as "the cynosure of things terrestrial." He now occupies the foremost position in this world. This position of supremacy, it is to be noted, has been the result of a countless series of struggles with not only his distant brethren of the animal kingdom but also with the forces of nature which once threatened wellnigh to overwhelm him. It is not possible in this short paper to attempt a study, however interesting, of the causes of his origin, nor of the processes through which he has attained his present position. Only a brief narration of the salient features of his progress can be attempted.

The question of how man came into existence is considered by many as a mystery and it has not been finally solved. That 'God made man in His own image' expresses at best man's ideal of what he ought to be but not an explanation of how he came to exist on this planet. Darwin's 'Origin of Species' exploded the theory of man's divine origin. And the principle of evolution enunciated by that famous naturalist still holds the field in the scientific world in spite of certain recent attempts to assail it. According to this theory 'man is part of an unbroken series of life' and has developed in course of ages from its lowest form. Thus, his relation with what are termed 'the lower orders of creation' can never be ignored.

The early stages of man's existence, then, must be supposed to have not been in any way different from what is popularly known

as the animal life. The fewness of man's wants in his primitive stages made him contented with the wild life of the forest in which he dwelt amongst a host of his other remoter kinsmen. But one thing distinguished him from the first and that was the possession of a superior intelligence. This characteristic of his, it is no wonder, made him soon dissatisfied with the quasi-brutal state, and created in him a longing for a more peaceful and settled life. He also established his mastery over his rivals in course of time, and soon began to lord it over them. His progress ever afterwards was, though slow, steady, and with the lapse of time entered upon what is termed 'civilised' life. His relations with his own fellow-beings had already undergone a change which began with the headship of his own family. In course of time, the family developed into the clan, the clan into the tribe, the tribe into the village, the village into the city, and the city into the State.

This rapid survey of man's progress should not blind us to the fact that man left behind him long before his gregarious habits which were so marked a feature in his early stages. In other words, the so-called races of men slowly made their appearance and man began to look upon his fellow-beings with feelings of hatred and suspicion. The present division of mankind into the White, the Yellow, and the Black types might more probably be the result of the natural environment and climatic efforts over the particular group of human beings who happened to settle in a particular

locality than that of any difference in their anatomic structure or mental equipment. The division of castes in the Hindu society may also be explained in a similar way. The origin of the four castes from particular parts of the Creator's body indicates more the functions of the respective classes of people as signified by the seat of their origin than anything else. For, it may be taken as certain that the training and mental equipment of a particular individual depends entirely upon the natural environment amidst which he lives and the influences of climate to which he is subject. And the principle of heredity so often brandished as the cause of man's possession of certain characteristics may be deemed to have itself been originally based upon the same two factors. Similarity of climate or natural environment as also the migration of a particular group of people to other parts of the earth as a result of the inadequacy of the means of subsistence may, perhaps, account for the possession of similar intellectual or physiological characteristics by classes of people now occupying extreme parts of the globe, as for instance, the Red Indians of America and the Chinamen of Asia. It will, thus, be seen that the people inhabiting their globe may be supposed to be essentially of the same type, to have come into existence through the same origin and to be capable of possessing the same degree of intellect. Only in certain cases the stage of development reached might be more advanced than in others. I shall not elaborate the point further.

Now, in regard to man's struggle with nature, I may at once state that his achievements in this sphere may appear to border on the wonderful, though his complete conquest of nature can never come to pass in

the near future. His inventive genius and his power of adaptability have undoubtedly contributed much to his conquest so far evidenced. Let me now allude to a few of his achievements which are supposed to be the indices of his present-day civilisation. He has explored almost the whole of this globe from Pole to Pole. He has planted colonies in places, not even dreamt of by his ancestors. His exploration embraces the sea and the air as well. He has converted the sea into an ordinary road for traffic and hopes ere long to convert the air into a similar channel. He can sail under the sea, and fly above the land; he can separate continents, and connect oceans; he can travel underground, and bore tunnels through mountain ranges; he can dam the biggest floods, and harness mighty rivers; he can annihilate distance, and even make his voice heard in the remotest parts of the earth; he can repair his own system with as much ease as he can repair a watch, transfusing some blood into a part here and grafting a limb to a part there; he can even project a tour to a world different from his own, and even cherish hopes of establishing commerce between two planets! In short, he has transformed his world to such an extent that, if one of his ancestors who lived, say, 200 years ago, should come to life again, he will begin to doubt whether this was the world in which he originally passed his days! But, as has been observed already, his conquest can never be complete. He cannot, for instance, convert the Sahara Desert into a fertile tract, nor remove the vast sheet of ice which envelopes Antarctica, nor even clear the dense forests of the Congo or the Amazon basins so as to render them fit for cultivation.

Let me now turn to his activities in another direction. Man has come to realise that he is

in no way inferior to his other fellow-beings, and has gradually succeeded in forcing himself into the councils of his Government. The theory of the Divine Right of Kings was knocked on the head on more than one occasion, and the king, where he is retained, has come to be shorn of everything save the name. The rule of the one is giving place to the rule of the many, and the modern principle of the rule of the people, by the people, for the people has been accepted as the principal canon of government in many parts of the world. The imperialism of the Kaisers and Czars, the autocracy of the Ottomans, and the earthly empire of the 'celestial emperors' have all disappeared, most probably never more to return. And the spectacle of a government run entirely by the populace without any vestiges of 'noble blood' or 'high caste' is to be met at present in Russia. What the ultimate effect of such government on the history of mankind will be, it is too soon to judge. Many old-world distinctions are slowly being undermined, and races of submerged peoples are making their voices felt in the councils of empires. The disqualification on the ground of sex is gradually disappearing and the fairer half of the world's population is coming forward to shoulder the responsibilities of public office. The facility of communication by land, by sea, and by air has knit the whole world together so much so that a shock in one part easily comes to be felt in other parts of the world as well. And the old saying of 'what is sauce for the goose is sauce for the gander' is becoming truer in the economic no less than in the political world. The world has now become so interrelated that no single race of people can afford to ignore for a moment the world movements which affect all alike. And forces seem to be working for the establishment of a real World Federation in the place of the multifarious warring elements which hitherto composed it. The Russian physician, Dr. Zamonhoff, has succeeded in inventing a 'Universal' language to set at rest all national animosities, and the American philanthropist, Eastman, has taken pains to devise a new system of calendar which guarantees greater leisure to the working classes so as to enable them to devote their spare hours to the finer side of life. The establishment of the League of Nations in Europe after the conclusion of the Great War, the efforts made recently in America for the effacement of war from the face of the globe, and the popularisation of the doctrine of non-violence as a method of securing political liberty in this country, not to speak of the several disarmament conferences held of late in the West, may all be taken as signs of the attempts made by man for the reformation of his thoughts and ideals of the past. But the question remains whether the activities or achievements of man detailed above make his globe a really happier place to live in. The answer to this question depends upon the view which one takes of the nature of happiness which man strives for. If 'happiness' is confined to what can be termed 'the material sphere' man's achievements so far evidenced have secured it to some extent. But, if, in 'happiness,' matters 'spiritual' are also to be included, it is doubtful whether there is much for man to congratulate himself upon. What are the factors which really contribute to man's happiness in this world? How far is his present state of civilisation helpful in providing such factors? And what is the achievement of man which ensures that happiness?

Now, these questions make me pause for a moment, and consider the nature of his civilisation of which his activities and achievements mentioned already form no inconsiderable part. The civilisation of man is only relative, and varies with the age and climate in which he lives. The civilisation of one nation and of one period may appear to be different from that of another nation and another period, but there is a unity which runs through all civilisations of all ages and climes. And this unity consists in the manifestation of the main qualities which characterise the human race. Again, each civilisation has had something to contribute towards the sum-total of human progress. The only point for consideration should be whether this progress has all along been in the right direction.

Let me now take up the civilisations of the past and consider their services to humanity at large. The civilisations of Egypt, Assyria, and Babylon, though at present of interest only to the antiquarian, must be deemed to have served their purpose in their time. The Greek and Roman civilisations which came later have moulded not a little the destinies of the western nations. But they too have become things of the past. The Hindu civilisation, with its catholicity of outlook and highly developed philosophical system, is as old as, if not older than, any of the other civilisations referred to above, but its influence has been limited only to a particular section of the human race. Its impact, however, upon the modern western civilisation which is supposed to lead the world at the present day, is bound to produce results the importance of which it is premature to foretell.

But what is civilisation? It is not the possession of super-dreadnoughts, or high-speed aeroplanes. It is not the plethora of inventions which cater to the daily needs of man's life. It is not even the benevolent governance of subject peoples whose amenities of life are much improved. It is the training which is given to people in the road of self-realisation. And self-realisation, in its full import, embraces the opening-up of opportunities for the full expression of a man's self, physical, mental, and moral. Civilisation is the conferment, in Bentham's phrase, of 'the greatest good to the greatest number.' And its ultimate purpose is the establishment of the supreme principle of universal brotherhood. And which civilisation in the world can be said to have fulfilled this purpose? Let the history of man answer.

Now, the history of man from the earliest times reveals certain traits of his which stand in the way of such fulfilment. Happiness of all living beings is the acid test of all civilisations. And judged dispassionately, very few civilisations on earth can successfully stand that test. Man's love of war with his fellow-beings, his intolerance of others' opinions, his love of exploitation of his weaker neighbours for the aggrandisement of his self are only a few of his traits which serve as a warning that the greatest achievement of man remains as yet a desideratum. To him civilisation, ordinarily, does not connote anything higher than the imposition of his self-centred dogmas upon his weaker neighbours. With the Greek, it was the imposition of his culture, divorced from the ennoblement of the soul. With the Roman, it was the imposition of his own 'imperium' to the detriment of morality. The Aryan conquest of India in ancient

times, the Spanish conquest of Mexico in the early centuries of the modern period, and the conquests of many other western nations in different parts of the world in the succeeding centuries are one long tale of attempts to force the so-called civilisation of the victors down the throats of the vanquished, differing only in the degree of suffering resulting from such imposition. In some cases, as in the case of the Spaniards, this imposition resulted in the utter destruction of the conquered peoples. The Spanish Inquisition in Europe, the Muhammadan persecution in India, and the Christian proselytism in all parts of the world impress upon us with equal force this aggressive type of civilisation assuming the mild cloak of religion, and arrogating to itself the monopoly of human wisdom, little knowing that religion, strictly so-called, is but a codification of the 'eternal verities' intended to help mankind in the practice of the wholesome principle of universal brotherhood. Thousands of African Negroes were enslaved to toil for the 'otium cum dignitate' of the descendants of the 'religious' men who made their home in the 'freer' atmosphere of the Eastern sea board of North America. Thousands again of the Hindu 'low castes' have been tabooed from all social intercourse by the upper strata of the Hindu society. Man's intolerance of others' opinions was illustrated so recently as 1925 when the 'freedom-loving' peoples of the United States of America prosecuted a teacher for giving instruction to his pupils in the doctrine of Evolution, reminding one of the inquisition of Galileo three centuries ago! Man's love of exploitation is evidenced at the present day in the spirit of the imperialism of the 'Great Powers' which seek to utilise the resources of the countries under their sway for their

own profit or to bring the territories of their weaker neighbours under the 'sphere' of their influence which is not always altruistic!

But, men have not been wanting at all times who strove in their own humble way to bring about a new order of things in this world. Visionaries like Sir Thomas More dreamed of an 'Utopia' where the ills of the civilisation of his day were conspicuous by their absence. Rulers like Asoka, Cromwell, and Aurangzeb attempted in their own fashion to establish a theocracy upon earth. But the universal love of the great Buddhist emperor had to be implemented by a wholesale system of espionage, while the Puritan Protector and the Mughal Emperor had to confess failure owing to the narrow-minded nature of their religious policy. Attempts, however, have been made at all times to lift the ideals of men to a purer sphere so that this world may not become too much with us. The life of man has been attempted to be so regulated that it should no longer "stain the white light of eternity." And great teachers of mankind have shown by their conduct in life that the supreme ideals for which they lived are not, after all, incapable of realisation. But what treatment have such teachers received at the hands of their contemporaries? Socrates was forced to drink the deadly hemlock. Christ had to suffer death on the cross. Muhammed could only save his life by flight under cover of darkness. And, in our own day, the great-souled Gandhi is pining in prison for the freedom of his motherland. "What does it profit a man, if he gain the whole world and lose his own soul?" was a precept uttered nearly 2,000 years ago, the importance of which cannot be sufficiently impressed at the present day when man considers himself to have attained the pinnacle

of civilisation. For, after all, what is civilisation but a practice by man of the highest virtue in his daily intercourse with his fellow-beings? The great strides which man has made in science ought to impress upon him his own insignificant position in the universe, and the littleness of the knowledge that he yet possesses of it. And he is sure to find upon a careful searching of his heart that he is but a tiny speck in a mighty framework and that the planet which he inhabits is but a tenth rate planet revolving round a hundredth rate sun!

But he has a place, notwithstanding, in that fabric and a part to play therein. And that is not a mean part. Gifted as he is with a high order of intelligence, resource-

ful as he is in discovering means for his own advancement and akin as he is to the entire animal life inhabiting this planet, he should so conduct himself as to contribute his own mite towards the sum-total of world happiness, and make this globe a really happier place to live in. But this happiness, be it noted, is incapable of realisation until he trains himself to the attainment of that wisdom before which all his present wisdom falls into insignificance—which Lord Krishna revealed to Arjuna in the following lines:—

यज्ज्ञात्वा न पुनर्मोहमेवं यास्यसि पाण्डव ।
येन भूतान्वशेषेण द्रक्ष्यस्यात्मन्यथो मयि ॥

And this will undoubtedly be man's greatest achievement!

USEFUL ENGLISH TEXT-BOOKS :

A HIGH SCHOOL MANUAL OF ENGLISH

By N. G. WELINKAR, M.A., LL.B.

Senior Professor of English, Osmania University College, Hyderabad (Deccan),

Honorary Fellow of the University of Bombay; formerly Principal, Dyal Singh College, Lahore.

Second Edition of A PRACTICAL MANUAL OF ENGLISH,

Revised and largely re-written in co-operation with

S. R. KIRKPATRICK, B.A.

Headmaster, Government High School, Gulbarga.

2nd Edition—Entirely Revised.

Approved for school use (vide *Fort St. George Gazette*, Part I-B, dated 19-5-1925.)

Price: Re. 1-8-0.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

THE TEACHING OF MATHEMATICS.

BY MR. P. V. SUBBA RAU, B.A.

Peddavadugur.

(Continued from page 508).

FIRST STAGE.

IN the beginning Arithmetic should deal solely with actual, visible, and tangible objects, and at *all* stages should have relation to *things*. It should not be the object of the teacher to teach the four rules one after the other on the black-board. The pupils should learn them simultaneously and unconsciously by *doing*. The school children should add, subtract, divide and multiply, up to twenty by means of the abacus, number plates, number pictures, matches, beads, blocks, peas, marbles, buttons, slips of paper or other concrete objects. The first lessons should be devoted to adding one block to one and having two blocks, adding another and having three, and so on, then adding two blocks to two blocks and having four, adding two more and having six and so on, and then adding in threes, fours and fives. Each time a number is mentioned, its symbol should be drawn on the board and copied by the class. Subtraction should be taught in a similar way by the removal of ones, and twos and threes, during an addition lesson. Boys on the right-hand side of the desk should give so many to those on the left and count the remainder, and those on the left should find out what their new total is, and then return a larger number and count their remainder, while the others add on the new total. Division is taught by the placing of the total in two equal groups and counting each group, then in three, and four, equal groups, and so on. In teaching multiplication, the teacher distributes the objects in twos or threes and

then doubles the quantity, trebles it, and quadruples it. One boy divides his lot between two, or three or four others. Three or four boys multiply the possessions of another, by each giving him as many as he already has, and so on.

When the principles of addition, subtraction, multiplication and division are thoroughly understood, their names and simple sums *representing what is actually being done with the concrete objects*, should follow. Tables should be taught concretely by laying out the groups of matches, *etc.*, on the table.

SECOND STAGE.

In the second stage "problems" should be worked mentally, and if they are worked wrongly they should be performed in fact, such as, "If Rama had four marbles and then bought twice as many, how many would he have left after he had lost one half of them, and given Krishna two?"

Later on, sums dealing with larger numbers, but always having reference to concrete objects, should be worked on paper, and from the very beginning, children should always be taught that they must write the name of the things represented by the figures. We should never be so foolish as to set the $8,798,986 \times 8,689$ sort of sum. What do children (or their teachers either) know of thousands of millions (or of one million)? We cannot multiply by a larger number than nine at one time, and there is nothing more to be taught by multiplying the thousands than there is by multiplying by 29. It is only a case of

more addition after more multiplying, and the wearying and disgusting of young brains by asking them to juggle with absurd millions. When we wish to deal in large numbers let us be content with such sums as, "If a general had 37 regiments each containing 647 men, how many men would he have in his army?" Always set sums in terms of objects, and insist upon the figures being *named* on the slates or paper.

In teaching compound addition, subtraction, multiplication and division the teacher should follow precisely the same plan at first, and should teach all the four rules together, through actual manipulation of coins. Boxes of card-board rupees, annas and pies, and their various fractional parts, can be purchased very cheaply for use where it is inconvenient to use real coins. If the teacher has not enough coins or counterfeits, to give each boy a rupee, an eight anna, a four anna and a two anna piece, an anna, a half-anna, a quarter anna, and some pies, he should have a mixed sum of money on the table, propound simple sums, and have them actually done and the result counted by the boys called out from the class. The sums of money mentioned must be laid out by two different boys, and their sum counted by a third. One boy should be made actually to divide a sum of money among several others, and a number of boys to give each an equal amount to one boy.

Each sum worked on the black-board in the early stages should be the record of a sum actually worked with coins, and any boy making a mistake on paper when simple sums are being worked, should be made to correct it with real coins. Arithmetic is for mental training, not for the adding up of

fabulous amounts, or the multiplying of sums already far beyond the realization of children.

In compound Arithmetic the connexion in the child's mind between the name (of weights and measures) and the actual degree of heaviness, quantity or size that it represents, is an important matter.

Let the fraction lesson be a lesson in making actual fractions of paper in adding fractions of paper to paper, and in learning by *doing* with fractions, as was learned by *doing* with wholes in the first addition, subtraction, multiplication, and division lessons. Also let the first sums in fractions, worked on the board, be records of sums previously done with fractions of a sheet of paper, or a bar of soap. There is plenty of room for the training of all the care, accuracy and exactness possible, by teaching Arithmetic rationally, and setting sums containing quantities within the pupils' experience or comprehension.

In teaching ratio and proportion it is better to use the method of unity because it involves no new principle, and is plain and simple reasoning. There is nothing mechanical about it, and it demands the logical expression in writing of the steps taken mentally. The actual answer should be considered of less importance than the full and clear statement of each link in the chain of reasoning by which it is reached.

