

Approved as a suitable Text-book for School use.

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TAMIL EDITION

OF

A TEXT-BOOK OF ARITHMETIC

FOR LOWER SECONDARY OR MIDDLE SCHOOLS

BY

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Prepared on the lines indicated by the syllabus in Elementary Mathematics recently prescribed by the Director of Public Instruction, Madras, for Form I.

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Contents.

அத்யாயம் I. எண்மானமும் எண்முறியும் (முழு எண்கள்); II. ஸாலிட்கள்: பரப்புக்கள்: கோடுகள்: புள்ளிகள்; III. அளவைகளின் வாய்பாடுகள்; IV. ஒரினக்கூட்டல்; V. கோடுகோடு; VI. ஒரினக்கழித்தல்; VII. கோடுகோடு (தொடர்ச்சி); VIII. ரோமன் இலக்கங்கள்; IX. உத்திகளும் அவற்றின் அங்கங்களும்; X. கோடுகோடுகளும் கோடுகோடு உருவங்களும்; XI. அடைப்புக்குறிகள்; XII. x, y உபயோகித்துக் கணக்குப் பார்த்தல்; XIII. வட்டம் (முதல் பாகம்); XIV. காதிதம் மடித்தல்: காதிதம் வெட்டல்; XV. எண்மானமும் எண்முறியும் (பின்னங்கள்); XVI. கால், அரை, முக்காலின் கூட்டலும் கழித்தலும்; XVII. $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ பின்னங்கள்; XVIII. அளவு நாடாவால் அளத்தல்; XIX. தசாம்சங்களின் கூட்டலும் கழித்தலும்; XX. கோலால் அளத்தல்; XXI. ஒரினப்பெருக்கல் (முதல் பாகம்); XXII. ரெட்டாங்கிள்களும் ரெட்டாங்குலர்ஸ்களும்; XXIII. ஒரினப் பெருக்கல் (இரண்டாம் பாகம்); XXIV. காதித அட்டையால் மாடல்கள் செய்தல் (முதல் பாகம்); XXV. ஒரினவகுத்தல் (முதல் பாகம்); XXVI. கால், அரை, முக்காலும், தசாம்சங்களும்; XXVII. அடிவகுத்து அளத்தல்; XXVIII. ஒரினவகுத்தல் (இரண்டாம் பாகம்); XXIX. சட்டப்பலகையும் கோடுகளும்; XXX. ஒரினவகுத்தல் (மூன்றாம் பாகம்); XXXI. ஸராஸரி; XXXII. கவராசத்தாலும் அட்டத்தாலும் அளத்தல்; XXXIII. பெருக்கல் குறியை விட்டுவிடுதல்; XXXIV. அகராக்கள் அட்ட உத்திகள்; XXXV. யோஜனைக் கணக்குகள் (முதல் பாகம்); XXXVI. வேண்டிய அளவுள்ள கோடுகளைக் கட்டல்; XXXVII. ஒற்றைப்படை எண்களும் இரட்டைப்படை எண்களும் தொடர்ச்சியான எண்கள்; XXXVIII. காரண எண்கள்: பகாசிலை எண்களும் பகுசிலை எண்களும்; XXXIX. காரண எண்களால் கணக்கு வகுத்தலும்; XL. ஒரினப்பெருக்கல் (சுருக்கமான வழிகள்); XLI. ஒரின வகுத்தல் (சுருக்கமான வழிகள்); XLII. இனமாத்ற; XLIII. பலவினவெண் கூட்டல்; XLIV. பலவினவெண் கழித்தல்; XLV. பலவினவெண் பெருக்கல்; XLVI. பலவினவெண் வகுத்தல்; XLVII. யோஜனைக் கணக்குகள் (இரண்டாம் பாகம்); XLVIII. புள்ளிகள்: கோடுகள்: பரப்புக்கள்: ஸாலிட்கள்; XLIX. கடைக்கணக்குகளும் கணக்குகளும்; L. வட்டம் (இரண்டாம் பாகம்); LI. தசாம்ச பின்னங்கள்; LII. மெட்ரிக் அல்ல, நீட்டலளவைகள்; LIII. கோடுகளும் கோணங்களும்; LIV. கோணங்களும் அவைகளால் அளத்தல்; LV. அடிக்கு அடிக்கு குறியும்; LVI. அளவுகளும் மடங்குகளும்; LVII. கோணங்கள் வரைதல்; LVIII. கோணங்கள், எதிர் கோணங்கள் முதலியவை; LIX. உத்தம் பொது அளவு; LX. அடிமெட்டி; LXI. சதுரங்களையும் நீண்ட சதுரங்களையும் வரைதல்; LXII. பரப்பளவும் கன அளவும்; LXIII. தல்; LXIV. சாதாரண பின்னங்கள்; LXV. பொருட் சட்டி சாதாரண பின்னங்கள்; LXVI. சாதாரண கட்டிடம் கருவி; LXVII. Latitude and Longitude; LXVIII. ஒற்றைமை தழுவிய கோணங்கள்.

Approved for use in ALL Schools

(Both under Private and Public Management.)

PART I—22nd Edition—(1926). Price As. 12.

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for Lower Secondary or Middle Schools

BY

S. RADHAKRISHNA AIYAR, B.A.

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This book which had long been recognised for use in Schools under private management and has passed through 20 big editions in about 24 years, is now recognised for use in Schools under public management also.

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III FORM.

Chapter XXIII. Decimals—(continued):—1. *Simplification of Complex Decimal Fractions*. 2. *Approximation of Decimals*. 3. *Statistics*. 4. *Related Examples*. 5. *Remainder after Division by Decimals*. XXIV. Vulgar Fractions—(continued). XXIV-A. Complex Fractions involving Decimals. XXV. Construction of Triangles—(continued). XXVI. Reduction of Concrete Fractions—(continued). XXVII. Reduction of Concrete Decimals—(continued). XXVIII. Circumference of Circles and Cylinders. XXIX. Congruence of Triangles and Circles (including *similar Triangles*). XXX. Compound Practice. XXXI. Parallel Straight Lines and Parallelograms. XXXII. Compound Rule of Three. XXXIII. Some Regular Rectilinear Figures. XXXIV. Square Measure—(continued). XXXV. Cubic Measure—(continued). XXXVI. Symmetrical Figures. XXXVII. Simple Interest. XXXVIII. Pyramid: Tetrahedron: Prism. XXXIX. Percentages. XL. Positive and Negative Quantities. XLI. Simple and Compound Rule of Three. XLII. Angles of Elevation and Depression. XLIII. Problems:—1. *Division of Property*. 2. *Groups and Multiples*. 3. *Time and Work*. 4. *Fractional Parts*. 5. *Income-Tax and Expenses*. 6. *Exchange and Barter*. 7. *Profit and Loss*. 8. *The Calendar*. 9. *Time and Distance*. 10. *Longitude and Time*. XLIV. Removal and Insertion of Brackets. XLV. Equations and Equational Problems. REVISION EXAMPLES including *Mysore Lower Secondary Examination Papers. Answers*.

SRINIVASA VARADACHARI & CO., 4, MOUNT ROAD, MADRAS.

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AN IMPORTANT NEW TAMIL PUBLICATION.

ஆரம்ப கணிதம்

(சென்னை வித்யா இலாகா அதிகாரிகளால் தோருக்கப்பட்ட ஸிபெஸுக்கிணங்கத் தயாரிக்கப்பட்டது.)
இஃது கும்பகோணம் கவர்ன்மெண்டு காலேஜ் பிரதம ஆசிரியராயிருந்த ராவ்பகதூர் P.V. சேஷு
அய்யர், B.A., L.T. அவர்களாலும், சென்னை பச்சையப்பன் கலாசாலை ஹெஸ்குல் பிரதம ஆசிரியர்
V. வெங்கடசுப்பையா, B.A., L.T. அவர்களாலும் ஆங்கிலத்தில் இயற்றப்பெற்ற
Elementary Mathematics, Part I இன் மொழி பெயர்ப்பு.

மொழி பெயர்ப்பாசிரியர் :

சேலம் முனிசிபல் காலேஜ் கணித போதகாசிரியர், S. சிவராமன், B.A., L.T.
சைதாப்பேட்டை டிசர்ஸ் காலேஜ் கணிதபோதகாசிரியர் S. பாலகிருஷ்ண அய்யர், B.A., L.T.,
அவர்களுடைய முன்னுரையுடன் கூடியது.

(முதல் பாகம்)

பொருளடக்கம்.

I. எண் மானம் என் தற்பும் :—எண்கள் ; இலக்கங்களால் எண்களைக் குறித்தல் ; எண்களின்
சும மதிப்பும் ஸ்தான மதிப்பும் ; ரோமன் வழி. II. கோடுகளும் புள்ளிகளும் நீள அளவையும் :—கூழ்ப் ; லா
பெஸ்கன் ; கோடுகள் ; புள்ளிகள் ; கோடுகளின் வகைகளும் நேர்கோடுகளைப் பரீட்சிக்கும் விதமும் ; புள்ளிகள்
குறித்தலும் கோடுகள் இழுத்தலும் ; நீள அளவு ; டிவையர்களின் உபயோகம் ; எண்களை நீளத்தால் குறித்தல்.
III. கூட்டல் :—கூட்டலின் அர்த்தமும் உபயோகமும் ; கூட்டலைப்பற்றிய ஓர் உண்மை ; கூட்டலைப் படத்
தால் காண்பித்தல் ; அடைப்புக் குறிகள் ; கூட்டல் ; பெரிய கணக்குகள் ; கழித்தல் ; கழித்தலைப் படத்தால்
காட்டுதல் ; பலவகை கழித்தல் வழிகள் ; கூட்டல் கழித்தலைப்பற்றின சில விதிகள் ; கலப்புக் கூட்டலும் கழித்
தலும். IV. பெருக்கல் :—பெருக்கலைப் படத்தால் காண்பித்தல் ; ஒரு ஸ்தான எண்ணால் பெருக்கல் ; பாக்டர்
யால் பெருக்கல் ; எந்த எண்களைக் கொண்டும் பெருக்கல் ; பெருக்கலில் குறுக்கு வழிகள். V. வகுத்தல் :—
கூட்டலைப் படத்தில் காட்டுதல் ; ஒரு ஸ்தானத்தால் வகுத்தல் ; பாக்டர்களால் வகுத்தல் ; 10, 100 முதலிய
கனால் வகுத்தல் ; நீள் வகுத்தல் ; வகுத்தலின் இன்னொரு அர்த்தம் ; சில பெருக்கல் வகுத்தல் விதிகள் ;
கூக்கல் வகுத்தலில் சில குறுக்கு வழிகள் ; ஒன்பதுகளை நீக்குதல். VI. பலவின் வெண்கள் :—அளவை
பப்பாடுகள் : நாணய அளவுகள் ; நீறை அளவுகள் ; நீள அளவு ; பிடித்தல் அளவு ; கால அளவு ; கால
அளவு ; எண்ணிக்கை அளவு ; இனமாமுதல் ; பலவின் வெண் கூட்டல் ; கழித்தல் ; பலவின்வெண்
பெருக்கல் ; பலவின் வெண் வகுத்தல். VII. கோணங்களும் அவற்றின் அளவும் :—திசை, திசைமாற்றம் ;
கோணம், கோணங்களை ஒப்பிட்டுப் பார்த்தல் ; நேர்கோணம் ; சதுரங்களும் ரெக்டாங்கிள்களும் ; வட்டங்கள் ;
கோணங்களின் அளவு ; கோணங்களின் வகைகள் ; ப்ரோட்டாட்டரைக் கொண்டு கோணங்களை வரைதல் ; ஒரு
புள்ளியிடத்தில் உள்ள கோணங்கள். VIII. டெஸிமல்கள் :—டெஸிமல்களின் அர்த்தம் ; டெஸிமல் குறிப்
பில் ஸ்தான மதிப்பு ; இரண்டாவது டெஸிமல் ஸ்தானம் ; டெஸிமல் குறிப்பு பொது விவரம் ; ஒரு டெஸிமல்
ஸ்தானமுள்ள எண்கள் ; டெஸிமல் கூட்டல் ; டெஸிமல் கழித்தல் ; எந்த எண்களையும் கழித்தல் ; 10, 100
முதலியவைகளால் பெருக்கல் ; ஒரு ஸ்தானமுள்ள முழு எண்ணால் பெருக்கல் ; ஒரு ஸ்தானமுள்ள முழு எண்
ணால் வகுத்தல் ; பல ஸ்தான முழு எண்களால் பெருக்கல் ; பல ஸ்தான முழு எண்களால் வகுத்தல்.
IX. உயர்ந்த பொது அளவும் தாழ்ந்த பொது மடங்கும் :—அளவும் மடங்கும் ; பொது அளவும் மடங்கும் ;
உயர்ந்த பொது அளவும் தாழ்ந்த பொது மடங்கும் ; பாக்டர்களால் இரண்டு அல்லது இரண்டிற்கு மேற்பட்ட
எண்களின் உ. பொ. அ. உம், தா. பொ. ம. உம் கண்டுபிடிக்கும் வழி ; உ. பொ. அளவைக் கண்டுபிடிக்கும்
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அளவுகளின் பின்னங்கள் ; ஒரு கான்கிரீட் அளவை இன்னொரு கான்கிரீட் அளவின் பின்னமாகச் சொல்லுதல் ;
சமமான பின்னங்கள் ; சமமான பின்னங்களைப் பிடித்தாற் காட்டுதல் ; பின்னங்களின் சுமத்துவம் ; தாழ்ந்த

உறப்புகள் ; பின்னங்களை ஒப்பிடுதல் ; பின்னங்களின் கூட்டலும் கழித்தலும் ; ஒரு சாதாரண பின்னத்தை
ஒரு முழு எண்ணால் பெருக்கல் ; சாதாரண பின்னத்தை ஒரு முழு எண்ணால் வகுத்தல் ; ஒரு பின்னத்தால்
பெருக்கல் ; பின்னத்தின் பின்னம் ; ஒரு பின்னத்தால் வகுத்தல் ; ஒரு எண்ணை ஒரு குறிப்பிட்ட டி.எம்.என்.
டர் உள்படி மாற்றல் ; பின்னங்களைச் சுருக்கல். IX. வாடிக்கை முறை.—பலமாதிர்க் கணக்குகள்.
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(இரண்டாம் பாகம்)

பொருளடக்கம்.

பரீட்சைத் தேள்விகள். I. டெஸிமல்களின் பெருக்கலும் வகுத்தலும் : ஒரு ஸ்தான டெஸிமல்
எண்ணால் பெருக்கல் ; சமமான பரிசோதனை ; எந்த டெஸிமல் எண்ணால் பெருக்கல் ; டெஸிமல்களால்
வகுத்தல் ; சமராய்ச் சொல்லல் ; சாதாரண பின்னங்களை டெஸிமல்களாக மாற்றல் ; டெஸிமல்களை சாதாரண
பின்னங்களாக மாற்றல். II. சராசரி, கோடியோ முதலானவை : சராசரி ; கோடியோ ; மாறுதல்கோடியோ ;
கோடியோவின் உபயோகங்கள் ; பார்போஷன் ; லாப ஈஷ்டம் ; வருமான வரி ; கடன் மிகுதல். III. பாய்
பளவு ; பரப்பளவு ; ரெக்டாங்கிள் ; இவ்விவ் பரப்பளவுகளும் ப்ரெஞ்சு பரப்பளவுகளும் ; பரப்பளவு வாய்ப்
பாடுகள் ; பிளன் வரைதல், அதாவது அமைப்புருவம் வரைதல் ; தரையின் பரப்பளவும் நாற்சவர்களின் பரப்
பளவும் ; கட்டக் காகிதத்தின் உபயோகம். IV. பொது எண் கணக்கு—சமகரணங்கள் : அங்க கணிதமும்
பீஜ கணிதமும் ; சில பெயர் விளக்கங்கள் ; சமீகரணங்கள் ; இன அங்கங்கள் ; அடைப்புக் குறிகள் நீக்குதல்.
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கோணங்கள் பக்கங்களுக்குள்ள சம்பந்தங்கள் ; ஒரு புள்ளியிலிருந்து நிற்ப்தனைக்கிணங்க மற்றொரு புள்ளி குறித்
தல் ; இரண்டு புள்ளிகளிலிருந்து நிற்ப்தனைகளுக் கிணங்க மற்றொரு புள்ளி குறித்தல் ; கொடுக்கப்பட்ட அளவு
களைக் கொண்டு முக்கோணம் வரைதல் ; வட்டங்களின் சில தன்மைகள் ; முக்கோணங்களின் வகைகள் ; ஓர்
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(மூன்றாம் பாகம்)

பொருளடக்கம்.

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THE FUTURE OF TELUGU.

By Mr. G. V. SUBBARAMAYYA, M.A.,

Lecturer in English, V. R. College, Nellore.

I.

A HISTORICAL RETROSPECT.

OUR love and regard for Telugu are not merely natural sentiments for the mother-tongue, but based upon good reason. The great Andhra king and poet Sri Krishnadevaraya who knew Kanarese and other tongues besides Telugu declared what has since been accepted as axiomatic truth, that among the vernaculars Telugu is the best. An indirect tribute is paid to the melody and other musical graces of Telugu by the Tamils and other communities of South India, who prefer Telugu songs—especially the Kirtans of Tyagaraja—to those in their respective mother-tongues. It has captivated the ears of even the remote nations of the West who have conferred upon it the unique title of "the Italian of the East." We the Andhras are

therefore justly proud to own Telugu as our mother-tongue.

The most ardent adoration of Telugu should not however blind us to its serious limitations. The range of its cultural output must be admitted to be extremely narrow. It does not possess one first-rate work in Sciences, Philosophy or the Arts with the exception of Literature. Even there, the field has been till lately confined to translations of the Sanskrit Puranas and Kavyams, a few distinguished original Prabandhams and too many servile imitations of them. Of works in prose and drama, there were none. In recent times, thanks to the inspiration of English Literature, our Telugu authors have brought out translations of the best Sanskrit dramas, a few original plays based on Sanskrit or English models, novels, short stories, criticisms, essays and lyrics. A beginning has also been made in writing history, sciences, philosophy and other subjects. But we cannot yet be said to

XXXIV—52

145305

have got beyond the imitative stage, to have discovered our individuality. Our contribution to the sum of human thought and knowledge cannot therefore be estimated as having been very appreciable.

