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“ SPECIAL GEOGRAPHY NUMBER ”

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EDITORIAL

This special geography number concentrates on furnishing information to help headmasters and school authorities to equip their schools with necessary books, maps, etc. needed for teaching geography. Priority is given to these particulars so that schools may know what is available and worth purchasing as early as possible and take action before the official year ends.

In the report of the Summer Course in Social Studies conducted by the S.I.T.U. Council of Educational Research priority has been given to providing teachers with (a) information regarding books of immediate use to them and (b) suggestions and practical hints on the Tenth Standard Syllabus.

In view of the fact that most teachers of Social Studies now working in secondary schools have not devoted attention specially to the teaching of geography during their training, the S.I.T.U. Council of Educational Research has appointed a Standing Committee for Geography to undertake a systematic programme of work aimed at furnishing the working teacher with practical hints and “ready-made stuff” which will help to improve his work or at least save him time and trouble. We are glad to inform our readers that there will be in future issues articles on various aspects of the teaching of geography such as (i) Practical work in class, (ii) Examinations, (iii) Tests and (iv) Handmade equipment.

It is a fortunate circumstance that we have the cooperation of Sri B. M. Thirunaranan and are able to draw upon his long experience as teacher in school and college and his specialised knowledge of the methods of teaching Geography.

We are also indebted to the members of the staff of the Geography Department of the Presidency College, Madras, for the very substantial service rendered by them in the compilation of the material included in this issue.

The best that can be done to the young teacher is to help him to know where to find the needed material and how to use it for effective teaching. The experienced teacher also, not infrequently, requires information to keep himself abreast of times. It is therefore hoped that the purpose of this number will be appreciated by all who are interested in fostering and maintaining high standards of teaching geography. We sincerely hope that geography teachers will avail themselves of the opportunity which the Council's Standing Committee * affords them.

* Members of the Standing Committee are :

1. Sri B. M. Thirunaranan (*Chairman*)
2. Prof. N. Ananthapadmanabhan, B.Sc. (Hons.)
3. Sri V. S. Ananthapadmanabhan, M.A., B.T.
4. Miss A. S. Devadasan, M.A., L.T., Dip. Geog.
5. Sri S. Natarajan, B.A., L.T., M.L.C., Director of Projects.
6. Sri M. P. Rajagopal, B.A., L.T., Dip. Geog.
7. Sri G. Srinivasachari, Co-ordinator.
8. Dr. Miss A. R. Iravathy, M.A., B.Ed., Ph.D.
9. Mr. S. J. Devasahayam, M.A., L.T.

THE PLACE OF GEOGRAPHY IN SCHOOL EDUCATION

The importance of geography at all levels of education is urged not only by geographers, but by many educationists of standing and experience. "I want you to make the bold claim," said Sir Cyril Norwood, "that geography is an essential part of education whatever forms education may take, and that there can be no question of dropping it in any considered course of study : it is in my opinion more important than a foreign language or a science, highly important as these are, for the simple reason that the intelligent person must understand something about the world and the country and the district in which he is set to live his life." "History and geography should have a central position in the curriculum, as the subjects in which the human movement is, as such, presented and interpreted, history teaching the solidarity of the present with the past, geography the dependence of man's life upon his environment, and the interdependence of human activities all over the globe." (Sir Percy Nunn).

The role that geography has to play in school education has recently been recognized even on an international plane. In the systematic re-examination of the content and methods of education undertaken by UNESCO, as a means of promoting world peace, geography has been given pride of place. The first seminar organised to deal with individual subjects of the school curriculum has been devoted to geography (July-August 1950, at Montreal), and the fact that twenty-three nations were represented shows how widely its value is realized.

"Human life on the earth cannot be understood without reference to its setting and some knowledge of the geography of the whole world is required in order to understand the problems of today." "The geographer's task is to show the extent to which the pattern of human life is affected by environmental conditions." "Geography is the selective study of the humanly significant relationships which exist between the cultural and physical patterns and which give each region its distinctive personality." "If the physical aspects of geography are neglected for the human, then the essential synthesis of the two, which is the core of geography is disrupted and mankind is presented without the evidence of adjustment to natural conditions." (*Handbook of Suggestions on the Teaching of Geography*, UNESCO.)

"Within the broad framework of the school curriculum, the special functions of geography teaching are to help to equip children (a) by giving them specific knowledge and certain skills and (b) by developing certain attitudes. Among the latter, the most important are (1) an understanding

of how the varied problems of peoples are related to differences in environment, (2) an appreciation of the economic and cultural interdependence of peoples and regions, (3) an understanding of the value of natural resources and of the need for their intelligent use." (*Ibid.*)

GEOGRAPHY IN INDIA

In the present set up in India, geography has three specific contributions to make. Before 1947, India had no 'Foreign Relations' or 'Foreign Policy' apart from what was decided in Britain. Now, responsibility rests entirely on ourselves, on the one hand to understand the world situation aright, and on the other hand to manage our foreign affairs properly. The minimum essentials of equipment for this purpose are facilities in our educational institutions, at all levels, to study world history, and world geography and also foreign languages. Secondly, a proper study of the geography of India will help the future citizen to acquire an adequate knowledge of the resources of our own country, which alone will enable him to judge rightly about the many problems that we face. Many of the important problems of our country are essentially environmental, e.g. increasing food production, soil conservation, utilisation of water resources, malaria. The satisfactory solution of these problems needs, as a pre-requisite, an adequate understanding of the natural factors involved. It is necessary that the education of our future citizens should give them a proper approach and an adequate background of knowledge to tackle them rightly. Thirdly, the study of local geography, based on investigation, at first hand, of the immediate surroundings will also yield results of practical value. In the first place, it will lead to a fuller understanding of their own neighbourhood. The interest thus stimulated will on the one hand continue to activate them for the rest of their lives, and on the other, help in developing a genuine local patriotism. The citizens of the future will thus be better equipped, not only with an interest in their own places, but with a pride in it, and the desire to make it better will be guided by the more intimate knowledge they will have acquired. These local studies will also help to develop the pupils' powers of observation and to cultivate in them the capacity to correlate diverse factors. Their education will be closely related to their own lives and surroundings, and they will thus develop the ability to apply the principles which they learn to the concrete situations which arise in their own lives.

The Secondary School course should therefore include, as an essential minimum, (a) the study of the home region, (b) the study of the country, (c) the main outlines of the geography of the world, and (d) some training in the use of maps.

GEOGRAPHY IN THE NEW SOCIAL STUDIES SYLLABUS

The syllabus consists of separate sections each distinguished from the others by its content as well as arrangement. In standards I to III the children learn about their immediate surroundings and their daily life and activities. Much of what they learn deals with observations made in school and outside and aims at systematising and integrating the experiences and information thus gathered. In standards IV and V, History, Geography and Civics of the district and State (in standard IV), and of India (in standard V) have been prescribed, with the injunction that these subjects should be taught simultaneously. It is left to the teacher to work out this interweaving. Standards VI and VII are entirely concerned with the development of the world picture in time and in space. The classification of subject matter into separate subjects has been avoided in this section.

In the High school though the syllabus for standards VIII to X forms one unit, it caters to the needs of two different classes of students and becomes in reality two different courses. All pupils are taught together in standard VIII and study the regional geography of India in common. In standard IX the pupils divide into two groups, viz. (a) those who take the academic course, who will then cover the full syllabus prescribed for standards IX and X; (b) those who take the diversified courses, e.g. Engineering, who will devote only two periods a week for Social Studies, and study in the ninth and tenth standards only the portion prescribed for the ninth standard of the academic course. The Higher Secondary course in standard XI is designed to serve those who take the academic course as a preparation to enter the university. It will come into existence at the earliest only from June 1962 and may therefore be discussed separately later. This article is therefore confined to a consideration of the syllabus of the ten standards comprising the full Secondary School course.

The geographical sections of the prescribed syllabus may be further analysed into (a) practical and (b) observational work, (c) local studies, (d) geography of the home region, i.e. Madras State, (e) geography of one's country, and (f) geography of the world. In standards I to III the work is mainly based on the first three sections mentioned above. The study of the home region is undertaken in standard IV and developed from an initial study of the district into a more comprehensive and systematic study of the whole State. In the V standard a systematic study of the country is prescribed. Some aspects of the general geography of the world are also included in standard IV, and references to other parts of world will also occur incidentally, e.g. in dealing with certain details of the history and the imports and exports of Madras State and of India.

