Educators discuss improved methods of instruction.

THE thirty-first annual session of the California Teachers' Association will begin its labors at Metropolitan Hall at 9 o'clock this morning, and will hold daily sessions until Friday morning, with numerous "round-table" conferences in the afternoons.

The most distinguished educators of the State, with a number from other coast States, and President A. S. Draper of the University of Illinois, are in attendance, and the session promises to be the most important in the history of the association.

The initial work of the session was performed yesterday, when the Council of Education met and received the reports of the committees having in charge the advancement of school work.

As an introduction to the thirty-first annual session of the California Teachers' Association, the council of education, a permanent committee of fifteen selected by the general body to report on educational work, met in the parlor of the Lick House yesterday morning and received the reports of several sub-committees. There was a large number of prominent educators from all parts of the State, as well as several from neighboring States, in attendance. Among the visitors was Mrs. Caine V. Shaw Rice, training teacher in the Tacoma Normal School and member of the Washington State Board of Education. Mrs. Rice is also a poet of distinction. Another Tacoma visitor was City School Superintendent Bingham.

The papers read were all carefully prepared and after their presentation animated discussion followed each recommendation.

The first report was that of the committee on physical education and hygiene, Drs. T. D. Wood of Stanford and Myra Knox of Oakland submitting supplemental reports to the general report, which was read by Miss Lucy M. Washburn of the State Normal School of San Jose. Dr. Wood illustrated his remarks with charts explanatory of the increasing ailment of school children. He spoke as follows:

Dr. Herter's investigations of the health of school children in Copenhagen, Denmark, proved conclusively that the percentage of sickly boys increased from 18.6 per cent at the age of six to 40 per cent at the age of 16.

The percentage of sickly girls increased from 12.7 per cent at the age of six to 61 per cent at the age of 16. This was a very conservative estimate of the health conditions among the well-to-do classes, where the home surroundings were good and the children well fed and cared for.

The conditions of ill health include eye disorders, deformities of spine, impoverishment of blood, chronic headaches, many forms of nervous disorder and other forms of chronic sickness. And the increase of sickness was proven to be school life with over pressure, unsanitary conditions, unhygienic furniture.

A Government investigation in Denmark verified Dr. Hertel's conclusions. It is very important that similar investigations should be made in all grades of schools in the United States.

Dr. Myra Knox mainly devoted her attention to the defective vision and hearing of children and the consequent drain on the nervous system. She said:

No one knows the amount of suffering that some children endure through physical defects that should be prevented or remedied. They have blurred vision, their hearing is dulled, and they cannot breathe properly. At school they are called dull, stupid, inattentive and disobedient. Such children are to be pitied. They are sensitive and physically uncomfortable.

The average parent is not very observing, and in the past the average teacher, if she recognized physical defects, doubted the expediency of making suggestions. In many families but little attention is paid to the complaints of children. It is hard to rise above the traditions of our ancestors and even in this enlightened day, if Johnny complains of pains in his legs, his mother gravely tells him that they are growing pains, and of course that settles it, and the supposition is that nothing but the full measure of growth will stop the pain. The chances are good for the boy's having chronic rheumatism, with valvular heart trouble.

There are three ills that the majority of children suffer from and the effects endure. They are badly cooked food, impure air and too many studies. Badly cooked food we will have until there will come a generation of wise people who will not allow a girl to enter the high school without a diploma from the cooking department that will be a part of every grammar school. One of the physical defects most readily noticed by the teacher is myopia. There is no organ of special sense so abused as the eyes. Sight is the only special sense that we use all the time except during sleep. Many parents labor under the delusion that children will outgrow eye troubles. They fear that if they take the children to an oculist he will put glasses on them, and the chances are he will, for the defects in vision are very serious when parents seek medical aid. When eye strain is removed by properly fitting glasses the parents will tell you that wearing glasses weakens the eyes, for the child cannot see as well without the glasses as he did before wearing them. Myopia is rarely congenital and is always a pathological condition. About eight per cent of myopia usually begins before eight years of age. The most rapid development is between twelve and eighteen years. Near-sightedness is less liable to induce nervous troubles than far-sightedness, yet the former is far more often corrected by the oculist because it is so apparent.