Similarly, all sums in interest, stocks, and shares, *etc.*, must be clearly and definitely *stated*, all figures named, and writing considered as necessary as in a proposition of Euclid.

Some of the values of Arithmetic is lost if *neatness*, as well as logical setting forth is not

strictly insisted upon. An untidy, unintelligible, muddled Arithmetic paper is rather a contradiction in terms. The teaching of Arithmetic has to make for mental neatness and precision and this is achieved by always having neatness and precision of setting forth upon the paper, apart from the consideration of "what is worth doing is worth doing well" and of the fact that all the arguments which may be adduced in favour of neatness in the writing lesson apply to the Arithmetic lesson.

Arithmetic is a thing of the *mind*, and would probably gain rather than lose if all writing in this lesson were abolished. Not only should Mental Arithmetic have separate daily quarter of an hour on the time-table, but every Arithmetic lesson should begin with Mental Arithmetic bearing on the subject or subjects of the lesson. When a boy does not know how to do a sum, it is evident that he does not know enough mental arithmetical exercises in the principle involved. Finally, we have to bear in mind that all the sums done are only *to get the children right* and not the children to get sums right.

The foregoing excellent and well-thought-out hints given to us by eminent writers on education should be our guides when we attempt to teach the subject by means of various methods.

CHIEF POINTS TO BE OBSERVED WHEN HANDLING DIFFERENT METHODS.

1. In working problems, encourage the pupils to write one step at a time, one under the other, as for example

$$= \frac{4}{7}$$

$$= \frac{1}{11}$$

and not in the same line as :— $\frac{4}{7} = \frac{1}{11}$.

2. Encourage the pupils to cancel off only one factor at a time. Do not allow them to cancel three or four factors at a stretch. The steps will look simple and easy. Hence they will be within the comprehension or understanding of the pupils. If the steps are complex, they will be beyond the understanding of the pupils. This will generate a dislike for the subject.

CONCENTRIC OR SPIRAL METHOD.

A topic when learnt must be learnt well. Topics on which subsequent work has to be built require a more thorough study than those on which subsequent work is not built. When we say that a topic should be studied thoroughly it does not mean that it has to be studied in all its full details. Frequent recurrence to the topic or subject after intervals of rest gives mastery of the topic. For example, simple interest is taught if possible in the second form and again in the third form and repeated in the fourth, fifth and sixth forms. In every higher class the topic is taught in greater detail. The method of procedure in this case is known as the Concentric Method or the Spiral Method.

HOW TO TEACH NEW TOPICS OR IDEAS.

When you teach a new idea the examples selected should be easy. For example, if you want to teach that the area of a rectangle is equal to the number of units in the length multiplied by the number of units in the breadth, select an example of the following type :—Length of the rectangle is 3". Breadth of the rectangle is 2". Find its area. Do not choose huge numbers. Then the attention of the pupils will be directed more to the understanding of the principle. The mechanical calculations should be as little as possible and they should be already known to the pupils. Avoid as far as possible complexities in the examples.

MATHEMATICS AS A LANGUAGE.

Mathematics has a language of its own. The symbols are complete sentences in themselves. We can say that these symbols are the short-hand of Mathematics. Teach the pupils the meaning of those symbols and also encourage the pupils to use them as soon as they can, and as far as possible. More importance must be paid first to the understanding of those symbols. Great care must be taken in this respect. Pupils are not to use those symbols without understanding them. Avoid especially errors like this :— $8+7 : 15+2 : 17$.

THE CHARACTER OF PROBLEMS.

Problems should be real to the pupil, those which he recognises as needing solution, permitting solution, and deserving solution, that is to say, they must be life-problems, which the pupil meets in his life, or which others meet in life. We cannot however always furnish life-problems. Sometimes we have to give pure problems in Mathematics (as distinguished from life-problems).

HOME-WORK IN MATHEMATICS.

The purpose of home-work should be (1) to give drill on operations whose theory is understood, (2) to impress on the memory those few things which need to be memorised, (3) to inculcate neatness, and (4) to give opportunity for quiet thinking. Home-work should have the character of completing the work of the previous day and not of preparing for the next.

WHAT HOME-WORK SHOULD BE ASSIGNED.

The work assigned should enable an average pupil to apply his time to it with success and profit. An average pupil with honest pains must be able to do the sums set.

The amount of home-work must be reasonable, for, if it is too much it creates disgust.

HOME-WORK (HOW TREATED AFTERWARDS.)

Home-work when once given, must be done by the pupils. The teacher should exact the work from the boy. Not doing the home-work given is worse than no home-work. Different methods may be employed by the teacher to correct exercises given for home-work. It is true that it is a huge task and often very taxing. The teacher will do well to go through a few carefully in detail and rush through the rest. This will discourage the boys from doing shabby work and at the same time save the teacher some time without any prejudice to his work.

THE ROLE OF MEMORY IN MATHEMATICS.

Teaching or rather learning in the past consisted mainly in memorising, often without understanding. Let us take for example the study of tables. There is no doubt that such teaching is bad. Yet memory has a place in Mathematics. It is very useful to remember past results. It will secure rapidity of progress. Pupils must be required to remember results previously understood. What should be remembered? Topics on which further work is built must be remembered. For instance tables of 12 and 16. It will secure economy of time and effort. When should memorising be done? Portions should be memorised only after they are understood.

MARKING SYSTEM.

A teacher would do well to have a written record of the progress made by each pupil. This will help him in determining the promotion of pupils at the end of the year. The record however should be only a servant and

not a master. More important than the record is the teacher's own impression of a boy's progress. Both record and estimate are useful. Neither can be dispensed with. The record should help the teacher to fix the estimate. Occasional tests may be given and the marks entered in the record book.

ECONOMISE TIME AND ENERGY.

Avoid waste of time. A single minute wasted in the class-room means half an hour wasted for the whole class. Let the black-board be clean before the class begins. The services of a pupil may be utilised. Movements of the class, movements of each pupil to and fro must be done quickly, smoothly and in a routine way.

PASSIVE ATTITUDE OF THE PUPILS TO BE AVOIDED.

When you question the pupils do not allow the rest of the class to be passive. Let every boy try to think out an answer to the question. A useful device to prevent a passive attitude is to question occasionally a boy who is not attentive. Sometimes it is better to question one boy for a long time especially when the whole class can benefit by it.

REVIEWS OR TESTS.

Reviews are of great importance. Reviews may be of various kinds. For instance, questioning the class, short tests and examinations. The principle to be observed is this. Fundamentals must be revised again and again until they are thoroughly mastered. When we hold reviews we must bear in mind the fact that the pupil must be able to apply what he has learnt. Reviews are most profitably held before taking up a new topic especially when the new topic is built upon the topics already learnt.

THE USES OF A TEXT-BOOK IN MATHEMATICS. WHY A TEXT-BOOK SHOULD BE USED.

A number of reasons make the use of a text-book very desirable. 1. It prevents useless dictation and taking of notes which are likely to be imperfect. 2. It furnishes a good collection of exercises prepared with great care and at the cost of much more time and pains than any single teacher could possibly bestow. 3. It places within the pupils' grasp a theoretic development worked out with much thought and a wide view of the bearings of the subjects.

HOW TO USE A TEXT-BOOK.

The text-book is at best a tool. It supplies a number of ready made exercises which a teacher has no time to make himself. Boys should be encouraged to find solutions other than the one given in the book. If a solution is too long do not discourage the boys for that. A solution found out by the boy himself will benefit the boy more than a solution learnt from others. It is therefore well to bear in mind that the most important thing is to find a solution.

VARIATIONS FROM A TEXT-BOOK.

As a general rule the order of the book may be followed but when a teacher has acquired a thorough mastery of the subject he may vary his teaching from the order followed in the text-book.

NOTE-BOOKS.

The value of note-books is very great. What is explained in the class unless it is recorded is soon likely to be lost. The practice of using of a note-book differs among different teachers. In Germany the teacher develops a topic on the black-board and the boys copy it in their note-books simultaneously. There is an objection to this practice.

1. The attention of the boys is diverted from listening to writing.

2. The boys have to write fast. Hence hand-writing gets spoiled. An alternative practice which may be followed is the following. The teacher secures the individual attention of the pupils, works out the problem on the black-board, and then, when it is finished, gives them time to copy it. The advantages are:—1. Boys attend to one thing at a time. 2. They write legibly and well. 3. Weak points are cleared up then and there in the course of the explanation.

USES OF THE NOTE-BOOKS.

1. Note-books are intended for class work. 2. They are intended to record problems worked in the class. 3. Thirdly they are intended to record assignments.

LIBRARY.

The library should contain a collection of the best current texts and it should be kept up-to-date. The teacher who equips a library with books may consult the list of books suitable for school use and library use published in a recognised gazette of the province. The teacher has to use several books which are in general beyond the requirements of the pupils. Such books may also be included. They will help the teacher to keep himself acquainted with higher Mathematics. Besides the school library the teacher will do well to have a personal library consisting of books he uses most so that he may have them always ready at hand.

MATHEMATICAL LABORATORY.

The Mathematics class-room should be fitted up with drawing instruments, suitable tables and desks, good black-boards and the apparatus necessary to do practical work.

The laboratory should contain also tables showing cubes, square roots, cube roots, etc., and reciprocals of numbers.

MATHEMATICAL MUSEUM.

The museum may contain mathematical models and portraits of mathematicians.

APPARATUS.

For early number teaching have splints, sliding scales, and magic squares besides those already mentioned. For compound quantities have token coins, a complete set of British, Indian, and metric weights and measures, conversion tables, common balance, and calendars besides those enumerated above. To teach areas, have rectangles, triangles, parallelograms, trapezium, equilateral triangle, etc., and to teach volumes have cubes, cuboid, prism, (on a triangular, square, hexagonal base, etc.) cylinder, cone pyramid, sphere, transparent circular protractor, compass boxes, and a good workable magic lantern.

MEANS OF SECURING SPEED AND ACCURACY.

1. In order to secure speed and accuracy the pupil must work many examples bearing on a principle which he has learnt. He must have mathematical drill. "Practice makes perfect" says the proverb. For instance, in simple interest, the best way to secure speed and accuracy is to work several examples after the first principles have been mastered. "Quick and sure" must be the motto of a mathematician. Speed and accuracy depend upon the thoroughness with which the multiplication tables are learnt and the readiness with which they are reproduced. In order that a pupil may apply the tables intelligently they should be intelligently built up for him. Practice should also be given in the application of the tables as they are being evolved.

This intelligent practice and application will engender confidence from the earliest of classes.

2. The number of tables learnt should be necessary and sufficient. For instance, Troy Weights and Avoirdupois Weights are not necessary for Indian pupils in the early classes. The table of English coins should be taught at a later stage, say in the I Form, and the table of Indian coins should be taught at an earlier stage, say in the III Class.

3. The pupil must be encouraged to analyse the problem, to find out what is given and what is asked and to construct in the mind rapidly the various steps of working.

4. The pupils must be trained to find the rough estimates before actually working the problems. When he has worked the problem he must compare the answer with the rough estimate. This ensures accuracy. It also furnishes an exercise for reasoning and judgment.

5. Oral work must be done in the class. Oral and mental work are important means of securing speed and accuracy.

6. The boys must be taught to appreciate the value of neat, short, simple and easy methods.

7. When a new principle is being taught do not burden the pupils with the additional difficulty of mechanical manipulations, but always see that the attention of the pupils is directed towards the understanding of the principle.

8. The language of the problem must be simple. The problem must be free from ambiguity of terms.

9. Approximate methods in addition, subtraction, multiplication, and division should be taught. These methods save time and

labour. Such of the figures as are not to be relied on are discarded. These methods secure speed and accuracy in an eminent degree.

10. The pupil must approach a problem with a fresh mind. Hence Mathematics should be put down in the first period of the forenoon. Mental fatigue should be avoided by letting in plenty of light and fresh air.

11. The instruments used must be delicate, giving accurate results. Sharp dividers, sharp pencils, well-graduated scale, sensitive balance in physics, etc., must be used.

12. In Geometry encourage the boys to draw neat figures. Very often the neat figures suggest the proof.

HOW TO SELECT AND TEACH THE VARIOUS TOPICS IN MATHEMATICS.

Topics and problems should be selected or chosen from a boy's own experience of life and they should of course have the local colouring. This is no easy task. I shall give a few examples here. The boy can be asked to note the depth of rainfall, the rate of flow of a river, by noting the distance travelled by an object on the surface of the water in a given time, and hence he can be asked to calculate roughly the volume of water that flows in one hour, in one day, in one month, and in one year, etc. Facts can be got from the local municipal administration; the income, the expenditure, social conditions, the death rate, the birth rate, etc. The pupils must be encouraged to find out the data for themselves as much as possible. Example:—For compound interest, boys can be asked to calculate the value of a compound interest when articles like bicycles, etc. are sold on the instalment system.

CORRELATION OF ARITHMETIC AND PHYSICS.

Correlation can be done even in the lower forms with much profit. The following are the topics in which correlation can be successfully made.

1. Finding the volume of a solid by noting the volume of water that has overflowed.

2. Calculating the weight of a cubic centimetre of wood or c. c. of iron.

3. Weight of water displaced by a floating body may be compared with the weight of the body.

SIMPLIFICATIONS.

A great number of topics in Mathematics that was taught in former years has been omitted now. The following are among them.

1. Circulating Decimals.

2. Extraction of cube root excepting by the help of factors.

3. Reduction of tons, cwts., etc., to ounces.

These are no longer in use because much of mathematical work is done by the help of decimals. Hence many of those problems consisting of simplification of fractions are considered unnecessary.

OMISSIONS TO BE RECOMMENDED.

1. The L.C.M. of large numbers excepting by factors because decimals have come to our rescue now. Fractions that occur now are those connected with non-decimal measures. Fractions with large or unusual denominators need not be taught. If the denominators 2, 3, 4, 6, 8, 12, 16, 20, 24, 32 and 36 are mastered the pupil need have no fear of trouble with fractions in actual practice. Pupils of

course must know what fractions are. The pupil who can handle 24ths, 32nds, will also easily handle 26ths, and 28ths and 23rds.

2. All measurements not in actual use in the community at large. The pupil need study only tables of Indian weights, measures and coins, and later on, in the higher classes, the metric system of measures for the purpose of science. Tables of Troy weights, Apothecary, Fluid Measure, Weights for Precious Stones, etc., may be safely omitted.

3. Decimals beyond the thousandths place should receive scant attention.

4. Circulating decimals should be avoided.

5. Square root and cube root except by factorising. Rule for square root may be given.

6. True Discount, Partial Payments, and Equation of Payments.

7. Large numbers and exercises involving many numbers should also be excluded as a rule.

After a brief survey of the subject in its various aspects we arrive at the conclusion that Mathematics like History, Geography, Science and such other similar subjects should be taught to the pupils in a pleasant and interesting manner, perhaps removing and not generating head-ache, for most of the pupils now-a-days show a general disinclination towards the subject, not because they have an inherent dislike towards it but generally because the subject is presented to the pupil in a dry fashion. It is therefore imperative on the part of the teacher to make the subject as real and interesting to the pupils as a lesson on Science in which experiments are actually done in the class and conclusions drawn therefrom.

ELEMENTARY EDUCATION.

BY MR. GOTETI RAJAGOPALA RAO,

Vallur.

THE foundations for the education of children are generally laid down by the mothers. Till the child attains the age of about four or five the whole responsibility of its care and improvement lies on the mother. She takes interest in the general nourishment, health and other things of the baby. It is she that begins teaching the baby how to talk, how to smile at others, how to express its whims and pleasures to its acquaintants, how to love them, how to receive the same from them, and so on. It is she that teaches the child how to take its food and drink and how to sip and chew them. Such are the functions she generally attends to for the first year of the child. Then the child takes to improve on the initial foundations laid down by the mother. It is in this stage that the father generally takes to assist the mother in the bringing up of the baby. Now the child will be in a position to be conveniently taken from place to place, and to acquaint itself with the habits of lulling and choking and with the tiny habits of reading the countenances of the people with whom it comes in contact. Before the close of the second year, the child will be able to remember some of the words it speaks, to express its ideas to the parents and others by gestures and actions, to walk a few paces generally with the help of the parents. In the next year, it will be comparatively on the improved lines. It boldly walks here and there in its acquainted areas, identifies the articles that come in its view, begins to take to memory what it experiences in its family and begins to imitate the elders and play-fellows. In the succeeding year, the child independently takes to play with the fellows of its age, and observe the career of the children going to school and also their actions at home. They now begin to imitate the elderly boys by attempting to use their books and slates. They imitate their elder brothers and sisters in dress, manners and desire to sit amidst them in school also.

By this time, the children will be able to use their tongues pretty freely, and speak timidly. They will not be able to speak freely in the presence of strangers. They will be timid to roam about freely, generally get themselves frightened when they happen to see strange or awkward things or hear any harsh sounds. Their minds will not be steady now. Their motives are whimsical and actions irregular and uneven. They will not be at all in a position to explain what they speak and do. They generally possess imitative nature. They imitate the words and actions of their parents, brothers, sisters, play-fellows, neighbours and acquaintants. Very generally they are fond of play, with anxiety to learn from school. But when they are actually put to school, their appetite for education withers away and timidity comes in its place. Their habitual boldness to speak to others and giving speedy answers to questions put to them fades away, and a number of soothing words cannot elicit a single answer from them. They will be in a position as they will not be able to keep clothing for hours together. In this stage, they cannot tolerate any other sight or scenery than the natural pleasant looks and things, hear any other

Oct. 1932.]

ELEMENTARY EDUCATION

751

sound than sweet, soothing expressions. There will be some children who will not be able to speak distinctly and freely; and also some children who cannot keep away from their mothers for hours together because they might still be in the habit of sipping milk. It is very generally in this stage boys and girls are put to school.

Now begins a new life for boys and girls. They cannot be always in the company of their fathers, mothers and acquaintants and neighbourhood. The teacher of the Infant standard will have to deal with a number of children of different castes, habits, tastes, temperaments and avocations. It is *his* duty to bring them all to one level and begin education. He should first study his little pupils and investigate a way as to how to bring them up together. Even a mother will not have the necessity to deal with a number of children of the same age at a time. Now the responsibility of the Infant standard teacher is greater than that of a mother. The elderly children will be helping the mother to bring up the little ones. In this way, she finds a relief where-as the teacher will have no assistance by his side. His experiences of childhood with his brothers and sisters, his observations abroad, his foresightedness, patience and natural love for little ones and the sweetness of his looks and expressions are all the things left before him to deal with such children.