There is however no reason to despond. At one time after the advent of the British, there were indeed reasonable grounds of apprehension that Telugu may die out as a cultural tongue. In the Victorian age, when our national self-respect was at its ebb, our ancestors, it must be confessed, thought it a disgrace to use our mother-tongue not only as official language, but even in private letters and domestic gossip. The hall-mark of culture and refinement could in their opinion be attained, only by faithfully imitating their English masters in speech and writing, as in everything else. Fortunately, the dawn of Indian nationalism, together with the rising tide of the Andhra movement for political and cultural self-expression, has dispelled the shades of prejudice against the 'Vernacular,' so much so that the 'second language' bids fair to become the first, by ousting English from its usurped position. The slavery to the alien speech has come to be abhorred as much as, if not more than, political serfdom. All Indian patriots are therefore as eager to bring the vernaculars into line with the languages of free countries, as to win political freedom. The Andhra University which partly owed its very origin to the desire of the Andhras for raising the status of their mother-tongue, has served to focus public attention on the need for developing Telugu, and to make it an immediate, live issue.

While the present thus seems very propitious for the speedy attainment of what may be called the linguistic Swaraj, a most unfortunate development has occurred. A con-

troversy known as the "Gramya-Grandhika vadam" is dividing all lovers of Telugu into two hostile camps, and thus thwarting all attempts at sound progress. With it, therefore, I propose to deal below.

II.

THE "GRAMYA-GRANDHIKA" CONTROVERSY.

This controversy can be traced to historical causes. The general neglect of the vernacular succeeding the introduction of English, confined the possession of old scholarship to a few orthodox Pundits, mostly ignorant of Western culture. The generality of the Andhras, particularly the English-educated, lost all hold over Telugu speech. Nay, they soon became incapable of talking pure Telugu even in private conversation, and contracted for the purpose a hybrid mixture of English and Telugu, the barbarity of which only our long-continued habit prevents us from seeing. While the knowledge of Telugu was thus deteriorating, the example of English literature with its growing volume and excellence inspired them with zeal to produce similar works in Telugu. Thus arose the anomaly of men without nodding acquaintance with Telugu grammar or classics, attempting to write novels, dramas and lyrics on the English model. On the other hand, the orthodox scholars seeing that their influence waned and their numbers got thinner every day, grew all the more firm in guarding the old conventions and in opposing every innovation. Thus while the new school calling themselves 'gramya-vadins' found it expedient to advocate the abandonment of 'classical' Telugu with its perplexing rules of grammar and literary conventions, in favour of 'spoken' Telugu which enables every one to become an author without much previous study, the old school

styling themselves 'grandhika-vadins' felt themselves called upon to emphatically re-assert the view-point of orthodoxy.

Without entering into the details of this vexed controversy, I here propose to consider the main arguments of both the parties, that touch the fundamental principles of our language. The gramya-vadins argue (i) that like English, our language must change with time, (ii) that the standard of linguistic purity and correctness should be neither previous usage nor rules of grammar, but the speech of the enlightened contemporaries, (iii) that rigid observance of classical usage and grammar is not only difficult of attainment but positively harmful since it is calculated to make the style lifeless, obscure and pedantic, (iv) that since the 'classical' Telugu is a slave of Sanskrit, it should be abolished in the interests of linguistic independence and self-respect, (v) that strict conformity to usage and grammar is not necessary for the enjoyment of 'rasa', (vi) that in fact great poets of the past did violate rules of grammar and introduce foreign words, and (vii) that since 'modern' Telugu has come to stay by being freely used in official records, newspapers, etc., and since to stem the tide is impossible, it is the part of wisdom to bow to the inevitable. The grandhika-vadins do not admit the validity of any of these arguments. Their reply may thus be summarised: (i) Sanskrit, and by its association, Telugu, are unlike English, being 'Arsham', i. e., the work of Rishis, and hence are immune from the "ravages of time". (ii) Since Telugu owes its elegance and refinement to the classical usage and grammar, the least departure therefrom should make it barbarous. And because such is the speech of the so-called 'enlightened' contemporaries, it can never serve as the standard of correct Telugu. (iii) Our pre-

occupation with English and other subjects, and the wrong method of teaching Telugu are responsible for the difficulty, more imaginary than real, of mastering Telugu grammar and classics. This mastery far from rendering the style obscure or pedantic makes it clear, forcible and sweet. (iv) As Telugu has derived most of its vocabulary and nearly all its beauty from Sanskrit, any attempt to sever the connection of Sanskrit should be deemed not only hopeless but sacrilegious. (v) As 'rasa' is born of purity, beauty and elegance in expression as well as in thought, it can never be enjoyed in works of 'modern' Telugu. (vi) Great poets did, as a rule, conform to grammar and former usage. Stray cases of violation, if any, can only be condoned, if not condemned. (vii) Since evil is evil, even if it should fill the whole world, the 'modern' Telugu cannot be approved of, on the ground of its being widely prevalent. This very reason should stiffen our opposition to it, if we really care to preserve the speech of our forefathers from ruin.

Both the positions, it seems to me, disclose an element of truth, but with it, a good deal of confusion of thought, that is responsible for their mutual antagonism. The analogy of English is not wholly correct, since *its* history is quite different from that of Telugu. But to seek to establish the immutability of everything connected with our language, on the ground of its being 'arsham,' is equally wrong. Our language did change till it reached the acme of refinement in the Mahabharata. Even after this work was written, Telugu went on changing in respect of absorbing new words and phrases, and of adding to or altering the significance of old ones. The traditionally accepted authority of Mahabharata must be understood not in the sense of exhausting the

fund of Telugu vocabulary, but as setting the model for syntax, idiom and grammatical usage.

The proposition that literary expression should be modelled upon the speech of the enlightened is no doubt correct in theory. But in the present anomalous condition under which the English-educated are far from 'enlightened' so far as their command of Telugu is concerned, the above theory cannot be put into practice. It is indeed implied therein that the speech of the enlightened should agree with grammar and idiom. With regard to Telugu, this must, for the present, remain a pious wish.

The objection to the observance of classical usage and grammar on the ground of its difficulty and its apprehended tendency to make the style obscure and pedantic, seems to me superficial, if not trivial. The difficulty is there only to be overcome; and despite the strictest observance of rule and usage, our literary instinct and commonsense must help us to steer clear of pedantry or obscurity of expression. Submission to rule and natural simplicity of style are by no means inconsistent.

In the matter of the proper relations between Sanskrit and Telugu, a clear statement seems to be necessary. Sanskrit is not exactly foreign to us. Though it is not our mother-tongue, its treasures of thought and phrase are all ours. We can and ought to freely make use of them, without however owning slavish submission to its sway. Any way, it is high time to give up the superstitious preference of Sanskrit words to Telugu, and the pedantic fondness for long-winded Sanskrit compounds, still in vogue in orthodox circles. Other considerations being equal,

simple, familiar Telugu words must be preferred to rare, out-of-the-way Sanskrit synonyms. While recourse to Sanskrit diction is inevitable, our language must be helped to maintain its individual beauty and excellence.

The true relation between 'rasa' and the 'classical' or 'modern' Telugu, also needs to be defined. We enjoy 'rasa' when our sense of propriety is satisfied. The laws of propriety require the adaptation of speech to the status of the speaker. 'Rasa' is produced neither by gramya nor by grandhika Telugu by itself, but by either being appropriate to the person into whose mouth it is put.

The fact of the great poets having taken liberties with rule and usage has been far too much exaggerated. Very great pains, worthy of a better cause, have been taken to draw up long lists of their "sins of omission and commission." Most of these "mistakes" have been shown to belong not to the poet but to the scribe or the printer. Their occasional use of foreign words and new idioms, far from being condemned, must be regarded as a great service done to the language. The few errors that may still remain, can in no wise justify a wholesale abolition of all grammar and convention.

The advocacy of ungrammatical Telugu on the ground of the hopelessness of all opposition thereto, does not at all appeal to me. Its extensive spread need not fill us with despair. An universal intensive study of our classics and grammar is bound in the long run, to raise our common speech to the required level of purity and elegance. Avoiding therefore, lifeless pedantry on the one hand, and ungrammatical 'gibberish' on the other, we must aim at a Telugu speech

"familiar but not coarse, elegant but not ostentatious," and infinitely adapted to the æsthetic and intellectual needs of the modern world.

III.

THE PROBLEM OF VERNACULARISATION.

It has been emphasised in the foregoing that if our mother-tongue is to have any future, this ogre of "gramya-grandhika" controversy must be quelled, and that a complete agreement dictated by sound thinking and commonsense, must be reached with regard to the right lines of its development. This leads us to another problem that is now confronting not only the Andhra University but the whole of India, namely, the vernacularisation of studies.

It is quite natural that with the rise of nationalism the desire of the Indians should also grow to raise the vernaculars to the position of pre-eminence, now occupied by English. This feeling is clearly manifested in the attempts now being made in almost every Indian University to vernacularise the teaching of non-language subjects, whether by stages or at once. One or two Universities are said to have already made headway in this direction, and their example is held forth before us, in order that we might follow in their footsteps. A Committee appointed by the Andhra University to consider this problem has already brought out a valuable report and some important recommendations.

Since the desirability of vernacularising the studies is almost universally admitted, it is here without any discussion taken for granted. The only question that remains is how best to achieve this object. Some opine that the easiest and best way of doing

so is to take courage into both our hands and immediately make the vernacular the medium of teaching as well as of examination, in all classes from the lowest to the highest. Others hold the view that the process of vernacularisation must needs be gradual, though they agree to the fixing of a time-limit for reaching the goal. Those belonging to this school of thought can be divided into two classes, one advocating the use of the vernacular first in selected subjects and then in the rest, and the other class recommending the use of the vernacular for all subjects, first in the High School and then gradually in the College courses. There are still others who while sharing the universal desire for raising the status of the vernacular, are however afraid that vernacularisation under the present conditions must inevitably lead to the lowering of the standards of efficiency, and the corresponding fall of status of the University. They further see insuperable practical impediments in the way of realising our wish, and therefore advise us to be patient, and to hope for better days.

Though the last view may be rejected as a counsel of despair, it is no good to wink at the difficulty of the task. The problem of the vernaculars is nearly as baffling as the one of the Indian States. Like the latter, the vernaculars are so numerous, cover such different areas, and are in such varying stages of development, that they can in no wise be brought under one class. No rule can be enunciated to apply to all of them alike. To point out another University by way of example of immediate, wholesale vernacularisation is therefore fundamentally fallacious. It may be safely asserted that success in vernacularising is dependent upon (i) the past development of the vernacular, (ii) the

command which the English-educated people of the area have over a free and correct use of the mother-tongue, and (iii) the strength of public opinion compelling the support of the Government. Judging the case of Telugu by these conditions, (i) it cannot be maintained that our language has been, in the past, developed to any appreciable extent as a medium of speech in scientific subjects. The attempts now being made, though no doubt very praiseworthy, must be admitted to belong to the initial stages. (ii) As for our command of the vernaculars, it is a matter of common knowledge that we are unable to express ourselves in good, decent Telugu even in ordinary talk. To think of using Telugu immediately as medium of instruction in College classes would therefore be simply ridiculous. (iii) The Government cannot, for well-known reasons, be expected to be enthusiastic about the progress of the movement—nay, its sympathies would naturally lie in the opposite direction. It can at best be only compelled by public opinion to acquiesce in the attempt. The Telugu-speaking people feel no doubt strongly the right and the necessity of replacing English by the vernacular as medium of instruction. But what with the clamours of the Mahomedans, the Oriyas and others pressing the claims of their respective mother-tongues to hold a rival place with Telugu in this matter, and what with the dissensions among the Telugu-speaking people themselves, regarding the manner of developing the vernacular, it cannot be said that there is now an all-compelling force of public opinion for wholesale introduction of Telugu as medium of instruction.

Thus it becomes clear that however much we may wish it, an immediate, wholesale

vernacularisation, so far as Telugu is concerned, is out of the question. The process of vernacularising, whether by subjects or from bottom upwards, must needs be slow and gradual. Though it is our patriotic duty to make at once a beginning in this direction and to spare no pains in seeing to its success, it should be recognised that all such attempts are bound to be for long in the nature of experiments. To fix time-limits for completing the process of vernacularisation seems to me to misconceive the nature and the scope of this movement. A great authority in politics once said that in our political schemes we ought not to be the slaves of dates. This applies with the greater force to all cultural movements like the one of vernacularisation.

Our success in vernacularising depends not upon our superstitious attachment to any particular time-table, but upon our stern resolve and hard work on right lines, inspired by burning love of our mother-tongue. It seems to me that to vernacularise the studies trusting to time to improve our command of Telugu is putting the cart before the horse. *Any attempt at vernacularising the instruction of non-language subjects, must be necessarily preceded by a wide and intensive study of the Telugu Classics and Grammar.* So long as our graduates are not able to speak Telugu fluently in ordinary conversation, all talk of vernacularisation must be moon-shine. Nay, to insist upon vernacular instruction under the present conditions would be not only to bring down the general level of efficiency, but by providing the best opportunity for the spread of 'gramya' Telugu, to do positive disservice to our mother-tongue.

I must not however be understood as urging the postponement of vernacularising till the

Greek calends. We must at once start the experiment in the High School classes. All minor difficulties must give way before our determination to succeed. Simultaneously we must so frame the University courses of studies in the vernacular, that a graduate will have a tolerable command of pure, grammatical Telugu. Moreover in the meantime, the University must, by engaging the services of competent scholars, publish vernacular textbooks in the subjects, suitable for use in the different classes. It will then be time to extend the process of vernacularising to the College classes.

In this connection, the question whether or not to import the English technical words into Telugu deserves some attention. The scientific terms are not the monopoly of English or any other modern language. They are mostly borrowed from Latin and Greek, with only the English endings. We cannot therefore do better than to indent upon the technical terms that have gained world-wide currency. In so doing, there is nothing objectionable or derogatory to self-respect. The only possible exception can arise in the case of those technical words for which simple, well-recognised Telugu synonyms can be found. Even then, as is done in English we should retain the use of both the foreign word and the native synonym. To coin new Telugu words for the purpose at this time of day would only be a game not worth the candle. To hunt on the other hand, for obscure Sanskrit synonyms long gone out of use, would be "much ado about nothing."

From all that has been said, it becomes clear that the path of vernacularisation is not strewn with primroses. It is an obstacle-race with snares and pitfalls at every step. But we need not despair of success, if we combine

wisdom with the will to succeed, and adopt in our onward march, the motto of "hasten slowly."

IV.

THE TELUGU LITERATURE.

In this concluding part, it is proposed to discuss the future of one branch of our mother-tongue with which the present writer has some special acquaintance, namely, the Telugu Literature, and to suggest the right lines of its development. The history of our literature which it is necessary to know in outline for an intelligent appreciation of its modern problems, is very simple. It began in the desire of our mediæval scholars to popularise the ancient lore of India and give the Andhras a taste of the sweets of Sanskrit literature, by rendering free translations of the great epics, the Ramayana, the Mahabharata, the Bhagavata, etc. By far the best works of Telugu literature are admittedly among these translations. In course of time, they gave place to what have been called the "Mixed works" ("Misra kavyas") which taking some story of the Puranas for their basis sought and found more elbow-room for the play of original fancy, and greater scope for the display of scholarship. With a few exceptions, the authors of these Prabandhas were better scholars than poets. They very much lacked the genius of story-telling and characterisation, and converted the plot into a mere pivot whereby to hang their conventional descriptions, far-fetched figures of speech, and irrelevant feats of erudition. After a time, these Prabandhas deteriorated into base imitations vying with each other in a stereotyped, absurdly artificial poetic diction, and in shocking licentiousness. Beside them, the most indecent Restoration Comedy must look a perfect exemplar of taste. When the

ebb was thus reached of the literary faculty in Telugu, there came the dawn of a new age. The spread of Western civilisation and the study of English literature altered very much our outlook. Our admiration for the great dramas, novels, short stories, lyrics, critical treatises in English, fired us with zeal to produce like works in Telugu. A new race of authors with a predominantly Western bias and with avowedly outlandish tastes was the result. Excepting a few, these dramatists, poets, novelists, critics, etc., who are even now ruling our world of letters, are far more versed in English than in Telugu, where they are not equally ignorant of both! They look for their models to Shakespeare and Milton but not to Thikkanna and Peddanna. The desire for authorship has grown into a passion, a craze, for which the press with all its facilities is providing a ready outlet. It therefore goes without saying that most of the books flooding the market to-day are of very indifferent quality, with no distinguishing merit to preserve them from oblivion. There are no doubt half a dozen excellent dramas translated or original, a few great novels and lyrics, and one or two critical works of exceptional ability which form the 'silver lining in the cloud'. But they do not set the fashion to-day, nor are their authors the popular idols. The general liking is on the other hand, for the ill-expressed, vulgar, superficial, sensational literature of whatever kind.