Causes of myopia are bad ligh and bad position in reference to light, position of head, distance from book, and duration of study hours. As to small children, the cause may be habitual occupation with small objects near the eyes as in some work done in the kindergarten, or practicing on the piano in illy lighted rooms, but the most prolific cause is uncorrected errors of refraction. This means ninety-five per cent of all who seek the aid of the oculist. The near-sighted child holds the book close to his face to get a clear view. This means strong convergence, stretching, a weak sclera and an enlarged and elongated eye-ball results. Among type-setters we find a larger proportion near-sighted. The predisposition to this defect may be hereditary, but the determining causes are acquired and largely preventable.

To combat this we must promote a vigorous state of health. This includes home hygiene, good food, pure air, plenty of sleep and proper exercise. A specialist tells me that he finds three girls with this defect to one boy. This is because the girl curls up on the sofa and reads while the boy is out of doors playing ball, thereby strengthening his nerve power and increasing his blood supply. Our schoolrooms are not ideal as to ventilation and light, and desks are not adjusted to the pupils. Myopia is not so common among the English, as they are great lovers of outdoor sports.

Hypermytropia is a congenital condition. At first it is 92 4-10ths per cent, at five years 86 per cent; children in elementary schools 76 per cent, in the higher schools 56 per cent. It is the frequent cause of sick headache. After a child learns to read he will also complain of seeing double. Close study causes weariness and discomfort, and is the cause of many nervous troubles. That long-suffering organ, the liver, has had to bear the blame of much that should have been laid to the eyes.

The eye trouble that causes perhaps the most distress and nine-tenths of the headaches among school children is astigmatism. In such cases the cornea of the lens of the eye has a greater curvature in some meridians than in others, and the image that falls upon the retina is distorted. It is very easy for one to detect this defect by the charts commonly used by physicians and that are furnished the schools in most cities, but it is a trouble that cannot be corrected by the general practitioner nor by the optician. To correct astigmatism is hard enough for the oculist, especially when complicated with other defects, as it often is.

The trouble that causes a characteristic and unmistakable picture is that commonly known as adenoyd vegetations. It is a soft mass of lymph tissue in the vault of the pharynx, filling up the posterior nares. It is a disease of child life, and occurs in 4 per cent of girls and 7 per cent of boys. Heredity has an undoubted influence, as you will find several children so afflicted in the same family, but it is very often caused by repeated colds. Eruptive fevers, like measles and scarlet fever, may be the starting point, as these diseases always cause an inflammation of the mucous membranes of the throat. The child afflicted with this trouble is quickly noticed in the schoolroom. His mouth is always open, as he cannot breathe through the nose, giving him a foolish look. The upper incisor teeth set out, the eyes have a vacant stare, and there is a broadening and flattening of the bridge of the nose. Mechanically the increased growth of lymph tissue shuts off the proper supply of air to the lungs, and the whole body suffers through lack of oxygen in the blood.

Deafness is quite common, caused by an insufficient current of air passing through the eustachian tube, to keep the pressure up in the middle ear. Any cause which interferes with the free nasal breathing will in time cause deafness by interfering with the air pressure. The pressure of the growth causes congestion, this causes a greater secretion in the middle ear and eustachian tube, and very often the results are earache and abscesses.

This paper is merely an outline to call the attention of teachers to a few of the ills that children suffer from where the symptoms are so plain that it is inexcusable to allow them to continue without remonstrance. When you find a mouth breather consult the parents and talk the matter over. Convince them that it interferes with the child's studies, that it retards their growth, and in case of diphtheria the danger is greatly increased. In cases of defective vision do the same. If the parents are too poor to pay for such services they will not be refused treatment by the specialists. A pupil with persistent headache should have his eyes examined, and in most cases not only will the headache disappear but a new world will be unfolded to his sight. There will come a time when the eyes of all children will be examined on entering school, and the parents will be compelled to have cross-eyes and crooked teeth made straight. In all this work the teacher and the physician are the home missionaries.