The golden future of the country, race, community and humanity rest in the little ones; and they are placed at the mercy of the school masters. Infants are like pure unalloyed gold. Well experienced, foresighted and honest workmen prepare most valuable, precious and useful jewels out of gold that would mete with the happy and long-

standing use of the people. It is in their hands, gold gets life and shines in various ways. Similarly, children that have arisen from the hands of strong, well-minded and broad sighted tutors, will surely bring health, wealth, name and fame to the parents, family, country and humanity at large. As already explained above, children are generally of an imitative nature. They imitate persons with whom they are put in constant touch. In this stage, they cannot foresee anything. They blindly go in the footsteps of their elders and tutors provided they are trained smoothly. "Youth and white paper take all impressions." So it need not be mentioned once more that it is the duty of the Infant standard teacher to lay down the foundations of useful education, good manners and noble habits in the tender brains of the little ones.

In the first place this teacher should be a man who has well realised his duties and responsibilities towards himself and also towards his profession. Next, he must have put his observations in practice in his daily routine. Further, he should always keep an affectionate look, and a sweet, lulling and attractive tone. Harsh expressions, irritative temper, vexation, moroseness and drowsiness, he should never allow to approach his neighbourhood. Further, he should possess the qualifications of a good judge. The little ones will be very frequently subjected to constant quarrels amongst themselves which require immediate disposal by their tutor. He should be very careful in the disposal of such cases. It is his duty to see that a mistake once committed by one boy should not be repeated either by him or by his comrades. Next, he should see that his pupils realise that his decisions are intended solely for their benefit, and that the little punish-

ments they receive are the antedotes for their errors. Also, he should see that his actions end only in the class room; and that they never rouse the feelings of the parents of the pupils in their homes. He should behave in such a way that the pupils will look upon him as an alround man or an angel. By his actions, he should make his pupils adore him.

The teacher also was a pupil for some time. The profession brings in a new change in his life and career. A man feels very uneasy whenever he gets into a new sphere of life. In the changed condition of life, he will be very generally in need of help. He requires a competent patron. The patron also should be very interested in the teacher. He should be watching the career of the teacher with love and affection by pointing out his errors and merits and by supplying his wants and requirements. In other words, the teacher requires close and constant supervision and instruction. He should not be constantly worried and discouraged. The supervising staff should not be cruel and partial. It should be kindly appreciating the merits of the teacher. It should also see the feelings of the teacher are not provoked. Such a staff should see that the teacher works with enthusiasm and loves his duty and the pupils. In all the necessary stages the tutor should be getting remunerations. Without these, the required quality of the out-turn of work cannot be expected or dreamt of.

Here comes the most important point that there should not be two kinds of staff to administer the Educational Department. The remunerating staff should never be aloof from the supervising staff. If such be the case, there surely arises a split between the two; and it is generally rarely that the two come

round to one opinion. Every kind naturally attempts to exercise its influence over the school masters. Selfishness and grudge towards the other naturally prevail. In this crisis, the teacher will have to serve under two kinds of masters at a time. They will be generally reluctant for such a kind of service.

In case the power of remuneration rests in the hands of the supervising authorities, the teacher will meet with the required encouragement in his work whenever necessary. On the other hand, if the two hands differ, there is no guarantee that the recommendation of the inspecting authority will be approved, because the administering staff will never have an opportunity of coming into contact with the enthusiastic work of the teacher. Unless this staff gets to watch the progress of the teacher, it will never have the necessity to satisfy him.

Children generally take advantage of the difference of opinion among the parents; and as a result of that, try to shirk work. They try to win the favour of one of the two, and overlook the other. Naturally, the loving hand will be overcome by its affection towards its pet; and remunerates it even though it evades its work. A bullock never stands before the plough of its accord to be yoked by the peasant. Similarly a man never comes forward for hard service. It is almost a law in nature that no substantial work will be turned out successfully in the absence of a rigid master. The supervising and remunerating authority should be kind and affectionate towards the teachers and at the same time leave the required margin between them and the teachers. They should be very rigid in the close supervision of the work of the teachers and should see the subordinates carry out the instructions with care and enthusiasm. The authorities should never be over lenient towards their

subordinates. Over-indulgence spoils the general quality of the work, as a result of which the desired results cannot be attained.

It is necessary for the administering authorities to take great care in appointing the Infant standard teachers. Before passing such orders, they will do well to test whether the candidate belongs to an honest and respectable family, whether he is brought up and trained under proper and systematic hands, whether he is well-accustomed to move patiently with children, whether he can patiently withstand the troubles put by children, whether he can lull and sooth children, whether he possesses the habit of winning the general love of the pupils and so on.

The duty of the appointing authorities has not ended with this. They should take equal care in supervising the work of the teacher. They should give strict instructions to the Headmaster to see that the staff attends the school regularly and devotes every minute for the benefit of the pupils.

Another malpractice generally current in Elementary Schools is the presence of a cane. It erases the enthusiasm of the little boys for school life and frightens them. Fear is a thing that should not find a place in the minds of little boys. In its presence, they will not be able to speak freely to their co-boys and answer the questions put to them. Further, they fear the teacher instead of loving him. In the existence of fear, no useful instruction can be imparted in the minds of the lads.

Use of vulgar, cursing and harsh language in schools is very cruel; and the authorities will do well to see that such things are strictly avoided in schools. As already explained more than once, children have an imitative nature. The majority always go wrong.

There will be only a few boys who will be able to understand the masters correctly. So, in the general welfare of the boys, such vices should be put a stop to in the Elementary Schools as early as possible.

It will not be enough if the teachers would artificially behave in a certain manner when they are in school in the business hours. They will have to sacrifice some of their pleasures and comforts for the welfare of children. Further, they will have to put a stop to their vices and malpractices and evil habits whenever they are able to find them out or detect them.

Outside the school premises, both at home and play-ground, boys will be always playing school dramas by imitating the actions and expressions of the teachers. Very often we see they imitate the tutors in the wrong. If the boys happen to come in contact with a stammerer, a lame man or a man blind in one eye or one naturally possessing any irregularities, they do not fail to avail themselves of the opportunity to imitate them in their daily routine. Further, if they see him snuffing, smoking and over-talkative, similar actions are played everywhere. Similar will be the imitations of the teachers in gambling, cards-play and other things. Nobody naturally attempts to grasp or imitate them on the fair side. God must have been surely mischievous in making the creation to imitate only the wrong. Even by mistake or oversight, nobody catches the right point. The teacher should observe all these things and see he will be always on his guard, that he will not be detected by his pupils when he is doing wrong things and when he thinks he will not be able to rectify himself. He should always feel himself ashamed to do bad things before

his own pupils assuming that he who is not able to rectify his own vices, does not deserve to occupy the important post of a teacher. In this connection, it is high time for him to estimate that he would be a laughing factor in the hands of his pupils and their parents. In all such cases, he generally fails to win the love and regard of the pupils and their parents. So, he should ever be trying to rectify himself in case he really wishes a bright future for his boys. If he does not mind this, he will do well to assure himself that he is a traitor to his profession. This decision will surely be a help to him in disguise.

There is another important item the teacher should attend to with care. In cases when he will be necessitated to give punishments to his pupils, he should see that he does such

things in the absence of little boys. At the time of awarding punishments to pupils, the teacher looks hard and utters hot words. Then, they cry with pain and fear, weep and tremble. Little boys generally get themselves frightened when they witness such scenes. Their love for school, master and learning withers away, and from the next day, they shirk going to school. In Elementary Schools, there will not be advanced boys. So even the boys of the higher standards do not require corporal punishment. So corporal punishment should be very strictly avoided in Elementary Schools; and in the violation of this thing, the authorities should look upon the teacher as having committed a serious crime; and should deal with him very rigidly.

(To be continued).

A Hand-book of the English Language

FOR HIGH SCHOOLS

By K. SUBRAMANI AIYAR, B.A., L.T.,

A Fellow of the University of Bombay;

An Incorporated Accountant of London, and late Principal of the Byramjee Jeejeebhoy College of Commerce, Bombay

REVISED BY

MARK HUNTER, M.A.,

Principal, Government College, Rajahmundry.

FIFTH EDITION. PRICE—Rs. 1-4.

(Approved as a text-book by the Director of Public Instruction, Bombay.)

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

TENNYSON'S IDEA OF THE TRUE POSITION OF WOMAN.

By MR. T. S. THIAGARAJAN.

Dharapuram.

IN no poet of the nineteenth and twentieth centuries, but Lord Tennyson, do we clearly and in all its present degenerated aspects see the position of woman in society, and in the making up of man's moral, physical and mental strength and courage. Tennyson's peculiar gift of choice of words, and liveliness in writings attain a charm of inexpressible delight, when he puts his philosophy of the relationship between woman and man, and how it ought to be, in such simple and melodious verse as:—

This world was once a fluid haze of light,
Till toward the centre set the starry tides,
And eddied into suns, that wheeling cast
The planets; then the monster, then the man:
Tattoo'd or woaded, winter clad in skins,
Raw from the prime, and crushing down his mate:
And yet we find in barbarous isles, and here
Among the lowest.

Disyoke their necks from custom, and assert
None lordlier than themselves but that which made
Woman and man.

Such examples are indeed too numerous to need any mention here, and these go to confirm our opinion that Tennyson was one of those, who completely believed that the status of woman even as recently as the middle of the last century was as in Arthurian days. But he exempts those people who were counted as really educated, or imbued with practical and liberal views, or belonging to the higher classes by virtue of their understanding the dignity of woman in the eyes of man, from a base charge of having overridden woman's rights and responsibil-

ities. Hence he says, "Man crushing down his mate," as he witnessed among the lower classes in his country. (And here among the lowest.)

It is true, and on the authority of John Ruskin, the great essayist and art-critic, who was also a contemporary of Tennyson, that there was much to be done in the world of humanity, in the line of making the fair part of the world, as it were, well-developed and sufficiently nurtured, who, in turn, would make all the human race "sufficiently able to see God through light and life." There is, I believe, little dispute with regard to the feelings felt even in these days, that "Man and woman have not understood each other all over the universe, and till then, our earth is only like a dumb-being moving on aimlessly in life." This idea is so prevalent in all Tennyson's works that one would be glad to give him the name of a prophet.

In "Princess," one of his monumental works, he puts forth all his ideas on this subject through his imagined character, the Princess Ida. Though his heroine cannot be justified in all her charges against man, yet it is plain for us to know that at least her description of her sisters' position is quite vivid and true. It is sufficiently well-expressed and quite vindictive. No doubt, it touches on all the dissonant chords that set at naught all the domestic happiness too necessary when Science and Reason make long strides.

Quick answered Lilla, "There are thousands now
Such women, but convention beats them down;

It is but bringing up; no more than that:
 You men have done it: how I hate you all!
 Ah, were I something great! I wish I were
 Some mighty Poetess, I would shame you then,
 That love to keep us children!

Perhaps no other poet but this great Victorian has gone deep into the heart of a woman to search for the revolutionary sentiments against man, awaiting to be expressed in actions, if he but chooses to follow the same ideal of keeping woman in the infant stage throughout her life. Women's actions are studied and cool, but if once allowed to a deliberate step of revenge, they pass beyond the compass of suppression or winning. This spirit in women is best exemplified in the following lines:—

Oh! I wish
 That I were some great Princess, I would build
 Far off from men a college like a man's
 And I would teach them all that men are taught;
 We are twice as quick!

At the same time the pictorial representation of woman's attitude towards man's achievements are convincing arguments of Tennyson for raising the status of woman. As Ruskin observes that man and woman are different in everything, that each sex is complete in itself, and is completed by the other, and proper understanding between them is the most essentially required quality that brings in happiness for both of them, Tennyson seems to endorse this view strongly in slightly masked words in his "Sir Galahad," "Dora," "Oenone" and some other smaller poems.

We see in "Elaine" and the majority of his works dealing with King Arthur and his knights of the Round Table that, however great a man may be as a warrior, he fails to discern his valour in him, unless his glory is shared by a fair partner, "whose very looks,

presence or touch inspire him to fame and worth that make him live truly under the sun."

This idea is not an issue of fiction or wild imagination, but a truly sensible devotion of a warrior to his lady; and herein comes the significant feature of woman's equal position with man.

Tennyson was alive to the fact that men wanted superiority over women. The simple reason of this, as he understood, was that the latter's conduct was always to be watched and suspected. His ideal of the assigned and true position of woman is seen in these words:—

The woman's cause is man's: they rise or sink
 Together, dwarf'd or godlike, bond or free;
 For she that out of Lethe scales with man
 The shining steps of Nature, shares with man
 His nights, his days, moves with him to one goal.
 Stays all the fair young planet in her hands—
 If she be small, slight-natured, miserable,
 How shall men grow but work no more alone!
 Our place is much; as far as in us lies
 We too will serve them both in aiding her—
 Will clear away the parasitic forms
 That seem to keep her up but drag her down—
 Will leave her space to budgeon out of all
 Within her—let her make herself her own
 To give or keep, to live and learn and be
 All that not harms distinctive womanhood.
 For woman is not undeveloped man,
 But diverse; could we make her as the man;
 Sweet love were slain: his dearest bond is this,
 Not like to like, but like in difference.
 Yet in the long years liker must they grow:
 The man be more of woman, she of man,
 He gain in sweetness and in moral height,
 Nor lose the childlike in the larger mind;
 Till at last she set herself to man,
 Like perfect music unto noble words.

In the above beautiful lines high hopes are maintained that speak of the greatness of the poet and lucidity of his expressions. Of all ages to come his idea of the function of man and woman in noble lives will remain the most authoritative. But when he says that woman is to be given her true position, he means that man has already gone too high, above his natural position at the expense of that of his sweet partner.

THE TORCH OF WISDOM.

BY 'WALKER.'

But the thing a man does practically believe (and this is often enough without asserting it to himself, much less to others); the thing a man does practically lay to heart, and know for certain concerning the vital relations to this mysterious universe, and his duty and destiny there, that is in all cases the primary thing for him, and creatively determines all the rest. This is his religion.

Whatever does not stand with credit cannot stand long.

A generous spirit prefers that his country should be poor and weak and of no account but free, rather than powerful, prosperous and enslaved.

Mental disease is brain disease, but then the immortal reason sits apart and cannot be touched by the disease. The errors of madness are those of the instrument, not of the performer.

It is my conviction that my countrymen will truly gain their India by fighting against the education which teaches them that a country is greater than the ideals of humanity.

Nationalism is a great menace.

So all the talk about God desiring this and that and becoming angry and pleased by turns is babies' talk but means nothing.

We are all born in subjection, all born equally high and low, governors and governed, in subjection to one great, immutable pre-existent law, prior to all our devices and prior to all our contrivances, paramount to all our ideas and all our sensations, antecedent to our very existence, by which we are knit and connected in the eternal frame of the universe, out of which we cannot stir.

Wonder is the basis of worship.

Man is properly the only object that interests man.

Birth and Death
 An infinite ocean;
 A seizing and giving
 The fire of Living

'Tis thus at the roaring Loom of Time I ply,
 And weave for God the Garment that seest him by.

Who dares

To say that he alone has found the truth?
 We cannot always feel and think and act
 As those who go before us.

—LONGFELLOW.

Let men take heed of their company.

—SHAKESPEARE.

For some must watch, while some must sleep
 So runs the world away.

—SHAKESPEARE.

Knowledge is proud that he knows so much
Wisdom is humble that he knows no more.

—COWPER.

* * *

Nature that hateth emptiness,
Allows of penetration less
And therefore must make room
Where greater spirits come.

—A. MARVELL.

* * *

There's nought in this life sweet
If man were to see't
But only melancholy

—FLETCHER.

* * *

Death only can the missing note supply.
To quiet resolve the discord of this life
Silence alone is perfect Harmony.

—ALF. HAYES.

That age is best which is the first,
When youth and blood are warmer;
But being spent the worse, and worse
Times still succeed the former.

—R. HERRICK.

* * *
Art thou poor, yet has thou golden slumbers?
O, Sweet Content!
Art thou rich, yet is thy mind perplexed?
O, Punishment!

—T. DEKKER.

* * *

Madras University.

B.A. Degree Examination (Revised Regulations) 1934.

SHAKESPEARE—A MID-SUMMER NIGHT'S DREAM with Introduction and Notes by the	RS.	A.	P.
Rev. R. Scott, M.A.	1	6	0
SHAKESPEARE—OTHELLO with Introduction and Notes by Michae Macmilian, B.A.,			
D.Litt.	1	6	0
MILTON—PARADISE LOST, BOOK IV, with Introduction and Notes by E. E. Kellett, M.A.	0	12	0
BROWNING—RABI BEN EZRA with Introduction and Notes by Henry Dodwell, M.A.	0	4	0
BROWNING—THE GRAMMARIAN'S FUNERAL with Introduction and Notes, by E. E.			
Kellett, M.A.,	1	0	0
WORDSWORTH—ODE ON THE INTIMATIONS OF IMMORTALITY with Introduction and			
Notes by E. H. Elliot, B.A.,	0	12	0
CARLYLE—ESSAY ON BURNS with Introduction and Notes by the Rev. R. Scott, M.A.	1	4	0

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

PLACES OF EDUCATIONAL INTEREST.

XVI. EMBERUMANAR TEMPLE.

BY MR. L. N. GUBIL SUNDARESAN,
Trichy.

Sri Ramanuja is the great founder of the Vaishnavite creed. There are two temples* dedicated to this great saint called Udayavar temple, the one in that most beautiful island of Srirangam encircled by the Cauvery and the Coleroon and the other in that picturesque village of Alwar Thirunagari encircled by the Thambaraparani and its tributary channel. This great founder of Vaishnavism proclaimed to the world that it was not through sacrifices and renunciation alone that ultimate Moksha could be obtained, that there was a pleasanter path, a path easier of following and as full in its result, namely, the ultimate emancipation through Bakti and Love. No greater Truth went forth from human lips than this great lesson that God is love and love conquers the world. It conquers lives, it conquers re-birth and when the love of the human being is blended into universal, it is the key-solution for the attainment of that

goal. This love knows no bounds of creed, race, caste or colour. It is all comprehensive. The holiest Brahman in strict seclusion of meditative thought, the abject Pariah beyond the pale of society, between these numberless castes coming between, all could be comprehended within the fold of Vaishnavism when they spring to the higher moral nature on all occasions was love in its finest form. If ever a dedication can be made or had to be made in the name of emancipated lives for the one person, who proclaimed this doctrine to the world, it was purely a dedication to Sri Ramanuja. As one gets back from these two temples, one feels that after all love is the binding force that runs through which the Infinite manifests Himself in the myriad forms of life, all to give man that sense of spiritual pleasure to lead to that ultimate result.

* There is another famous shrine dedicated to him, in the place of his birth—Sriperumbudur, in the Chingleput District—Ed. E. R.

A TEACHER OF ENGLISH GRAMMAR AND COMPOSITION

BY SIMHADRI APPAYYA,

late of the Maharajah's College, Vizianagram.