How to arrest this rapid decline and set our "belles lettres" on the right path is the problem that must engage the attention of all true lovers of our mother-tongue. Before thinking of any progress, we must fully realise one home truth, of which but for the present unnatural conditions, it should have been unnecessary to remind the reader. A

thorough study of our past great works with the consequent command of Telugu diction must precede all attempts at writing in or on Telugu literature. Such study will moreover breed in us an attitude of love and reverence for our past literature, upon which alone can be founded any lasting edifice of future glory. It would also dissolve the mists of ignorance and prejudice with regard to the vernacular by making us understand that the dramas, novels, short stories, etc., were not unknown to our ancestors. One can conceive of no greater drama in essence than the Telugu "Mahabharata," no finer novel than the "Kalapurnodayam," no more wonderful collection of short stories than the "Nitichandrika" and "Kathasaritsagaram," no sublimer lyrics than the "Krishnakarnamritam" and portions of the "Andhra Bhagavatam," and no shrewder criticism than that imbedded in the opening verses of our Kavyams. While conceding that our modern novels, dramas, etc. in Telugu owe their origin to the inspiration of English, we must learn to connect them with similar works in our past literature. While making ourselves quite receptive to the influence of Western literature, we must as far as possible remain true to our own literary traditions, and seek to build upon the ground already prepared by our ancestors. We may widen our outlook, we may liberalise our rules and conventions; we may add to or modify the literary forms; we may, nay ought to, rid our literature of all its old-world prejudices and superstitions; but we ought never to cut ourselves away from it and be satisfied with the crumbs dropping from the English master's table. In one word, the present slavish dependence upon alien supports must yield place to a firm rooting of ourselves in the native soil.

When the above principle is fully grasped, all questions of detail assume a minor place; and cannot possibly be discussed at any length within the limits of this article. Some concrete suggestions, however, for the future development of our literature may not here be out of place:—1. The pens of all competent scholars must get busy with rendering into Telugu the world-renowned classics so far untranslated, of all languages, Eastern or Western. A nobler service of our mother-tongue cannot be thought of. 2. Following the example of the critical literature in the West, we must bring forth well-informed criticisms of individual poets, as well as of general forms and movements of Telugu Literature. 3. We must systematise the writing of the history of Telugu Literature, at least to rebut the charge levelled against the Indians in general, that we are wanting in the historical perspective. In it must be included the biographies of all the important writers and the historical accounts of

successive literary ages. We should at the same time guard ourselves against perpetrating outrage upon the memory of our great men in the name of historical criticism, and against confounding historical matters with literary criticism. 4. We must not make fetish of the outworn forms, symbols and conventions that are not essential to the art of literature and we must not fight shy of any innovation that shows in it beauty or nobility, provided it does not militate against the canons of good taste or morality. Above all, we must turn our back against all feeble, insipid, incompetent writings and set store by strength, originality, and individuality in literary works. Our immediate achievements may be big or small. But if we "screw our courage to the sticking-place" and hold the standard high against all odds, we need not despair of the future. We may be "of the earth, earthy"; but let us always look above, and the "eternal stars" shall guide us aright.

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NOTES ON DRAVIDIAN

By

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1. The words for "see" in Dravidian:—

(a) Tamil has the following forms:—

1. pār
 2. kāṇ
 3. nōkk
 4. tōṇḍr
 5. teriy
 6. ōr or or
- These two literally mean "appear" but they are allied in meaning to "see."

(b) Telugu has:

tsūd, kāṇ

(c) Canarese:

nōḍ
kāṇ
tōr

(d) Malayalam:

nōkk
kāṇ
teriy or tiriy (dialectal)

(e) Tulu has:

- | | |
|-------|-------------------------|
| 1. tu | 2. su |
| 3. hu | 4. tōnju (allied to tu) |

(f) Kui has sūd; meh-pi; also nōkita (in front of) and tōnju

(g) Kuvi has meh; hēṇḍ; bez (cognate with meh) and, besides, toju also.

(h) Gondi has alternatively hūd, sūd and meh (as in mehktoru = observed).

(i) Malto has tuṇḍ and men; kurukh has ir (< her or hur) and men (connected with meh).

(j) Brahui has hur and khan.

(k) Baḍaga shows nōḍ and kāṇ.

(l) Tōḍa shows nōt.

(m) Kōṭa has nōs (i.e., with "t" palatalised to s).

(n) Kōḍagu has nōḍ.

Of these numerous forms, Tamil, Malayalam and Canarese kāṇ arise from kaṇ by lengthening of the root-vowel, following a general law of Dravidian. Brahui *khanning* comes from the same root of course. It is remarkable that kāṇ appears in South Dravidian and North Dravidian Brahui, but is conspicuous by its absence in Central Dravidian.

Tamil and Malayalam teriyu is allied, in meaning, to "see." Its primary meaning is "to become clear," and the root is *tel*.

Tamil *pār* used in common parlance to-day is found in classical Tamil, as in *pārāy* (see ye) etc. Affinities have been suggested with Marathi *pāhun*, etc., but the root is distinctly Dravidian, as it is closely allied to *par* (meaning literally "proximity" and figuratively *par*, etc.) and *paṭṭru*, *parāḍḍu*, etc. The idea denoted by *pār* is "to examine closely" which presupposes the concept of "nearness." Other words, cognate with the Tamil word *pār*, are the following:—Brahui *paṭ* (to seek); kui *por* (to spy). It is noteworthy that the Sanskrit root *par* has more or less the same signification as the Dravidian root; whatever their relationship may be, the primitive and indigenous character of the Dravidian root cannot be doubted, in view of its antiquity and different phonological developments.

Tamil *ōr* as in *ōttri pārtān*, etc., comes from the root *or* and, like *pār*, originally denoted oneness or proximity.

Tamil *tōṇḍru* and *tōṭṭru* have also the derived meaning "to see." Tulu, Kui, Kuvi and Kurukh show allied forms. The Tamil root

viṭi also denotes the idea of seeing and, as will be shown below, is closely related to words in Kui and Kuvi, meaning "to see."*

Kui *meh-pi* and Kuvi *mes-pi* are related to the root-*viṭi* in Tamil. The Tamil sound *i* is a peculiar development in the south only.† All the other roots have been related together by Mr. Edwin H. Tuttle in the course of a recent article,‡ remarkable for its ingenuity and minuteness from the standpoint of a phonetician. Mr. Tuttle puts together all

* That *h* in the Kui word *meh* (to see) represents a lost cerebral is clear from the infinitive form *mes-pi*; initial *m* is a variant of *v* as in *vānam* and *mānam*; Tamil itself shows *muṭi*. *h* of Kui is probably to be traced originally to *i* or to *k*: Kui *neha* (good) cognate with Tamil *niga* < *neṣa* < **neka*.

Kui *tuh* < **tu x* < **tuk* → cognate with Tamil *toṅgu* and *ṭṭṭu*.

† The history of the Tamil sound *i* (ṭ) is interesting. It is a native development in Tamil-Kannada. Old Kannada shows many forms with this sound, though it has been replaced by other sounds in Modern Kannada. In all Dravidian dialects, other than Tamil-Kannada—Malayalam, the sound is absent. It is erroneously supposed by some scholars that this sound belonged to Primitive Dravidian and that, while Tamil, Malayalam and old Kannada retained it, the other dialects substituted different sounds in its stead. The comparatively recent replacement of *i* by other sounds in modern Kannada has misled many into taking this view. That *i* is a native development in Tamil-Malayalam and Kannada will be evident from an examination of roots with this sound, all of which would show variants of undoubted primitive origin containing other sounds in the stead of *i*. The dialectal forms of Malayalam and Tamil, even to-day, show a marked tendency to convert *y* and *l* into *i*, e.g., Malayalam *ayakkjuka* > dialectally *aṭakkjuka*; Tamil *keṭpār* > *keṭpār* etc. The question of the origin of *i* requires a separate paper for itself.

‡ A very enthusiastic and keen student of Dravidian is Mr. Tuttle; his theories, some of them startlingly original, deliver hard knocks at conventional views. A subtle *flair* for philological investigation leads him to

the forms, and postulates, on the basis of the resemblances, a proto-form* *snud* from which he derives all the known forms:

snud, according to Mr. Tuttle, dropped its *s* in the Kanara-Tamil group.

Snud > *nūd* > *nōḍ* (in Canarese) and *nōḍgu* and later *nōkk* in Tamil-Malayalam. Outside of the Kanara-Tamil group, according to Mr. Tuttle, initial *sn* became *sN*, i.e., with *N* unvoiced, and then (except in Brahui), *N* became *t* or zero; so that

snud > *sNud* > *stūd* > *tud* > *tūṇḍ* which explains the forms with initial *tu*.

When *N* becomes zero, we have, according to Mr. Tuttle, *snud* > *sNud* > *sūd* in Gondi and Telugu.

The *hu*-forms are sought to be explained by their being derived from *su*, the *s* giving rise to *h*.†

Mr. Tuttle's aim is obviously to differentiate the Kanara-Tamil group from the other languages. His arguments are clever, but the course of changes suggested by him is not supported by parallel instances. He seems

adumbrate propositions which, though they cannot all command acceptance so far as Dravidian is concerned, give the student of philology furiously to think. Like a knight-errant tilting at time-honoured conventions, Mr. Tuttle attacks, though he is unable always to demolish, old theories.

* Page 771 of the "Bulletin of the London School of Oriental Studies," Vol. IV, Part IV.

† Mr. Tuttle's theory of an ancient Dravidian *s* cannot be supported. I hope to be able to elaborate my views in a future paper. The interchange of *s* and *h* in central Dravidian need cause no difficulty at all.

Brahui *ka* (to die) gives us a very ancient type

ka > *x* > *ha*

↓
Gondi

ka > *x* > *xya* > *yā* > *ja* > *aa*

↓
Kui form,

There is no need, therefore, to postulate *pitar* as the proto-form. In my opinion, *peyar* (pey + ir) or *pesar* is the most conservative form and the change of *s* into *d* has, as shown above, given rise to *pudar* in Tulu with the vowel in the main syllable changing to *u*, on the analogy of alternants like *pira*, *pera*, *pura*.

It is a striking feature of Tamil and of Kannada and Telugu in a lesser degree, that a large majority of the words constituting their vast vocabulary could, by diligent enquiry, be traced ultimately to one or other of their one-syllabled or two-syllabled elementary roots. This fact attests to the primitive and ancient character of Tamil. Though in the present state of our knowledge, it would be foolish to say that Tamil represents Proto-Dravidian, it will be more or less correct to say that, considering the fact that its vast word-board could be traced to its own elementary native roots, and further that some of the most ancient forms (so far as we know) have been handed down to us in their pristine nature, Tamil represents within certain limits the most conservative of Dravidian dialects. This view receives confirmation from the fact that many of the elementary roots of Tamil are found (with modifications and alterations of varying degrees) in a large number of other dialects.

In this view, then, if a Tamil word could be satisfactorily explained as being normally derived from a native Tamil root itself or a combination of roots, it would be futile to construct proto-forms of words obscuring the relationship of root and word in Tamil, unless indeed the affinities of Tamil words and roots with those of other dialects demand it. On this principle, then, the form with *y* may be considered to be the most conservative of known forms; and the change of *s* to *d* in

Tulu and Kodaga can be ascribed to that peculiarity (shared by Tamil) which alternates intervocal *s* and *d*:—*y* > *s* > *j* > *d*. Compare the change of *y* to *d* illustrated in Brahui *dēr* (who) < *jēr* < *yār* < *ār* (who). Compare also Tulu *dāne* and Kannaḍa *dēr* both of which alternate with forms with initial *j*.

Next we come to the forms of the other dialects. There is no need at all to explain Telugu *pēru* as being derived from *prēru* etc. This word, like many other words and roots of Tamil, is the same as the Tamil form.

The only other form that requires to be explained is Gondi *parol*. Mr. Tuttle's suggestion of a probable metathesis between *l* and *r* in the old Gondi form is plausible, but this old form need not be traced to a form with *d*, as Mr. Tuttle does. On the other hand, in our opinion a change like the following is supported by parallel Dravidian changes:

parol < *palor* < *palor* < *peḷar* < *pesar* < *pesar* which last form is, as we see, the Canarese-Tamil form. (*peḷ* actually exists, as we know, in Kanarese and marks one of the stages.)

The change of *s* to *ḷ* is common in Dravidian, as attested by the following illustrations which, for the reason that Dravidian reduces *s* to *ṣ* or *s*, are found only in Tamil adaptations of Sanskrit words:

Sanskrit	Tamil-Malayalam
kaṣāyam	kaḷāyam
anuṣam	anuḷam
santōṣam	santōḷam, etc.

III. Tamil *vayiru* and Tulu *bandji*.

Here again, Mr. Tuttle tries to show that there is no direct connection between the

Tamil and the Tulu forms but the two are separately derived from a proto-form which Mr. Tuttle hypothetically constructs, after an examination of parallel forms in the other dialects. The process of change suggested by him is circuitous and complicated, evidently necessitated by ignorance of the semantic significance of the word.

From *waṅkiatro* as the proto-form, Mr.

Tuttle proceeds thus:

waṅkiatro > *waṅkatria* > *waṅkortia*
> *waṅkorce*

> *waṅkotsi* > *waṅkosi* > *waṅkodji* > (by voicing of *s*), this last word being the Kui word for *tongue*.

The conversion of *tr* to *ji* is sought to be explained by Mr. Tuttle in the above manner—a course of changes which is entirely complicated and unsupported by parallel instances in Dravidian. Too many assumptions, plausible perhaps on general linguistic principles, but entirely without any warrant in Dravidian, have been made.

The Tulu and the Kui forms, according to Mr. Tuttle, should have arisen from *waṅkiatro* through something like *banjeji* from which the reduced forms Tulu *banji* and Kui *vanjer* should have resulted.

As for the Tamil-Kanara form, Mr. Tuttle suggests *wakiatro* > *wacetro* > *vajidru* (Tamil) and *basir* (Canarese).

The origin of the retention of the final *r* in Kui is left unexplained.

Mr. Tuttle proceeds on the general presumption that Gondi and Kui keep more of the general word-form than the Kanara-Tamil forms do. This presumption is necessitated by his pre-conceived view that "Tulu agrees with the northern tongues and differs

from Kanara-Tamil." Whatever the truth regarding the relationship of Tulu to Kanara-Tamil generally may be, nothing can be proved from the instances on which Mr. Tuttle has tried to base his theory.

Here again, the Tamil word *vayiru* or *vayiru* (*r* alternates with *r*) seems to me to be the most conservative, because this word, in Tamil, expresses a distinct idea, as will be seen from the analysis of the word into its root-components: *

vayir or *ir* → The form *bayi* or *vayi* meaning *hunger* exists in Kannada and dialectal Malayalam. Compare Brahui *bingun*, and Malayalam *veṣappu*. Compare, also, Kuvi bis meaning *hunger*.

The ending *ir* and *ir* are common affixes in Dravidian, whose significance in the following words is so clear that they could be definitely detached and interpreted.

<i>kuḷir</i> = <i>kuḷ</i> + <i>ir</i> (that in which) <i>cold</i> exists;
<i>taḷir</i> = <i>taḷ</i> + <i>ir</i> do. <i>fresh shoot</i> "
<i>paḷir</i> = <i>paḷ</i> + <i>ir</i> do. <i>part</i> "
<i>kayir</i> = <i>kai</i> + <i>ir</i> do. <i>hand</i> "
<i>payir</i> = <i>pai</i> + <i>ir</i> do. <i>greenness</i> "
<i>aḍar</i> = <i>aḍ</i> + <i>ir</i> do. <i>crowding</i> "
<i>veḷir</i> = <i>veḷ</i> + <i>ir</i> do. <i>whiteness</i> "
<i>uyir</i> = <i>uy</i> + <i>ir</i> do. <i>life</i> "

* Fanciful etymology might be inclined to derive *pasi* (hunger) from *vayir*; but, apart from the difficulty of explaining the phonological change, the idea of "hunger" an essential physical feeling could only have preceded the idea of "belly"; *pasi* itself comes from *pas* = *to be excited*, *to shake*, which appears in Kannada *pasiyisu* = *to shake violently*. *vayi* (pain) > *baṣi* > *pasi*. The Telugu form *kadupa* seems to have the same origin, *kadu* meaning pain or hunger and being related to *karu* (hunger) of Kui, Gondi and Kurukh.

veyir = vei + ir* (that in which) *heat* exists;
 ñāyir = ñāy + ir† *do. heat* "

The meaning of *vayiru*, "(the place where hunger exists)" may thus be derived by an analysis of the root components.

The Tulu-Kui forms:

r in Tamil is trilled in greater or lesser degree; and in its trilling, it often incorporates with itself a slightly enunciated *d* or *t*. This accounts for *dr*-pronunciation occurring in a large number of words in Tamil. *dr* is a sound which neither Canarese nor Telugu nor Malayalam has assimilated. Tulu also has shunned it, and adopted in its stead the closely allied (phonetically) sound *dj* > *j*†.

* *vei*, meaning "heat" is found in *vegu*, Kannaḍa *benki*, etc. It is exceedingly interesting to note here that *ey* was a primary primitive Dravidian root meaning "fire." Tamil has *iyingu* and Kannaḍa *isi*, both meaning *fire* or *heat*. Tamil *ēbgu* (ஏஃகு) means "to heat"; *eyyil* means *sunshine* and *elli* means *sun*. The alternation of *eyyil* and *veyyil* shows that *v*, here, is a prosthetic intrusive as in many other words, *eri*, *veri*, etc.

An original *ey*, therefore, would have given rise to *vey* which is the common form in Tamil and Kannaḍa (*vēgu*, *vārve*, *benki*, etc.)

(a) * *ey* → Tamil *eri* (to burn), *eyyil* (sunshine), *eyi*, *u* (sun), *iyangu*, etc.

(b) * *ey* > *vey* > *vej* → Tamil *vēgu*, *veyyil*, etc. and Kannaḍa *benki*, etc.

The ñāi forms shown below could also be related to an original *ey* or *vey*, on the basis of the Dravidian principle which introduces a prosthetic nasal *n* or *ñ* in roots with initial vowels (as in *ñr*, *ñr*, etc.)

ey or *vey* > *ray* > *ñay* which last root appears in Tamil *ñayiru*, *nerippu*, etc., Kannaḍa *nesaru*, Telugu *nippu*, Kui *nari*, etc.

† *ñay* or *ñai* means "heat;" it is noticeable in Kui *nari* (fire) and Tamil *nerippu*, Telugu *nippu*, etc. A study of these forms taken along with the observations in the preceding footnote renders this explanation of *nayiru* unequivocal. Compare the Kannaḍa form *nesaru* also. Compare also *niru* (ashes) which seems to be composed of *ñe* + *ir*.