Though the work in standards VI and VII is centred on world studies, references to India and to South India in particular may be utilised and developed, as and when they occur, e.g. by making suitable comparisons. Thus the world picture will become more closely related to their own environment and their concrete experiences.

In the High School India is dealt with again in standards VIII and IX and the continents in standards IX and X. The experienced teachers will further arrange for revision of the portions taught in the ninth and tenth standards towards the end of the course, to help the students on the eve of the tenth standard public examination.

Thus the geography of Madras State will be dealt with at least twice in standard IV and again in standard VIII. The geography of India will be similarly taught four times in standard V and again in standards VIII and IX and towards the end of standard X during revision. The geography of the world will also be done thrice, first in standards VI and VII, then in standards IX and X and finally during the revision in standard X. References to other parts of the world will occur while teaching about festivals and religions in standards II and III and about the history and imports and exports of (a) Madras State and (b) India in standards IV and V. These should be utilised to recall and add to the world picture in the minds of the pupils. It is important to utilise the syllabus even as it stands, to recall the details of the world map at frequent intervals, even by means of such incidental references when specific world topics do not happen to be included in the syllabus of any standard. Thus the teacher who has to handle all the topics included in the social studies will be able to bring in the geographical setting even when dealing with topics like Religion or Trade or Invasions, and bring about a more effective integration of knowledge in the pupils' minds, than the plan of the syllabus provides. In this connection a certain measure of elasticity in the arrangement of work and distribution of topics among the several standards is very desirable, and should be adopted by teachers as well as authors of text books, and encouraged and welcomed by the experts who scrutinise the text books as well as the inspecting officers. Every attempt by any teacher or school to adapt and improve upon the plan of the syllabus should be welcomed and sympathetically and constructively examined. Educational experts never tire of harping upon the necessity to encourage activity and enthusiasm and initiative in children. It is worth while to pause and reflect how far a teacher who is required to adhere rigidly to a prescribed syllabus and set text books and given little outlet for exercising his own initiative and enthusiasm, will be really successful in stimulating enthusiasm and initiative in others.

The recurrence of the geography of India, and of the world, in more than one standard during the whole school course need not necessarily lead to a mechanical repetition of lessons. It is deliberately intended to provide for a simpler descriptive treatment in the lower class to be supplemented

by a more rational and scientific presentation in the higher stage. Further, it is also possible, with the syllabus now given, to adopt a concentric plan, and in each successive class, a new and different set of regions may be chosen for the lessons, or else a different aspect or method of treatment. Thus each year will add to what has been taught previously, without wholesale repetition, and the already familiar details will furnish a firm framework into which the new details may be readily incorporated.

The concentric plan may be adopted equally effectively even in dealing with the practical and observational work and local studies. Teachers will be able to do it successfully only if they take a long term view and plan out the entire work in all classes in a co-ordinated way. The inspecting officers will be in a position to help in this by taking an encouraging attitude and can also spread good ideas to other schools.

B. M. THIRUNARANAN.

36TH ALL INDIA EDUCATIONAL CONFERENCE

will be held at Trivandrum from 27th to 31st December 1961. Please send your delegation fee to the Journal Secretary, The South India Teachers' Union, Raja Annamalaipuram, Madras-28. The delegation fee is Rs. 5/- and other postage charges Rs. 0.75 (for sending the application form and railway concession form, etc.)

C. RANGANATHA AIYENGAR,
Journal Secretary, S.I.T.U.

CLASSIFIED LIST OF GEOGRAPHY BOOKS

Particulars of (i) Advanced Text-books and (ii) Reference Books for the use of teachers in schools are given 'in this list.' Selected portions of many of these books may be used even by the pupils in the top classes on special occasions. The lists have been made deliberately quite brief by including only well-known and standard works. Several titles have been listed for some of the continents. These are alternatives all of which need not be purchased. The books on India included in the list are however to be regarded as complementary works.

In these days of high costs few schools will be able to afford to buy all the books listed in one lot. Efforts must be made to build up the geography library by adding a few items at least every year. In view of the many changes and rapid developments taking place in India, some of these recent publications are quite essential to equip the teacher with an adequate knowledge of the relevant facts. Further occasions must be devised by the teacher to make the IX and X standard pupils use these books to obtain the required information. They will thus learn (a) how to use reference books and (b) how to find out whatever information they need, without the teacher's help.

Attention may also be invited in this context to the lists of school texts and other books for teachers' use already published in the Report on the Seminar in Social Studies for X Standard Teachers conducted by the S.I.T.U. Council of Educational Research. Every school should acquire some of the items included in those lists and gradually build up the library by acquiring the others by stages. Thus, in due course, the school will also have an adequate collection of books for the pupils' use also, as supplementary reading. This is a very important and necessary task, since a variety of books written in a suitable style will encourage the pupils to read them, and thus foster and nourish in the pupils a love of books and of reading.

PHYSICAL GEOGRAPHY

- DE MARTONNE, E. *A Shorter Physical Geography*. Trans. E. D. Laborde, Christophers. 347 pp. 1948. 8s. 6d.
- FINCH, V. C. and TREWARTHA, G. T. *Elements of Geography, Physical and Cultural*. McGraw-Hill. 823 pp. 1949 (third edition). 56s.
- HORROCKS, N. K. *Physical Geography and Climatology*. Longmans. 368 pp. 1953. 18s.
- KELLAWAY, G. P. *A Background of Physical Geography*, Macmillan. 232 pp. 1951.

PHYSICAL GEOGRAPHY (*Contd.*)

- LAKE, P. *Physical Geography*. C.U.P. 453 pp. 1952 (1st pub. 1915). 17s. 6d.
- MONKHOUSE, J. F. *The Principles of Physical Geography*. U.L.P. 453 pp. 1954. 30s.
- PEEL, R. F. *Physical Geography (Teach Yourself Geography)*. English Universities Press. 290 pp. 1952. 8s. 6d.
- KENDREW, W. G. *Climatology*. O.U.P. 384 pp. 1949 (1st pub. 1930). 35s.
- KENDREW, W. G. *The Climates of the Continents*. O.U.P. 608 pp. 1953 (1st pub. 1922). 50s.
- MILLER, A. A. *Climatology. Advanced Geographies*. Methuen. 328 pp. 1953 (1st pub. 1931). 21s.
- PETTERSEN, S. *Introduction to Meteorology*. McGraw-Hill. 236 pp. 1941. 36s.
- TREWARTHA, G. T. *Introduction to Climate*. McGraw-Hill. 545 pp. 1954. Rs. 37.50.
- HARE, F. K. *The Restless Atmosphere*. Hutchinson. 192 pp. 1953. 8s. 6d.
- WILLIS, MARGARET S. *A Systematic Geography of World Relations*. Philip. 320 pp. 1950. 10s. 6d.
- WILMORE, A. *The Groundwork of Modern Geography*. Bell. 390 pp. 1953. 20s.
- BERNHARD HAURWITZ and JAMES M. AUSTIN. *Climatology*. 410 pp. McGraw-Hill.

REGIONAL GEOGRAPHY

- HOFFMAN, G. H. (Ed.) *A Geography of Europe*. Methuen. 773 pp. 1953. 52s. 6d.
- SHACKLETON, MARGARET R. *Europe : A Regional Geography*. Longmans. 525 pp. 1951. 27s. 6d.
- GOTTMANN, J. *A Geography of Europe*. Harrap. 712 pp. 1950. 30s.
- UNSTEAD, J. F. *Europe. A Systematic Regional Geography*. Part II. U.L.P.
- VALKENBURG, S. V. and HELD, C. C. *Europe*. Chapman and Hall (Wiley, New York). 826 pp. 1952. 58s.
- CRESSEY, G. B. *Asia's Lands and Peoples*. McGraw-Hill, New York. 608 pp. 1951.
- STAMP, L. D. *Asia : An Economic and Regional Geography. Advanced Geography*. Methuen. 704 pp. 1952. 25s.
- FISHER, W. B. *The Middle East. A Physical and Regional Geography. Advanced Geographies*. Methuen. 514 pp. 1952. 30s.
- SPATE, O. H. K. *India and Pakistan. Advanced Geographies*. Methuen. 827 pp., 1954. 65s.
- DOBBY, E. H. G. *South-East Asia*. U.L.P. 416 pp. 1953. 18s.
- ROBEQUAIN, C. (Trans. E. D. Laborde). *Malaya, Indonesia, Borneo and the Philippines*. Longmans.