Vol. I. Price : Re. 1.

(Approved as a Text-book by the Department, May 1914.)

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

OUR SCIENCE COLUMN.

A SCHOOL HELIOSTAT.

By MR. V. N. VISWANATHA AIYAR, M.A., L.T.
Madras.

The uses to which sunlight is put in the science laboratory and class-room are manifold. Some of them were discussed in the articles published in this *Review* under the title 'Optical Projection in Schools.' Sunlight possesses numerous advantages over all forms of artificial light. Hence, the importance of providing a simple arrangement for reflecting sunlight into class-rooms, is self-evident.

A suitable reflector should satisfy the following requisites :—

1. It should be sufficiently rigid and heavy in order that it may not be easily upset by strong breeze. It has to be kept in the open yard sufficiently far away from the class-room so as to be clear of the shadows of neighbouring trees or high buildings, with reference to the diurnal and the seasonal changes in the position of the sun.

2. The height of the reflector should be capable of adjustment.

3. Its size should be large enough for a sufficient amount of sunlight to be reflected into a lantern.

4. The adjustment of the reflecting surface should be capable of direct control from within the class-room by the demonstrator without the need of a separate operator. An attender at the reflector cannot do satisfactory work, as it is difficult for him to stand for a long time exposed to the hot rays of the sun and direct the beam in the required

direction. It must also be remembered that necessities sometimes arise for changing the path of the reflected beam. To communicate the varying needs of the demonstrator to the attendant at the distant reflector, from a partially darkened room orally, is very uncouth. Even a telephonic connection will not improve matters very much, as the attendant may not clearly grasp the meanings of the operator.

5. The apparatus used should be cheap, simple in construction and easily portable.

With a little trouble, an apparatus which satisfies the conditions imposed can be constructed by the science teacher with the available local skill.

The first thing to be done is the choice of a suitable plane mirror. It need not be thick. Its surface should be a true plane. In other words it should not show any aberrations. The images of distant objects viewed through the mirror should be free from distortions of any kind. The size may be about 18 inches by 12 inches and may be obtained from the dealer ready-framed. It is better, however, to get a suitable frame made of teak by a carpenter. The bottom of the frame must be weighted with lead so that the centre of gravity may be somewhat below its geometrical position; in other words, the lower half to be slightly heavier than the upper. The mirror should be capable of turning about a horizontal axis. To enable

Oct. 1932.]

OUR SCIENCE COLUMN.

761

this to be done, two similar metallic rods about two inches long should be screwed on to the opposite sides of the frame so that they may lie along a horizontal axis passing through the middle of the mirror.

The two rods with the attached mirror are to be supported on a rigid metal frame-shaped like '┐', the rods resting on notches at its ends. The lengths of the two vertical parts of the frame are slightly more than half the length of the framed mirror, the length of the connecting horizontal part being more than the breadth of the mirror. The vertical piece connected to the middle of the horizontal part fits into a vertical tube having its bottom closed. This tube is fixed to a small horizontal platform forming the pedestal of a tripod. The tripod is just like the stand of a photographic camera, capable of variation in height and collapsible. A heavy and rigid stand used with a field camera can be adapted for this purpose. When the mirror is free, its reflecting surface will be in the vertical plane.

To reflect sunlight in a definite direction arrangements must be made to turn the mirror about two mutually perpendicular axes. To turn the mirror about its horizontal axis the metal frame must be in a definite position and the mirror alone turned. This is accomplished by having a hook at the top of the back of the mirror and attaching one end of a long string to it. The string is then made to pass through another hook fixed to the platform on the top of the stand, at a convenient point. Beyond this second hook the string is almost horizontal and passes on to the demonstration table in the class-room. It is then wound on a bobbin clamped near the demonstrator. On pulling or

releasing the string by turning the bobbin, the mirror is turned about a horizontal axis one way or the other. The bobbin is kept in position by the nut on a bolt passing through the axial hole of the bobbin.

The second arrangement is for turning the mirror about a vertical axis. The mirror is carried by the frame work about a vertical rod turning in a vertical tube, serving as a socket. This rod must be turned. To effect this easily, a thin rod is fixed radially to the horizontal frame in a suitable position by a clamping screw. To the free end of this thin radial rod a light helical spring or a thin rubber cord is attached, and the other end of it is secured to the stationary platform. When free, this keeps the frame in a definite position so as to remain in its unstretched state. One end of a string is attached to the opposite side of the free end of the same radial rod or to the end of the horizontal part of the metal frame and then led on to the operator of the lantern in the class-room. On pulling or releasing the string, the mirror will be turned in the required direction about a vertical axis. The string is wound on to a bobbin similar to the first one. By turning this bobbin one way or the other, a corresponding turn is communicated to the distant mirror.

A useful substitute for the helical spring is a string passing over a fixed pulley with one end attached to the radial rod and carrying a small hanging weight at its free end. The effect of pulling the string on the bobbin will be to turn the framework against the small weight. Releasing the string will have the opposite effect.

Both movements are delicate and the beam of sunlight can be reflected in any desired

OUR SCIENCE COLUMN.

A SCHOOL HELIOSTAT.

By MR. V. N. VISWANATHA AIYAR, M.A., L.T.
Madras.

The uses to which sunlight is put in the science laboratory and class-room are manifold. Some of them were discussed in the articles published in this *Review* under the title 'Optical Projection in Schools.' Sunlight possesses numerous advantages over all forms of artificial light. Hence, the importance of providing a simple arrangement for reflecting sunlight into class-rooms, is self-evident.

A suitable reflector should satisfy the following requisites :—

1. It should be sufficiently rigid and heavy in order that it may not be easily upset by strong breeze. It has to be kept in the open yard sufficiently far away from the class-room so as to be clear of the shadows of neighbouring trees or high buildings, with reference to the diurnal and the seasonal changes in the position of the sun.

2. The height of the reflector should be capable of adjustment.

3. Its size should be large enough for a sufficient amount of sunlight to be reflected into a lantern.

4. The adjustment of the reflecting surface should be capable of direct control from within the class-room by the demonstrator without the need of a separate operator. An attendant at the reflector cannot do satisfactory work, as it is difficult for him to stand for a long time exposed to the hot rays of the sun and direct the beam in the required

direction. It must also be remembered that necessities sometimes arise for changing the path of the reflected beam. To communicate the varying needs of the demonstrator to the attendant at the distant reflector, from a partially darkened room orally, is very uncouth. Even a telephonic connection will not improve matters very much, as the attendant may not clearly grasp the meanings of the operator.

5. The apparatus used should be cheap, simple in construction and easily portable.

With a little trouble, an apparatus which satisfies the conditions imposed can be constructed by the science teacher with the available local skill.

The first thing to be done is the choice of a suitable plane mirror. It need not be thick. Its surface should be a true plane. In other words it should not show any aberrations. The images of distant objects viewed through the mirror should be free from distortions of any kind. The size may be about 18 inches by 12 inches and may be obtained from the dealer ready-framed. It is better, however, to get a suitable frame made of teak by a carpenter. The bottom of the frame must be weighted with lead so that the centre of gravity may be somewhat below its geometrical position; in other words, the lower half to be slightly heavier than the upper. The mirror should be capable of turning about a horizontal axis. To enable

Oct. 1932.]

OUR SCIENCE COLUMN.

761

this to be done, two similar metallic rods about two inches long should be screwed on to the opposite sides of the frame so that they may lie along a horizontal axis passing through the middle of the mirror.

The two rods with the attached mirror are to be supported on a rigid metal frame-shaped like , the rods resting on notches at its ends. The lengths of the two vertical parts of the frame are slightly more than half the length of the framed mirror, the length of the connecting horizontal part being more than the breadth of the mirror. The vertical piece connected to the middle of the horizontal part fits into a vertical tube having its bottom closed. This tube is fixed to a small horizontal platform forming the pedestal of a tripod. The tripod is just like the stand of a photographic camera, capable of variation in height and collapsible. A heavy and rigid stand used with a field camera can be adapted for this purpose. When the mirror is free, its reflecting surface will be in the vertical plane.

To reflect sunlight in a definite direction arrangements must be made to turn the mirror about two mutually perpendicular axes. To turn the mirror about its horizontal axis the metal frame must be in a definite position and the mirror alone turned. This is accomplished by having a hook at the top of the back of the mirror and attaching one end of a long string to it. The string is then made to pass through another hook fixed to the platform on the top of the stand, at a convenient point. Beyond this second hook the string is almost horizontal and passes on to the demonstration table in the class-room. It is then wound on a bobbin clamped near the demonstrator. On pulling or

releasing the string by turning the bobbin, the mirror is turned about a horizontal axis one way or the other. The bobbin is kept in position by the nut on a bolt passing through the axial hole of the bobbin.

The second arrangement is for turning the mirror about a vertical axis. The mirror is carried by the frame work about a vertical rod turning in a vertical tube, serving as a socket. This rod must be turned. To effect this easily, a thin rod is fixed radially to the horizontal frame in a suitable position by a clamping screw. To the free end of this thin radial rod a light helical spring or a thin rubber cord is attached, and the other end of it is secured to the stationary platform. When free, this keeps the frame in a definite position so as to remain in its unstretched state. One end of a string is attached to the opposite side of the free end of the same radial rod or to the end of the horizontal part of the metal frame and then led on to the operator of the lantern in the class-room. On pulling or releasing the string, the mirror will be turned in the required direction about a vertical axis. The string is wound on to a bobbin similar to the first one. By turning this bobbin one way or the other, a corresponding turn is communicated to the distant mirror.

A useful substitute for the helical spring is a string passing over a fixed pulley with one end attached to the radial rod and carrying a small hanging weight at its free end. The effect of pulling the string on the bobbin will be to turn the framework against the small weight. Releasing the string will have the opposite effect.

Both movements are delicate and the beam of sunlight can be reflected in any desired

direction by a careful combination of the turns of the separate bobbins. Thus the direction of the reflected light may be maintained steady for several hours by shifting the position of the mirror to compensate for the apparent movements of the sun. This, it is needless to mention, is done by the demonstrator himself.

The stand as constructed thus is top-heavy and to render it quite stable, a heavy weight such as a bucket of water or sand is suspended from the centre of the platform to within the tripod. To prevent the accidental overturning of the reflector by a careless passer by who may inadvertently pass between the reflector and the class-room, the strings are made sufficiently thin, so that they snap on such a contingency. The snapped parts can be easily joined by making a knot.

When the sun is low, it is found that the amount of light reflected is insufficient as its angle of incidence at the mirror is large. This is remedied by using a second plane mirror by the side of the heliostat and allowing the light reflected from the latter to fall on the former and after a second reflection, to proceed to the room. Obviously this second mirror is required only on rare occasions.

The heliostat described above is also portable; the mirror can be directly removed from the notches in the frame. The other parts including the tripod are also easily separable for purposes of transit and may be put together when required.

The advantages of using sunlight for projection work and for most of the other optical experiments are well-known and have been discussed in some of the previous

articles. Sunlight becomes easy of manipulation with the heliostat. Where it is difficult to procure a powerful artificial light, sunlight is a necessity for optical experiments. Even when powerful artificial lights can be had, it is advisable to provide facilities for the use of sunlight and particularly so in our country with its bright sunshine and seasonal rains.

The cost of the clockwork heliostat described in the physical catalogues is prohibitive and certainly beyond the means of most high schools. Besides its mechanism is delicate and consequently the repair charges heavy. Its use involves a knowledge of the exact position of the meridian and the latitude of the place. The size of its mirror as usually manufactured is small and is therefore not so serviceable for a certain class of experiments.

TYPICAL TAMIL BOOKS FOR MODERN TAMIL HOMES

BY

E. S. SUNDA, B.A., B.L., F.A.U.

Senator and Member, Academic Council,
Annamalai University,

Vakil, Madura.

1. PROHIBITION IN AMERICA
அமெரிக்காவில் மது விலக்கு ... 0 8 0
2. INDIAN COTTON TEXTILE INDUSTRY
இந்தியப் பருத்தி நெசவு தொழில்... 0 4 0
3. COOPERATIVE STORES MOVEMENT
ஐக்கிய பண்டகசாலை இயக்கம் ... 0 4 0

*Publications Suited for Non-Detailed Study
in Schools and Colleges.*

—Books are Successful
Vernacularisation of Authoritative
English Publications—

ESSENTIAL FOR ALL LIBRARIES.
Apply to—

- (i) SRINIVASA VARADACHARI & CO.,
MOUNT ROAD, MADRAS.
- (ii) MANI PUBLISHING HOUSE,
12, GOODES SHED ST, MADURA.

NEWS AND NOTES.

FOREIGN.

THE LEAGUE OF NATIONS AND CHINA.

EDUCATIONAL SURVEY AND REPORT.

The group of educational experts that visited China last winter has submitted a comprehensive report which was adopted by the Committee of Intellectual Co-operation at Geneva in July and transmitted to the Chinese Government. The report is an exhaustive survey of Chinese educational conditions and needs in primary, secondary, University, technical and adult education alike, and makes a series of detailed proposals designed to fit into the programme of reconstruction which the Central Government is applying in two or three key provinces (that is, geographically central and of predominant importance from the point of view of population, economics and general development) in the Yangtse Valley, to serve both as a model and a rallying point for the rest of the vast Chinese Republic.

As urgent preparatory measures, the educational experts recommend the despatch of a special commission of leading Chinese educationists to study educational organisation and school administration in the different European countries. It is more advisable, says the report, to make Chinese experts acquainted with European conditions and administrative methods than merely to invite European advisers to Nanking, and the experts chosen should be those who are to be afterwards the leaders of the reorganisation; but should the Ministry of Education "wish to obtain the assistance of a competent European administrator, the League of Nations will certainly be pleased to help in finding an adequate expert, who not only should be trained in one or the other branch of educational administration but must possess a wide

and thorough practical experience. Such an expert, if he comes at all, should be placed at the disposal of the Chinese Government for at least one year."

Chinese specialists should be sent to Europe to study text-books, curricula, etc., and, as a preliminary to framing a programme, a number of local surveys should be undertaken. There should be propaganda against illiteracy among the population. The report lays stress on the fundamental need of making Chinese education thoroughly Chinese and a unifying factor in the country, so as to get away from the recent tendency to a number of unrelated developments under foreign influences which severely endanger the unity of the national culture. While saying that they have criticisms to make, some of them drastic, they feel it their duty to make them because, in the words of Mencius, "since I see the truth first, I shall impart it to the people."

The experts begin their report by remarking "to have maintained, in the midst of civil disorder, international complications, sharp financial strains, and the recurrent calamities of flood and drought, the conviction that the education of the rising generation is among the principal concerns of a civilised society, and to have laboured, as circumstances have allowed, to promote its development, is no mean achievement, an achievement of which not all Western Governments have shown themselves capable."

Three foreign professors have been appointed to the Central University at Nanking on the recommendation of the League.

VISIT OF CHINESE EDUCATIONAL MISSION.

As a first step to carrying out the recommendations of the educational experts, a Chinese educational mission is arriving in Europe early in September to study the educational systems of Poland, Germany and France on the basis of a programme prepared with the help of the International Institute of Intellectual Co-operation.—*League of Nations.*

INDIAN.**PUNJAB**

The Director of Public Instruction, Punjab, very kindly accorded sanction to the holding of a class in physical training for the Assistant District Inspectors of Schools in the Ambala Division. The class was consequently held at the Government High School, Simla, from June 15th to July 14th, '32. All Assistant District Inspectors of Schools in the Division attended the class.

UNITED PROVINCES

Educational Endowments. Two educational endowments have been recently made here. (1) Mr. K.P. Kichlu, M.A., L.T., retired I.E.S., has given away Rs. 18,000 to Agra, Allahabad and Benares Universities. The largest share, Rs. 10,000, goes to the Agra University for building purposes. (2) Lala Mathura Das, the premier Rais of Roorkee, has donated Rs. 10,000 to the local D. A. V. School which is yet unrecognised.

School Clerks and Benefit Fund. Benefit Fund is being instituted almost everywhere for teachers. As regards clerks working in schools, the Department has no objection if managing bodies contribute from their funds, but the Government is not prepared to contribute.

Vernacular Medium of Instruction in the Intermediate. The question of teaching through the mother-tongue in the High School classes has been practically solved here now, although there still exists a regulation to the effect that teaching in High School classes should be done through English. This regulation is considered to be an anomaly when students are permitted to answer question papers in their mother-tongue and when the Board recommends books in vernacular for students' use at least in History. Therefore this regulation is more honoured almost universally in its breach than in compliance.

It is interesting to note that attempts are being made to obtain permission for answering question papers in the Intermediate also in the vernacular.

Private Training Colleges. The Government has permitted the Lucknow Christian College (Intermediate College) to "train teachers for service in Middle and High Schools." The trained students (two years' course) will take the examinations given the students in the Government Training Colleges in Lucknow and Agra. For the present there are ten stipends of Rs. 10 per month "which may be awarded to worthy Christian students." It is understood that a similar department will be added next year to the Allahabad Ewing Christian College also.

BENGAL

The Children's Fresh Air and Excursion Society—a purely non-official organisation—is doing excellent work. Over 300 boys and 70 girls had the benefit of holiday camps in the course of the last two years. During the Puja holidays, 1931, a batch of 80 boys went to Ranchi, and a party of 12 girls went to Jasidi. During the summer of 1932, a batch of 108 boys from 38 different schools of Calcutta and a party of 16 girls went to Puri.

The entire amount of expense of such excursions was met from public subscription.

(2) A Non-Government Teachers' Training College has been started in Calcutta through the beneficence of Babu Manohar Lal Sil and the activity of Babu Haridas Majumdar, M.A., B.L. This is the first effort of its kind in Bengal.

—*Educational News Bulletin*—

BAKHERGANJ DISTRICT TEACHERS' UNION.

The following resolutions were passed at a meeting of the Union held on 7-8-32:—

1. Resolved that this meeting of the Bakherganj District Teachers' Union records its deep sense of disapprobation of the proposal of the Matricula-

Oct. 1932.]

NEWS AND NOTES.

765

tion Regulations Committee of the Calcutta University regarding the teachers' efficiency certificates and also the compulsory retention of three M. A.'s or Honours men or B.T.'s on the teaching staff of every High School of Bengal.

2. Resolved further that this Union is of opinion that in case these changes are introduced, a large number of High Schools will have to be closed down and hundreds of experienced and efficient teachers will be thrown out of employment and lastly the efficiency of the existing schools will rather suffer than increase by the introduction of raw M.A.'s in place of experienced B.A.'s.

3. Resolved that this meeting is further of opinion that permanent teachers on the staff of every High School up to 31st December, 1936 should be registered as efficient teachers on application.

BOGRA DISTRICT TEACHERS' ASSOCIATION.

The following resolutions were unanimously passed at the Executive Committee meeting of the Bogra D. T. Association.