‡ Tulu *j* < *dy* < *dr* < *r*; Tulu *j* also arises from palatalised *l* as in *ijji* < *ille*; also from *d* as in *inji*

The trilling in the enunciation of the single *r* is sufficient to produce *tr* or *dr*; but in the doubling of the consonant *r*, *trr* is stronger and, besides, productive always of the unvoiced variety of *tr*, e.g., in causals like *kayattru* (< *kayaru*), etc. The alveolar *t*, it is worthy of mention here, also arose from the assimilation of the dental *t* to preceding alveolar sounds as in *sel* + *tu* > *sentu* > *sentru* > *sendru*; and, in such cases also, an intrusive *r* crept in.

We have, therefore two sets of words in which *tr* or *trr* occurs:—

I. (a) *māru* > *mātru* > *mādru*, etc.

(b) causals and transitival adjectives formed by doubling of *r* as in *ētrru* > *ēru*.

II. Words where the alveolar was the result of the assimilation of dental *t*,

e.g. *vitru*, *sendru*, *kondru*, etc.

There seems to be little doubt, therefore, that Tamil *dr* became *dj*.

Tamil *dr*, therefore, became *dj* in Tulu and then *j*; *vayidru* > *bayidru* > *bayidji* > *badji* (by syncope) and then > *banji* with nasalisation.

The Kui form *vaṅgosi* alone remains to be explained. It is doubtful, in the first place, if the relationship of this word to the word for "belly" is clear on the semantic grounds suggested by Mr. Tuttle; even if it is, it can be derived from *vayiru*.

The Tamil form *vayiru* has alternative dialectal forms (existing in some parts of the south): *vayir* and or *vagir*, a voiced fricative or a voiced plosive being used instead of *y*. *vayidru* > *vagidru* > *vagidji* > then with a nasal intrusion before *g* we have *vaṅgoji* or *vaṅgosi* (which last is the Kui form).

The discussion of the relationship of the word for "belly" and that for "name" only tends to show how very "conservative" the Tamil forms are. Presumably, therefore, they are more intimately allied to the proto-forms than the many variants and developments met with in other dialects.

< *irundu*, from palatalised *ng* as in *dinji* < *tingi*. Other examples of Tulu *j* from an ultimate *r*:

Kanji < *kandru*; *kaji* < *kara*; *kuju* < *kuru*; *tajavu* < *tara*; *uji* < *uru* etc.

EDUCATION AT THE CROSS-WAYS

By Mr. N. SIMHADRI,

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FROM the above caption I do not wish it to be understood that I envisage Secondary or University education in the brief space of an article, though the basic principles of my present discussion apply to them in some degree. The whole educational world is in the throes of a change and I do not think even the Auxiliary Committee set up by Sir John Simon to discuss matters relating to education will say the last word on the subject. The prevailing divergence of views is due to conflicting view-points and not due to want of interest. We are therefore at the cross-ways and probably the labours of the Simon Commission may give a sensible direction to the endless ebullition of feeling manifested on all sides. The question of the vernacularisation of higher education is in the forefront of all educational programme and the first thought of every Syndicate or Academic Council meeting is directed to the ways and means of achieving the ideal. How far this is either feasible or even desirable in the present state of our existence is for betters to discuss. Likewise there are questions which vitally affect the policy of Elementary Education. The history of ancient education in India is almost nebulous in nature and the efforts of scholars to piece together the fragmentary reports available on the subject and to present a connected account of the several systems of education which are said to date from the times the hymns of the Vedas were composed have not been successful. It is however hoped that the pioneering work of a few will stimulate others interested in Indian education to take up the work of

research. A study of some of these works reveals the one fact that the first beginnings of education were in connection with the sacrificial ritual and that they were influenced by the patronage and influence of powerful monarchs during the Buddhistic period. The Muhammadan conquest brought its own foreign influence into Indian social life till the whole system was eventually taken over by the British Government. One will therefore see the pervasive influence of religion on education through the ages and how the whole system including the food the pupils ate, the clothes they wore and the things they touched, was shaped by the Gurus of Ashrams. Even after the attenuation of this system through this long vista of time, we see in 1928 the faint glimmerings of the ancient system in the Village Schools which form the mainstay of the present Elementary Education system. The Pīal Schools still echo the ancient method of cramming and oral instruction and are largely reminiscent of the routine of work which characterised the *patasalas*. The impact of the Government method has resulted in something of a deadlock and the consequence has been an incongruity which has nothing in common either with the old or the new. Years of strenuous labour have resulted in setting these Village Schools in a stereotyped fashion and giving room for larger criticism of our aims and methods. It seems as if the pioneers in education have been defeated in their purpose, and what should otherwise have been wholesome and practical has proved to be miasmic in its effects. As Mr. Mayhew has rightly said in his "Education of India" that besides the Three R's the remaining subjects appear on the time-tables and do not come in for any practical instruction. We find that the people for whose children our

system of education is intended to cater have shown an unrelenting apathy for what I may call the spirit of modernism in our education and have been persistently counteracting any tendency on our part to gain ground. Subjects, such as Geography, Civics, Nature-Study, Drawing, History, are not appreciated by the average run of people whose yearning for Amaram, Andhram, simple interest and bazaar calculations, mere recitation almost amounts to a frenzy. It is no uncommon sight to see young urchins memorising as many as fifty or sixty verses from day to day and learning about thirty multiplication tables in the dusky evenings. The whole school files in before the teacher who fed-up with the day's work sits listlessly on a small boulder and gives the "caution." For an hour the whole school keeps on reciting or repeating to the utmost satisfaction of the interested parents. The use of text-books is not appreciated and explanation of verses much less desired. According to the people, curriculum in Arithmetic should comprise simple interest and calculation of weights and nothing more. Document-writing is learnt with the avidity of a student of the classics. A pial school-boy is something like a gramophone which keeps on repeating verse after verse the minute you start it. Even a boy who cannot write any two words from a primer is found to write correctly the verses that he has got by rote. The daily work of a school like this is something staggering. A boy is expected to bolt away straight off from his bed to the school pial and then to be ordered after a short half an hour to go out for his morning course of nature. He peeps in again for a while and then runs home to snatch a meal. This done, he repairs to the school which has become his abode, has his

siesta and returns home at dusk like the ploughman homeward plodding his weary way. This is the arithmetic of the daily work of Village Schools and it is this method of work that is applauded as the best from the house tops. The villager does not believe in your time-tables or regulated work. He has no faith in holidays, nor does he care for the modern methods of teaching. For Kindergarten methods he cares a fig. We are therefore at the parting of the ways 'in the orientation of our methods of work to be pursued in these villages. It is a heresy with a villager to read lessons in Nature-study or Civics. When Psychology and Anthropology are coming for a larger share of research at the hands of pedagogues and the results of their labours are being applied to the system of teaching in village school-rooms, it seems to be a piece of mockery to see the people cling to primitive ideas and ancient customs. What we need at the present day is a scientific tendency to the whole tone of work and larger scope for the play of reason. The Kindergarten system of teaching or any system of teaching, provided it is on intelligent lines, should be enforced in all schools supplanting the present dull and dry-as-dust method. A spirit of enquiry should mark the career of every pupil and the practice of ramming into his brains a catalogue of verses and multiplication tables should be eschewed. It is only then that room for fostering intelligence will be possible and for creating better type of citizens will be had. Should this be the goal of all education, strenuous attempts must be made to weed out the undesirable elements with an iron hand and the right system enforced without fear of contradiction. I am sure that ultimately this will see the dawn of a better spirit that is now pulsating the post-war reconstruction on the Continent and a sensible grasp of the right of vote and the use of the ballot-box.

AN INDIGENOUS METHOD OF ORAL MULTIPLICATION

By

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How much is 38×34 ?

The product is found as follows:—

$$38 + 4 = 42$$

$$42 \times 30 = 1260$$

$$8 \times 4 = 32$$

$$1260 + 32 = 1292$$

$$\therefore 38 \times 34 = 1292.$$

The rationale is evident:—

The four partial products

$$30 \text{ times } 30$$

$$8 \text{ times } 30$$

$$4 \text{ times } 30$$

$$8 \text{ times } 4$$

have to be added.

The first three when added together give $(38 + 4)$ or 42 times 30.

$$42 \text{ times } 30 = 1260. \text{ Add } 8 \text{ times } 4 \text{ or } 32.$$

Get 1292 as the product.

Lemma. (i) How much is 38×32 ?

$$\text{Work. } 38 + 2 = 40$$

$$40 \times 30 = 1200$$

$$8 \times 2 = 16$$

$$\therefore 38 \times 32 = 1216.$$

Hence the rules:—

To find 58×52 , put 5×6 , i.e. 30; affix 8×2 , i.e. 16 to the right and get 3016 as the product.

To find 85×85 , put 8×9 , i.e. 72, affix 5×5 , i.e. 25, to the right and get 7225 as the square of 85.

(ii) How much is $3\frac{1}{2} \times 3\frac{1}{2}$?

$$\text{Work. } 3\frac{1}{2} + \frac{1}{2} = 4.$$

$$4 \times 3 = 12$$

$$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$$

$$\therefore 3\frac{1}{2} \times 3\frac{1}{2} = 12\frac{1}{4}.$$

Similarly, $3\frac{3}{4} \times 3\frac{1}{4} = 12\frac{3}{8}.$

$$3\frac{3}{4} \times 3\frac{1}{2} = 13\frac{3}{8}.$$

Hence the rules:—

To find $8 \cdot 5 \times 8 \cdot 5$, put 8×9 , i.e., 72, affix 5×5 , i.e., 25 to the right and get 72.25.

To find $11\frac{1}{3} \times 11\frac{1}{3}$, put 11×12 , i.e., 132, affix $\frac{1}{3} \times \frac{1}{3}$, i.e., $\frac{1}{9}$, to the right and get $132\frac{1}{9}$ as the result.

Ex. Find the values of 997×993 , $5\frac{1}{4} \times 5\frac{3}{4}$, 81×89 and $6 \cdot 375 \times 6 \cdot 625$.

MATHEMATICAL TERMS IN TAMIL.

Variable—that which changes in value—

மதிப்புமாறி.

Constant—that which does not change in value—

மாறிலி (meaning மாறுதல் இல்லாதது).

Ratio—ஒப்புறவு, பரிமாண சம்பந்தம், வீதம்.

Divide in the ratio 3:5—3 என்பது 5க்குள்ள வீதப் படி பங்கிடுக.

Linear Graph—வரிப்படம்.

Division of a line into equal segments—

ஒரு கோட்டைச் சரி கூறிடல்.

Fraction—பின்னம், பாக எண், கீழ்வாயெண்.

Direct variation—சரி வீதம் மாறல்.

Inverse variation—திருப்பிய வீதம் மாறல்.

Result, solution—சுவ—that which a problem gives—ஒரு கணக்குத் தருவது சுவ, ச = தா.

Quotient—வகுத்து வரும் சுவ.

Divisor—வகுப்பெண்.

Factor—வகுப்பெண், பிரிவெண்.

Side—பக்கம்—(பங்கு, சிறை).

Quadrilateral—நாற்பாக்கி, நான்கு சிறை—

that which has four sides.

Multilateral—பன் பாக்கி

பலசிறை—that which has many sides.

Thus, viewed from the number of sides,

A triangle is—மூப்பாக்கி, முச்சிறை.

A pentagon is—ஐப்பாக்கி, ஐஞ்சிறை.

A hexagon is—அறுபாக்கி, அறுசிறை and so on.

Decimals—தசாம்சம், பதின்பாக எண்கள்.

Express correct to the second decimal—

இரண்டாவது தசாம்ச ஸ்தானத்துக்குச் சரிச் சுட்டுக.

Circle—வட்டம்.

(To be continued.)

MOTTOS FOR CLASS-ROOMS.

HEALTH—HAPPINESS.

Clean teeth every day.	All For Success	
	<i>Be steady.</i>	Partake of good milk.
	<i>Be frugal.</i>	
	<i>Avoid luxury.</i>	
	<i>Be hale and cheerful.</i>	
Take a bath every day.	<i>Pray for success and health.</i>	Eat fruit every day.
Eat some vegetables with food.	<i>Be loyal and God-fearing.</i>	Play out of doors.
Drink wholesome water.		Sleep with windows open.
Be good	Avoid bad company. <i>Safety.</i> Be careful of automobiles, Street-cars, railroads and fires. Learn what to do in emergency.	Abuse none.

THE DULL PUPIL.

The following remarks regarding the dull pupil are worth perusal:—

There is no subject of school study which so often brings down upon the pupil's head the term "blockhead" as Arithmetic. Often this is because the pupil does not grasp the subject readily. More often the cause is the

inability to present the subject in a way that is clear to him. Do not lay all blame at the student's door. Remember that many of the world's most illustrious men did not reach high water-mark in all of their school work.

Sir Walter Scott, loved all over the world for his writings, once had thundered in his ears by a Scotch school-teacher: "Dunce you

are, and dunce you will ever remain." Linnaeus, the founder of modern Botany, was another dunce at school. Goldsmith's school-mistress said he was "impenetrably stupid." Henry Ward Beecher was classed with the dunces. Chatterton was sent home as an incorrigible dunce. Grant was a dull and awkward Ohio boy. Newton, profound in mind in all scientific thought, was termed a dullard as a boy. Shakespeare's record at the Stratford Grammar School was a poor one. Edmund Burke, whose eloquence was to rouse all England, often wore a dunce cap.

And so, good teacher, the list might be continued indefinitely. Don't excuse it by saying these were exceptions, for those in your charge may be the geniuses of a new generation. So, though your patience be often tried, deal gently with them.

And you, mothers of dull boys or girls, remember that through patience, and effort rightly directed, may come more than you had ever dreamed for;—the earnest, untiring worker, the conservative business man who has everyone's confidence, the genius of letters, or the thoughtful scientist. The searchlight of biography reveals innumerable successes of children such as yours.—(Extract selected from a quotation in the Arithmetic Help, by Alvord D. Robinson, 1902.)

KALIDASA

Being a critical appreciation of his works
IN TAMIL

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

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THE PLACE OF ENGLISH
GRAMMAR IN ENGLISH
TEACHING

By Mr. M. A. ANANTA AIYAR, B.A., L.T.,
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THE title of the subject gives one rather a wide berth for the consideration of the subject. It involves not only the position of grammar in teaching a foreign language, but also the position assigned in the past to English grammar, and the present position of English grammar in the study of that language.

2. Comparing conditions obtaining in the past with those at present, one is bound to say that there is vast improvement in the syllabus as it now stands conceived. In former times the text-book seemed to have dominated the situation. Grammar began more or less with learned, abstruse definitions of orthography, etymology, syntax, and so forth, and forged its way painfully and laboriously through all the varieties of nouns, through the endless numbers of rules for forming the gender and number, their examples, exceptions and such like things, which puzzled the young brain and taxed the memory almost to its breaking-down limit—Czar, Czarina; wizard, witch; sorcerer, sorceress, and such wise and learned words of formidable array covering pages of print. These foreign curiosities had to be diligently committed to memory at the point of the cane, and the helpless victim of this pedagogic experiment had nothing but dank misery and writhing wretchedness before him. This sort of deductive treatment, broadening down from the rule to the example, tailing off to the inevitable exceptions, in a sweeping descending curve, is suited only to the grown-up adult mastering the foreign language, but is really above the

capacity of the child in his teens, even above the capacity of the average adolescent youth.

3. In those early times of pioneering work, there was a special paper set on General English and Composition alone, which students used to get up from Made-Easies and Compendiums, and the candidates were obliged to perform grammatical rope-dancing and other acrobatic feats to get a pass. Those days of blank horror and misery are now fortunately numbered. It may, however, be mentioned here that apostles of grammatical ponderousness of the old clumsy pattern are even now raising their voice in favour of reactionary measures to set the house in order, which, it is a great relief to think, meets with cold reception.

4. The present regime, in the lowest classes, consists in teaching the young children how to name simple things about them, parts of the human body, common articles of furniture, how to describe simple actions, how to talk about familiar things and persons, consists in such like easy, humble beginnings. The teaching of grammar in these classes is taboo, and the classes are therefore a veritable paradise of children. Later on, gradually emerge from the mass of words picked up the elements of the sentence, the subject, predicate and object, and parts of the language-mechanism, nouns and verbs, adjectives and adverbs, prepositions and conjunctions. The present syllabus in grammar, especially for lower classes, contains very precise and clear instructions. Under such conditions the grammar class cannot but be a period of lively joy and keen enjoyment, and filtering onflow of thought; at least it is meant to be such under competent teachers. One bright feature of this easy beginning is that the teaching is based entirely upon the raw

materials of words and sentences occurring in the English Primer, and the artificial atmosphere and the tyranny of the prescribed book on grammar are conspicuous by their absence.

5. Real textual teaching of the subject commences only in Form I, and such teaching is to be justly confined to the necessary help needed for a practical handling of the subject within due limits of the standard attained. In Form II, a step in advance is taken by the introduction of the Manual of Grammar, in which the teacher is expected to do 90 pages, up to syntax. The portion for the whole year is to be carefully revised during the short term of the year. Analysis of easy compound and complex sentences, exercises in direct and indirect forms of narration, in affirmation, negation, interrogation, exclamation, active and passive forms, in degrees of comparison are also to be attempted. In the next higher class, in Form III, almost the whole of this book is to be done, perhaps to the exclusion of the pages devoted to word-building. Such foundation laid on easy and progressive lines in the lower secondary classes paves the way for the mastery of a more advanced text-book on grammar, supplemented, if need be, by Walton or some other specially prepared book for practical English.

6. It may be said that the syllabus in grammar outlined above is more or less agreeable. Under conditions of good teaching, students can be expected to have a sufficient command of practical grammar for the purpose of speaking and writing the language correctly and with elegance so far as mere knowledge of grammar can help them to do so. But nobody will be bold enough to assert that such conditions of good teaching cannot be improved.