REGIONAL GEOGRAPHY (Contd.)

- FITZGERALD, W. *Africa: A Social, Economic and Political Geography of its Major Regions. Advanced Geographies.* Methuen. 507 pp. 1952. 30s.
- STAMP, L. D. *Africa: A Study in Tropical Development.* 575 pp. Chapman and Hall (Wiley, New York). 1953. 68s.
- SUGGATE, L. S. *Africa.* Harrap. 396 pp. 1951. 8s. 6d.
- JONES, L. L., RODWELL and BRYAN, P. W. *North America. Advanced Geographies.* Methuen. 582 pp. 1950. 25s.
- JONES, C. F. *South America.* Allen and Unwin. 798 pp. 1930. 42s.
- PLATT, R. S. *Latin America: Countrysides and United Regions.* McGraw-Hill, New York. 564 pp. 1943.
- SHANAHAN, E. W. *South America: An Economic and Regional Geography. Advanced Geographies.* Methuen. 318 pp. 1953. 20s.
- WOOD, G. L. (Ed.) *Australia.* Macmillan, New York. 334 pp. 1951. 35s.
- STAMP, L. D. (Longmans). *A Regional Geography* —
 Part I. *The Americas.* 9th edition. 1959. 17s. 6d.
 Part II. *Africa.* 5th edition. 1960. 17s. 6d.
 Part III. *Australia & New Zealand.* 7th edition. 1958. 17s. 6d.
 Part IV. *Asia.* 14th edition. 1959. 16s.
 Part V. *Europe and the Mediterranean.* 9th edition. 1960. 19s.
- TAYLOR, G. *Australia: Advanced Geographies.* Methuen. 490 pp. 1951 (1st pub. 1940). 35s.

INDIA

- STAMP, L. D. *India.* Methuen. London.
- DAS GUPTA, A. *Economic Geography of India.* A. Mukherjee and Co., Calcutta.
- BOSE, S. C. *Modern Economic Geography (India).* The Book Corporation Ltd., 5/A, Bhawani Dutt Lane, Calcutta. Rs. 5-00.
- CHIBBER, H. L. *India—Part I. Physical Basis of Geography of India.* Nand Kishore & Bros., Benares. Rs. 4-50.
- RAO, B. S. *Surveys of Indian Industries.* Volumes 1 & 2. Oxford University Press. Rs. 20-00 each volume.
- DUBEY, R. N. *Economic Geography of Indian Republic.* Kitab Mahal, Allahabad.
- RANDHAVA, M. S. *Agriculture and Animal Husbandry in India.* 1958. Indian Council of Agricultural Research, New Delhi. Rs. 15-00.
Indian Agricultural Atlas. 1958. Govt. of India. Rs. 12-00.
- COGGIN BROWN, J. and DEY, A. K. *India's Mineral Wealth.* 1955. Oxford University Press. Rs. 30-00.
- THOMAS, P. J. *India's Basic Industries.* Orient Longmans Ltd., Madras. Rs. 16-00.
- TULSI RAM SHARMA. *Location of Industries in India.* Hind Kitabs Ltd., Bombay. Rs. 8-00.

INDIA (*Contd.*)

- SPATE, O. H. K. *India and Pakistan. Advanced Geographies.* Methuen. 827 pp. 1954. 65s.
- T. R. SHARMA, and R. S. CHAUHAN : *Economic and Commercial Georaphy of India.* Gaya Prasad & Sons, Blookellers and Publishers, Agra, U.P. 1950. Rs. 5.

ECONOMIC GEOGRAPHY

- BENGSTON, N. A. and VAN ROYEN, W. *Fundamentals of Economic Geography.* Constable (Prentice-Hall, New York). 574 pp. 1953. 45s.
- JONES, C. F. and DARKENWALD, G. G. *Economic Geography.* Macmillan, New York. 612 pp. 1954.
- THATCHER, W. S. *Economic Geography. (Teach Yourself Geography).* English Universities Press. 241 pp. 1949. 8s. 6d.
- L. DUDLEY STAMP and S. GILMOUR CHISHOLM'S *Handbook of Commercial Geography.* Longmans, Green and Co., London. (1st published 1889). fourteenth edition, 1954. Rs. 48.75.

HUMAN GEOGRAPHY

- BRUNHES, J. *Human Geography.* Harrap. 296 pp. 1952. 25s.
- MONEY, D. C. *Introduction to Human Geography.* University Tutorial Press. 332 pp. 1954. 15s.
- UNSTEAD, J. F. *A World Survey, A Systematic Regional Geography,* Part III. U.L.P.

CARTOGRAPHY AND SURVEYING

- BIRCH, T. W. *Maps, Topographical and Statistical.* O.U.P. 256 pp. 1949. 18s.
- BYGOTT, J. *An introduction to Mapwork and Practical Geography.* University Tutorial Press. 251 pp. 1952. 14s. 6d.

REFERENCE BOOKS

- The Statesman's Year Book* VTFJ. S. H. STEINBERG. (Ed.) Macmillan. 45s.
- The Times of India Directory and Year Book* including Who's Who 1960-61. Bennett Coleman & Co. Ltd., Times of India, Bombay. Rs. 30.
- United Nations Statistical Year Book* 1960. Orient Longmans, Madras 2.
- Statistical Abstract for India.* Manager of Publications, Delhi (Annual).
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LIST OF MAPS FOR SCHOOL USE

WITH SOME COMMENTS

The maps required for use in schools are listed below :—

- A. — 1. District map.
2. Globe.
3. World Map.
4. Map of Madras State.
5. Blackboard outline map of Madras State.
- B. — Map of India — Physical, Political.
- C. — 1. World Map — Physical.
2. Maps of Continents — Physical.
3. Regional Maps of Asia — South-west Asia, South-east Asia and Far East.
4. India — map showing climate, population and economic development.
5. Blackboard outline maps of World, continents and India.
6. Roll-up blackboard with graph.

They have been divided into three groups according to the standards. Section A comprises items required in Standards I to IV ; Section B contains those needed in Standards V to VII ; and Section C lists the maps needed in Standards VIII to X. In those schools which may start the XI Standard the same maps will be adequate for the Geography syllabus prescribed for the XI Standard also. Only the really essential maps have been included and the lists therefore represent the minimum essential equipment needed in schools.

MAPS OF THE WORLD — A. STANDARDS I TO IV.

The world map used in the lowest classes must be a very simple one, because at this stage the object is essentially to locate (a) the relative positions of the different land masses and (b) the positions of places and regions in the several land masses. The most satisfactory means is undoubtedly a large globe. But after the pupils have been led to understand the world map as a flattened representation of the globe's surface, the wall map will come into regular use, because of the several advantages it offers. The first globe as well as the first wall map will be quite adequate even if they show by distinctive colours merely the size and shape and the relative location of land and sea. Ideally both the globe and the map should have a matt surface on which symbols and names may be marked easily as on a blackboard. Since the convention of using blue for the oceans

is not only well established, but also true to nature, the ocean surface on the globe and the map is best coloured blue, preferably bright or light blue. The land masses must be shown in a clearly contrasted colour. We may copy Nature in this case also and adopt a brown colour, preferably a light shade. A light tint is suggested for both because writing will then be more easily visible even when chalk of several different colours is used.

On such a map for each class the teacher can mark and name each place or region in the appropriate position as and when it is mentioned in the class. In the very first lesson the teacher should take care to begin by marking the position of India on the map before other places are noted. He may also explain to the pupils with reference to the map the different directions so that they may understand whenever other places are marked not only the part of the world where it is located but also the direction from India.

In the course of the year the blank map will get filled with several names as the regions and places are dealt with. At appropriate stages the teacher could quite easily inform the pupils about the names of the continents in which the places are situated. From time to time by way of revision the names of the continents and the other places which they have already learnt can be easily elicited with reference to this world map that keeps growing before the eyes of the pupils. If the school can afford it, a separate map for each class will be ideal, because each class can then have one map used exclusively for its lessons during the whole year.