The general report as read by Miss Washburn follows:

The responsibility of the schools for the child is twofold. First—To protect and develop him while too young to do this for himself. To protect and develop him physically as much as mentally and morally, the latter being largely dependent on the physical. Second—To teach and train him, so that he will afterward protect and develop himself and those under his charge as parent, teacher, citizen.

Where is he to get this instruction and training if not in the public schools? To leave it to high schools and universities cuts off all but a few.

Our care and protection of the child should include, first, his environment; such matters as good air, full ventilation without drafts and special care against all pollutions; grounds and buildings selected and constructed with special care as to light, dryness, etc. Second, adaptation of the course of study to the child's nervous system. No matter what study be sacrificed, the amount of work must be restricted so as not to overtax, but to develop the pupil's brain and entire nervous system. In the growing demands of the age this will require careful choice of the subjects and their teaching in the order in which the child's developing mind grasps them most easily, and their correlation, so that each topic may help the rest. It will even then demand the sacrifice of not only all rubbish but much that is valuable, since nothing is so valuable as the child's unwearied brain.

Third—Building up the child's whole physique and then his brain by (a) physical culture at school, including direct exercises and supervised outdoor plays, with constant watchfulness as to position during study, etc. (b) Influence on the home as to nutrition, sleep and environment.

Four—Care of individuals; especially (a) the delicate and the over-nervous, who should be given part work and work judiciously arranged for their needs. (b) The defective as to sight, hearing, nutrition, etc., who should be sorted out by tests for the eye, ear, etc., and parents consulted with.

The direct instruction and training of the pupil, besides what he gets by example, should include: Teaching of so much physiology and hygiene as he is fitted to understand and be interested in. Training him to execute, as fast as he can learn, from this direct teaching and from example, thus making him as soon as possible interested and responsible and giving him life-long habits.

This physiology teaching should not be book work nor rote memorizing. It should find an objective basis in every department of nature—study wherever phenomena and laws can be studied that have a bearing on human life. For instance, in physics, simple studies of the direction and causes of air currents should be at once developed into studies of the mechanism of breathing and the methods of ventilation—and these practiced as soon as learned and ever after.

As soon as the simplest ideas of chemistry are developed it is time for their application to the differences between the air breathed in and that breathed out—and later, between the foods consumed and matter given off from the body. Early years made such rapid strides, schools are dragging far in the rear. They are usually worse ventilated than prisons, becoming distributing centers of contagion and hothouse forcing grounds of nervous overstrain, with all our new psychology showing us the intimate dependence of the mind on the body. Every other study has more time allowed it and has had more attention paid to proper methods of teaching it than the knowledge and care of our own life. What is to be done? There are two great wants: Teachers better trained and more deeply inspired, and school authorities intelligently alive to the urgent need, giving time to the course of study and facilities for the best teaching, and enforcing their use. Perhaps the best practical plan at present is the employment of specially trained teachers in towns and cities to give their whole time to the subject, or in the smaller towns, half of their time. These teachers should give physiology and health lessons of fifteen or twenty minutes twice a week to kindergartens and primary grades, and thirty minutes two or three times a week to grammar and high school grades. They should also plan for and supervise further instruction by the grade teachers in connection with nature study, and its continual application throughout the entire school day.

Gymnastic exercises should be given by the same trained teachers or by the grade teachers under their supervision. In the kindergartens one-third to one-half the time should be spent in games and exercises involving the larger muscles. In primary grades there should be at least four 15-minute periods for physical exercise, including the intelligently supervised games of recreation periods. In grammar grades two 20-minute periods daily, besides recess supervision. In high schools thirty minutes every day or at least an hour three times a week where special gymnastic facilities have been given.