The meeting considered the proposed Matriculation Regulations from different points of view and unanimously resolved to send a telegram to the Vice-Chancellor, to modify the proposed Matriculation syllabus by retaining two papers in English and making Elementary Science optional as recommended by the Headmasters' Conference held in the Senate House in 1921.

Read letters from Prof. J. L. Banerjee, M.A., B.L., M.L.C., Rai Sahib Haridas Goswami, Headmaster, Asansol E. I. Ry. High School, Babu Birendra Nath Chakrabarty, M. A., B. L., Jt. Editor, *Teachers' Journal*, on the subject of arranging a deputation to H. E. the Governor.

Resolved that the A. B. T. A. be requested to organise a deputation with Prof. J. L. Banerjee as one of the members, to wait upon His Excel-

lency the Governor with a view to place before him the original resolution (*viz.*, that there should be two papers in English with 200 marks and that Science should be made optional) adopted at the Senate House Conference in 1921 under the presidency of the late Sir Ashutosh Mukherjee, the then Vice-Chancellor, and to explain to him the deviation made therefrom in the resolutions adopted by the Senate on the new Matriculation syllabus that these should be made compulsory after five years of the introduction of the new syllabus.

Resolved further that in view of the greater number of marks allotted to English and Vernacular, it will become practically impossible to do full justice to these subjects in the course of 34 periods a week of 45 minutes each, and that the above with other practical difficulties arising in connection with this be explained by the deputation and that a copy of this resolution be forwarded to Prof. J. L. Banerjee for information.

The meeting considered the steps to be taken to increase the funds of the Association.

Resolved (i) that all the High Schools of the District be requested to take the Inter-School Test Papers of the Association and (ii) that a sum of Rs. eight only be fixed for a full set of Test Papers and (iii) that Babu Jnanendra Kumar Bagchi, Headmaster, Khanjanpur H. E. School, and Khan Sahib Jasiruddin Ahmed, Asst. Headmaster of the said school, be requested to write, on behalf of the Bogra Teachers' Association, a suitable text-book on Bengali literature or History or Arithmetic for Classes III and IV.—*Teachers' Journal*, Calcutta, August 1932.

BOMBAY

Rev. Justin E. Abbott, an American Missionary, came to India about sixty years ago and spent a greater part of his life in Maharashtra. During his stay in this country he was so much influenced by the culture of the province which he

served as a Christian Missionary that, when he retired, he was more a Maratha than an American. He has translated into English, selections from the works of the saint poets who flourished in Maharashtra from 1800 to 1700 A.D. and has left behind \$ 10,000 to complete the publication of the series. He died in June last at the age of 80 and the copy of his will received some time ago shows how he loved his adopted country and her people. Out of his estate he has donated \$ 48,000 to the different institutions in Poona, thus:—

Bharat Itihas Samshodak Mandal,	
Poona	\$ 30,000
Gokhale Hall, Poona (For Library)	„ 5,000
Prof. Karve's Hindu Widows' Home,	
Poona	„ 1,000
Servants of India Society, Poona	„ 1,000
Sevasadan Society, Poona	„ 1,000
For completing the Series of Saint-	
Poets of Maharashtra	„ 10,000
Total	„ 48,000

He has also set aside \$ 2,000 in favour of a friend, Mr. M. R. Godbole, who worked as Rev. Abbott's Secretary. In his will he had directed that his dead body be cremated in the Hindu fashion and the ashes scattered all over his garden, and that there be neither a tomb nor a post raised in his memory. In Rev. Abbott's life one finds the key of the influence which the American Mission has in the districts where he lived.

Speaking at the Convocation of the University of Bombay, Sir C. V. Raman emphasised the need of research. 'I do not for a moment venture to suggest,' said he, "that our Universities are perfect. Indian Universities have many faults, due, to a large extent, to the fact that they are founded on models of Universities of England, and when the models were copied, their faults

also were copied. Undue emphasis is placed on examinations and degrees, and originality, research and independence of thought are at a discount." In an informal gathering, the same evening, when asked to give his opinion on the recent resolution of the Calcutta University Senate re the medium of instruction, Dr. Raman said he was wholeheartedly in favour of the use of the mother-tongue both in school and college classes and that he would not be surprised if by 1950 Bengali came to be used even for M.A., M.Sc. work. In teaching Science, he preferred the use of English terms like "oxygen, sulphuric acid, electrons, radium," for they were international.

The present University Building was built out of the donation of the late Premchand Roychand, a merchant prince of Bombay. The tower-clock on this building has now become old and requires to be replaced. A sum of Rs. 10,000 is for this purpose offered by the sons of Premchand Roychand and the Senate accepted that offer in its last meeting with its best thanks to the donors. It is believed that the order for the new clock will be placed with a local company, which has specialised in the manufacture of electric tower-clocks.

At the same meeting (17th and 18th Aug.) the Senate also resolved to institute a Department of Technology, beginning with Textile Chemistry and Chemical Engineering, and granted Rs. 5,50,000 for the capital and current expenditure on the department in the current year.

It also sanctioned a sum of Rs. 1,000 towards the expenses of the All-India Mathematical Conference proposed to be held in Bombay in April next.

On the 5th of September, the Bhandarkar Oriental Research Institute, Poona, celebrated the anniversary of the death of Dr. R.G. Bhandarkar, after whom the Institute is named. On the

occasion was announced a handsome donation to the Institute from H. E. H. the Nizam, of Rs. 25,000, for a guest-house and Rs. 1,000 annually towards the expenses of the Mahabharat Edition that is being published by the Institute.

MADRAS

1. A meeting of the Academic Council of the Madras University took place on the 25th August. One of the resolutions passed is that graduate teachers, who have undergone the course of training for Secondary Grade teachers, might be admitted to the 'Licentiate in Teaching' examination provided they had put in a single term attendance in a training college. Another resolution which provoked keen discussion in the Council and a fierce controversy in the papers is the one which wanted the text-books in English prescribed for the B.A. Examination to be referred back to the Board of Studies. Objection was taken to the book "The Heart of Hindustan," by Sir S. Radhakrishnan on the ground it offended Christian feelings.

2. The correspondent of "The Hindu" reports to that paper that a sum of about £ 40,000 has been raised in England in support of the Tambaram Scheme of the Madras Christian College. The Master of Baliol, and Lord Irwin, President, Board of Education, are interesting themselves in raising the funds so as to enable the authorities of the college to avail themselves of the conditional offer of a grant of money and lands by the Government of Madras.

3. The Fifth Madras Boys' and Girls' Exhibition organized by the Y. M. C. A., Madras, was opened by Mr. T. S. Ramaswami Aiyar, President of the Corporation of Madras. The Exhibition was arranged by the boys and girls themselves. It had several sections and all the sections were full of interesting exhibits. The needle-work and embroidery section by the girls, the fine arts section, and the crafts section were the most

popular as they had each attracted a large number of fine exhibits. The exhibition was kept open for a week and during the week athletic competitions and oratorical contests were held daily.

4. The Y.M.C.A. College of Physical Education has this year nearly 80 students on its rolls. These come from all the provinces in India. To enable teachers working in the different schools in the city of Madras to acquire sufficient training in conducting games the authorities of the college have opened Saturday classes to which admission is free. These classes are very popular.

5. The report of the enquiry into the economic condition of teachers working in the aided secondary schools in the city of Madras conducted by Mr. V. Bhuvaramurthy Rao, M.A., Dip. Econ., is published in the August issue of the *South Indian Teacher*.

6. A children's club and travelling library have been organised at Cuddalore by Mr. T. V. Apparsundara Mudaliar, the District Educational Officer of South Arcot.

—*Educational News Bulletin.*

GUNTUR.

The Eighth Annual Conference of the Guntur District Teachers' Guild was held at Guntur in the Town High School hall on Saturday, the 10th September under the presidency of Mr. K. Rajaiah Pantulu Garu. The gathering was very representative and full.

M. R. Ry. R. Venkatasivudu Pantulu Garu opened the Conference and addressed the Conference on the whole realm of teachers' activities. He spoke of the present depression and the concomitant effects on the teaching profession. He graphically described the plight of educational institutions under the local bodies. He turned towards the relations between the Assistants and the Headmasters and insisted that complete harmony between them was the soul of success. He asked every teacher to keep himself fit for the task before him by equipping himself intel-

lectually and morally to the highest degree of efficiency. He said that the teacher should become a library himself. He spoke of the teacher and public life and his importance in public life. He must assert himself and gain influence. He then spoke of the present day problems such as the revision of the S. S. L. C. scheme, vernacularisation of instruction and the value of technical education. Amidst applause he declared the Conference open. Then the Secretary read the annual report and the same was adopted without any alteration.

M. R. Ry. V. Satyanarayana Guru, M. A., Lecturer, A. C. College, Guntur, then gave a thought-provoking lecture on the system of teaching Telugu in High and Primary Schools. At the outset he opined that the whole defect lay in adopting the methods which are followed in teaching foreign languages in teaching Telugu. After defining what language and culture is he brought instances of utter ignorance of the Indian epics among the college students and attributed the same to the text-books in the lower forms and the methods of teaching. He pleaded that the 'Vidhi Natakams', Puranakalakshepams and memorising the Nighantus were the best way of learning the mother-tongue. He condemned the present text-book writers and their methods of writing.

After this learned discourse the Conference went on with the election of office-bearers for the coming year. Mr. Perumattu, Headmaster, U. L. C. M. High School, Guntur, and Mr. M. P. Dikshitulu of the same school were elected President and Secretary.

After electing the other office-bearers the Conference passed to the passing of resolutions. Condolence resolutions at the death of A. V. Kotaiah and Kodali V. Subarao were passed all standing. A resolution requesting the Andhra University to throw open the gates of B. Ed. examination to the graduates with secondary grade training certificates without the necessity of pro-

ducing attendance certificates was passed. That Hindi should be included in the A Group for the S. S. L. C. was adopted. Another important resolution was that the Guild should put into effect the Benefit Fund scheme. With a hearty vote thanks to the retiring office-bearers the Conference closed at 7 P.M.

Mr. K. Rama Rao, Secretary, Andhra Teachers' Federation, made a fervent appeal to all those present to join the ranks of the Federation and strengthen it.

The Guntur District, Inter School Sports Association met in the same hall to conduct their annual meeting. After adopting the annual report it resolved to have the annual meet at Bapatla this year. Mr. S. Nagabhushana Rao was elected as Secretary.

TRICHUR.

On behalf of the staff of the C. M. S. High School, Trichur, I beg to bring the following matter to your kind notice:—

The C. M. S. High School, Trichur, is now in the 50th year of its existence and during this period over 5200 pupils have passed through its portals. It can claim among its old students many distinguished men occupying high positions in life.

It is our wish that a fitting memorial be instituted in connection with its jubilee. Nothing would be more after the heart of the founders of this school than the opening of a Reading Room and Library with a lecture hall and facilities for indoor games near the school as its jubilee memorial. Such an institution is likely to strengthen the bond of connection between the present and past students of the school.

The scheme involves rather a large initial outlay, but the promoters appeal with confidence to the public for help in raising the amount required in view of the benefit it would bring into the lives of many in Trichur.

Donations, however small, may be sent to me.

C. KORULA JOHN,
Head Master.

CHITTOOR.

THE PURPOSE OF EDUCATION.*

The purpose of education is two-fold. Firstly it attempts at making us intelligent beings capable of adjusting ourselves adequately to the external environment. Secondly it attempts at creating interest in the external world so that we may order it in a harmonious manner. The true aim of education being thus to make every individual realise the true goal of the whole universe, as a systematic harmonious universe, every individual must cultivate the habit of thinking in a universal or planetary manner. Not for the sake of individual or personal well-being, not for the sake of national well-being, but for the sake of planetary well-being should we cultivate this universal breadth of thought. We should assimilate all that goes on in the universe, in science, in history, in philosophy and politics, and concentrate and plan out a universal or planetary education. The true salvation of mankind now does not depend upon any one nation or any one theory, but, in that theory which embraces the whole planet of ours. If we do not have such a theory it is upto us to achieve one.

But this cannot be done in a day. It is to the child-education that we have to turn as a real beginning. The problem of child-education requires greatest attention for on them depends the future up-building of a great culture and a great civilisation. There are at present many in the world who have perceived this problem and have been trying several experiments in this direction. The

true nature of the problem seems to be the creation of interest in the child. There can be no learning if there is no interest created in the subject. Unless you pupil-teachers can create this interest in the children who will be placed under your care, you cannot be said to have been good teachers at all nor would you have found the way of education. No one method can be prescribed but all methods have to be tried by the individual teacher so that he may create interest in the children. In the capacity of experimenting individually with each child so as to create interest in the child for knowledge consists the true starting point of child-education. After that this interest will find its true expression in intelligent relating or grouping of facts. The child then grows of its own accord.

The present impossibility of finding any true education consists not so much in want of theories of education or national education, as in want of pupil-teachers who form the real back-bone of education in this country, who have any true understanding of this problem. We have yet pupil-teachers who create fear for the cane or some form of punishment to make the children learn. The starting point must be not inculcation of fear but a curing of their own lack of interest in the subjects they handle. The enthusiasm of a teacher for a subject catches even the pupils and children. There is nothing wrong with any theory of education, everything is wrong with the teachers. In spite of much boasting it is sad to find that our teachers of the high schools (barring significant exceptions) and primary schools have not got real interest in their own subjects. The true way of teaching or creating interest in a child is to have enthusiasm for the subject oneself,

Extracts from a lecture delivered By Dr. K. C. Varadachari, M.A., Ph.D., to the Pupil-Teachers' Association at Chittoor Government Training School.

How to create interest in oneself for any subject? That is a question not easy to answer. A wise answer would be "by interesting oneself."

Our organisation of material in a planetary manner or universal way so as not to exaggerate any portion of our experiences to the detriment of the other portions is the end or goal. To cultivate that habit of responding to everything in a planetary attitude is the way of attaining to that goal. The synthesis of experience is possible on this plan or attitude. Once having taken that attitude we find that more and more the individual orientates to the intelligent and purposive organisation and responsiveness by eliminating all that goes against such an attainment of attitude. We are then bound to become the creators of orderliness and harmony instead of disorderliness and chaos and conflicts of thought and action. We become spontaneous expressions of the purpose of Life itself. Survey the growth of intelligence or emergence of intelligence through the reflexive and instinctive activities and we find that the orientation is definitely for a larger and more adequate response to the environment not in any stereotyped manner of habit but in a unique manner to every situation equally unique. Further we find that the instinctive activities find their sublimation and orientation in intelligent activity. Intelligence then is choice reaction, where the choice is made deliberately for the adequate response to the immediate reaction so as not to bring about a defeat of its end but a furthering of its end—result. Intelligence involves activity which is incapable of provoking any reaction or pain. Intelligence ought not to be confused with intellectuality which is more or less theoretical

in its intent. By thus cultivating this harmonious action of intelligence the individual more and more becomes capable of sifting the essential from the unessentials of any situation and becomes intuitive. This is genius.

This is the goal of individual education, which is perfection of perception and perfection of action. To be this is to be a Yogi. This of course involves the development of the individual body in a harmonious manner by paying adequate attention to the physique, chemique and the psychical aspects of the body. This would make for individual perfection and healthiness of perception. Every pupil-teacher must not belittle the claims of individual development of himself. This individual development of intelligent functioning and ordering of individual life would easily be made to catch the imagination of the children who will emulate the manners and behaviour of their masters. This is a very fertile way of creating interest in children.

It is therefore necessary for the pupil-teachers to become alive to the needs of the whole universe, which is primarily and immediately the organisation of the planetary attitude which is synthetic and universal, and the reorganisation of their own individual lives on those integral lines. This is capable of producing that interest in their own students who are children capable of imagination and emulation and keen observation. This only can relieve the burden of the nation, namely ignorance of true individual development, and make for a truly creative education. Else we shall find, as we are finding, the deterioration of the level of intelligence go on from bad to worse. On you then rests the future of the country and the world. The destiny of the planet rests on the teachers of our children, not on the teachers of our youth.

THE REVIEWS AND NOTICES.

BEST SHORT STORIES OF INDIA—2 VOLS.
SELECTED AND EDITED BY P. ATKINSON.
PUBLISHED BY MESSRS. D.B. TARAPOREVALA
SONS, & CO., BOMBAY. PRICE RS. 4 EACH.

The author in these two little books has made a choice selection of stories and folk-tales from the 'Indian Antiquary,' and they are not only general but also interesting as the selection includes some from the social and religious ideals of Hindus. The publishers have amply fulfilled their desire to give the readers an interesting time with an idea of Hindu conditions.

**THE MODERN WORLD BY S. A. PAKEMAN, WITH
MAPS AND ILLUSTRATIONS, MACMILLAN & CO.,
LTD, LONDON. 1931—PP. xii and 326—
PRICE 3/6.**

This small book written by the Professor of Modern History in the Ceylon University College, aims at making the reader acquainted with the way in which the present world-situation has come into existence. It outlines the main currents and events of modern history from the time of the French Revolution to the recuperation of the belligerent and other nations from the exhaustion of the Great War. At the end of each chapter are given a brief summary of its contents and hints and books for further study. In the chapter on the expansion of European influence, it is clearly explained how the world has become one economic unit and the change has affected the lives of the more backward peoples, but many consequences of this movement are not yet apparent. The prospects of a more settled government in China and the possibility of the world becoming Americanised are noticed, as also the amazing advance of scientific knowledge and the greater interest taken by mankind in the welfare of the human race. The strain of the Great War, an outline of the settlements which

ended it, the character of the machinery set up to promote the cause of universal peace, the growth of Bolshevism and Fascism and of the will-to-peace have all been noted. There are model text-exercises on the various chapters given at the end of the book. Thus we have, in this book, an easy guide to all students for acquiring a knowledge of recent world politics and tendencies.

**THE LAST ESSAYS OF ELIA BY LAMB, EDITED
BY G. E. HOLLINGWORTH. UNIVERSITY
TUTORIAL PRESS, LTD. PP. xvi & 221.
PRICE 3/6.**

This volume is a natural and necessary completion of the previous one of the first series of the Essays of Elia. Famous essays like 'Old China' are in this collection. The interesting group of "Popular Fallacies" is included in this group.

**THE SPLENDOR OF THE EAST, SELECTED
FROM THE TRAVELS OF MARCO POLO.
ADAPTED WITH INTRODUCTION AND NOTES.
MACMILLAN & CO., LTD. PP. xv+97. PRICE
10 AS.**

The travels of Marco Polo have an undying charm and this adaptation for the reading of the young must be very welcome. There is an interesting map also provided on the inside of the cover.