Maps and Globes coloured in the manner suggested are not yet commonly available. The teacher may, if he likes, prepare them for his own use in several ways and quite cheaply also, if funds are limited. The simplest and easiest arrangement will be to secure a blackboard outline map of the world in which continents are usually marked in outline only and shade the continents with chalk in some other colour to make them stand out clearly.

B. — FOR HIGHER STANDARDS

In addition to the blank maps of the world showing continents and oceans, physical maps are also essential in the upper classes. It is desirable to get them on the same scale since that will facilitate comparisons. It is also desirable that all these world maps should be on an equal-area scale so that the relative sizes of the continents are easily noted even if the shapes are not truly represented. Among the increasing varieties of world maps that are being employed in atlases the old (undivided) Mollweide elliptical map is perhaps the most suitable for use in school. Its elliptical shape is perhaps the nearest truthful approach to the spherical globe that is possible on a flat map. The various "interrupted" or "divided" nets are likely to be more difficult for the younger pupils to understand and accept as a truthful representation of the globe.

MAPS OF INDIA.

The most authoritative maps of India are those published by the Survey of India particularly with reference to the International and Internal State Boundaries. Several maps on different scales have been published and they are also priced very moderately. Particulars of the several general maps of India published by the Survey of India are given below :—

1. India and adjacent countries — 1" to 192 miles — 1958. Rs. 0.75.
2. India — Political — 1" to 70 miles — Reprinting — New edition will show Maharashtra-Gujarat boundary.
3. India — Physical — 1" to 70 miles — available in English and Hindi. This does not show Maharashtra and Gujarat boundary.
4. India — Railway map — 1" to 67.08 miles — 1960 — This shows Maharashtra-Gujarat boundary.
5. India — Road map — New edition — 1960 — 1 cm. to 25 km. Paper folded Rs. 3.06.
6. Map of India — Political — 1" to 40 miles with insets — Reprinting and will show Gujarat-Maharashtra boundary.

Up-to-date maps of Madras State including Kanyakumari district and Tiruttani taluk, district boundaries, settlements and communications can be obtained from the Central Survey Office, Chepauk, Madras-5. Details of the scales of these maps and their prices are given below :

1. Madras State Map (1960 Edition) — 1" to 8 miles. Rs. 10.86
2. Do. do. — 1" to 12 miles. Rs. 6.76.
3. Do. do. — 1" to 16 miles. Rs. 5.70.

The Central Survey Office also publishes District Touring Maps for all the districts on a uniform scale of 1" to 4 miles. Details are shown in the list given below :

DISTRICT TOURING MAPS

1. Chingleput — 1959 — Rs. 7.87.
2. Coimbatore — 1960 — Rs. 7.87.
3. Madurai — 1958 — Rs. 7.87.
4. Nilgiris — 1958 — Rs. 7.87.
5. North Arcot — 1954 — Rs. 7.87.
6. South Arcot — 1959 — Rs. 7.87.
7. Ramanathapuram — 1953 — Rs. 9.62.
8. Salem — 1958 — Rs. 7.84.

9. Tanjore — 1957 — Rs. 7.87.
10. Tinnevely — 1955 — Rs. 7.87.
11. Tiruchirapalli — 1955 — Rs. 7.87.
12. Kanyakumari — 1960 — Rs. 7.87.
(1" to 2 miles)

TALUK, TOWN AND VILLAGE MAPS

These are also prepared and published by the Central Survey Office for the whole State and may be purchased from them or from the Taluk Offices from where further details may be obtained by those who want to buy the maps. All these maps produced by the Central Survey Office are printed in English. It is therefore a matter for consideration whether elementary schools should purchase taluk and town maps for use in the lowest classes whose pupils will not know much English. But if the school can afford this small luxury it will be possible for the teacher to prepare a tracing or sketch in which all the necessary names may be written in Tamil. A rough sketch based on his personal knowledge of the locality for class use can be similarly prepared by the teacher even if the school does not purchase any of these printed maps in English.

Schools will find it much cheaper to obtain unmounted paper copies and mount them locally. This will avoid paying the heavy freight and packing charges which will be inevitable if copies are ordered mounted on rollers.

Wall Maps mounted on wooden rollers of varying lengths are inconvenient to store. Stacking them in the corner of some room is the usual practice. But this affords the maps no protection against dust and damp.

Hence all large maps should invariably be flat mounted on cloth with dissections to fold and eyeletted when they have to be hung up for use. Such dissected maps can be folded very compactly and may then be easily stored in ordinary cupboards and map chests.

EQUIPMENT FOR SCHOOL USE

WITH SOME COMMENTS

Only essential items have been included in the list given below and it may therefore be regarded as an indication of minimum requirements.

- A. — 1. Magnetic Compass.
2. Thermometer—Maximum and minimum.
3. Raingauge.
- B. — 1. Equipment for duplicating maps for pupils' use.
2. Duplicator.
3. Projector for Filmstrips and slides.

The Duplicator and Projector are both no doubt somewhat expensive. Their purchase is not however beyond the means of most schools since special fees for Audio-Visual education are levied by all institutions. The funds thus accumulated will not only be sufficient to purchase such equipment but will also be ample for full use being made of the projector by borrowing films, film-strips etc., from the numerous sources of supply. These will help to make much of the teaching in Geography as well as other school subjects more vivid and concrete. In ordering film-strip or slide projectors it is well worthwhile taking the trouble of finding out beforehand and selecting only a projector which will give a bright and clear image even when the classroom is only partially darkened. The selected projector must necessarily have a better lens and a more powerful lamp and will therefore cost more than the others. High power lamps will tend to get heated more quickly and we therefore require a cooling fan if the projector is to function satisfactorily. In the upper classes of the secondary schools slides and filmstrips — and even films wherever possible — are best used as adjuncts or "aids" to the regular geography lesson. Pupils must therefore be able to take down notes during the course of the lesson. On the other hand the teacher must also be able to use the blackboard when necessary. There must be sufficient light in the room for the teacher as well as the pupils even when the projector is being operated.

During a regular class the teacher may often have to use the projector as well as blackboard, wall maps and other relevant aids. Hence the projector will have to be located near the teacher's table and the projection screen will necessarily have to be on the same side of the class-room as the blackboard, etc. In practice therefore the distance between the projector and the screen may be reduced to 12 or 15 feet. Hence, only a projector having what is called a "short focus lens" will be suitable. Such a projector will throw an image not less than 4'×4' square which is the minimum size for the entire class to see clearly.

Many High Schools, will be able without any difficulty to possess a projector for regular use in classes of the type described above as well as a more powerful longer focus film projector for the exhibition of films for the whole school on special occasions as an extra-curricular item. The projector for such large gatherings has necessarily to be different in many respects and many different suitable makes are available. Many of these types have been tested and approved by the Education Department. Hence it is not necessary to go into details concerning them in this note.

A Duplicator will be a very valuable and useful item of equipment even in a Middle school and hence a suitable machine should be acquired by every school as early as possible. There are many different makes, some of which are now manufactured in India. It is advisable to purchase one of the well known makes because of the very helpful and dependable servicing facilities provided by their suppliers. It will be false economy to choose a duplicator solely because of its cheapness. It is best to choose a machine that will give efficient and trouble free service. Many of these foreign firms supplying them have the accumulated experience of many years of manufacture and servicing. In the models supplied by them, they have incorporated many improvements based on their long experience. The extra cost of the machine is well worth paying for the better service that is made available by their machines.

The most common type of duplicator is the one using specially cut stencils. These stencils can be readily typed or written or drawn by hand. The duplicator can be used in the school for preparing copies of maps, question papers, notes, circulars and many other items needed in the course of work in the school. With a duplicator all these can be prepared very quickly and easily at very short notice. Cyclostyled material has always much neater appearance and a large number of copies can be taken quickly only with a machine.

SELECTED STATISTICS OF INDIA

These statistics on India have, also been gathered to be used by the teacher in dealing with the geography of India. In this context the readers' attention is invited to the fuller note given as a preface to the statistical appendix of the Report of the Summer Course conducted by the S.I.T.U. Council of Educational Research. On account of the limited space available in this special number, only some tables of statistics have been printed. Other tables furnishing statistics illustrating other aspects of the geography of India will also be made available in subsequent issues of this journal as and when space permits.