7. It is almost a platitude to say that the basis of all good teaching consists in careful previous preparation. Now what are the elements of careful preparation? What is the test of such preparation? To begin with, it certainly presupposes a thorough grasp of the lesson to be given. The teacher simply shuts the book and proceeds from example to example on the blackboard, and winds up with simple general ideas or conclusions set forth in a well-developed blackboard summary. Good preparation and sound teaching also consist in due correlation between the English Reader and the grammar lesson; for instance, for a thorough practical mastery of the uses of the articles, the teacher can question his pupils as to the why and wherefore of every article occurring in his reading lesson. Similarly the classification of the conjunctions, the difference between participial adjectives, gerunds and verbal nouns, the uses of tenses, and other parts of grammar might be given a more practical treatment by a choice collection of examples being taken from the Reader itself. Certainly, there is nothing bad or unjustifiable in the use of Walton or Wren's book. But if the teacher himself could make his abridged collection of examples and exercises from the reading book, would it not be better? This means a careful and critical scrutiny of the materials of the Reader under suitable general headings, which will give the boys the benefit of a friendly introduction to particular forms by similar cases they are already familiar with. In short, better preparation and better methods of teaching cannot fail to improve present conditions.

8. There are certain portions of grammar which have to be emphasised more than are usually done now. (1) The uses of capital

letters are generally rightly observed. But there are bad cases, and they require urgent and prompt eradication. (2) The sign of the apostrophe is badly handled by very many students. (3) Simple marks of punctuation commonly used, such as the comma, the inverted commas and the note of interrogation, are often neglected. They are certainly taught once in a way, but more drilling in their uses seems necessary. Simple punctuation has to be systematically enforced from the very lowest classes. With very young boys it may be taught during the vernacular lesson before it is attempted during the English lesson. (4) It is an admitted fact that the practice of notes-dictation is rather pernicious both to good spelling and correct punctuation. A good teacher, if compelled to dictate notes, will have to give precise directions for correct spelling and good punctuation in the course of the dictation process itself. (5) The correct uses of the articles are found to be a bugbear to ordinary students for the obvious reason that there are no articles in the vernacular. The uses of the articles may be taught correctly not only through the help of the text-book on grammar, not only through examples culled from the English Reader, but also by copious examples of apt sentences being freely translated from the vernacular into English. The teacher of English should be well-acquainted with the vernacular speech and the translation of apt vernacular sentences into English has to be more freely employed. It is to be feared that sufficient correlation of grammar with translation lessons is not much cared for. The practice of choosing striking passages for translation is very helpful for cultivating the power of literary appreciation, but translation for the ends of elucidating difficulties of grammar has to come into greater vogue

(6) The uses of auxiliary verbs have to be similarly dealt with. This applies specially to the uses of 'shall' and 'will.' It appears no corresponding auxiliary verbs exist in the vernacular, and the result is that 'shall' is often used for 'will' and 'will' for 'shall'.

(7) Again, the use of the vernacular language is very necessary for the teaching of the sequence of tenses. It seems there is no sequence of tenses in the vernacular and all the mistakes made by students under the heading are chiefly the outcome of this very material difference. This contrast between the mother-tongue and the foreign speech is to be brought home to the minds of boys by copious translation exercises. In short, there is no part of grammar but receives added and increased value by its being duly linked up with translation.

9. We are often told that the ability to speak and write correct English is easily and soon acquired by cultivating the habit of thinking in English rather in the vernacular, and that grammar and translation do not count much, and that the direct method of teaching the language is sufficient to cover all sins of omission and commission. This evidently implies that the medium of thought and feeling is altogether to be replaced by the foreign tongue to the exclusion of the vernacular utterance, and that *a thorough English atmosphere* is to be created for all purposes of speech. But so long as the mother-tongue continues to be the medium for communicating ideas in ordinary everyday concerns of life in all places except in the class-room and even here so long as it is recognised to be the medium of teaching for all non-language subjects, it is next to impossible to ignore the latent influence of the vernacular expression. Therefore the chances of having "a thorough

English atmosphere" reigning in the class-room are somewhat unattainable. Hence due adjustment between the direct and the translation methods of teaching the foreign language seems necessary, at least in the earlier stages, when the grip on the foreign medium is not sufficiently strong, and the elements of both the foreign and the vernacular media are likely to get jumbled up together in thought and speech processes. While it has to be admitted that during lessons in the reading book, the medium of thought and expression should be the language of the Reader, it has also to be said that the importance of placing side by side all structural and idiomatic differences between the vernacular speech and the foreign language is to be equally recognised and that the teaching of grammar has to be duly co-ordinated with translation lessons. The real fact is that it is a question of temperament and natural aptitude with the individual, whether he is able to pick up the foreign language by the process of mere association and imitation alone, or by the said process enforced by the allied, or rather by the secondary, process of analysis and contrast involved in correlating grammar with translation. It may be that with certain types of minds the imitative tendencies and openness for foreign accents and voice are very powerful, in which case, the direct method alone is sufficiently a potent weapon, while with minds of a more sluggish mobility, which respond but to harder strokes, a due combination of both the constructive and the analytic methods alone affords the right solution. The builder goes on fitting in the stones and the timbers after cutting them to the proper size and shape, which he does by rejecting more in certain ill-shapen specimens and less in other good specimens. Similarly

the master-builder of the mind has to get his pupil at times to analyse, to compare and contrast, so that he may teach his pupil to avoid whatever is clumsy and faulty. Hence the mere direct teaching of grammar and the reading book, detached from all auxiliary translation exercises, may not help the young learner to pick up the foreign medium with sufficient ease and quickness under existing conditions.

10. Again, the usefulness of teaching grammar is reaped in full measure only when it is linked up with composition. Naturally enough both oral and written composition must enhance the value of formal lessons in grammar. Whereas in lower classes, oral composition lessons can be successfully attempted, in higher classes oral composition is to be followed up by written work. It is an acknowledged practice that all errors committed are pointed out and discussed, and the composition itself, or the correct forms at least, are re-written. Indeed there is no better practical teaching of grammar than the teaching implied in a careful discussion and scrutiny of common errors to be gathered from the compositions of pupils. Very often work of this sort is not so thoroughly done in actual practice. The classes to be handled by teachers are often unduly large. A class of forty-five or fifty is too large for one taxed with the work of teaching other subjects also. Again, the compositions are corrected out of school hours, without the pupils being given opportunities of having the mistakes corrected in their presence. Unduly large classes, want of sufficient specialisation on the part of the teacher, want of freshness on his part owing to pressure of other work, want of opportunities for him to come in direct personal contact with the pupils when doing the

work of correction, and many other causes besides, may contribute to the ill-success of this part of practical teaching of grammar.

11. A good lot of oral work for pupils can be made possible during lessons on the reading book, if only the teacher adopts the strict Socratic method of teaching. Judicious questioning leading to the discovery of hidden implications of facts and ideas gives pupils opportunities for talk and self-expression. Questioning of this sort is the supreme test of all good teaching, and it is the best method of teaching a foreign language also. Lecturing above the heads of students cannot constitute the right plan of teaching the foreign language. Now, when students are put on their mettle by their being questioned, they are given chances of making mistakes, and chances of correcting their habitual mistakes of expression and idiom, and to that extent grammar is taught in a practical manner.

12. There are not persons wanting who believe that the present innovation of teaching non-language subjects through the medium of the mother-tongue is prejudicial to a high standard of proficiency being attained in English. This is a point which cannot be ignored. But the claims of the pupils to all facilities to understand and master with sufficient intellectual economy the subjects taught must be allowed to prevail over the claims of a foreign language, however rich in its literature and widely used as a medium of thought and feeling. After all the saving in time and energy effected in mastering non-language subjects through the medium of the mother-tongue might be utilised in learning the foreign language on more scientific principles. Hence it is not inconsistent with efficient teaching of English that all non-language

subjects are taught through the medium of the mother-tongue. In fact the general teaching methods obtaining in other countries for the teaching of foreign languages and non-language subjects are exactly the same as the methods now sought to be employed in our schools, and the pupils in those foreign countries are not in any way the worse equipped for life for that reason.

13. In conclusion it may be urged that the study of grammar by itself can never enable a man or a boy to speak and write a language with accuracy and elegance. An eminent writer on pedagogy says: "Some of the best and purest speakers of the language have either never learned grammar, or are not consciously guided to correct speech by a knowledge of grammatical rules. They have learned to use their language by using it, by imitation and habit, by the fine intuition which has led them to imitate good models rather than bad. If the art of writing and speaking the English language with propriety is the one thing contemplated by learning grammar, the *ordinary means are very imperfectly adapted to the end*; for the study of grammar from a scholastic text-book, even if the whole of it is learned from beginning to end, is very little helpful in improving the pupil's speech and writing. The faults which occur in speech, the confusions, the clumsy constructions, the misuse of words, their mispronunciation are not, as a rule, sins against grammar, properly so called; and are not to be set right by learning accident or syntax." The same writer further observes: "The practical art of using the language in speech and writing with good taste and correctness is probably best to be attained by talking to the pupil, by taking care he hears little but good English, by correcting him when he is

wrong, by making him read the best authors, by practising him much in writing, and when he makes a mistake by requiring him to write the sentence again without one." In the face of such expert opinion, if it is said that there should be more and better grammar taught, more exercises in practical English done, it is also fair to say that there should be more handy classes, more facilities for coming in personal contact with the pupils, more grammar if need be, in classes higher than the secondary classes. In fact there were times when more advanced books on accident and syntax and rhetoric used to be taught in classes corresponding to what are now called the Intermediate classes. After all, one may not be prepared to say that conditions with regard to the teaching of grammar are all as they should be, that more systematic and better work cannot be done. The general lines on which the teaching of grammar can be improved have been broadly indicated by attention being drawn to the greater usefulness of examples to be taken from the reading book for drilling students in recognising grammatical forms, to the desirability of correlating vernacular grammar and translation with English grammar, and lastly of improving the teaching of practical grammar by joining it up more closely with composition.

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WHAT IS A RURAL SCHOOL FOR?

BY Mr. K. R. R. SASTRY, M.A., B.L.,

Fellow of the Royal Economic Society (London.)

TO talk on and write about the education of rural population is perhaps a very fashionable theme. Not one in ten waits to ponder over the yet unsolved problem—What is a rural school for? The discussions and observations that have centred round the report of the Carnegie Foundation on Modern Education in U. S. A. (1922) had served to focus thought on the question. Amidst the manifold aims of education, prominence has been given in the report to two opposing ideals of school system. Some knowledge of one's own country and some acquaintance with the processes and results of science would satisfy the requirements of one school of advanced thought.

The contrary ideal would insist on the imparting of every form of knowledge in which the modern world interests itself. The ambitious aim of this school of thought is only surpassed by the convenient vagueness that spreads over the whole scheme. That something of everything invariably leads to superficiality and rambling thoughts is the experience of many rural schools.

It is refreshing to turn from such theoretical disquisitions to an analysis of the opinions of elementary school teachers whose life work has been to look after the education of infants in out-of-the-way localities. Not more than 31 teachers have the enthusiasm and energy necessary to write an essay on the improvement of elementary education out of more than 135 schools, while two decent medals of gold and silver have been held in view. Of these 31, not more than six are capable of expressing clearly their ideas on the aim of a rural school.

No less than six aims run through these elaborate impressions of the elementary teachers. To get at civilised modes of living, to improve one's general knowledge, to infuse devotion towards God, to equip one to eke out one's livelihood, to protect one from deceits practised on ignorant folk, and to prepare one for higher mental work—all these six are catalogued as the true aims of rural education. Closely analysed, these aims fall under a three-fold division—the moral aim, the mental development aim, and the material aim.

Any constructive reform should take into account the ceaseless charge of Godlessness in the present-day education. Not in compulsory religious education with its overwhelming spectre of protests from honest burghers, not in the meaningless iteration of a self-evident need with no suggestion of constructive measures, not in the institution of a 25 minutes' religious class in a week of 25 hours, but the true solution here as elsewhere, lies in the old Gurukula system, the best elements of which are found at Santiniketan.

The belief in the mental training given by the existing type of rural education has been rudely shaken by the advent of the Kindergarten method. It is not true to say that the spirit of the Froebelian system has been understood properly by the ill-clad and ill-paid schoolmasters. Groupings of tamarind seeds and shows of the same set of paper-cuttings year after year, do not complete the requirements of this hand and eye method. What with the insistence of the villagers on the old mental systems and the frowns of the specialist when he fails to find the latest Montessori method, the lot of even the hard-working zealous schoolmaster is trying.

Perhaps, the most effective charge against the existing type of education is that it does not at all enable one to earn one's bread. The powerful criticism of the unsophisticated villagers is put thus by a capable ex-Dewan of Mysore: "Your education estranges our boys from their surroundings and makes them dissatisfied with their hereditary calling without necessarily fitting them for anything better." Whenever I go far into the interior, this is the cry.

EDUCATION AND UNEMPLOYMENT.

By Mr. R. KRITIVASAN, B.A.,
Ramnad.

WE are living in momentous times; in every department of life we see 'the old order yielding place to the new.' This healthy transformation is noticed in the field of education as well. With the widening of our knowledge of the constitution of man, thanks to the recent researches of science and occultism, our methods of education also are changing. We see already an 'International Fellowship of New Education' with its headquarters in London trying to open the eyes of nations to the new light.

But where are we in India? Our Mother is already groaning under the dead weight of meaningless customs and superstitions and the life within her burns but dimly. Add to this, her sons and daughters are being devitalised and made fit for nothing by a mercenary system of education quite foreign to her culture and traditions. The present system has been tried for more than a century and a half and found to be a big ass, but we cling to it like a drowning man with a tenacity quite characteristic of the conservatism for which we are widely known.

Our youths are the pillars of future 'Free India' and what do we see of them! Go to any Indian village and there in almost all the houses you see young faces, all B.A.'s and M.A.'s with care and disappointment writ large on their brows. They have been so non-naturalised by the so-called education they have received that they are sadly unable to adjust themselves to the life of their home and surroundings much less either to appreciate or change that life for the better. They look

down upon the villagers who are unable to appreciate the artificial life they have learnt at schools and colleges to live and in turn, they are looked down upon as a class of drones who have come to sap the life of the family and the village. Again simplicity, art, beauty and other virtues are quite foreign to our educated youths, and this is an additional factor why they are looked down upon with indifference, if not contempt. The picture is not complete, but once having made the reader think we leave it to be completed by his deep thought and imagination.

Now the question naturally arises 'what then is the remedy for this cancer that is eating into the very vitals of our Mother'? For what must be our future if our youths are thus blasted and made to lead a 'death in life' even when they just enter the arena to wage the battle of life? It is too much to expect a foreign government to concern itself with any seriousness with this most vital problem of the nation. It is also vain to expect anything from our Ministers for they are but slaves to the demon of Diarchy. Private enterprise can do much here as in other countries but it is either too loyal to the official system of education now in vogue to dare to revolt from it or is unable to stand on its own legs and act independently uninfluenced by that system. Our M.L.C.'s can, we quite concede, do some patch-work by asking the Government to appoint this Committee or that, but if they go further and attempt at some drastic remedies their hands will be bound fast by the cry of 'No funds' of the Reserved Half. Yet something is better than nothing and therefore we would request our M.L.C.'s to bestow some thought on this problem.

India is essentially an agricultural country and hence will it be too much to say that

agriculture and allied subjects must be made compulsory ones for all the classes, so that by the time a student matriculates himself, he may return to his village with a sound knowledge of these subjects to take an active interest in his field-work? Thus more than 50% of the students must be made to return to the soil. Then again there must be institutions for training pupils in industrial and technical subjects and some 80% of the remainder must take up these courses according to their aptitudes and perhaps a safe minimum of 5% of those who pass out of the schools may take up purely literary courses. High School education must be as cheap and complete as possible so that by the time a student comes out of the school he may be a perfect gentleman possessing a fair knowledge of agriculture to enable him to go and work in the fields. His traits and aptitudes for special subjects must be noted as is done under the Dalton Plan and if he is found exceptionally inclined to one subject, he may be sent up to those colleges which specialise in such subjects. The goal of making this High School education free and compulsory must be aimed at. Here are then some lines of thought for

the M.L.C.'s and workers to take up, ponder over, criticise, develop, plan and work out into a useful scheme.

One word to my unemployed brethren. Brothers! You have been more sinned against than sinning. If you own lands, please try to settle down in your village and try to work for its betterment, realising that any good and efficient system of the government of our land must be based on the unit of a well-ordered village.

Brothers! Try to look around, try to get a true vision of life as it is and attempt to better it. Look within, at your true self and grow as the flower in simplicity and beauty with harmony for your watch-word. Let 'Truth' be your guide and help yourself and your neighbourhood in trying to seek that guide in everything you think, speak and act.

Thus will you be able to conquer artificialities, complexities, superstitions, meaningless customs, soulless traditions and lastly that dreaded monster, public opinion, which will all conspire together to crush all light and happiness in you and thereby hasten our Mother to a sure though slow death.

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THE DISTRICT BOARD SECONDARY SCHOOLS COMMON EXAMINATIONS

By Mr. Y. LOCANADHAM,

Teacher, Vinukonda.

THERE has been in existence in the Secondary Schools of the District Board the scheme of Common Examinations for the last six years. How the idea of a Common Examination came into existence it is not my present purpose to discuss. It was not given to the Assistant-masters of these schools to attend the inaugural ceremony nor have they ever been taken into confidence of the Manager or the Syndicate to know exactly where the idea started and why the scheme was inaugurated. As I had ample opportunities to study the proceedings of the Committee controlling the examinations, I am able to give you its objects and constitution. No preamble is appended to the draft constitution explaining the why and wherefore of this Act.

It was in April 1923 that the Common Examination was held for the first time. Before taking you into the details of this scheme, I shall state the constitution of this Syndicate. The Headmasters of the High and Middle Schools comprise the body known as 'the Standing Committee of Headmasters'. The whole management of this wonderful scheme of examinations is vested in this body subject of course to the assent or veto of the President, District Board. The objects of this body are stated thus:—

"To promote co-operation among the schools, secure economy and efficiency in their working, set up a uniform standard by means of common text-books, syllabuses and examinations and create an *esprit-de-corps* and good

fellowship among the teachers by offering opportunities for the exchange of thoughts."