**FOR TEACHERS OF TO-DAY BY J. EADES,
E.J. ARNOLD & SON, LTD. PP 127. PRICE 3s.**

This book does not exactly fulfil what we are made to expect from the Preface. The first eight chapters, though well written on general educational problems, do not refer convincingly to any new kind of practical work carried out at the Kirkstall Road Demonstration School of

Leeds. The ninth and tenth chapters about "experimental work" and "Project work" are however practical in character.

HOW TO WRITE STORIES FOR CINEMA. PUBLISHED BY R. G. PAUL, BOMBAY. PP. 36.

This little book explains many interesting details about the cinema and the requirements of the cinema story.

BOTANY FOR SCHOOLS, BY E. R. SPRATT AND A.V. SPRATT, UNIVERSITY TUTORIAL PRESS. PRICE 4s. 6d.

This is a very good text-book in Botany giving a very wide range of subjects and fitting in with a variety of syllabuses. It may very well be used in colleges up to the Intermediate standard especially in Plant Morphology, Cytology and Plant Physiology. The book is very profusely illustrated containing over 400 diagrams which are not only attractive but also useful and instructive.

There are a large number of floral diagrams which will be specially useful to the students.

Plant Ecology also is dealt with in a simple but effective manner. The popular names of the plants and flowers are more often given than the botanical ones, which will help the uninitiated to take an interest in reading the book. Another interesting feature of the book is that the course in Plant Physiology is easily carried out with the simplest of apparatuses giving at the same time very satisfactory results.

The book, however, is not suitable for Indian schools and colleges since all the plants and flowers described in the book are from England. One can read it to get an idea of the European flora and may in the hands of a teacher be a very useful reference book. Perhaps it is a good addition to the school library.

The get-up of the book is handsome and the type is good.

KNOWLEDGE TO BE USEFUL MUST BE THE LATEST. THE LEAGUE OF NATIONS GIVES YOU IT.

		Rs.	A.	P.
Educational Survey, Vol. 1/5 Re. 1-6-0 per copy	...	6	14	0
Ten Years of World Co-operation	...	7	0	0
Aims and Organisation of the League of Nations	...	0	9	0
The Course and Phases of the World Economic Depression	...	8	4	0
World Economic Survey	...	4	2	0
Statistical Year Book of the League of Nations, 1931-32 :				
do. Wrapper	...	5	3	0
do. Cloth bound	...	8	4	0
Housing and Malaria	...	1	1	0
International Health Year Book	...	22	0	0
Agricultural Crisis, Vol. I	...	5	3	0
do. Vol. II	...	2	4	0
Welfare of the Blind	...	0	9	0
Review of World Production, 1925-31	...	2	8	0
Memorandum on Production and Trade	...	1	6	0

Obtainable from the Indian Bureau of the

LEAGUE OF NATIONS

IMPROVEMENT TRUST BUILDING, BOMBAY.

MADRAS UNIVERSITY LIBRARY.

LATEST ADDITIONS.

B. Mathematics.

- Heath : A Manual of Greek Mathematics.
 Vander Waerden : Moderne Algebra, 2 T.
 Tippett : The Methods of Statistics.
 Hodgson : Differential Equations with Applications
 Hobson : The Theory of Spherical and Ellipsoidal Harmonics.
 Universities, Chicago, Department of Mathematics : Contributions to the Calculus of Variations, 1930.
 Edge : Theory of Ruled Surfaces.
 Hodgson : Dynamics.
 — : Graphical Statics.
 Smail : College Algebra.
 Mandelbroj : Le Singularites des fonctions Analytiques.
 McConnell : Applications of the Absolute Differential Calculus.
 Moulton : Astronomy.
 Smart : Text-Book on Spherical Astronomy.
 Moore : Foundations of Point Set Theory.

D. Engineering.

- Potter : The Navigation of the Air and Meteorology.

H. Geology.

- Fenneman : Physiography of Western United States.
 Sherlock : Man's influence on Earth.

K. Zoology.

- Heape : Emigration, Migration and Nomadism.

M. Useful Arts.

- Narayana Ayyar : The Scout's Red Book of 'Good Turns'.

N. Fine Arts.

- Ramamatya : Svaramelakalanidhi.

O. Literature.

- Crum : Scientific Thought in Poetry.
 Abercombie : New English Poems.
 Erskine : The Elizabethan Lyric.
 Rajagopalan : Shakespeare's Julius Caesar.
 Corkery : Synge and Anglo-Irish Literature.
 Bayne : Sir Walter Scott.
 Bailey : Introduction to Jane Austin.
 Dark : Robert Louis Stevenson.
 Bennett : My Arnold Bennett.
 Culton-Brock : Essays on Literature and Life.
 Ibanez : Unknown Lands.
 Carr : Dostoevsky, 1821-1881.
 Masfield : Poetry.
 Nicoll : The Theory of Drama.
 Taylorian Lectures, Second Series, 1920-1930.
 Howarth : Minor Poets of the 17th Century.
 Marlowe : Works, V. 4.
 Van Doren : The Poetry of John Dryden.
 Smith : Notes on the Testament of Beauty.
 Braybrooke : Lord Alfred Douglas.
 Strong : Common Sense about Poetry.
 Robertson : Literary Detection.
 Clark : A Study of Shakespeare's Henry VIII.
 Beza : Shakespeare in Roumania.
 Knight : The Imperial Theme : further interpretations of Shakespeare's Tragedies including the Roman Plays.
 Farnam : Shakespeare's Economics.
 Buchan : Sir Walter Scott.
 Apperson : A Jane Austen Dictionary.
 Elwin : Charles Reade.
 Bronte : The Spell.
 Shaw : Immaturity.
 Boynton : James Fenimore Cooper.
 Granville-Barker : Come, Julia.
 Harvey : Matthew Arnold.
 Koht : The Life of Ibsen, 2 v.
 Peet : A comparative Study of the Literatures of Egypt, Palestine and Mesopotamia.

P. Philology.

Standerwick : Etymological Studies in the Greek Dialects-Inscriptions.

Q. Religion.

Hauer : Der Vratya.

Swedenborg : Heaven and Hell, tr. in Hindi.

R. Philosophy.

Trobridge : A Life of Emanuel Swedenborg.

Macfie : Science rediscovers God.

S. Psychology.

King : The Psychology of Consciousness.

U. Geography.

Clowser : Europe with a study of World Distributions.

Smith : A Geography of Europe.

Wilmore : Experimental and Open-Air Geography.

Bigelow : Oceanography.

Ormsby : France.

Swannell : Animal Geography.

Burrard : Big Game Hunting in the Himalayas and Tibet.

— : Population and its Distribution.

Whitbeck : Economic Geography.

Blanchard : Economic Geography of Europe.

Baker : A History of Geographical Discovery and Exploration.

Jackson : The Romance of Exploration.

Benedetto : The Travels of Marco Polo.

Roerich : Trails to Inmost Asia.

Ikbal Ali Shah : The Golden East.

Childers : Through Oriental Gates.

Franck : Marco Polo, Junior.

Norden : A Wanderer in Indo-China.

Burr : In Bolshevik Siberia.

Thomas : Beyond Khyber Pass.

Knight : Intimate Glimpses of Mysterious Tibet and neighbouring countries.

Locke : The First Englishmen in India.

Hall : Travels in India, Ceylon and Borneo.

Neve : Things seen in Kashmir

Phillips : Meet the Spaniards.

Stefansson : Iceland.

Mott-Smith : Africa, from Port to Port.

Campbell : Wanderings in Widest Africa.

Kermack : New Geography of the World.

Stamp : A Regional Geography.

Lyde : Peninsular Europe.

Miller : Climatology.

Castellani : Climate and Acclimatization.

Whitbeck : Economic Geography of South America.

Barlow : A Brief Summe of Geographie.

Hedin : Across the Gobi Desert.

Holland : Czechoslovakia.

Jaspert : Through unknown Africa.

Roome : Through the Lands of Nyanza.

Townsend : From Panama to Patagonia.

Bosworth : A Trip to New Zealand.

Wilkins : Under the North Pole.

Outhwaite : Atlantic Circle.

V. History.

Macmunn : The Romance of the Indian Frontiers.

Henderson : Fiji and the Fijians, 1835-1856.

X. Economics.

Meredith : The Drama of Money Making.

MADRAS UNIVERSITY LIBRARY : The number of readers and the number of books issued during the month of August 1932 were 4164 and 12,332 respectively. The corresponding figures for the last year were 1656 and 3986.

SENATE HOUSE, }
TRIPPLICANE, } S. R. RANGANATHAN,
31st August, 32. } Librarian.

KALIDASA

Being a critical appreciation of his works
IN TAMIL

By K. S. RAMASWAMI SASTRIAR, B.A., B.L.
Sub-Judge, Tanjore.

Crown 8vo. about 200 pages. Price 12 as.

Approved as suitable for school use, vide Fort Saint George Gazette, Pt. I-B, dated 19th April 1927.

SRINIVASA VARADACHARI & CO.,
190, Mount Road, Madras.

PUBLISHERS' NOTICE.

All literary contributions, books for review, newspapers, or magazines, sent in exchange, &c., should be addressed to the EDITOR, NO. 190, MOUNT ROAD, MADRAS. Articles and communications intended for publication in the succeeding issue should, as far as possible, reach the Editor not later than the 20th of the month. The Editor solicits contributions on all subjects of educational interest. Stamps should accompany the MS., if the writer wishes it returned, in case of non-acceptance. The Editor can in no case hold himself responsible for accidental loss.

All remittances and communications regarding advertisements, &c., should be forwarded to the Publishers, EDUCATIONAL REVIEW, No. 190, Mount Road, Madras.

The Publishers request that Subscribers to the EDUCATIONAL REVIEW, who do not receive the REVIEW in time, will kindly bring the fact to their notice immediately.

THE EDUCATIONAL REVIEW.

The recent decision of the University of Allahabad to divide the English course of the B.A. examination into two sections, general and special, and make only the former compulsory will perhaps be regretted, at least by those who are conscious of the benefits India has received by the study of English literature. The University of Allahabad is easily the best of all the Universities in Northern India and that it should have lent the weight of its prestige to a change of this kind indicates the direction in which new forces are operating in this country. The reaction against English is partly due to political considerations, but it is a pity that political considerations should enter at all into the decision of purely educational questions. This innovation implies that a large number of students will not make an extensive study of English literature, but will confine their attention to English composition and the study of some books prescribed for general reading. Apart from this restriction of the influence of English literary studies, which does not seem desirable, we are inclined to question the soundness of the principle underlying this division of English into general and special. The best method of studying the English language is obviously through its great masterpieces and the study of the great masterpieces must also be accompanied by an appreciation of their linguistic foundations and affinities. We are extremely doubtful if facility in literary and even correct expression can ever be acquired without sufficient familiarity with the best specimens of the literature concerned and the reading done by the average Intermediate student in India is so poor, that it cannot be said he has the necessary foundation for acquiring mastery over the language. The coming years will perhaps see a further extension of this principle and a feature of the Indian educational system which has played a prominent part in the evolution of modern Indian life and civilisation will have generally disappeared!

Writing on this subject, we can perhaps take notice of a curious publication entitled *Shakespeare through Eastern Eyes* which has just been published in England, written by a certain Mr. Sahani. This gentleman has made the astonishing discovery that Shakespeare is not appreciated in India, because the Indian is interested only in spiritual things and Shakespeare is interested only in the external world! Nothing could be more unsound than an opinion of this kind. It is true that the Indian has strong leanings in the direction of religion, but has he no use for literature except when it deals with religion? For centuries Indian readers have read enthusiastically the plays of Kalidasa. Is it because they are religious? Whatever spiritual leanings Kalidasa may show in his works, is it not a fact that the most outstanding features of *Shakuntala* are its atmosphere of poetry and romance and its entrancing descriptions of nature, offering a suitable background to its play of emotions? Did King Shudraka put in a strong dose of religion when he tried to represent the pulsing life of Ujjain in his *Toy-Cart*? There has been a steady tradition of literary appreciation in this country and the Indian mind has always welcomed dramatic literature as is evidenced by its own achievements in the line. The other part of the statement is even a greater travesty of actual facts. Can anybody who understands the spirit of

Shakespeare's plays subscribe to the proposition that he has no appreciation of the things of the spirit? Has the writer ever read *Hamlet* or *Othello* with proper understanding? Does not the Indian mind sympathise particularly with Hamlet's agonies of soul? Has it not a very sympathetic understanding of Desdemona's spirit? Is there not spirituality in the sufferings of Imogen or Cordelia and are not even the comedies full of domestic and other affections which make a special appeal to the Indian mind? Not satisfied with these perversions of the truth—unintentional we have no doubt,—Mr. Sahani has also discovered that Shakespeare is not properly taught in India. He must have been badly taught indeed at college and his experience should be particularly unfortunate if he could venture upon a statement of this kind. The teaching of literature must necessarily be accompanied by an exposition of the structure and peculiar grammatical features of the language, especially when it happens to be a foreign language, but Mr. Sahani is entirely mistaken if he imagines that Shakespeare is not taught in this country as the grand picture of human life it is meant to be and that all teachers of Shakespeare at our University centres are like the unfortunate specimens he has apparently seen in the course of his life. Anybody who has taught literature with success in this country knows how warmly Shakespeare classes are welcomed in our colleges and what a deep impression his plays have made on the

mind of the educated Indian. The appreciation which the book has received at the hands of some Western critics thoroughly unfamiliar with Indian conditions should not mislead people into attaching any value to the opinions expressed in the book.

We regret very much to have to record the death of Sir Mark Hunter, well-known to almost a whole generation of students in Southern India, as a successful and enthusiastic professor of English literature. Starting life in private educational service in this Presidency he soon entered the Educational Department of the Government and made his mark as a teacher of English in many of its institutions. Sir Mark had the instincts of a real scholar and devoted his life to a patient and steady acquisition of learning which could have done credit to any University scholar. While he specialised in philology, it must be said that his literary sense was not in any way blunted and he could warm up in the teaching of Shakespeare as much as he did in trying to expound the beauties of *Beowulf* or some other specimen of Anglo-Saxon. Sir Mark took genuine interest in his pupils and kept a watchful eye on their advancement in later life. It is no exaggeration to say that several of his students owe their present position in life to his active support when they entered their professions. Sir Mark Hunter's memory will

be particularly dear to us as he was the editor of this Review for several years. May his soul rest in peace!

The entire teaching profession in South India is grieved to hear the sad news of the death of Prof. P. Subramania Iyah of Pachaiyappa's College. He was a familiar figure in Madras for a period of nearly twenty-five years at all educational gatherings and he played an active part in the deliberations of the Teachers' Guild. Affable in manners and enthusiastic in temperament, he was an agreeable companion and he is sure to be missed in educational circles in Madras for many more years to come. It is our sad duty to convey our deep sympathy to the members of his family in their lamentable bereavement.

There is no country in the world in which the cinema is not becoming more and more popular and its possibilities in education are so great that every effort must be made to utilise them to the best advantage in national life. Everybody interested in the subject should read the report* which has just been issued by the committee appointed in England to enquire into educational and cultural films and the service which the cinematograph may render to education and social progress. It is a very valuable document discuss-

* George Allen and Unwin, Ltd., London (1s.).

ing the part played by the cinema in the national life of many countries and giving an account of the work actually done already in the direction of its utilisation for education. It is interesting to note that the committee has recommended the establishment of a Film Institute for Great Britain financed in part by public funds and incorporated by Royal Charter. It is recommended that its aims should be:

- (1) To act as a national clearing-house for information on all matters affecting the production and distribution of educational and cultural films, including information as to research which is being undertaken abroad;
- (2) to influence public opinion to appreciate and demand films which, as entertainments, are really good of their kind or have more than entertainment value by the publication of a review or of press articles or by lectures and meetings at important centres such as Universities;
- (3) to advise teachers and institutions who want to use films, as to sources and conditions of supply, types of film, and the apparatus and conditions of projection; to secure the services of expert teachers to co-operate with the trade in the production of teaching films made expressly for schools and to organise their distribution;
- (4) to act as the means of liaison between the trade, producers, distributors, cultural interests and educators;
- (5) to undertake continuous research into various uses of the film and of allied visual and auditory apparatus;
- (6) to be responsible for film records, and to maintain a national repository of films of permanent value; to compile and maintain, with the aid of expert advisory panels, who might be paid for their services, a descriptive and critical catalogue of educational films;
- (7) to act as an advisory body to all government departments concerned with the use and control of films;
- (8) to undertake for the government any task of certifying films as educational, cultural or scientific, whether national or international, for import or export, which the government sponsors;
- (9) to undertake such duties in relation to the Dominions, Colonies and Protectorates as may be allotted to it, e.g., the approval of films as suitable for backward races; and
- (10) generally to undertake such duties as may be assigned to it under conditions not inconsistent with the terms of its Royal Charter.

It is time efforts were made in India also to study the bearings of the cinema on national life. The Cinema Commission appointed some years ago in India made some valuable recommendations somewhat similar to these, but we regret it has not been possible for the Government of India to take up these for consideration, largely because of the conditions of financial depression.

An interesting experiment in University Extension is being attempted at Nagpur with the co-operation of the members of the teaching staff of the Hislop College.

The classes will be on the lines of the University Extension lectures arranged at some centres in England. It will be the endeavour of the organisers to impart instruction in subjects of University study to those who have had the benefit of education up to the Matriculation standard. The subjects of study will for the present include Literature, History, Economics, Philosophy, Geography, Psychology, Political Science and Sociology. This is an experiment worthy of imitation at other centres in India.

The present spread of unemployment in India is perhaps due not merely to local causes, but is connected with world-wide conditions of economic depression which are not easy of solution. Remedies have been suggested

from time to time and a recent attempt is that made by Sir M. Viswesvarayya in the course of an address at the University Union, Bangalore. Sir Viswesvarayya's remedy is the rapid industrialisation of the land by multiplying the factories and industrial establishments; he also wants rural reconstruction by increasing production from agriculture and from cottage and home industries in rural areas by the co-operative effort of the people; the third remedy is the establishment of practical training institutions to provide the last stages of precise knowledge needful for the practice of callings connected with industry and agriculture for educated youths and adult businessmen. The ideas put forward by Sir Viswesvarayya would however need working up in more elaborate detail, before they can be made available for practical action.