AREA AND POPULATION — 1961

States	Area Sq. miles	Population in millions	Percentage of increase 1951-61	Density per sq. mile	Literacy per 1000
All India	.. 1,269,640	438	21.49	384	237
Andhra Pradesh	.. 105,963	35.98	15.63	339	208
Assam	.. 45,767	11.86	34.3	252	258
Bihar	.. 76,164	46.46	19.78	691	182
Gujarat	.. 72,137	20.62	26.8	286	303
Jammu & Kashmir	.. 190,919	3.58	9.73	187	107
Kerala	.. 85,861	16.88	24.55	1,125	462
Madhya Pradesh	.. 171,201	32.39	24.25	189	169
Madras	.. 50,110	33.65	11.73	671	302
Maharashtra	.. 118,459	39.50	23.44	332	253
Mysore	.. 74,326	23.55	21.36	318	253
Orissa	.. 60,136	17.56	19.94	292	215
Punjab	.. 47,456	20.30	25.8	431	237
Rajasthan	.. 132,077	20.15	26.15	152	147
Uttar Pradesh	.. 113,409	73.75	16.67	650	175
West Bengal	.. 33,945	34.97	32.94	1,031	291
Andamans & Nicobars	.. 3,215	0.06	104.83	20	336
Delhi	.. 578	2.64	51.6	4,614	510
Himachal Pradesh	.. 10,904	1.35	21.59	124	146
Laccadives, etc.	.. 10	0.02	14.61	2,192	233
Tripura	.. 4,032	1.14	28.63	283	222

LAND UTILIZATION IN REORGANIZED STATES — 1953-54

(in thousands of acres)

States	Total reporting Area	Classification of reporting area				Net area sown	Net area irrigated
		Forest	Area not available for cultivation	Other un-cultivable land ex-fallow lands	Fallow lands		
Andhra Pradesh ..	66,138	12,302	11,916	7,695	6,953	27,272	6,585
Assam ..	35,764	15,797	10,092	3,658	1,136	5,081	1,374
Bihar ..	42,441	8,841	5,515	2,881	5,972	19,232	4,197
Bombay ..	120,619	15,629	20,368	10,678	7,912	66,032	3,433
Kerala ..	9,372	2,460	1,042	1,027	512	4,331	8,010
Madhya Pradesh ..	107,130	33,617	11,441	18,068	6,464	37,540	2,057
Madras ..	31,967	4,757	5,488	3,812	3,876	14,034	5,259
Mysore ..	45,925	6,413	4,395	6,779	3,960	24,378	1,633
Orissa ..	38,401	10,125	5,329	6,164	2,667	14,116	1,739
Punjab ..	30,290	831	7,736	2,615	2,214	16,894	7,746
Rajasthan ..	84,591	3,260	18,392	22,217	14,032	26,690	2,876
Uttar Pradesh ..	72,511	8,479	11,116	8,208	3,749	40,959	12,587
West Bengal ..	22,195	2,088	3,769	1,914	1,177	13,247	2,855
Jammu & Kashmir ..	5,902	1,380	1,695	721	425	1,681	649
<i>Union Territories :</i>							
Delhi ..	366	..	79	46	14	227	88
Himachal Pradesh ..	2,303	400	160	1,018	58	667	93
Manipur ..	346	37	..	96	10	203	..
Tripura ..	2,634	1,574	65	472	61	462	..
Andamans & Nicobars	78	34	16	15	1	112	..
Laccadive, Minicoy & Amindive Islands ..	..	..	..	..	..	..	..
All India Total ..	718,973	128,024	118,614	98,084	61,193	313,058	53,694

CLIMATIC STATISTICS

Station	Altitude	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Bombay	°F	74.5	74.8	78.0	82.1	84.6	82.4	79.5	79.4	79.4	80.7	79.3	76.4
	37'	0.1	0.0	0.1	0.0	0.7	20.6	27.3	16.0	11.8	2.4	0.4	0.0
Poona	°F	69.8	73.9	80.1	83.9	83.8	78.7	74.9	73.7	74.4	76.2	72.5	68.9
	1,846'	0.1	0.1	0.1	0.6	1.4	5.4	7.2	3.7	5.1	4.0	1.1	0.2

CLIMATIC STATISTICS—*contd.*

Station	Altitude	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Bangalore	°F 3,021'	67.5	72.0	76.7	79.9	78.5	74.0	72.0	71.8	71.8	71.8	69.6	67.5
	" "	0.2	0.3	0.6	1.2	4.5	3.0	4.1	5.8	7.4	6.2	2.4	0.4*
Madras	°F 22'	75.3	76.6	79.5	84.1	88.7	88.4	85.7	84.5	83.9	80.8	79.9	75.7
	" "	1.1	0.3	0.3	0.6	1.8	2.0	3.8	4.5	4.9	11.2	13.6	5.4
Calcutta	°F 21'	65.2	70.3	79.3	85.0	85.7	84.5	83.0	82.4	82.6	80.0	72.4	65.3
	" "	0.4	1.1	1.4	2.0	5.0	11.2	12.1	11.5	9.0	4.3	0.5	0.2
Allahabad	°F 309'	59.5	64.9	76.8	87.6	92.5	90.8	84.5	83.2	83.0	77.6	67.5	59.8
	" "	0.7	0.5	0.3	0.1	0.3	4.5	11.4	11.1	6.0	2.2	0.2	0.2
Delhi	°F 718'	57.9	62.2	74.1	86.2	91.7	92.2	86.4	84.5	83.9	78.1	67.6	59.6
	" "	1.0	0.6	0.5	0.4	0.7	2.9	7.6	7.0	4.7	0.5	0.1	0.4
Lahore	°F 702'	53.0	57.3	69.0	80.9	88.9	93.0	89.1	87.1	84.8	75.7	63.2	54.6
	" "	0.9	1.0	0.8	0.5	0.7	1.4	5.1	4.7	2.3	0.3	0.1	0.4
Jocobabad	°F 186'	57.3	62.4	74.5	85.5	94.2	97.7	95.0	91.6	88.8	79.2	67.5	58.9
	" "	0.3	0.3	0.3	0.2	0.1	0.2	1.0	1.1	0.3	0.0	0.1	0.1
Peshawar	°F 1,113'	49.7	53.3	63.3	73.5	84.0	91.2	90.3	97.6	82.1	71.4	59.8	51.1
	" "	1.7	1.5	2.0	1.5	0.7	0.5	2.2	3.3	1.2	0.3	0.4	0.6
Darjeeling	°F 7,376'	40.1	41.6	49.7	56.2	58.3	59.9	61.5	60.9	59.4	55.2	47.8	41.8
	" "	0.6	1.1	1.8	3.8	8.7	24.9	32.3	26.1	18.4	4.5	0.8	0.2
Simla	°F 7,232'	38.8	40.6	51.5	59.3	66.0	66.9	64.3	62.8	60.9	56.7	50.1	43.4
	" "	2.5	2.7	2.7	2.3	2.8	7.2	17.0	17.4	5.9	1.0	0.5	1.0
Leh	°F 11,503'	17.3	18.8	30.9	42.9	49.8	57.8	62.6	61.0	53.7	42.7	32.1	22.1
	" "	0.4	0.3	0.3	0.2	0.2	0.2	0.5	0.5	0.3	0.2	0.0	0.2
Kodai-canal	°F 7,688'	55.0	56.0	59.0	61.0	62.0	59.0	58.0	58.0	58.0	57.0	55.0	55.0
	" "	2.9	1.4	2.0	4.3	6.0	4.1	5.0	7.0	7.3	9.7	8.2	4.4
Karachi	°F 13'	65.3	68.4	75.0	80.6	84.7	86.8	84.3	82.4	82.0	80.0	74.0	67.4
	" "	0.5	0.5	0.4	0.2	0.1	0.9	2.9	1.5	0.5	0.0	0.1	0.1
Srinagar	°F 5,204'	30.7	33.0	45.1	55.7	63.9	69.9	73.0	70.8	64.0	52.2	44.0	36.3
	" "	2.7	2.8	3.6	3.8	2.3	1.5	2.2	2.3	1.6	1.2	0.4	1.5