The objects are laudable. In the light of the work done and the results achieved, let us examine the work and the achievements of the Committee with regard to their stated objects.

It is a well-known fact that the Standing Committee has been working with one object in view, that is the holding of common examinations. No opportunities have ever been afforded by the Committee for the exchange of thoughts among the Assistant-masters of these institutions. On one or two occasions some so-called 'experts' were ordered to be present at a Committee meeting to prune and draft common syllabuses. The object of creating an *esprit-de-corps* among the teachers of these schools will be remote so long as this Committee remains limited and narrow in its representation and dependent upon the sweet-will of the Manager to function. Even in matters purely concerning the internal management and teaching work, the Committee has to wait for the Executive's veto or assent. Many of the Headmasters have no confidence in their Assistants' 'work and capacities.' Like lay-men they judge their Assistants' work by the number of passes they produce.

Rivalry between the sister institutions under the Board's management did not exist hitherto. All schools were independent in their pursuits. There had been no clash of ideals among these schools. All were for achieving the standard set up by the department of education. Thus there has been enough of co-operation among schools and I am at a loss to understand what more the Committee means by the phrase 'co-operation among schools.' The body has chosen to call itself

an 'academic' body and as such it is not its purpose to appeal or co-operate in matters which are not 'academic.' Even if it chose to function in the redress of general grievances there is the lack of representation of all grades and interests. The interests of the so-called 'mass' of secondary-grade Assistants are of trivial importance to this august 'academic' body. In matters of pay, promotion and seniority of service the self can never be sacrificed and I think every school, nay every teacher, wishes to be unfettered to petition, pray and press his claims over and above others irrespective of other considerations. Hence no co-operation among the schools is possible or achievable. There are no hard and fast rules governing the services under the Local Boards. All civil service rules are more observed in breach perhaps in the interests of the so-called efficiency and favouritism. Thus during the four years of the Committee's existence, the 'co-operation among schools' which is stated as one of the objects has never been achieved, and I think it can never be. Perhaps this Committee with the executive's sanction can enforce 'co-operation' in matters of discipline. What is all this discipline? It is nothing but the power to ride rough-shod over their Assistants—the subordinates.

Now I come to the third object—Common Examination. Before discussing the ethics of examinations, let me describe its results or rather effects. First and foremost is the spread of antagonism. Every school is trying to manufacture a greater number of 'passes' not in a spirit of healthy competition but in the hope of being judged by the Manager favourably. The percentage of passes has become the ideal to judge the selfless work of the teacher. The manager on more than

one occasion has been asked directly or indirectly by this Committee itself to judge our work in the school by the examination results. One school has gone to the extent of petitioning that though it has produced the greater number of passes—if not the greatest—its staff is in no way bettered in matters of pay and promotion. Thus the Manager was given a plea to postpone perhaps till the millennium the increments due from year to year, in consideration of the results of the common examination. The 'most unkindest cut' of all was the issue of notices in the year 1924 to quit 'his' service if better results are not achieved in future years. The notice purports thus: 'The results in the subjects you handled are bad. If you do not produce better results your services will be dispensed with or you will be dealt with otherwise.' How low have we fallen and what a fall is there, my countrymen! May I ask in right earnest who is responsible for such a state? Honest and sincere work from 4 to 5 hrs. a day on the part of the teacher is not judged by the intellectual and moral attainments of the boys under his charge but by a manipulation of passes. We are no more than the mechanics whose output in numbers is the test for wages and work. The intellectual and moral attainments can never be judged justly and properly by mechanical processes of examinations. Examinations as they are, are mere passports for service. "Examinations," as Major Graham Pole said the other day, "are the creations of a devil." The seats of learning in Ancient India never knew them. Of late they have become the bane of our educational system. 'They are the dangerous-edged tools in the hands of mechanical teachers and often they are blindly used and abused with results more destructive than

constructive.' Examinations are perhaps a necessary evil. Therefore let us have a minimum of them.

Montaigne said: "Do what we will, the faculty chiefly exercised in preparing for examinations is the carrying memory." "The most competent and enlightened of examiners, the most conscientious and professional of teachers, cannot claim that they have judged properly to their entire satisfaction by employing this device of examinations. The Government has abolished the system of granting the grants-in-aid on the results of examinations held from time to time. Schools are no longer commended for their 'putting capacity' but for their 'leading out capacities' as Wren puts it. The aim of the educational policy is not to manufacture cent. per cent. passes. Examinations are only a means to an end. In the Board schools they form the ideal itself. The Manager reviews the results and issues a circular to the Headmasters to hold weekly examinations to be able to produce better results, and report the progress at every stage to him. Headmasters obey and it is a common feature in many of the institutions that weekly examinations are held without fail to the great annoyance of the Assistant-masters and more to the detriment of the taught. Some of our over-earnest teachers in the hope of producing best results have taken to the task of examining students every day, nay every period. They have begun to dictate questions and perhaps answers too. The real teaching is sacrificed, so much so the student is always possessed by this "devil" and what becomes of him and of his faculties can well be imagined. We have voluntarily or under compulsion abandoned our high duty of training boys and making men in favour of

multiplying unnecessary examinations and producing 'successful and unsuccessful examinees.' Wren calls these examinees "the big-headed dwarfs and hollow-headed animals." Examinations must be relegated to their proper place in education and they must be diminished in number. The education in these schools has suffered a good deal and the deliberate aim of the teacher has perforce become the production of an examinee. The aim of the pupil is the 'hasty and superficial amassing of facts' instead of the three-fold improvement—mental, moral and physical. We must hold examinations to further the aims of education and not to impede its progress at every stage. Too many examinations are to be eschewed.

Common examinations necessitate a common formula for results. There was a very tough fight in the Committee to overcome many established formulæ of the various schools which had been hitherto independent in matters of promotions. In the Committee, Experience wanted to hold its sway—while Emotion protested and Wisdom was nowhere. Non-co-operation was the result instead of 'co-operation among schools.' The Manager has been awakened and was asked to intervene, if not interfere. The Manager administered a mild rebuke and addressed the District Educational Officer to propose a common formula. The officer was extremely glad. He put down in hard and fast rules, a minimum for pass, and the President approved it. He asked the Headmasters to adopt it. A Headmaster protested and considered the D. E. O. or the Manager has no place in the internal management of the school. He did the promotions of his school according to the rules framed by himself. Some unsuccessful students found that their

Head-master disobeyed the President. A petition was sent to him and the President fixed another minimum. All Headmasters obeyed in silence. The Committee while mildly protesting against the inroads on their powers and privileges proposed to have a certain formula for determining eligibles, not for promotions—which task was left to the individual Headmaster. The matter was not left there. The D. E. O. insisted upon having the marks list of each and every school so that he could be satisfied how far his roles of promotion had been adopted. One Headmaster protested and felt that it was high time to consider and establish once for all the rights and privileges and powers of the heads of institutions. He sent a long memorandum on the subject and what became of this and how it is being considered we know not. We will wait and see. We the Assistant-masters are happy in so far as we are not made a party to the proceedings of the Committee.

Now, I will consider two questions:—1. Whether a uniform standard is attainable in all schools. 2. Whether a common syllabus is feasible. What does the Committee mean by uniform standard? Does it mean an equal number of passes and failures in every school? No, I think. How can a uniform standard be attained? The material we have in the several schools is different. The average age of each form of these schools differs greatly. It is higher in the rural schools than in the urban schools. The environment of each school and the location in which it is situated are not the same. The experienced teachers know pretty well that a uniform standard in a single class is indeed hard to achieve. Such being the case for a single class, how can we hope to get the same in all the High and Middle Schools which greatly differ

in numbers, age and intellectual attainments of the taught? From an examination of the answer papers of various schools, I have come to the conclusion that a uniform standard is impossible. Each school has its special merits and demerits. The question papers set under the auspices of this Committee do not show a uniform standard. I do not see any necessity for a uniform standard at every stage of development. As Sir T. Sivagnanam said the other day at Trichy, the whole High School course is one harmonious thing and there need be no tests at stated intervals to examine how far a uniform standard has been attained. Therefore I consider that a uniform standard is hardly possible and it is not even desirable.

Coming to the question of syllabuses, the different conditions of the various schools which I have drawn attention to previously, will themselves form a strong argument against common syllabuses. The department is not foolish in giving us only the broad outlines of courses of study to be adopted in consideration of the conditions of each school. Topics are to be chosen with regard to the locality, equipment of the school and environment. The avocations of the inhabitants are also to be taken into account. These are the true determining factors for the drafting of syllabuses. Is the Revenue District an unit for the determination of syllabuses? Is every place where we have a Board Secondary School the same? Places widely differ in situation and surroundings. One is an agricultural centre and another is a place of commerce and industry. At one place we have the handicrafts, weaving and dyeing. In one school the average age of the boys coming into the 4th or 5th class is far higher than that of the boys in higher forms. The equipment of all schools is not the same. In

one school more lessons can be done advantageously, for the strength of each class is not much. Especially in the Science subjects where observation and experiment should go hand in hand, it is futile to have a common syllabus. Science lessons are not mere information lessons. What is the use of asking a teacher at Vintkonda to teach about gardening, canal and lock system, growing of turmeric, ginger and paddy, while he can do with great benefit, the ginning process, the extraction of castor oil, etc.? Somehow the syllabuses are being whittled down from year to year perhaps to reach the Lowest Common Multiple in the number of topics. The initiative and originality on the part of individual teachers, do not find a congenial soil to grow. Their powers are in a way smothered. They have to follow a syllabus, the shaping of which is done somewhere by somebody to suit nobody. Many of the syllabuses are ill-balanced. In the matter of even choosing lessons from the texts, the concerned teacher has no place. The Headmaster who does this, orders that such and such should be done in the first quarter and so on. We cannot but obey the scheme. With all this organisation and setting-up of lessons, there is that process of elimination of uncompleted portions at the time of examinations. A teacher reports that for various reasons he is not able to do the portions set for the examination and hence they may be deleted and so on. I do not like to go into the details of complaints regarding syllabuses. Some suggestions of the concerned teachers are sometimes treated with indifference if not contempt. The teacher is 'cabinéd, cribbed and confined' even in the details of the working of his class. He is made a tool and he is obliged to act in a certain groove with no freedom to move or

change the order. Under these circumstances a common syllabus is not feasible and in my humble opinion it is detrimental in so far as it annihilates the freedom and genius of individual teachers. It is true some 'favourites'—these so-called experts—have their say but it is not all and it should not be encouraged.

My paper on this subject will be incomplete if I leave out one more topic—the setting-up of examination papers and the work of valuation. This work is limited to the nominees of the Headmasters and those that have no opportunities to set a paper or value a bundle, thank their stars for the labour saved. The L. T. Assistants are a privileged class having the exclusive rights of setting papers in Elementary Mathematics and English. However raw an L. T. may be, he is considered far superior to an experienced secondary-grade Assistant. The Headmasters have the prerogative of setting some English papers. Nobody can deny their wisdom if not their experience. From a close examination of the question papers for the lower forms during these three years, I have come to the painful conclusion that these chief examiners should be co-opted with the concerned teachers, and this view found support at the hands of the D.E.O., Guntur. The subject matter covering 30 to 40 pages in a non-detailed text is to be condensed into a story of 15 or 10 lines by the 2nd form boys!

Coming to the valuation of answer papers, some of the Assistant-masters are entrusted with these bundles. Of course they are expected to be very impartial and so they are. I have no reason to doubt their honesty. But unfortunately a feeling of suspicion and distrust exists among the teachers of the various schools. Everybody including the Head-

master thinks the poor Assistant-examiner is partial and those schools that are producing bad results view the other schools with a sort of distrust. I have my friends among the teachers in almost all the schools. I am ashamed to say that whenever I speak about the valuation, they speak very haltingly of the impartiality. They say it is difficult to be just and so on. That such a feeling exists nobody can deny. Last year just on the eve of examinations we received a confidential circular to the effect that it has 'come to the Manager's notice that some malpractices for increasing the number of passes are being encouraged by the Assistant-masters and Headmasters. He sounded a severe note of warning and left us there. I do not know exactly how the Standing Committee viewed this circular. It proposed a resolution requesting the President to permit the exchange of Superintendents at the time of examinations. But the resolution was defeated. What is all this? Are we to keep quiet when our honesty is questioned? Who is really responsible for such a feeling of suspicion and distrust? I emphatically say it is the common examination scheme. Examinations being the devil's creation, cannot but be devilish in their offspring. One more thing. The fate of Assistant-examiners is not left there. For the so-called irregular corrections they will be handed up to the President for punishment. How enviable is the lot of those Assistants who are not chosen for this task of valuation! I cannot understand the equity of handing up the poor Assistant-examiners for punishment. They may be debarred from the privilege of assistant-examinership if truly there is gross negligence on their part. It is well-known that if an answer paper is valued by two different Assistant-

examiners, marks given will invariably differ. I need not tell all the experiences of the Assistant-examiners. Under such circumstances, consider the case of those who are in no way remunerated for the trouble of valuation but easily handed up for punishment for the supposed irregularities which in others' opinion are acts of negligence.

Gentlemen, I have left out one subject. I shall be very brief in discussing it—"To secure economy and efficiency in their working." In the beginning we have to understand what the Committee means by using these words 'economy and efficiency.' Is it the economy of work or finance? As for the former, no teacher's work is lightened but on the other hand, extra office work for the Secretary and his Assistants who have to send circulars for the meetings, prepare approved agenda, fair-copy of syllabuses, devise symbols for question papers, pack these in sealed covers, and a host of such other things. The Secretary's extra troublesome work finds him no reward. As for financial economy, the incurring of postage for the exchange of answer bundles and the several T.A.'s for the Committee members and the daily allowances allowed and disallowed, all go to a great extent towards the rise of expenditure. Perhaps the Board is enriched by the collection of examination fees and the 9th instalment of school fees. Thus the extra expenditure on account of the scheme of common examinations is balanced by the extra receipts and nowhere is economy effected. Efficiency in working is a vague expression and I am sure 'efficiency' in no way has been achieved. Efficient teachers do not travel from school to school to benefit either the staff or the students. I mean there is no such exchange of teachers as is contemplated to be done in the case of

University colleges. We do not enjoy as Professor Cartey said "those privileges and conveniences such as arranging co-ordination of studies and interchange of lectures and provision of local library facilities" that tend to make up efficiency in colleges which are the constituents of a federal University. After all our duty is to prepare students upto a High School standard.

Now gentlemen, I have come to the end. I have discussed at length the objects of the Standing Committee in the light of its work and achievements. I have also shown how the common examination scheme has undermined the very foundations of the time-honoured and well-established conventional relations between the Manager and the staff of the schools. I have tried to show the utter futility of common examinations and its necessary adjuncts and its common syllabuses.

The feeling of suspicion and the spirit of antagonism among the sister institutions is not a healthy sign of progress. The aims of education are being unnecessarily sacrificed at the altar of examinations. Instead of achieving the stated objects, the very opposite things are brought into existence. Individual genius and talent is discouraged and it is not for me to disclose many more ugly things for which this common examination is responsible. The sooner it is ended the better for us all. Let me assure my Headmasters that these are not the outpourings of any 'heart burning'. My heart burns only when I ponder over the evils that have crept into as the results of the common examination. Let us not mar the fair name of this sacred profession by petty schemes. Let us carry our noble task in spite of its being the gorriest of trades and let not a stone tell where we lie.

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THE CHIDAMBARAM UNIVERSITY.

I.

TWENTY years ago India had just five Universities, and few cared even to think that any more were needed. Since then the number has been more than doubled, and it was the establishment of the Mysore University in 1916 that set the pace. Now it seems as if it never rains but it pours. Hardly a year passes when we do not hear of a new University in contemplation, whether it be in Baroda on the western coast or in Travancore in the extreme south of India. Poona and Ahmedabad, and the distant Sind, all aspire to have their own Universities. And the Tamil country has recently had two munificent offers from an uncle and a nephew, Sir Annamalai Chettiar and Sir M. C. T. Mathiah Chettiar. Sir Annamalai has offered 20 lakhs in cash and 17 lakhs worth of property for the Minakshi University at Chidambaram; and Sir Mathiah is reported to have offered 35 lakhs for a University at Madura. Endowments of this sort have long been known to the West. It used to be a common complaint that Indian millionaires were not so generous in the cause of education as in building temples or feeding the poor or establishing hospitals and dispensaries and *chatrams*. After the Palit and Rash Bihari Ghosh endowments in the University of Calcutta and the magnificent offers of the Chettiar family in South India, surely the complaint might be said to have lost its edge.

But it is certainly questionable whether this new awakening of our millionaires is manifesting itself in an altogether right direction. At present we have a sufficiently large number of Universities, and considering their output in the form of graduates, far

more numerous than can be reasonably absorbed by the Government or private offices, it is a pertinent question whether any good is served by a mere multiplication of Universities. The present need is to consolidate the resources of the existing Universities in India so as to make them fulfil the important function of research, in which they have not been able to do as much as might have been expected of them. A good deal is talked about research in India, but nothing tangible is done to facilitate research. It is surprising how few chairs have been endowed by our millionaires. And without these chairs how can research advance? It is not realised that new Universities involve a considerable amount of necessary, but unproductive, expenditure in the form of buildings, officials and establishments, examinations and Convocations and what not. And the only advantage we can hope to get out of them is more graduates and more. Thirty-seven lakhs is a handsome amount, but even with Government assistance it cannot possibly go very far in the establishment or maintenance of a University, and will create but a faint copy of the existing Universities. On the other hand, what power can three-quarters of a crore wield, if used to develop the existing University of Madras? The Chettiars are Tamilians and the University of Madras has been predominantly a Tamilian University. Its most distinguished *alumni* have been generally Tamilians. They so swamped the Telugus as to create in the latter a desire to have their own University, a desire which has seen its fulfilment. Seventy-five lakhs can serve to establish no less than twenty to twenty-five first class well-endowed chairs, serving the interests of as many as twenty to twenty-five subjects. In a Tamil University so much

work can be done to explore the old treasures of Tamil literature and philosophy; so much can be done to rehabilitate the past of Dravidian civilisation; so much sociological work can be done; so much economic research can be carried out, or educational research. Or this huge amount may well have gone to the establishment of a first class scientific laboratory or a Technological College to benefit the industrial development of South India. When there are such immense possibilities of a lucrative and productive employment of Indian wealth, it would be a pity indeed, if large sums were spent merely in the creation of second-rate provincial or merely civic Universities. Millionaires are among the assets of a country; if they know how best to use their millions so as to increase the material and intellectual wealth of their country, they also become the priceless benefactors of their country. Sir Annamalai's offer has been accepted by the Madras Government with a magnificent contribution of 27 lakhs. It would have been better if they could have used their resources and their influence with Sir Annamalai to better advantage. We trust it is not too late to persuade Sir Muthiah to divert his generosity in a more fruitful channel.—*The Mysore University Magazine*, July 1928.