An interesting economic survey of teachers in aided schools in the city of Madras has recently been made by Mr. Bhuvarahamurti, M.A., Dip. Econ., which strengthens the demand constantly urged in these columns that the emoluments paid to the members of the teaching profession in India are not adequate. Remembering that the members of the teaching profession cannot be ranked in the same class as labourers and they have to maintain a respectable standard of life, it will be conceded that Mr. Bhuvaraha-

Teachers in Madras: An Economic Survey.

murti's conclusion that Rs. 72 per mensem should be the minimum wages for a member of the profession is not extravagant. Besides the calculation and analysis of many domestic budgets, he has also examined the conditions of service in private schools and drawn attention to the want of security of tenure. From the answers furnished by the teachers themselves, the following seem to be the main reasons:—

(1) It is a practice in some of the schools to recruit a teacher in July or August for a period of 9 or 10 months only with a view to avoiding the payment of vacation salary. (2) Some managements keep teachers on probation or temporary service for more than a year, even two or three years, thus avoiding the payment of increments and Provident Fund contribution. (3) In some of the schools under Mission management non-Christian teachers appear to be under constant

fear of losing their jobs due to religious preference. But it is clear from the evidence on hand and observation that service conditions and tenure are better in most Mission schools than those in other schools. (4) The policy of sending away teachers who had reached their maximum salary and employing in their places young men on a lower salary as a measure of economy seems no longer to be pursued by managements, for no teacher has mentioned such cases; but it cannot however be assumed that such teachers are not forced to accept a lower salary. (5) The relation of a teacher with the Headmaster is found prominently mentioned by many as one of the causes of insecurity of tenure.

Teachers in various parts of the country may make a similar enquiry regarding economic conditions in their city or provinces.

A Text-book of Tamil Composition

Specially adapted to meet the requirements of S.S.L.C. and Intermediate Examinations

(Prepared in accordance with the recommendations of the University of Madras)

BY

G. DAMODARA MUDALIAR, B.A.

*sometime Tamil Reader, Office of the Registrar of Books, Madras,
now District Educational Officer, Ramnad District.*

Price As. 12.

Approved as a Text-book for Schools and Colleges.

(Fort St. George Gazette, 24th October 1918.)

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

A Class-book of Spoken English. ENGLISH DIALOGUES

BY

H. MARTIN, M.A., O.B.E.
PRINCIPAL, ISLAMIA COLLEGE, PESHAWAR.

Seventh Edition. Price, Re. 1.

Contains 160 Dialogues and Imaginary Conversations in "English as she is spoke."

EXTRACT FROM THE PREFACE.

No doubt the best way to learn to speak "English as she is spoke" is to talk constantly with English people. But Indian children as a rule get very few chances of doing this, and in consequence the English they speak is too often a rather stilted "Book English." However, in the absence of chances of familiar conversation with English people, a good second-best way of acquiring a knowledge of colloquial English is the study of such dialogues as are given in this little book.

This book of English Dialogues is designed to give Indian school boys an acquaintance with *the living tongue as it is spoken by ordinary Englishmen to-day*. But the boys should be encouraged to read the dialogues assiduously both in school and out of it.

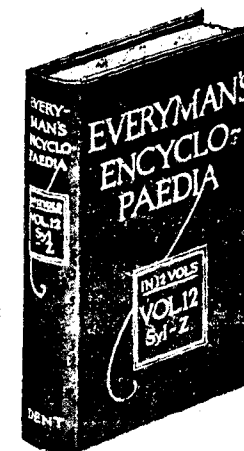
SPOKEN ENGLISH is the one subject which is entirely neglected in our schools. Principal Martin's "English Dialogues" claims to remedy this great defect in the teaching of English to Indian boys, so far as a class-book can do it with the help of an enthusiastic teacher. That this is not an empty claim is borne out by the fact that many experienced teachers have already adopted it as a book to be regularly used in High School classes, and the results have been highly encouraging."

"As a teacher of English of many years' standing in India," says Prof. Wodehouse, "I have long felt that the way in which most educated Indians are forced to acquire the knowledge of English is not one which gives them a really intimate acquaintance with the living tongue, as it is spoken by the ordinary Englishmen to-day.....Very likely it is technically more correct—just as many educated Indians, in conversation, use, in some ways, 'better' English than an Englishman would think of using—but it is, for all that, alien and remote."

These strictures of Prof. Wodehouse are borne out by a high authority—Mr. Harold E. Palmer, late Lecturer in Spoken English, University College, London. He writes:—

"When the foreign student of English first comes to England he realizes, as perhaps he has never realized before, the difference between possessing a theoretical knowledge of the language and possessing the capacity for *using the language in everyday speech*.....The student forms sentences in his own language and translates them into English and provided there are no mistakes in grammar and vocabulary, sees no reason why the resultant sentences should not be perfect. [Yet he uses] sentences which no English-speaking person would ever use.....He must observe exactly what English people do actually say."

COOPER, Publishers, BOMBAY.

POPULAR NEW EDITIONS!*Prescribed as Text-Book in many District Board Schools.**Approved as a Text-Book for School use, vide Fort St. George Gazette, Part I-B, p. 670, dated 10th November 1931. Also by Cochin State, vide Circular, dated 4-3-1932.***ELEMENTARY SCIENCE
PHYSICS AND CHEMISTRY***Prepared in accordance with the latest (1930) Syllabus in Elementary Science for the A Group of the Madras S. S. L. C. Examination***SECOND EDITION—REVISED & ENLARGED.** Price, Re. 1-4-0.**VERY WIDELY USED.****LATEST BOOK.****A SCHOOL HISTORY OF INDIA***Prepared in accordance with the Syllabus issued by the Director of Public Instruction under the Revised S. S. L. C. Scheme***By M. S. RAMASWAMI AIYANGAR, M.A.,***Chief Lecturer in History and Economics, Maharaja's College, Vizianagram.
With an Introduction by Professor K. A. NILAKANTA SASTRI, M.A.*
Price Re. 1-12-0.**REVISED EDITION OF A VERY POPULAR BOOK, LONG OUT OF PRINT.****THE ELEMENTS OF ALGEBRA
POPULARLY KNOWN AS THE THREE AUTHORS' ALGEBRA***Thoroughly revised and brought in line with the Syllabus for Optional Mathematics in the Madras Presidency and Mysore State Secondary School Leaving Certificate Schemes***By N. PANCHAPAGESA AIYAR, B.A., L.T.,**
*Lecturer in Mathematics, Finlly College, Mannargudi.**Crown Octavo about 600 pages.***Approved as a Text-Book suitable for School use,** vide Fort St. George Gazette, Part I-B. p. dated 12th April 1932 and by the Hyderabad State.**Rs. 2.****OPINION.***The Hyderabad Teacher, April-June '32.—Originally the book was the result of the combined efforts of three experienced mathematicians. In revising the book Mr N. Panchapagesa Aiyar, B.A., L.T., has tried to bring it into line with the syllabus for Optional Mathematics in the Madras and Mysore S. S. L. C. schemes. The book also satisfies the requirements of the Optional Mathematics course prescribed for the H. S. L. C. Examination in our State. The gradation of examples is quite satisfactory and they are based on the principle 'from Simple to Complex.' The chapters are arranged on "The Concentric System" of treating a subject, where extensivity and intensivity are both duly considered.**It is a very careful work, satisfactory from the point of treatment, get-up, figures, and printing. The treatment is lucid and accurate, while the examples are well chosen. The Explanation papers at the end of the book have been brought up-to-date. The book is well adapted for the use of the secondary school students and it is one of the best books that can be put in the hands of the students of Mathematics.***SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.****EVERYMAN'S ENCYCLOPAEDIA****THE COMPLETE
12 VOLUMES NOW****READY****5s. 6d.****NET EACH.****WORLD ATLAS****SUPPLEMENTARY****VOLUME, 8s. 6d.****SOME GENERAL FEATURES****OF EVERYMAN'S ENCYCLOPEDIA****ART AND MUSIC****BIOGRAPHY****DATES OF EVENTS****GEOGRAPHY****HISTORY****LITERATURE****POLITICS and ECONOMICS****PRACTICAL INFORMATION****SCIENCE****SOME PRESENT-DAY
SUBJECTS****DEALT WITH IN EVERYMAN'S ENCYCLOPEDIA****AERONAUTICS****THE EMPIRE TO-DAY****EDUCATION****ELECTRICITY****ECONOMIC PROBLEMS****THE GREAT WAR****LABOUR****THE LEAGUE OF NATIONS****NEW NATIONS****SCIENTIFIC DISCOVERIES****SPORT****WIRELESS AND TELEVISION****MACMILLAN & CO., LTD.,***(Incorporated in England)***MADRAS, BOMBAY, CALCUTTA & LONDON.**



[Oct. 1932.]

JOHNSTON'S LARGE SCHOOL WALL MAPS

Size, 50 by 42 ins. Mounted on Cloth Rollers and Varnished. Rs. 9-10 each.
The following maps are stocked (with Eng. lettering):—

POLITICAL COLOURING.

*Africa	Bengal	Madras, Mysore and Hyderabad
*America, North	Bombay and Rajputana	*United States
*America, South	Burma	*World, Mercator's Projection
*Asia	*England and Wales	*World, Hemispheres Eastern
*Australia	*Europe	and Western (one map)
*British Isles	*India	

Such Maps as are marked with an asterisk (*) can also be supplied in Bathy-Orographical colouring at Rs. 9-10-0 each.

The two maps of Madras, Mysore and Hyderabad; and Bombay and Rajputana, are obtainable unmounted at Re. 1-4-0 each.

JOHNSTON'S SMALL SCHOOL WALL MAPS

POLITICAL COLOURING ONLY.

Size, 34 by 28 ins. C. R. V. Rs. 4-2-0 each.

Africa	World Mercator	England and Wales
America, North & South	Asia	Europe
America, North	Australia	India
America, South	British Isles	

ECONOMIC WALL MAPS OF INDIA

Size, 26½ by 22 ins. on Cloth and Rollers, Varnished. Rs. 3-0-0 each.

Railways and Canals	Civil Divisions	Minerals
Industries	Rainfall and Temperature	Agriculture
Population	Forest Lands under Government Control.	

Also obtainable as two maps in Large Wall Series, grouping Nos. 1-4, 5-8. C. R. V. Rs. 9-10-0 each.

INDIAN HISTORICAL MAPS

Size 30 by 40 ins. C. R. V. Rs. 8-0-0 each.

Set, mounted on roller, Rs. 32-0-0.

Map I.	India 327 B.C.—140 A.D.
Map II.	India, under the Gupta and Harsha Empires, 320—647 A.D.
Map III.	Growth and Decline of Muhammedan Power, 1000—1526.
Map IV.	The Mogul Empire.
Map V.	The Mahratta Power 1795, and its Decline 1803—20.
Map VI.	The Development of British Power.

MACMILLAN & Co., LTD.,

MADRAS, BOMBAY, CALCUTTA & LONDON.

Oct. 1932.]



BLACKBOARD APPARATUS

(BEST ENGLISH MAKE)

	Rs.	A.	P.
T. Square—36 ins.—Plain	...	3	12 0
do. —Divided inches and centimetres 36 ins.	...	4	2 0
do. —Scaled 3 ins. as 1 in.; 36 ins. as 12 ins.	...	6	0 0
Rule—36 in. Plain with handle	...	3	6 0
do. — 1 Metre without do.	...	3	12 0
do. — 1 do. with do.	...	4	2 0
do. — 36 ins. as 12 ins. with handle	...	5	4 0
Set Square—60° 15 in. with handle	...	3	0 0
do. 45° 12 in. do.	...	3	0 0
Compasses—18 ins. Square legs	...	3	0 0
do. do. Round do.	...	4	2 0
Triangular Protractor—16 ins. Framed with handle	...	4	0 0
Semi-circular Protractor—14 ins. do.	...	5	4 0
Black-board Pointer—(Strong) 36 ins.	...	1	2 0
do. Cleaner—(Wood with felt fitted), 51½ by 13¼ in.	...	0	7 0
do. Cloth—Specially prepared for the Tropics.	...	3	8 0
Width 48 ins. Price per yard	...		

MATHEMATICAL INSTRUMENT SETS FOR STUDENTS

Elementary Set	...	As. 5.	(In Cardboard case)
Student's "	...	" 8.	(In Patent Pocket metal case)
Popular "	...	" 11.	do.
School "	...	Re. 1.	do.
Beginner's "	...	" 1-6.	do.
Junior "	...	Rs. 2-4.	do.
Senior "	...	" 2-8.	do.

MACMILLAN & Co., LTD.,

MADRAS, BOMBAY, CALCUTTA & LONDON.



[Oct. 1932.]

TEACHING IN PRACTICE

For the Primary School

A NEW ENCYCLOPAEDIA OF TEACHING

EDITED BY

E. J. S. LAY

MESSRS. MACMILLAN & COMPANY LTD. beg to announce that they have now completed the important new ENCYCLOPAEDIA OF TEACHING, edited by Mr. E. J. S. Lay, the well-known writer of educational manuals and text-books.

The work takes the form of

COMPLETE LESSONS

sufficient to cover the entire four years' Course of the Primary School (7 to 11 plus), so framed as to meet all the requirements of the NEW HADOW REPORT.

SIX WELL-ILLUSTRATED VOLUMES

(Size 10 in. by 7½ in.) and a

PORTFOLIO CONTAINING OVER 170 CLASS PICTURES

Reproduced in Photogravure, 20 of which are in full colour.

Also 32 DRAWINGS IN FULL COLOUR

illustrating the Art Lessons.

Beautifully printed on Manilla Parchment, together with a suitable loose-backed picture frame.

Price per Set of 6 Volumes inclusive of Portfolio Rs. 82-8-0.

MACMILLAN & CO., LTD.,

MADRAS, BOMBAY, CALCUTTA & LONDON.

Oct. 1932.]

ADVERTISEMENTS.

xv

MADRAS UNIVERSITY.

Intermediate Examination, 1933.

	RS.	A.	P.
SHAKESPEARE—JULIUS CÆSAR, with Introduction and Notes, by Mark Hunter, M.A. (College Classics Series)	1	12	0
GOLDSMITH—THE DESERTED VILLAGE, with Introduction and Notes, by J. M. Hensman, B.A.	0	8	0
COLERIDGE—THE RIME OF THE ANCIENT MARINER, with Introduction and Notes, by E. E. Kellett, M.A.	0	12	0
MACAULAY—ESSAYS ON BUNYAN AND GOLDSMITH, with Introduction and Notes, by E. H. Elliot, B.A.	0	12	0
A HISTORY OF INDIA, Part I—HINDU INDIA—by C. S. Srinivasachari, M.A. and M. S. Ramaswami Aiyangar, M.A.	2	8	0
A HISTORY OF INDIA—Part II—MUHAMMADAN INDIA—by the same authors	3	0	0

(Prescribed as text-books

for the Intermediate Examination of the Madras, Andhra, Mysore and Annamalai Universities.)

A HISTORY OF INDIA, Part III—BRITISH INDIA—by the same authors—Just Ready.	3	8	0
INTERMEDIATE GEOMETRY (Theory and Practice), by M. Satyanarayana, M.A., L.T., and K. S. Patrachariar, M.A., L.T. 4th and Revised Edition	2	8	0

Intermediate Examination, 1934.

SHAKESPEARE—JULIUS CÆSAR, with Introduction and Notes by Mark Hunter, M.A. ...	1	12	0
GRAY—ELEGY WRITTEN IN A COUNTRY CHURCH-YARD and other Poems with Introduction and Notes by E. E. Kellett, M.A.	0	8	0
KEATS—ISABELLA OR THE POT OF BASIL with Introduction and Notes by E. H. Elliot, B.A.	0	12	0
TENNYSON—MORTE D'ARTHUR AND OTHER SELECTIONS with Introduction and Notes by the same Editor	0	8	0

B. A. Degree Examination, 1933.

SHAKESPEARE—A MIDSUMMER NIGHT'S DREAM, with Introduction and Notes, by the Rev. B. Scott, M.A. (College Classics Series)	1	6	
SHAKESPEARE—KING RICHARD II, with Introduction and Notes, by J. C. Bello, M.A. (College Classics Series)	1	12	
SHAKESPEARE—THE TEMPEST, with Introduction and Notes, by E. E. Kellett, M.A. (College Classics Series)	1	6	
MILTON—PARADISE LOST, BOOK II, with Introduction and Notes, by W. Bell, M.A.	0	12	
POPE—RAPE OF THE LOCK, with Introduction and Notes, by E. E. Kellett, M.A.	1	0	
WORDSWORTH—SELECTIONS, containing Ode on the Intimations of Immortality, with Introduction and Notes, by E. H. Elliot, B.A.	0	12	
BYRON—ROME : contained in Child Harold's Pilgrimage, Canto IV, with Introduction and Notes, by E. H. Elliot, B.A.	1	6	
CARLYLE—ESSAY ON BURNS, with Introduction and Notes, by the Rev. B. Scott, M.A.	1	4	
AUSTEN—PRIDE AND PREJUDICE			

SRINIVASA VARADACHARI & CO., MOUNT ROAD, MADRAS.

POPULAR COMMERCIAL TEXT-BOOKS**BOOK-KEEPING AND ACCOUNTS**

With numerous Exercises and Select Examination Papers.—A Standard Work for the use of Schools and Classes preparing for Public Examinations in the subject and for the use of Accountants and Book-keepers in Business offices

by the late RAO SAHIB S. VAIDYANATHA AYYAR,
Headmaster, Government School of Commerce, Calicut.

Approved as a Suitable Text-book (Fort St. George Gazette, Oct. 21, 1913.)

Officially recommended for reference by the Commissioner for Govt. Examinations, Madras

Fifth Edition. Price: Rs. 3-8-0.

By the same author.

A TEXT-BOOK OF TYPE-WRITING.

(Recommended by the Director of Public Instruction as a Text-book for the Government Technical Examinations in Type-writing.)

Eighth Edition—Price: Rs. 3-8-0.

By the same author.

COMMERCIAL PRACTICE (THEORY AND PRACTICE OF COMMERCE)

Including a knowledge of Business Methods & Correspondence

for use in Secondary Schools for the Public Examination for School-Leaving Certificate and for the Govt. Technical Lower Grade Examination in the subject

Officially recommended for class use by the Commissioner for Govt. Examinations, Madras.

Approved as a suitable Text-book.

5th Edition. Price: Rs. 3-8-0.

(Fort St. George Gazette, 4th June 1912, page 371).

Officially recommended as a Text-book for the Junior Grade Examination in Law and Practice of Commerce for the Mysore Commercial Examinations, vide Notification No. D. 6855-57 Edn. 374-29-2, dated 18-12-29.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS

COMMERCIAL BOOKS

BY

T. V. SUBRAMANIA AIYAR,
Commercial Instructor, Govt. Muhammadan College, Madras.

COMMERCIAL CORRESPONDENCE

*Prepared in accordance with the Syllabus in the subject
for the Madras Secondary School-Leaving Certificate Examination
and*

the Madras Government Technical Examinations

D. Crown 16mo. 180 pages. Price Rs. 1-8-0.

Approved as a suitable Text-book for School use.

(Fort St. George Gazette, 24th July 1923, page 671).

GRADUATED EXERCISES IN TYPE-WRITING

Useful for both Touch and Sight Methods

Demy 8vo. 240 pages. PRICE Rs. 1-8-0.

BOOK-KEEPING FOR BEGINNERS.