AGRICULTURAL PRODUCTION
IN INDIA — 1959-60

Crop	Area in thousand acres	Production in thousand tons	Crop	Area in thousand acres	Production in thousand tons
<i>Cereals :</i>			<i>Fibres :</i>		
Rice ..	82,829	30,963	Cotton ¹ ..	19,252	3,835
Wheat ..	32,542	10,089	Jute ² ..	1,707	4,548
Jowar ..	42,158	8,004	Sann-hemp ..	813	80
Bajra ..	26,750	3,519	Mesta ² ..	704	1,118
Maize ..	10,706	4,006			
Barley ..	8,220	2,605			
Ragi ..	5,964	1,904			
Small Millets .	12,420	2,029			
<i>Pulses :</i>			<i>Plantations :</i>		
Gram ..	25,046	5,390	Tea ³ (1958)	816	710
Tur ..	5,843	1,589	Coffee (1958-59)	268	46
Other Kharif pulses ..	15,791	1,532	Rubber (1958)	287	24
Other Rabi pulses ..	13,089	2,833			
<i>Oilseeds :</i>			<i>Others :</i>		
Groundnut ..	14,864	3,942	Potato ..	881	2,722
Sesamum ..	5,510	392	Sugarcane ..	5,178	75,038
Rape and Mustard ..	7,167	1,037	Tobacco ..	934	281
Linseed ..	3,921	425	Black pepper	234	26
Castorseed ..	1,168	106	Chillies (dry)	1,472	337

¹ Production in thousand bales. 1 Bale = 392 lbs. of cotton lint.

² Production in thousand bales. 1 Bale = 400 lbs. of fibre.

³ Production in million lbs.

AREA UNDER CROPS — 1959-60 (in thousands of acres)

States	Rice	Wheat	Jowar	Bajra	Ground-nut	Sesamum	Rape & mustard	Castor	Linseed
Andhra Pradesh	7,267	45	5,991	1,607	2,899	648	4	667	72
Assam	4,226	5	..	..	..	18	292	6	3
Bihar	12,354	1,613	8	15	..	79	231	29	263
Gujarat	1,347	1,329	3,521	4,111	3,081	300	60	276	290
Jammu & Kashmir	466	246	1	37	3	..	35	..	15
Kerala	1,885	..	4	..	32	44	..	..	..
Madhya Pradesh	9,924	7,254	4,691	433	1,098	852	4,625	22	847
Madras	5,726	4	1,751	1,255	1,856	338	2	31	..
Mysore	2,381	739	6,162	1,287	2,129	172	9	100	122
Maharashtra	3,003	2,188	14,183	4,366	3,404	315	67	169	314
Orissa	9,560	16	18	4	56	235	81	48	37
Punjab	970	5,143	697	2,120	167	43	569	..	26
Rajasthan	247	2,965	2,618	9,761	212	1,287	517	1	298
Uttar Pradesh	10,047	9,566	2,218	2,619	452	1,159	386	2	1,497
West Bengal	10,916	119	5	1	..	10	269	..	135
Andamans & Nicobars	15	..	..	..	..	..	..	..	..
Delhi	3	70	33	54	..	..	3	..	..
Himachal Pradesh	112	341	..	..	..	8	8	..	2
Manipur	392	..	..	..	..	..	..	..	..
Naga Hills	187	..	..	..	..	..	..	..	..
Tripura	426	..	..	..	..	8	9	..	..
Total	81,343	31,508	41,602	26,599	15,455	5,510	7,167	1,178	3,921

AREA UNDER COMMERCIAL CROPS — 1956-57 (in thousands of acres)

States	Sugar-cane	Tobacco	Cotton	Jute	Tea	Coffee	Rubber
Andhra Pradesh	175	390	1,005	..	..	(n)	..
Assam	63	23	35	355	384	..	..
Bengal, (West)	57	39	(n)	720	194	..	..
Bihar	405	39	7	665	1	..	..
Bombay	244	246	10,833	..	..	..	..
Jammu & Kashmir	3	..	..	..	..	..	..
Kerala	19	1	22	..	97	37	178
Madhya Pradesh	106	16	2,185	..	..	..	..
Madras	129	69	1,204	..	73	46	2
Mysore	123	110	2,403	..	5	172	4
Orissa	56	11	23	91	..	(n)	..
Punjab	487	5	1,415	..	9	..	..
Rajasthan	82	21	542	..	..	..	..
Uttar Pradesh	3,050	47	147	31	6	..	..
Delhi	10	1	1	..	..	..	..
Himachal Pradesh	3	2	1	..	2	..	..
Tripura	7	2	20	21	11	..	..
Total India	5,019	1,022	19,843	1,883	782	255	184

(n) = Below 500 acres.

NET AREA IRRIGATED IN INDIA — 1956-57
(in thousands of acres)

States	Canals	Tanks	Wells	Others	Total
Andhra Pradesh	3,149	2,916	793	210	7,068
Assam	899	..	..	634	1,533
Bengal (West)	1,515	963	40	491	3,009
Bihar	1,515	595	525	1,749	4,384
Bombay	689	520	2,299	108	3,616
Jammu & Kashmir	709	3	7	24	743
Kerala	414	77	29	309	829
Madhya Pradesh	965	270	727	87	2,049
Madras	1,997	2,195	1,236	89	5,517
Mysore	408	809	320	292	1,829
Orissa	556	1,233	94	541	2,414
Punjab	4,952	13	2,465	29	7,459
Rajasthan	690	468	2,238	94	3,490
Uttar Pradesh	4,279	1,040	5,412	689	11,420
Delhi	32	6	41	..	79
Himachal Pradesh	..	..	(n)	94	94
Manipur	145	..	..	..	145
Tripura	1	1	..	2	4
Total India	22,915	11,099	16,226	5,442	55,682

(n) = below 500 acres.

MINERAL PRODUCTION IN
INDIA — 1958

Mineral	Quantity thousand Metric tons	Value thousand Rupees	Mineral	Quantity thousand Metric tons	Value thousand Rupees
Coal	46,068	898,967	Apatite	15	360
Lignite	6	230	Barytes	16	285
Chromite	64	3,186	China clay	185	2,448
Iron ore	6,130	48,491	Fire clay	195	1,688
Manganese ore	1,253	112,429	Gypsum	794	5,215
Bauxite	139	1,284	Magnesite	104	1,793
Copper ore	411	22,668	Mica	32	25,196
Lead	5	1,937	Salt	4,227	84,335
Zinc	7	2,049	Steatite	46	1,944
Ilmenite	314	18,339	Dolomite	177	2,335
Gold	5*	49,988	Limestone	10,533	41,531
Silver	3*	548			

* Thousand kilograms.

INDUSTRIAL PRODUCTION

Industries	Unit	1959
<i>Major Industries :</i>		
Coal	million tons	47.03
Steel (ingot)	thousand tons	2,434
Cement	million tons	6.82
Sugar	thousand tons	2,083
Jute	thousand tons	1,051
Cotton yarn	million lbs.	1,723
Cotton cloth	million yards	4,925
Paper and Paper Boards	thousand tons	294
Matches	thousand cases	480
Pig Iron	thousand tons	2,994
Finished Steel	thousand tons	1,736
Semi-finished Steel	thousand tons	2,220
<i>Engineering and Electrical :</i>		
Machine Tools	value in lakhs of rupees	438
Electric Lamps	millions	34.84
Dry Cells	millions	187.8
Power Transformers	K.V.A.	1,016,400
Electric Motors	H.P.	576,000
Electric Fans	nos.	727,200
Radio Receivers	nos.	213,864
Storage Batteries	nos.	442,200
Copper Conductors	tons	6,708
Winding Wires	tons	2,832
Insulated Cables	million yards	166.08
Insulators H.T.	nos.	982,800
Insulators L.T.	millions	6.25
Diesel Engines — Vehicular	nos.	8,712
Diesel Engines — Stationary	nos.	30,336
<i>Chemical Industries :</i>		
Salt	million mds.	85.14
Caustic Soda	metric tons	69,876
Soda Ash	metric tons	95,328
Chlorine Liquid	metric tons	24,780
Bleaching Powder	metric tons	5,184
Bichromates	tons	4,332
Sulphuric Acid	tons	292,164
Super Phosphate	..	..