II.

WE are living in fortunate times. Our Presidency has still a brighter future before it. Close on the heels of the report of the Tamil University Committee, there comes the announcement by Sir Annamalai of an endowment of twenty lakhs for the start of a unitary University at Chidambaram. Probably it is the first experiment of its kind in S. India and we dare say it

shall not be the last. We are glad that Sir Annamalai did not aspire for a University of an affiliation type and end in a gloomy imitation of those already in existence. Sir Annamalai's creation ought not to be a field for mere moral or spiritual development as some of his admirers want, nor should it be a mere mechanical atmosphere of manufacturing graduates and labelling them B.A.'s or M.A.'s of Sri Meenakshi University. Things said and done—barring platform oratory and pulpit addresses on character development, "education of some cultural value" and what not—the Indian student is still to maintain his body and soul together at some cost. A type of education which cannot lead him to that end but would only make him mope and talk like a philosopher in these dark days of struggle in India is next to nothing. A philosophic contentment need not be born after a long course of University education! Why, nowhere it is put down as the basis for a philosophic regeneration! An innocent villager has got it and enough to spare too.

Sir Annamalai's gift is something phenomenal. Should only his gift be coupled with a course of education which will mean sustenance, active support in life, the South Indian mediocre public will feel eternally indebted. Let him not copy situations, syllabus, curricula from other Universities, let him be a pioneer, turn his eyes to new channels other than prosaic arts and too much exaggerated technical education. Let new fields be exploited, let our brethren get trained in new things in the new University. Why should not Annamalai think of Sri Meenakshi as being a purely "industrial" University—having nothing to do with arts. The productive capacity of the nation needs a great

impetus and it is left to princes like Sir Annamalai to give it and earn the lasting gratitude of the nation. Will not a few hundred graduates in experimental mineralogy, glass making, textile and weaving, paper manufacture and in other aspects of productive sciences, add to the wealth of the country? Can't he start experimental and demonstrative centres with the help of these men in course of time?

A unitary residential Arts University (there is some touch of science also) is a new venture in South India. We believe it is academically a triumph and a joy both to the scholar and to the student. But we in South India have been too far deep in the higher education that we have left entirely secondary education in the background. It is understood that the Government have sanctioned an endowment of 20 lakhs and 7½ lakhs as a building grant and an annual grant of 1.5 lakhs. We do not in the least grudge this help to the start of Sir Annamalai's University. But we owe an answer to

ourselves. What are we going to do for the Secondary Education? Ever and anon we are told "want of funds." Where is the Government going to find funds hereafter if out of that available a good sum goes to the new University? That is, however, another question.

We whole-heartedly welcome Sir Annamalai's gift. His is a new venture, a deliberate departure, a remarkable episode and a landmark in the history of South Indian Education. He has inherited the instinct of his father and grand-father and the University is the crowning glory of the most cultured family among the Nagarathar princes. We only beseech our good and charitable friend Sir Annamalai to take note of our humble view and try to approximate to the same. With this solicitude for his and our University, we wish God-speed to Sir Annamalai in his new and epoch-making endeavour.—Mr. E. S. SUNDA in the *Indian Educator*, June and July 1928.

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The following has been sent to us for publication by the Chief Medical Officer, Protective Self-Vaccination Campaign, Calcutta:—

THE ONLY PRACTICAL WAY AGAINST THE DEATH-DANGERS IN INDIA.

Unlike in any other part of the world, epidemics rage throughout India amongst its human population so frequently each year that the numbers who have hitherto perished have left millions of helpless families which constitute the poverty spectre engaging our most serious attention to-day. In a recent lecture at the Overtoun Hall, Y.M.C.A., Calcutta, Dr. Bentley, Director of Public Health, Bengal, pointed out that about 120,000 died from Cholera, and about 300,000 from Malaria in Bengal alone last year. Statistics of mortalities in other provinces have been no less appalling, and there is every reason to believe that such a state of death-dangers will recur annually until and unless the Health Authorities and all other responsible leaders co-operate whole-heartedly in adopting modern methods that have enabled authorities in other parts of the world to stamp out epidemic conditions so wonderfully. Cholera, Typhoid and Dysentery have already been conquered by the great medical discovery of Prof. Besredka, of the Pasteur Institute of Paris, which has enabled self-vaccination by merely swallowing a BILIVACCINE tablet each day on three successive mornings, and which thereby protects any person within the third day for one year's period of time. Then again the discovery of "QUINOFORM" considerably superior to Quinine and without its injurious effects and disadvantages has enabled the prevention and treatment of Malaria even predicting the

results in advance with mathematical precision. This which is now adopted by the French Government officially should be as much broadcasted in India as speedily as possible among the ignorant and poor population who are incessantly suffering in the malarial districts appealing for help every hour. This year the extensive introduction and free distribution of BILIVACCINE TABLETS by the various Municipal and other Health Authorities have undoubtedly saved several thousands of lives from the death-dangers of Cholera, Typhoid and Dysentery. It is self-evident therefore, that had this life-protecting discovery been made known a few years before, India could have been almost freed from the recurrence of these epidemic terrors to its population to-day. The question "Why not begin broadcasting these self-protecting methods amongst the masses in real earnest right now and prevent such mortalities in subsequent years?" is a very serious one that should be asked by one and all who think of India with any affection or gratitude whatsoever. Paucity of doctors have rendered medical protection a question for few people only. The teeming millions would have been doomed to ultimate disappearance had it not been for the progressive march of Science which has at last revealed the cheaper, easier, harmless and more effective processes of self-vaccination and self-protection. It is the duty of every responsible; influential and widely connected person to expedite the self-vaccination propaganda now on foot, by informing the largest numbers possible within their reach, in time, and help the incessant efforts of the journalistic brethren with their press to effect a state of mass self-vaccination throughout the country the only way to check the appalling rates of mortalities from recurrence each year.

Reviews and Notices.

A JUNIOR HISTORY OF EUROPE, FROM THE BARBARIAN INVASIONS TO THE LEAGUE OF NATIONS, BY D. K. GORDON, M.A. (METHUEN AND CO., LTD., LONDON). Price 5s.

Vol. I. 410—1527 A. D., pp. 149.

Vol. II. 1527—1927 A. D., pp. 182.

This outline account of European History is primarily intended for use in the middle forms of English schools, suitable for students who have got an elementary knowledge of the facts of English history. Naturally enough stress is laid on the sequence of events, and on general religious and cultural movements and ideas as well as on the lives of the great actors in the historical stage. Each chapter has its own men of mark noted and described and is supplemented at the end with a summary of the leading events of the period. The chapter on Monks, Friars, Heretics and Scholars is a clear and very readable account of the strong forces which influenced the working of the mediæval European mind, and shaped the ideal basis of life. The flowering of the mediæval Italian cities is best depicted as the first sign of the spring-tide of the glorious Renaissance of the 16th century, after which much that was attractive in the middle ages was lost or disappeared. The second part takes us rapidly through the epochs of the Reformation and the Wars of Religion, the growth of Russia and Prussia, the Revolutionary and Napoleonic age and on through the stages of the 19th century to the Great War and the greater peace that has followed it. The last chapter very aptly deals with the story of how Europe made her peace and the steps she has been taking to prevent another war. It traces the rise and growth of the two great opposing forces of Bolshevism and Fascism and ends with a resumé of the reconstructed post-war Europe.

Each of the two parts is equipped with a separate index and a short bibliography of suggested books for supplementary reading. The maps are

numerous and clear and bold, though small. We can confidently recommend this book to our junior college students both for clear presentation and simple flowing style.

ECONOMICS OF SOCIAL PROBLEMS (AN INTRODUCTION TO SOCIAL ECONOMICS), BY H. A. SILVERMAN, B.A.—2ND EDITION. (LONDON: UNIVERSITY TUTORIAL PRESS, LTD., 1928). Pp. xi & 399. Price 5s. 6d.

This revised edition, prepared within three years after the issue of the first in view of the important social and industrial developments taking place in Britain, is welcome to all students of economics and current problems of industry and social adjustment. The scope of the book is narrower in some respects than that of a treatise on general economics, but in other matters is broader, because it studies many new economic influences bearing on man's welfare. Generally the treatment is both analytical and descriptive and also historical in places. Poverty is defined and analysed first, and then come an examination of the wages system, an account of the workers' organisations and of the objects and functions of trade-unionism and of co-operation. Then follows a detailed treatment of unemployment and poor relief and the principles and methods of social insurance in its various forms. The problem of housing is taken up at the end; and a discussion of the right housing policy to be adopted finishes the treatment of the book. A number of extracts and statistics from official reports of recent publication are given as appendices; and an elaborate bibliography on the numerous subjects treated is given at the end, affording great help to the student in more intensive studies. In connection with every topic the history of its growth and development into its present position is also given. Graph-pictures of the conclusions arrived at are given wherever possible, particularly in connection with the mobility and efficiency of labour; the close interaction between the struggle for higher wages and that for a reduction of work-

ing hours, the relations between men's and women's trades and wage-factors, the urgency of a closer relation of wages to needs, the workers' share of responsibility for the present industrial unrest—these problems are sketched briefly and authoritatively. The post-war Governments of England have effectively improved and extended the Unemployment Insurance Acts and have passed several measures besides to provide national and local schemes of work which differ from insurance mainly in that they mean the expenditure of money on more or less productive work. With regard to poor relief, the Minority Report of 1909 and the Maclean Report of 1918 have shown how the scheme of social insurance has been immeasurably superior to the antiquated system of poor-law relief, pointing the need for the abolition of the poor-law system and for the strengthening of the more constructive alternatives of prevention and insurance. The book traces the history of Unemployment Insurance in Britain till the Blanesborough Report and the Act of 1927 and also the development of Workmen's Compensation and National Health Insurance schemes. The difficulties in the unification of social insurance schemes and in the bringing of them under the monopoly of the State are well brought out. On the whole, the treatment is simple enough for its clear comprehension by the lay-reader and the junior college student and avoids technical and scientific terms as far as possible.

THE PRELIMINARY GEOGRAPHY—WITH 56 SKETCH-MAPS AND DIAGRAMS—BY E. G. HODGKINSON. (UNIVERSITY TUTORIAL PRESS, 1927). CLOTH BOARDS, pp. 230. Price 2s 6d.

This book is intended for use in the middle school classes by English pupils of eleven to thirteen or fourteen years of age. It seeks "to lay that foundation in both general and regional geography without which more advanced work in the subject will prove unsatisfactory."

The first few chapters of the book deal with the general principles of geography in an elementary way, and are meant to serve as a foundation for the later chapters, wherein the continents are treated in an outline manner, the British Isles being reserved for fuller treatment at the end.

A large number of useful sketch-maps and diagrams illustrate the text. The territorial changes resulting from the war are given in an appendix. There is a good index at the end.

WORLD GEOGRAPHY, BY J. S. LAY, F. R. G. S. (MACMILLAN & Co.)

BOOK I—GENERAL GEOGRAPHY. 128 pp. 65 MAPS, DIAGRAMS AND PICTURES. 1927. PAPER. Price 1s.

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We have, however, to repeat once more our general criticism about most of these English Geography books—especially of the middle school standard—that however good they may otherwise be, they are unsuitable for use in Indian schools, firstly, because they are prepared primarily from the English point of view with due emphasis on the British Isles and corresponding neglect of India, and secondly, because they are written in a foreign language, while in the lower forms at least of the secondary school, the subject is studied here in the mother-tongue.

THE PUPILS' ATLAS, ARRANGED BY J. S. LAY, F. R. G. S. (MACMILLAN & Co., 1928). 128 pp. PAPER. Price 1s.

This is a companion volume to Lay's World Geography books, uniform with them in size, but can be used independently also, or along with any other text-book. It is a marvel of cheapness and utility, containing 134 maps of various kinds, physical, climatic, political, railways and sea-routes, etc. We wish this handy little atlas in the hands of every pupil, but with a few more sectional maps of India, if possible.

ADVENTURES OF EXPLORATION, EDITED BY ERNEST YOUNG. (GEORGE PHILIP & SON).

BOOK V. AUSTRALIA AND NEW ZEALAND, BY SIR JOHN SCOTT KELTIE AND SUMNER CARTER GILMOUR. 204 pp. CLOTH BOARDS. Price 2s. 3d.

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These two volumes complete the series of Supplementary Readers in Geography by the same authors. Their aim is to quicken interest in the subject by means of interesting stories of adventurous travel, presented in clear simple language.

The volumes are illustrated with numerous maps, portraits and pictures, and the get-up is neat and attractive. They are suitable for use as supplementary English readers in the middle forms of High Schools.

INDIAN NATURE STUDIES FOR CHILDREN—CARNIVOROUS ANIMALS—BY C. H. DONALD, F. Z. S., M. B. O. W. (MACMILLAN & Co., LTD.) Price As. 4.

Excursions form an important feature of Nature-study. It is necessary for the teacher to plan his excursions beforehand and be prepared for the exact information he is to give to children during such excursions.

The book under review gives ample information suitable for children and will be found highly useful for the teacher who wishes to talk to children on carnivorous animals. It is necessary that the teacher should show these animals in the Zoo and the children should observe their movements and learn some of their habits by direct observation. The book contains some indications for the teacher as to how to observe certain habits of animals.

The personal observations recorded in the book by the author are very interesting and add to the value of the book.

When the teacher takes the subject of wild animals, he is generally pestered with a number of questions from the boys, for they have generally heard several stories about these in their houses. This book corrects several inaccuracies which are generally accepted as truth.

The South Indian teacher who finds lessons on the Fox, Jackal, Panther, Tiger, Lion, Mongoose and Bear in his vernacular text-book will do well to supplement the book information by many interesting facts recorded in the book under review. And hence a Tamil edition of the book will be found to be very valuable.

On the whole the book is a good guide to the teacher in teaching his Nature-lessons.

THE MADRAS GUIDE BOOK. (INCLUDING MYSORE) WITH 70 ILLUSTRATIONS. (PUBLISHED BY AJIT KUMAR & CO., MADRAS). Price: Rs. 3.

The Publishers deserve the hearty congratulations of the public for having brought out this excellent Guide Book of Madras, and of some of the more important places in the southern portion of the Madras Presidency, and Mysore.

The book is divided into 3 parts—Part I in seven chapters dealing with the Madras City, Part II in nine chapters, dealing with places other than Madras and Part III in two chapters on Mysore; and contains a lot of useful information, historical and otherwise, which will be of great use to travellers, tourists and laymen.

The portion dealing with the City of Madras is very thorough, and if issued separately will be found eminently suitable as a Historical Geography of the City for use by students in schools. The Introductory chapter gives the physical features of the Presidency, its mountains, rivers, climate and products, followed by a historical resumé from the earliest times to the present day. Chapter II—The City of Madras—gives the early history of the city from contemporary sources with a description of the older landmarks and divisions, and of the famous Cathedrals and early European settlers. This is followed by a chapter on the origin of the name of Madras by the Right Rev. Mons. A. M. Teixeira, V. G., and one on Madras and its Fort from the facile pen of Prof. O. S. Srinivasachariar. It gives a succinct and life-like account of Madras as it was in the 17th and 18th centuries and as it is at present, with a description of the more important buildings and places of interest worthy of a visit. Next come chapters on the Colleges in the city and political organisations, hospitals and miscellaneous topics.

Part II has a chapter devoted to each of the following places, such as Conjeeveram, Mahabali-puram, Gingee, Chidambaram, Kumbakonam, Tanjore, Trichinopoly and Madura, and gives interest-

ing historical details not only about these places but also of other places in the vicinity.

Part III begins with a very brief account of the early history of Mysore and concludes with an interesting account of the present ruling house. The last chapter is devoted to the sacred places in the State.

A special feature of the book is that there are references to Jain temples in the Presidency, such as the Pozhal Temple near Madras, the ancient Jain Temple at Deepangudi in the Tanjore District, Jain antiquities in South Kanara (which has a chapter all for itself) and the famous shrine of Sri Gommateswara at Sravana Belgola in Mysore.

The book is profusely illustrated with excellent half-tone pictures of many of the historical places, etc., mentioned, and also contains, as in a Directory, the names of the present members of the Government, the Ministers and members of the Legislative Councils, etc. The printing and get-up of the book are all that can be desired.

Madras and Andhra University Examinations.

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The Educational Review.

We are glad to see from the papers that the unfortunate agitation at the City College, Calcutta, has come to an end and Hindu students have been allowed to continue in the college without unnecessary restrictions on their celebration of national festivals. We are afraid the college has gained nothing by the somewhat tactless step it took in giving trouble to Hindu students merely because they happened to participate in a great national festival celebrated throughout Bengal in honour of Saraswati or the goddess of learning. We trust the authorities of the City College have now learnt a lesson which they will never forget and it will be appreciated not only by those directly concerned with the college, but by the entire Brahmo community. If Brahmoism is not to be looked upon as an aggressive association of individuals extremely intolerant of some of the traditional features of Indian civilization and if the members of the faith expect to be treated with any sympathy by Hindu society all over this land, they must adopt an attitude more conciliatory and sweeter in temper than the one exhibited in connection with the City College affair. We trust the matter is now closed and the City College will have opportunities, once more, to devote itself to the work of peaceful educational development in which it has had a splendid record during its long existence.