Over 400 pages—bound in cloth. Price Rs. 2.

Approved as a Text-Book suitable for school use and Libraries,
vide Fort Saint George Gazette, Part I-B p. 511, dated 22-12-'25

COMMERCIAL ARITHMETIC

FOR SECONDARY AND COMMERCIAL SCHOOLS

Prepared in accordance with the S. S. L. C. Syllabus

D. Cr. about 200 pages. Price Rs. 1-4-0.

Approved as a Text-Book suitable for School use,

vide Fort St. George Gazette, Part I-B, p. 547, dated 1-11-1927.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS,

BOOKS

By CORRIE GORDON, Ed.B. (Edin.)

Associate of the Froebel International Union, London; Specialist in Child Education
President of the Association of Child Nature and Education of India; and
Lecturer, Teachers' College, Saidapet.Recommended by the Academic Council of the University of Madras
as suitable for students taking the L. T. Degree Examination.**CHILD NATURE AND EDUCATION**

AN INTRODUCTION TO CHILD STUDY

Crown 8vo. 200 pp. Price—Rs. 2.

ESSAYS ON THE CHILD AND HIS EDUCATION

Crown 8vo. 120 pp. Price Rs. 1-8.

"FROM A KINDERGARTEN WINDOW"**ESSAYS ON EDUCATIONAL SUBJECTS**

FOR

TEACHERS AND STUDENTS

Fcap. 8vo. 180 pages. Price Rs. 1-8-0.

REVIEWS AND PAPERS—EDUCATIONAL AND LITERARY

By GERALDINE HODGSON, B.A.

Trinity College, Dublin;

sometime Cobden Scholar of Newnham College, Cambridge.

Cr. 8vo. 310 pp. Rs. 2.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

INDIA AND THE WORLD

Monthly Organ of Internationalism and Cultural Federation.

Editor: Dr. KALIDAS NAG, M.A., D.LITT. (Paris), of the Calcutta University.

Leading Features of January to July 1932 Numbers.

W. E. Hocking on *America to Tagore*: Romain Rolland, *Appeal for Golden Book*: Albert Einstein, *To Tagore*. R. M. Noto Soeroto, *Culture and Civilization*. Kalidas Nag, *Tagore World Fellowship*: Rabindranath Tagore, *To America*: J.W.T. Mason, *Washington and American Spirit*: Benoy K. Sarkar, *America's Business Contacts with India*: J. B. Pratt, *Leadership and Nationhood*: Count Bassewitz, *Goethe's Message to Humanity*: Sir J. C. Coyajee, *Industrial Agreements and League of Nations*: Helmuth Glasenapp, *Indian Thought and German Philosophy*: Kalidas Nag, *America and Humanization of Wealth*: R. Safavi, *Reza Shah Pehlevi and Renaissance of Persia*: Mrs. P. Masani, *League of Nations*: Raphael Phillipson, *India*: R. N. Mazumdar, *Federalism and India*: W. S. Urquhart, *Inter-University Board*: Harry Edmonds, *Partners with Rest*: Kalidas Nag, *Asia and Awakening Womanhood*: Rabindranath Tagore, *Unity of Asia*. J. P. Scott, *Travel Diary*: B. N. Ganguly, *Indian Students in France*.

Annual Subscription Rs. 6; Foreign Sh. 10, post free. Single copy 8 as.

For Advertisements and other particulars apply to:—

THE MANAGER, INDIA AND THE WORLD,
283, PARK CIRCUS, CALCUTTA.

SCIENCE BOOKS

By Mr. P. LAKSHMI NARASU NAIDU, B.A.

Professor of Physical Science, Pachaiyappa's College, Madras.

- (1) **Intermediate Physics.** Prepared in accordance with the University Syllabus. Demy 8vo. 647 pp. with 840 diagrams and an Elaborate Index. Rs. 4.
- (2) **Intermediate Chemistry.** Prepared in accordance with the new Regulations of the Indian Universities. Demy 8vo. 550 pp. with 244 diagrams and an Elaborate Index. Rs. 3-8-0.
- (3) **Lessons in Elementary Physics.** Prepared in accordance with the Syllabuses of the Matriculation and the School Final Examinations. Second edition. Crown 8vo. 550 pp. with copious illustrations. Rs. 1-4-0.
- (4) **Lessons in Elementary Chemistry.** Prepared according to the Syllabuses of the Matriculation and the School Final Examinations. Second edition. Crown 8vo. 329 pp. with copious illustrations. Rs. 12.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

RANGACHARI'S MADRAS TUTORIAL COLLEGE,

Angappa Naik Street, George Town, Madras.

ADMISSIONS NOW ON

FOR

Our English Postal Tuition to 1933 March, INTERMEDIATE and B.A.
Examinations of the MADRAS and ANDHRA UNIVERSITIES.

Easy instalment payments for Teachers and other Officers.

LEARN WHILE YOU EARN

For Prospectus apply to :—

M. K. RANGACHARI,
Director.

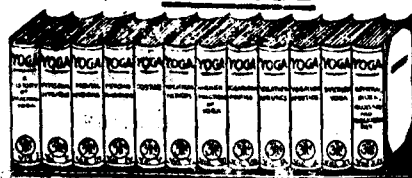
Subscribe for "YOUR MAGAZINE"

ANNUAL SUBSCRIPTION. RE. 1-0-0 FOR ORDINARY EDITION AND
RS. 3-0-0 FOR SPECIAL EDITION.

A MAGAZINE FOR YOUNG AND OLD.

Edited by M. K. RANGACHARI,
15 & 16, Angappa Naik St., G. T., Madras.

Scientific YOGA Series



These twelve volumes impart the secret of the entire Yoga culture. Each volume Rs. 10 net. Vol. II on Yoga Personal Hygiene is now ready.

"All the processes are fully illustrated and every practice is elaborated, simplified and explained in the most modern terms of science"—*The Hindustan Review*.

"No printed book can ever teach real Yoga but here the author imports in a clear and popular way the practical information of Yoga. The author has thus done a great service"—*The Theosophist*.

"Deserves special attention and admiration for it represents the vast field of personal training secretly taught in India"—*The Times*.

THE BOOK THAT MAKES YOU THINK

MEMORABILIA

(SECOND EDITION)

BY

SHRI YOGENDRA.

Like Ibsen's epigrams, these thoughts make you think desperately. They act like bombs—intellectual bombs, destroying the old foggyism of the reactionaries and the serious-minded hypocrites. There are over six hundred startling things which you *must* know about love, marriage, sex, property, society, politics, morality, religion and everything worth considering in life.

What it undertakes to do is to make you think and act straight. That the work passed through *two editions* simultaneously within the short period of only six months is a sure proof of its popularity.

Crown 8vo Rs. 2 net.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS

FIFTH AND REVISED EDITION

OF THE

INTERMEDIATE BOOK-KEEPING

By K. SUBRAMANI AIYAR, B.A., L.T., F.S.A.A.,

Senior Partner of Messrs. K. S. Aiyar & Co., Bombay; Secretary to the Accountancy Diploma Board, Bombay (1915 to 1933)
Principal

of Pachalyappa's Commercial School, Madras (1886-1889); of the Govt. School of Commerce, Calicut (1905-1900);
of the Byramjee Jeejeebhoy College of Commerce (1900-1908), and of the Govt. College of Commerce, Bombay (1913-1914)

Price Rs 3. Postage, &c., extra.

Approved for use in Commercial Classes in English Schools by the Text-Book Committee, United Provinces, vide No. G. 6336/XVIII-243, dated 21-3-18.

Recommended as a text-book for S. L. C. Examination of the Bombay University.

Officially recommended for class use by the Commissioner for Govt. Examinations, Madras.

Officially recommended as a Text-book for the Junior Grade Examination in Accountancy for the Mysore Commercial Examinations, vide Notification No. D. 6855-57 Edn. 374-29-2, dated 18-12-29.

By the same Author.

Seventh Edition—Revised and Improved.

THE ELEMENTS OF BOOK-KEEPING

OFFICIALLY RECOMMENDED

AS A TEXT-BOOK

FOR

The Bombay Government School Final Examination,
Order No. 6451, dated Nagpur, the 31st July, 1917.

The books noted above have been sanctioned for use as Library books in the High and Anglo-Vernacular Schools of the Central Provinces and Berar.

Demy 8vo. 248 pages. Price Re. 1-8-0.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

WORKS OF SWAMI ABHEDANANDA

The Swami is one of the pioneers of the Vedanta movement in America. His works cover the entire field of Vedanta and meet most satisfactorily the issues raised by the study of modern physical science and allied subjects.

COMPLETE WORKS

VOL. I.

The book contains :

- | | |
|--------------------------------------|--------------------------------------|
| 1. Self Knowledge. | 2. Divine Heritage of Man. |
| 3. Re-Incarnation. | 4. The Scientific Basis of Religion. |
| 5. What is Vedanta. | 6. Unity and Harmony. |
| 7. Cosmic Evolution and its Purpose. | |

Language fluent and simple ; Cloth Bound. Rs. 3.

Superior Bound (Gold Gilt). Rs. 5.

To Subscribers of 'The Vedanta Kesari' Rs. 2-14 and Rs. 4-12 respectively.

Please apply for detailed Catalogue to :—

THE MANAGER,

THE VEDANTA KESARI,

MYLAPORE, MADRAS.

THE CHILDREN'S NEWS.

Largest Number of Boys & Girls Read it Regularly

It is a favourite with them because each issue is crammed full of just the things they like and want.

The CHILDREN'S NEWS is just the magazine for the boy or girl between twelve and twenty years.

Every monthly issue brings hundreds of things to give the boy or girl the thrill of adventure, to engage those wide-spread interests of the boy or girl and to help him or her accomplish the things he or she most wants to do.

Regular stories and articles bring him into contact with all lines.

A constant source of interesting, entertaining & educating material comes to him through regular departments on all boy hobbies—photography, stamp-collecting, handicraft, puzzlecraft, etc., etc.

A Sure To-Be-Treasured New Year of Birthday Gift

One Year Rs. 2-8.

(12 Issues)

Two Years Rs. 4-0.

(24 Issues)

Send for sample copies from

THE MANAGER, THE CHILDREN'S NEWS, EGERTON ROAD, DELHI.

"THE SOUTH INDIAN TEACHER"

is .

THE OFFICIAL JOURNAL OF THE
SOUTH INDIA TEACHERS' UNION.

It is therefore the Journal of the Teacher
and no teacher should be without it.

Subscription is only Rs. 3 per annum.

Registered Office :—

41, Singarachari Street,

Triplicane, Madras.

READY

SHORTLY !!

NEW PUBLICATION

PUPILS' HAND-BOOK OF MATHEMATICAL EXERCISES

BY

V. RAGHUNATHA AIYAR, B.A., L.T.

The above publication contemplates to place within easy reach of pupils a good stock of graded problems for class-work and home-work in Elementary Mathematics. It has been the experience of many a Mathematics teacher that all that the pupils require is a good book of exercises. To conform to the above demand the above publication is being issued. We hope that the student population would be materially benefited by working through it.

Will be shortly ready.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

A HISTORY OF INDIA FOR STUDENTS

By C. S. SRINIVASACHARIAR, M.A.,

Professor of History, Pachaiyappa's College, Madras
AND

M. S. RAMASWAMI AIYANGAR, M.A.,

Professor of History and Economics, Maharajah's College, Vizianagaram.

Part I. Hindu India. With Six Maps

WITH AN INTRODUCTION

By RADHAKUMUD MOOKERJI, M.A., P.R.S., Ph.D.,

Professor and Head of the Department of Indian History, Lucknow University.

Demy 8vo. about 280 pages. Price—Rs. 2-8-0.

(Prescribed as a text-book for the Intermediate Examination of the Madras, Andhra, the Annamalai and the Benares Hindu Universities and by the Board of High School and Intermediate Education, U. P.)

Part II. Muhammadan India. With Five Maps

WITH AN INTRODUCTION

By MOHAMED HABIB, B.A. (OXON.), BAR-AT-LAW,

Professor of History and Politics, Muslim University, Aligarh.

Demy 8vo. 384 Pages. Price—Rs. 3.

(Prescribed as a text-book for the Intermediate Examination of the Madras, Andhra, Mysore and Annamalai Universities and by the Board of High School and Intermediate Education, U.P.)
Recommended as a Reference Book for the Madras

S. S. L. C.—C. Group—History of India, for 1931-32.

Professor R. N. SANYAL, M.A., Member of the Faculty of Arts, Agra University, Gorakhpur, writes under date 28-10-1930:—"Many thanks for your book. I carefully looked over the book and I am glad to say that I find it useful. Though containing less matter than Iswari Prasad's 'A Short History of Muslim Rule in India' recently published, a copy of which was sent to me for review, it is more suited as a text-book both on account of its brevity and cheap price. I propose at the next meeting of the Board of Studies to include this book for students of the Intermediate classes in the next prospectus."

Part III. British India—Just Ready. RS. 3-8-0.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

'EXERCISES IN ELEMENTARY MATHEMATICS'

for Training and Middle Schools

(for Masters and Mistresses)

with a Chapter on 'Hints on Teaching Methods'

By M. D. GOPALACHARI, B.A., L.T.,

First Asst., Govt. Secondary Training School, Guntur; author of the F.A. Algebra Manual and sometime Asst. Examiner in Mathematics at the University and School Final Examinations.

(TAMIL—2nd EDITION—Revised and Enlarged—As. 12.)

Approved as a Text-book for School use, vide Fort St. George Gazette, Part I-B, dated 19-1-25.

TELUGU—2nd EDITION—Revised and Enlarged—Price As. 12.

Approved as a Text-book for School use, vide Fort St. George Gazette, Part I-B, p. 513, dated 22-12-25

Mr. S. BHUSHANAM, Headmaster, U. L. C. M. Training School for Masters, Tarlupad, writes under date 11th August 1930:—"I have received with thanks your specimen copy of 'Exercises in Elementary Mathematics' (in Telugu) prepared for use in Training schools. You will be glad to know that I have been using your book in our school for the last six years, and that I have found it very helpful. The book is written in accordance with the Government syllabus and contains a good number of problems both in theory and practical work. Several specimen books were received by me on the same subject but I have used yours in preference to them; for in its simple form it contains just what is wanted and meets the requirements satisfactorily."

I am glad to note that you have revised and enlarged your book by the addition of exercises on the extraction of Square Root, of problems in Heights and Distances, of the New Syllabus in Elementary Mathematics and by the inclusion of T. S. L. C. Examination papers up to 1930, all of which bring it up-to-date and increase its value immensely. It may not be out of place to insert some 'Notes of Lessons' in your next edition in addition to the hints you have already given on the teaching of certain topics on Number and Space work.

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

SPORTS AND GAMES

Beware of Gilded Advertisements!

**Go to SHARMAN'S
the Popular Sports House**

SPECIALISTS IN :—

TENNIS, CRICKET, FOOTBALL AND HOCKEY GOODS.

SOLE AGENTS FOR

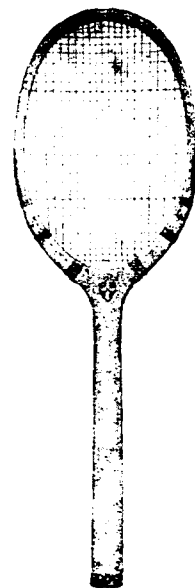
HARRY LEE'S TENNIS RACKETS.

Pay a visit to our Show Room :—

SHARMAN & Co.

(MADRAS SPORTS WORKS)

WALLAJAH ROAD, MADRAS.



MADRAS UNIVERSITY.

B. A. Degree Examination, 1934.

Old and New Regulations.

	RS.	A.		RS.	A.
SHAKESPEARE—MIDSUMMER NIGHT'S DREAM, with Introduction and Notes, by Rev. R. Scott, M.A. ...	1	6	BROWNING—GRAMMARIAN'S FUNE- RAL, with Introduction and Notes, by E. E. Kellett, M.A. ...	1	0
SHAKESPEARE—OTHELLO, with In- troduction and Notes, by M. Macmil- lan, M.A., D.LITT. ...	1	6	WORDSWORTH—ODE ON THE INTI- MATIONS OF IMMORTALITY, with Intro- duction and Notes, by E. H. Elliot, B.A. ...	0	12
MILTON—PARADISE LOST, BOOK IV, with Introduction and Notes, by E. E. Kellett, M.A. ...	0	12	BYRON'S ROME—Contained in Child Harold's Pilgrimage, Canto IV, with Introduction and Notes, by E. H. Elliot, B.A. ...	1	6
BROWNING—RABI BEN EZRA, with Introduction and Notes, by H. Dod- well, M.A. ...	0	8	CARLYLE—ESSAY ON BURNS, with Introduction and Notes, by R. Scott, M.A. ...	1	4

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

LODHRA

CHORUS OF FELICITATIONS!

*My wife is now the happy mother
of a girl child after 15 years of
married life.*

*I always keep stock of Lodhra in
my dispensary and never forget
it even in my sleep.*

*The pain which afflicted my wife
the last over 15 years stopped in
6 doses.*

*I found it a sovereign remedy
for all menstrual troubles.*

THE BEST

UTERINE TONIC

Wonderfully cures all complaints
peculiar to women and bestows
health and happiness on them.

KESARI KUTEERAM

EGMORE, MADRAS

Available at all chemists.

Andhra University.

Intermediate Examination, 1934.

PART I.

Rs. A.

SHAKESPEARE—TWELFTH NIGHT,
with Introduction and Notes, by M.
Macmillan, M.A., D.LITT. (College
Classics)... .. 1 12

PART III.

HISTORY OF INDIA, by C. S. Srinivasachariar, M.A. and M. S. Ramaswami Aiyangar, M.A.

Part I. Hindu India ... 2 8

Part II. Muhammadan India ... 3 0

(Prescribed Text-books).

COLERIDGE—THE RIME OF THE
ANCIENT MARINER, with Introduction
and Notes, by E. E. Kellett, M.A. ... 0 12

MATTHEW ARNOLD, SOHRAB AND RS. A.

RUSTUM, with Introduction and Notes,
by T. O. Hodges, B.A. ... 0 8

B. A. Degree Examination.

SHAKESPEARE—OTHELLO, with In-
troduction and Notes, by M. Macmil-
lan, M.A., D.LITT. (College Classics) 1 6

WORDSWORTH—ODE ON INTIMA-
TION OF IMMORTALITY, with Introduc-
tion and Notes, by E. H. Elliot, B.A. 0 12

WORDSWORTH—EXCURSION, BOOK I,
with Introduction and Notes, by E. E.
Kellett, M.A. ... 0 12

MILTON—PARADISE LOST II, with
Introduction and Notes, by W. Bell,
M.A. ... 0 12

SRINIVASA VARADACHARI & CO., 190, MOUNT ROAD, MADRAS.

1, MOUNT ROAD, MADRAS.