INDUSTRIAL PRODUCTION (*Contd.*)

Industries	Unit	1959
<i>Non-Ferrous Metals :</i>		
Aluminium ..	tons ..	17,247
Antimony ..	tons ..	664
Copper (Virgin metal) ..	tons ..	7,642
Lead (-do-) ..	tons ..	3,895
Gold ..	ozs. ..	165,312
<i>Miscellaneous Industries :</i>		
Sewing Machines ..	nos. ..	252,612
Bicycles ..	nos. ..	990,744
Automobiles ..	nos. ..	36,468
Cycle Tyres and Tubes ..	million nos. ..	19.67
Motor Tyres and Tubes ..	million nos. ..	2.26
Cigarettes ..	million nos. ..	32,166
Plywood — Tea Chests ..	million sq. ft. ..	98.67
Plywood — Commercial ..	million sq. ft. ..	54.06
Sheet Glass ..	million sq. ft. ..	80.57
Worsted Fabrics ..	million yards ..	15.04
Worsted Yarn ..	million lbs. ..	29.59
Footwear Western type (leather) ..	million pairs ..	4.14
Footwear Indigenous type (leather) ..	-do- ..	4.10
Alcohol Industrial ..	million bulk gls. ..	12.72
Alcohol Power Absolute ..	-do- ..	8.07
Railway Wagons ..	nos. ..	10,044

52ND MADRAS STATE EDUCATIONAL CONFERENCE

will be held at Madras on May 1961. Please send your delegation fee to the Secretary, South India Teachers' Union, Raja Annamalaipuram, Madras-28. The delegation fee is Re. 1/- for each delegate.

Secretary, S.I.T.U.

GOVERNMENT OF MADRAS
Education and Public Health Department
G. O. Ms. No. 2686 Education dated 16th November 1961

ABSTRACT

Education — Secondary — opening of Standard XI from 1962-63 —
Deferred — Public Examination at the end of Standard X — Orders passed.

Read :

G.O. No. 1976 Education dated 30-11-1957.

Order :

Early during the Second Five-Year Plan period certain changes in the pattern of University Education were carried out based on the recommendations of the Secondary Education Commission. These changes necessitated correlated changes in the pattern of school education. The problems involved were analysed and solutions considered by a Committee of Legislature. In G.O. No. 1976 Education dated 30-11-1957, Government accepted the recommendations of the Legislature Committee for the reorganisation of elementary and secondary courses of studies. According to those orders, the pattern of school education was reorganised into an integrated course of elementary education of seven years covering Standards I to VII followed by a Higher Secondary Course of four years covering Standards VIII to XI. The reorganisation is being implemented according to a phased programme beginning from 1958-59. The programme for 1962-63 contemplates the introduction of new XI Standard in certain selected secondary schools.

2. The introduction of new XI Standard in 1962-63 has to be planned for from this year itself. At this juncture, Government have been confronted with certain problems involved in the change-over to the new scheme which were not visualised fully at the time when the change was decided upon. There has also been a certain amount of rethinking on the subject in educational circles. These matters therefore require to be reviewed by expert bodies. Government have therefore decided after very careful consideration that the opening of Standard XI in secondary school due in 1962-63 may be deferred.

3. Until Standard XI is opened, Standard X, opened in 1961-62, will be the final class of secondary schools and the end of the secondary school course. There will be a public examination at the end of Standard X, to be conducted by the Commissioner for Government Examinations, which will be known as the Secondary School Leaving Certificate Examination. The first S.S.L.C. Examination at the end of Standard X will be held in March 1962.

(By Order of the Governor)

K. SRINIVASAN,
Secretary to Government.

(True copy)

GOVERNMENT OF MADRAS

Education and Public Health Department

G. O. Ms. No. 2731, Education, dated 21st November 1961

Subject :—Education Secondary Schools under Private Management—
Provision of medical facilities to teachers by the Management—
Expenditure to be treated as authorised but not as an approved
item for the purpose of grant—Orders passed.

Order :

The South India Teachers' Union has suggested that Managements of secondary Schools may be permitted to provide medical facilities to teachers and others in their schools meeting the expenditure on this account from the funds of the schools. The Government direct that the expenditure incurred by the Managements of Secondary Schools for the provision of medical facilities to teachers and others be treated as an authorised item of expenditure. Such expenditure should not however be taken into account for the purpose of assessment of grant from State funds for the school under the Grant-in-aid Code.

(By Order of the Governor)

S. GUHAN,

Deputy Secretary to Government.

To the Director of Public Instruction, Madras-6.

„ the President, The South India Teachers' Union, Madras-28.

(True copy)

OUR LETTER BOX

SECRETARIAL COURSE IN THE SECONDARY SCHOOLS
OF THE MADRAS STATE

It is a matter of regret that unauthorised printed notes are used in teaching the subjects of this course in some Secondary Schools in our State. These notes contain only a few questions and answers which the pupils are asked to memorise. If these questions appear in the examination, well and good ; if not, woe to the pupils ! There is practically no learning in this method. May I request the Headmasters of those schools to stop the practice of using the notes in the class and to insist on using only the books approved by the Text Book Committee ?

K. R. RAO.

INDIVIDUAL TEACHER RAIL-CONCESSION CANCELLED

Please permit me to draw the attention of the concerned authorities through your esteemed journal.

The Railway authorities have been kind enough to grant rail fare concession to all the primary and the secondary school teachers to go on an educational tour if the party is not less than four members and since 1960 this concession was extended to individual teachers also. Indeed it was very useful to them as it enabled them to go to any place of importance as and when he desires without waiting for a party to form which is not always easy as it depends upon the pecuniary and sentimental reasons. By a tour to the places of historical, geographical, cultural importance, the teacher gains some practical knowledge and in a way paves way for the national integration too. But, on enquiry, the Chief Commercial Superintendent, Southern Railway, replied me in his letter dated 13-10-1961, without assigning any reason, 'I regret this concession is not now admissible to individual teachers.' It is indeed a great disappointment to many enthusiastic teachers who cannot often spend more money on journeys as their economical condition is such that they cannot afford to. Therefore may I request the Railway authorities to reconsider favourably and restore the individual rail fare concession to teachers and if they do so it is a great service they are doing for the cause of education and also for the national integration.

It is a pity even the little concession granted to teachers very recently is withdrawn so soon, i.e. hardly after a year. If there is any difficulty, it is for the authorities to find out means to overcome it rather than to end the benefit and deprive the concession enjoyed by the poor teachers.

Thanking you,

Yours faithfully,
D. SESHADRI.

POSITION OF THE SECOND LANGUAGE (HINDI, SANSKRIT) IN THE SCHEME OF SECONDARY EDUCATION IN MADRAS

The recent reports in the press of the decision of the Academic Council regarding the position of Hindi and Sanskrit in the S.S.L.C. Scheme of examination as well as the observations of the Minister for Education at the Vivekananda College, the other day, has set people thinking whither all this. No serious person can gainsay the importance of either Hindi or Sanskrit in the scheme of National education. But all the same the result is a regrettable one — that these languages have, of late, suffered considerably. An analysis of the scheme of language study in general, in recent years, will lead to a clear and a correct appraisal of the present position and the need for a vigorous rapprochement.

Before the 1948 scheme came into being, our pupils had to study the regional language or a classical language and no special emphasis was laid then on the compulsory study of the regional language even for those whose mother tongue it was. In the reorganised scheme of 1948, all pupils had to study the regional language as Part I of the first language. The

second part contained a choice. A student can either have an intensive study of the regional language or a classical language or any other Indian language. Hindi, however, was also treated as an optional third language.

Quite recently, in conformity with the decision on languages by the Central Government, the three language formula was introduced here. Part I contained the regional language, Part II comprised Hindi, Sanskrit or any other Indian language not included in Part I and Part III had English or any other non-Indian language. The language study under Part II began only in VIII Standard. Pupils who chose the academic course had to study three languages while those taking the diversified courses were exempted from the study of either Hindi or Sanskrit, etc.

An examination of the above will reveal that under Part II languages, Sanskrit has been included along with Hindi. It is unfortunate that this classical language which is the bed-rock of a hoary culture and a vital factor in national integration should have been gradually relegated to an insignificant position as has happened now. Time was when it was on a par with the mother tongue and when proficiency in neither language suffered. Later on when the tinkering with Secondary education began, Sanskrit became the Cinderella gradually languishing and the recent decision of the Academic Council which has come as a surprise even to the Minister is the last milestone.