Institutions announced with a flare of trumpets are sometimes not so important as they are made out to be, especially in America. We are, however, gratified to learn that an attempt is being made in America for the inauguration of an Institution of Vedic Research. It is intended to make it an international school of Vedic and allied research. Its primary object is to promote a better understanding between India and the West, chiefly by the pursuit of higher studies and research and through living contact among scholars and students of East and West. The ideals are purely educative and cultural, and as they embrace three entire continents, Europe, Asia and America, the activities are necessarily on a large and comprehensive scale. It is announced that an extensive property worth 500,000 dollars in the vicinity of New York City has been placed at the service of the school and has been mentioned to be admirably adapted to its purposes. On this property, there will be a library and resident scholars will also be housed there. It is also proposed to acquire a splendid property, a mediæval castle on Lake Constance at the German-Swiss border, for the housing of the European section of the school. Benares and Srinagar in Kashmir are being thought of as the head-quarters of the Indian section. There are also hopes on the part of the organizers to establish an American University in India and an Indian University in America. Another useful project is the compilation of a

Sanskrit Dictionary which proposes to embody all the latest research scholarship bearing on the subject and it is also hoped in course of time to publish an Encyclopædia in a series of volumes as a companion to the Sanskrit Dictionary. It need hardly be said that India is very much interested in this project and its progress will be watched with great eagerness by all lovers of Sanskrit scholarship in this country.

Speaking on the occasion of the recent

The Dacca University.

Convocation of the University of Dacca, Mr. G. H. Langley, the Vice-Chancellor, drew attention to the special aspects of the progress achieved during the last year. The establishment of a University Training Corps at an expenditure of Rs. 43,700 is a special feature. Hundred students and sixteen members of the University staff are already participating in the training. Dacca has always been intended to be a special centre for the higher education of Muslims, who form such a large proportion of the population in East Bengal, and we are glad to note that a Muslim Hall at a cost of nine lakhs of rupees has been completed for housing Muhammadan students. Being terribly purdah-ridden, it is rather difficult to introduce higher education among the women of East Bengal, but the Vice-Chancellor reports that there is a separate Women's House in the Dacca Hall—there were 12 students and 6 of them were in residence throughout the session. The number is of course too small for a place

which claims to be a University, but we have no doubt it is the beginning of considerable progress in higher education among the women in the near future in that part of the country. Mr. Langley also put forward the views of the Dacca University on the very important question of the relationship of University to High School and Intermediate courses. Mr. Langley contends that the following powers should be vested with the University with regard to Intermediate education: (1) The prescription of curricula and syllabuses for Intermediate courses; (2) the conduct of the Intermediate examination and the awarding of certificates and diplomas thereon; and (3) the exercising of such control over the management of Intermediate colleges as would ensure that all appointments, scales of salary and conditions of service of members of the staff could be approved by the University. In view of the fact that Universities elsewhere are also facing the problem of their exact relationship with Intermediate education, these few requisites, defined by Mr. Langley, are probably worth serious examination.

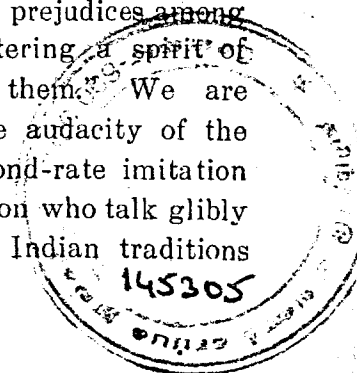
The amendment of University constitutions still goes on

The Patna University.

merrily in India. The latest addition to the list is a new measure which has been introduced into the Legislative Council at Patna. The new Bill intends to transfer the control from the Government to the University in the matter of all appointments of professors and teachers in the

colleges. There is no doubt of the fact that appointments made by Universities are probably less subject to jobbery and communal considerations than those made by the Government, though we have known some notorious instances, even in the case of Universities, of canvassing for appointments, with the result that it was not always the most deserving that have got them. One of the great drawbacks of well-paid Government services, with time-scale promotions, is the absence of any inducement for people to put forth special effort. The happy member of the Indian Educational Service, or even the Provincial Service, has got a feeling that he is bound to get his increase of pay in accordance with the time-scale, whether he is busy at his books or wasting his time in concerns which have nothing to do with his legitimate work. So long as he takes care to be on the right side of official favour, by dancing attendance on those in authority or by preserving a discreet silence, taking care not to offend Government opinion, he is safe; but that is not the way of advancing the cause of higher learning at University centres. We are therefore in large sympathy with the movement which has expressed itself in Madras also, for transferring the control of colleges to University authorities, though unfortunately the two Universities in the Presidency seem actuated by narrow communal considerations on many matters.

The Hon'ble Mr. S. R. Das has been making progress with his scheme for the establishment of a public school at Dehra Dun. By virtue of his position as member of the Government, he has been able to interest at least the landed aristocracy in the country and many ruling princes have given him the financial support necessary for the fruition of his scheme. Though there is not much chance of popular educational interests being advanced by the establishment of this new institution at Dehra Dun, and though the Hon'ble Mr. S. R. Das is attempting to introduce educational ideals thoroughly inconsistent with the spirit of this country and also injurious to our modern ideas of democracy, the public school will probably be an established fact in the course of this year. We find that the aim of the Public School is defined as: "(a) to develop in an atmosphere of Indian traditions, culture, and social environment the best features of the English public school, such as its discipline, *esprit de corps*, the building-up of character, team work, physical development, and the spirit of chivalry, fair-play and straight dealing; (b) to develop a spirit of Indian nationality by destroying all social, communal, religious, or provincial prejudices among the students and fostering a spirit of comradeship among them." We are rather surprised at the audacity of the organizers of this second-rate imitation of an English institution who talk glibly of an atmosphere of Indian traditions



and cultural and social environment. Apparently, Mr. S. R. Das is to attempt fostering Indian traditions and culture by importing European graduates from British Universities. What is more astounding is the statement that the school will go to develop a spirit of Indian nationality. We have some experience of institutions presided over by Europeans, where Indians occupy only subordinate positions. There is no better way of destroying national self-respect than being brought up in an institution where the Englishman is always in the position of authority and only subordinate posts are occupied by Indian school-masters. One main reason why some of the ruling princes, at least in Northern India, are so enamoured of Europe and Europeans and European social life and have been cut away so badly from the social atmosphere of their own countrymen, is due to the early training received in the Rajkumar College where an Indian can be seen only as a subordinate tutor or a vernacular Munshi or Pandit. The unfortunate young pupils who will be brought up at this public school in Dehra Dun will be mesmerized from the very beginning of their childhood into a feeling that their own countrymen are not much good and any valuable work is possible only with Europeans in charge of affairs. As far as we can understand, there is no better way of undermining national feeling than the measures contemplated by the Hon'ble Mr. S. R. Das and his friends!

There is no country in the world where examinations have got such a pernicious hold on the educational system as India. The West has advanced sufficiently in pedagogic matters to appreciate the numerous failings associated with examination systems and they are no longer so injurious to true educational advancement as they used to be at one time. India, however, still worships at the altar of examinations and individuals as well as institutions are judged entirely on the utilitarian consideration of percentage of passes at examinations. We are glad to find that in a very illuminating article on *Examinations on the Defensive*, the Educational Supplement of the *London Times* has made some remarks with regard to the true qualities which are to be embodied in every good examination. "Any examination must, of course," writes the paper, "be a test of the efficiency of the school which sends in examinees. But we must look to it that this efficiency is not tested against the grain in modern schools, as in secondary schools. And we must ensure that, more than the school, the pupil is tested. He must be tested as to what he can do, what he will do, and what he does. What he knows may be tested also, but although it is always interesting to discover what knowledge a pupil possesses the value of this discovery is relatively unimportant. It is the application of that knowledge in thought and skill which matters. And it is methods of measuring that application which we must establish, using the

modern schools as our laboratory for research." We wish our school-masters should lay their hands on their hearts and ask themselves whether examinations, as they are conducted in this country, satisfy this test in any measure. If only these principles are embodied in our educational system, we should have the true spirit of education much more than we have at the present time.

One of the most serious evils connected with bureaucratic governments is the enormous expenditure of money usually spent on administration and inspecting purposes. In a very interesting publication of the Board of Education in England, figures are given with regard to the expenses incurred on the administration and inspecting staff by the Board of Education in recent years. It is interesting to reproduce the figures below. The percentage of expenses on administration by the Board of Education was as follows :

1925-26	...	1.04
1926-27	...	0.98
1927-28	...	0.94
1928-29	...	0.85

It will be noticed that there has been a steady decrease in the percentage of administration expenditure during the last few years and the percentage is so small that it cannot be said at all that any large sum is being wasted on the purpose. The statistics with regard to the cost of inspection are also interesting. The percentage is not only small, but

there is also a steady decrease as in the case of the cost of administration. The figures are as follow :

1925-26	...	0.82
1926-27	...	0.79
1927-28	...	0.76
1928-29	...	0.71

It would be an interesting task on the part of the student of education in this country to make a similar study of the percentage of administration and inspecting expenses in the educational system of any Presidency. We have no doubt that the proportion will be much more and the percentage is far from showing any sign of reduction.

There are many points of educational interest in the monumental report which has just been issued by the Royal Commission on

Agriculture and Education in India

Indian Agriculture. We understand that the Inter-University Board has drawn the attention of the Universities in India to the following paragraphs in the report, which have got a direct bearing on University work :

"THE POSITION OF THE UNIVERSITIES IN REGARD TO AGRICULTURAL RESEARCH:—It does not appear that, at any Indian University, steps have been taken to bring agricultural research into close relationship with the other branches of science taught at the Universities. Agricultural research is regarded as entirely a matter for the Government Agricultural Colleges. It should not, in our view, be isolated in this way. In a country so large as India, in which the problems involving research in every direction which must be solved if the potentialities of

agricultural production are to be realised are so numerous, it is plain that Government institutions cannot cover the whole field. The importance of carrying out agricultural research in the closest touch with other branches of scientific research can hardly be exaggerated. The advantages of mutual intercourse between research workers in different fields have been demonstrated in many countries, and Indian Universities and Agricultural Colleges can no longer afford to work in isolation. We look forward to a state of affairs in which the Universities will not only initiate agricultural research but will also undertake schemes of research, the importance of which is brought to their notice by the Agricultural Departments. It will, we fear, be long before the Universities are in a position to take over agricultural research to the extent to which it has been taken over by Universities in western countries but this is the end which should be kept steadily in view and which both the Universities and Government should endeavour to reach as speedily as possible. It is with a view to facilitating advance in this direction that we have provided for the representation of Universities on the Council of Agricultural Research and on the Provincial Committees which will work in co-operation with it. We have also suggested that the Council of Agricultural Research should be in a position to make grants for research work in connection with agriculture carried out at the Universities.

In the meantime, the Universities can make a most valuable contribution to the advancement of agricultural research in India by raising the standard of their scientific teaching. It was clear from the evidence we received that the character of this teaching leaves much to be desired. In our chapter on Education, we have mentioned the large number of students attending even the residential Universities and this and the overcrowding of classes which inevitably results from it make the attainment of a high standard

of individual instruction in any branch of science difficult. In such circumstances, the development of practical classes and the allotment of more time to laboratory work is much to be desired. While we do not suggest that a special agricultural bias should be given to such practical training, we would emphasise the value of the study of agricultural questions in the training of senior science students. We would, in this connection, again point to the example of Rothamsted, the eminence of which in the world of agricultural research is universally acknowledged but where previous agricultural knowledge is not regarded as an essential, or indeed as an important qualification for appointment to the staff. It is for the Indian Universities to turn out better botanists, better chemists and better biologists and the improvement most calculated to achieve this end is the provision of more adequate practical training in these branches of science. If this improvement is effected, those who benefit from it will have no difficulty in proceeding to specialisation in these subjects along agricultural lines."

* * *

"INFLUENCE OF UNIVERSITIES ON RURAL DEVELOPMENT:—From the point of view of agricultural development we need not emphasise the importance of the part that the Universities must play in educating those who will become the administrators, the technologists, and the research workers of the future. Here, however, we are concerned with the urgent need of instilling in rural communities the ideals of leadership and service, and we wish to make plain our conviction that the Universities have it in their power to make a valuable contribution to this end. It is their highest mission to develop in the student that public spirit and zeal for the welfare of his fellows which, when he goes out into the world, will impel him to take a full and active part in the life of the community in which

his lot is cast. But Universities are commonly situated in large centres of population, and those of their members who are attracted by the call of social service naturally tend to apply themselves first to the problems of the town. We wish strongly to press the claim of the rural areas upon the time and interest of the best of India's youth. It is upon the homes and fields of the cultivators that the strength of the country and the foundations of its prosperity must ultimately rest. We appeal to both past and present members of Indian Universities to apply themselves to the social and economic problems of the countryside, and so to fit themselves to take the lead in the movement for the uplift of the rural classes. We trust that the authorities and teachers of Universities may do all in their power to encourage the study of these most important subjects. The opportunities open in India to men able and willing to play a selfless and patriotic role in the field of local leadership and of service to the public are unbounded. Membership of Village *Panchayats*, Local Boards and the like, and work

in connection with the co-operative and adult education movements as well as that carried out by non-official bodies concerned with the well-being and advancement of the rural population offer scope for the exercise of a wide range of talent and inclination. Such service is of the utmost value to the State, for the welfare and happiness of the peasant must be largely dependent on the purity and efficiency with which local services are administered. Among a people whose history goes back as far as does that of India, and in a society upon which the fetters of custom are so firmly bound, the inertia of centuries can only be overcome by the ready self-sacrifice, by the enthusiasm and by the sustained efforts of those who themselves enjoy the blessings of a liberal education."

It will be interesting to note what action Indian Universities intend to take in this matter. We shall not be surprised if nothing happens in response to these recommendations!

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The value of Child Study is first twofold, from the point of view of theoretical psychology, and second of education. Education along with psychology has much to learn from the science of biology which suggests to both of these sciences the unit for study, viz., a reaction which is a response to a stimulus. The mental life ought to be viewed as is the physical from this point of view. Further, biological science is showing the usefulness both as to method and content of the observation of development. The study of child-nature is in accord with the genetic method which characterises all the biological sciences. Educationally we have more to do with children than with adults in our schools and so from the practical point of view also the more that we can learn about the natures of educands the better for our work. Miss Gordon's book is thus a real contribution to our literature, for it considers these questions with special reference to conditions in South India.

One of the most important of modern developments in this science is that made through the observation of individual differences. Although education is a social process and children are social in nature, yet we cannot deal with them too much in groups without doing great injustice to matters in which they are unlike. Studies made in Europe and America have their value for Indian teachers, but observations made in India, as Miss Gordon's have been, are of great value in enabling us to ascertain the similarities and differences with children of other countries, and the differences among groups and individuals here. Miss Gordon has not only given the result of her own observations but—what is even more important—she has shown teachers and others how they may observe for themselves.

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Education (Allahabad), March 1925.

The distinguished author of the book under review is one of the few enthusiasts in India who have taken to a systematic study of child-nature. The book embodies the results of close study by the author, not merely of the existing literature on the subject, but of the actual, mental and physical growths of children, as witnessed by her in several schools in Britain and India where she has had the opportunity to work. Within a brief space of 200 pages, the author has contrived, in her plain, matter of fact, and at the same time, engaging style, to elucidate the various topics connected with child life such as the sense perception, play, the service of Hand in Mental Development, fatigue, exceptional children, measurement of Intelligence and the Kindergarten system; touching the various theories on these topics and supplementing them by her own views based on personal study and investigation. We would especially commend to our readers the beautiful and inspiring chapter on the Kindergarten system in which without going into technical detail, the author has surveyed the basic principles of the system and pleaded in accordance with these principles for the indianisation of Indian education. We are sure that this

little book will prove an excellent handbook for teachers as well as parents and others interested in the subject and kindle in them a deeper interest therein. It has been already recommended by the Academic Council of the Madras University as a suitable text-book for the students appearing for the L. T. Examination and we hope that other Universities will soon follow suit. We congratulate both the author and the publishers on this valuable publication and recommend every teacher to secure a copy thereof.

The Madras Christian College Magazine, January 1925.

The study of child-nature is exceedingly important for both of the sciences of Psychology and Education. Its importance for Psychology is from the genetic point of view. In the child one is able to observe in simpler forms many of the processes at work which in adult experience become so complex as to make them difficult of analysis. Its importance for Education is too obvious to need extended notice, and yet there are some who are so short-sighted as to neglect it. Here in South India there are a great number of schools in charge of teachers who do not know the elementary facts about child-nature. But with the progress of education the time will surely come when it will be considered as dangerous to employ a teacher who is ignorant of child-nature as it is to employ a man for a physician who knows nothing of anatomy and physiology. Such a book as that which Miss Gordon has written will serve a useful purpose in hastening that day by putting teachers in possession of a primer which contains the fundamentals of the subject in a readable style. It is the type of book which we would like to see translated into our South Indian vernaculars, because it not only includes the principles of the science, but states them with special reference to the needs of Indian teachers.

A personality is the outcome of forces which are both hereditary and environmental so that child study must take account of both sets of factors. Much more is to be gained by teachers through the study of children for themselves than the mere perusal of books on the subject, however authoritative they may be. The trouble with so many students of other things as well as of child-nature is the evident desire to be spoon-fed. They desire to get their information at second-hand rather than take the trouble to study for themselves. In many instances teachers have not the technique necessary to observe intelligently. Very valuable, then, is Miss Gordon's chapter on 'How to Study a Child,' particularly for those who are beginners in child study, and it is a matter of vital concern as much for the parent as for the teacher.

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