The repercussions of such a decision and the absence of any immediate possibility of Sanskrit being restored to its former position are highly appalling. Could any student, in practice, be made to love a subject for the pleasure of it, when it loses its significance in a scheme of examination? If students are made to attach no importance, the numbers that study the language will naturally dwindle with the result that it will entail the retrenchment of Sanskrit and Hindi teachers in schools and colleges too. Already such a thing has happened and is happening in very many schools in the State. If schools have no sufficient strength colleges would have fewer still. Could there be anything more pitiable?

Another injurious effect which the revised reorganised system has produced is that this language study under Part II begins from the VIII Standard, while in the past, it started from Form I. The abolition of the study of Sanskrit or Hindi in lower forms has resulted in the gradual removal of teachers even in schools which struggled hard to maintain them. The fate of these teachers especially in the lower forms is rather disquieting. It is not possible for all of them to study Tamil overnight and seek their fortunes as Tamil Pandits.

A bit of calm and dispassionate thinking seems to be the need of the hour. The immediate and advisable and necessary course for the authorities would be to give these languages at least the place they occupied in the 1948 scheme — that is, as part of the regional language and begin the teaching of the subject from VI Standard onwards and not from VIII Standard. Even now a minimum may be prescribed for eligibility. This will

be a step in the right direction enabling students to study the language more intimately and the teachers to be secure. Our endeavour should be not to let die willingly the language, the culture of which still courses in our veins.

N. SRINIVASACHARI,

Headmaster,

Sri Ramakrishna Mission High School (Main),
T. Nagar, Madras-17.

**Impressions of Dr. Lyla W. Ashby, Deputy Director General
of the National Education Association of America,
on the South India Teachers' Union**

The purpose of my short term Fulbright Scholarship is to study the professional educational associations in India to exchange ideas with the leaders of these associations.

I have had the privilege in the U.S.A. of serving as a staff member of the National Education Association for the past thirty years. I have therefore a very great interest in the work of professional associations and a strong belief in the power of such associations, when well organised to lift the levels of education and the standards of the teaching profession.

I have greatly enjoyed the opportunity to meet the officers and the Executive Committee of the South India Teachers' Union and to visit a number of schools and to learn from headmasters and assistants about the educational programme in Madras State. I have observed that your professional associations are working on two major fronts, namely, to lift the standards of teaching and to improve the welfare of the teacher. I am glad to find that the interest of the profession is broader than the selfish interest of the teachers.

One of the present difficulties which I note is the problem of adequate communication with members. The member who joins must pay a separate fee to receive the magazine. I would raise this question with the S.I.T.U., Madras. "Is it possible to set the membership fee to include the magazine?" If this could be done, then each member would have a direct contact with the S.I.T.U. each month and would have the benefit of the information and the inspiration which the magazine can convey to its members.

I have been pleased to learn about the fine work of the Research Council. This activity is already accomplishing some concrete results and is laying the ground work for the development of a scientific approach to educational problems by the organised profession.

FROM OUR ASSOCIATIONS

TIRUCHULI

The inaugural meeting of the Teachers' Association of T. U. N. S. Vythilinga Nadar High School, was held on the 29th June 1961 under the presidentship of Sri Edward A. Samuel, B.A., L.T., the Headmaster and the President of the Association. He spoke on English dictation, transcription and homework. Sri David Balraj, B.A., B.T., the Secretary for the current year 1961-62 proposed a vote of thanks.

Affiliation of the association with the Ramnad Dt. Teachers' Guilded was decided upon and was effected.

We have had 5 meetings and the speakers were the Headmaster, Mr. P. Subbiah, B.A., B.T., Mr. D. David Balraj, B.A., B.T., Mr. R. Tagore, B.A., and the District Educational Officer.

The topics discussed were 'Appreciation'; 'இலக்கியக் கதம்பம்' and 'Statistics'. The District Educational Officer who presided over the association meeting on 10th Oct. 1961 spoke on raising the standard of pupils and also on discipline and how teachers should play their part in moulding the young minds committed to their charge by their selflessness, integrity and energetic work.

NEWS AND NOTES

An UNESCO Press Note dated 25th August 1961, states :

EDUCATIONAL BROADCASTING IN TROPICAL AFRICA

The present condition of broadcasting services in Tropical African countries, and the use that can be made of radio for education will be discussed at an international meeting, organised by Unesco, at Moshi, Tanganyika, from 11 to 16, September next.

The Addis Ababa Conference last May, in outlining the needs of African States in the field of education, stressed the importance of audio-visual aids, especially that of radio.

It was in order to follow up the recommendations made at this Conference that Unesco invited 30 countries and territories to send the directors of their broadcasting services and leading educators to Moshi. Observers from other United Nations bodies as well as from international non-govern-

mental organizations will attend, in addition to a number of radio experts.

The meeting will provide opportunities for a broad exchange of views and of experience. Those in charge of broadcasting services and the educators will seek to work out the most useful methods of co-operation. One purpose of the meeting will be to draw up projects for the use of radio in teaching, not only at the school level, but also in the field of adult education, using experience already gained in such work in other countries.

The results of this meeting will be sent, in report form, to Member States and to interested international organizations.

Although, at the moment, very few African States have television, the attention of those attending this meeting will also be drawn to this other form of audio-visual aid, and to the very vital role it can play in teaching.

OUR BOOKSHELF

WALL CHARTS

GENERAL SCIENCE: *Weighing* : The chart presents a complete story of weighing, covering scientific principles, history and modern usage. The first section of the chart deals with the principles of weighing and weight, leading on into a short section on the history of different methods of weighing from the earliest known Egyptian balance to the first spring balance invented by Richard Salter. The major part of the chart deals with the principles of different types of weighing machines—the spring balance and the lever balance. The final section of the chart describes some of the different types of spring balance and their application in the home, industry and shops. This chart is published in collaboration with Geo. Salter and Co. Ltd.

DOMESTIC SCIENCE: *Rug Making* : This is the third chart to be published in collaboration with Harrap Brothers (Sirdar Wools) Ltd. The two previous ones have been devoted respectively to "Wool" and "Hand Knitting." Four large illustrations clearly show how to make the tuft which is the basis of a wool rug. The chart shows how to sit at the table and how to work the rug on a table pointing out the different things to watch at this stage. It shows how the lengths of wool are cut and the difference between squared canvas and ordinary canvas. The chart also shows how to bind different types of rugs both rectangular and circular. This chart will enable one to complete the job much more quickly and with much less effort.

GENERAL SCIENCE: *Primary Cells—Mercury-Zinc Alkaline System* : This chart shows in a simple diagram the structure of the mercury cell and the chemical action which takes place in it. Exploded photographs give details of the structures of three different types of cells including their

capacity and life. The parts are clearly labelled. The third section shows in graph form the properties of different types of small cells which are illustrated to scale. A final section shows some of the varied uses of the cells. The chart is published in collaboration with Mallory Batteries Ltd.

HANDICRAFT—MACHINE TOOLS: *The Wood Turning Lathe* : This chart has been produced in collaboration with T. S. Harrison & Sons Ltd. The existing chart on the Wood Turning Lathe has been considerably revised in this new publication and includes a more detailed illustration of the Lathe itself, illustrations of different accessories and a new section on changing the speed of the Lathe and renewing the Vee belt.

NEW PUBLICATIONS

GENERAL SCIENCE: *Mineralogy* : The chart is made up of a series of twenty plates, each depicting in colour, minerals of particular groups. The first three plates deal with naturally occurring elements, plate four with Halogen compounds, plates five, six, seven and eight with Sulphur compounds, plates nine, ten, eleven and twelve with Oxides, plates thirteen, fourteen and fifteen with Carbonates, plates sixteen, seventeen and eighteen with Silicates and plate twenty with Phosphates and Arsenates, Tungstates and Molybdates and Minerals of organic origin. Affixed to the end of the chart is a key to the plates and to the various minerals included in each plate.

GEOGRAPHY—EUROPE: *Federal Republic of Germany (set of 3 charts)* : The three charts deal with Physical Geography, The People, and The Economy of the Federal Republic. They have been published in collaboration with the Embassy of the Federal Republic of Germany. The first sheet includes a large physical map and photographs illustrate typical features