There should also be hygienic inspectors, either the above described special teachers or others having special training, who should inspect the school grounds and buildings, the school room routine of work, and the physical and nervous condition of the pupils, including anthropometric measurements, tests of special senses and other neurological investigations. In all schools, even the ungraded country schools, the urging of the work as a special application of nature study, with its importance emphasized by an adequate time allotment, will go far to place the study of health and its basis on a proper footing. Already there are many more teachers ready and even eager for the work than school authorities ready to recognize its importance and make way for it by cutting off less fruitful studies.

We ask your adoption of our report or a brief summary of it, and the placing of it before school superintendents and teachers for discussion at the county institutes in connection with the course of study. And we ask you to urge upon the State Teachers' Association the adoption of measures to increase the amount and quality of hygienic care of pupils and their instruction along the lines herein set forth.

James E. Addicott of the State Normal School, San Jose, read a paper on "Manual Training for Elementary Schools," in which he said in part:

Three years ago the Educational Council of the California Teachers' Association appointed a committee of seven to report on ways and means of introducing manual training into our primary schools.

In its first deliberations the majority of the committee favored recommending manual training courses for larger cities only, it being thought that towns and villages could not afford to equip special rooms for tool work.

Manual training means the utilization of the physical activities of the pupil in getting experience necessary to the acquisition of knowledge. The time has come when intelligent hand work is recognized as contributing to moral and intellectual development as fully as the older plan of studying books. With advancing civilization comes a new environment; with this new environment come new necessities; with new necessities should come a course of study that will enable the pupil to adjust himself to his environment. Thus we believe that the future life-work of the pupil should affect the course of study. In elementary schools, however, we recommend the same course in manual training for all pupils without regard to differences in their prospective life-work, believing that a preparation for his life-work is a good foundation for the higher academic studies which the pupil may take later.

The following programme is recommended as a desirable and feasible course in manual training for all grades. In outlining this course the committee has taken into consideration (1) the principles of pedagogy; (2) the average capability of pupils from both psychological and experimental standpoints; (3) the auxiliary influence of hand work in science, language and mathematics; (4) its esthetic side; and (5) the cost of material and equipment. It represents the best efforts of your committee, and we hope it may soon be so modified as fully to meet the needs of our elementary schools. The work as outlined combines arithmetic, drawing and concrete geometry, under a new name, manual training, and each one is better understood because its relation to the other three is made clear, thus saving much time and making each less difficult.

In time we may expect a definite course suited to the work of each grade, but for the present we must be content to select and adapt the best exercises from the various so-called "systems."

Manual training should have a "reciprocal relation to the other subjects in the curriculum." Every exercise should be artistic in form and proportion. In the higher grades, working drawings should precede each exercise, they should be used below the sixth grade, if the pupils are prepared to construct and comprehend them. The work of the sixth, seventh and eighth grades should include sloyd, joinery and making apparatus to illustrate principles of mathematics and physics. For this line of work benches equipped with ordinary wood-working tools are necessary. Every pupil should be taught the care and use of tools. Where necessary benches can not be secured, there should be at least one bench with a set of good tools, the class work being done at the desk, protected by a "desk top." The "desk top" is a wooden tray containing drawing instruments, "laying out" tools, sloyd knife, etc., which may be clamped to the ordinary school desk as a protection while the pupil is using wood-working tools. In such cases courses in sloyd, carving and apparatus making could be successfully taught, the principal tools being rule, compasses, square chisel, pointed pencil and knife. The sloyd knife is safer and more convenient than the ordinary pocket knife, and of such shape as to be easily adapted to all models.

Drawing with a straight edge and compass should be a specialty in the intermediate grades, where also constructions in cardboard and thin wood, involving but two dimensions, should be introduced as a preparation for the more difficult exercises of the higher grades. In the primary grades clay modeling, coloring, paper folding, etc., should be taught in relation to number and science work. Conceptional drawing should be a special feature of the primary work.

In selecting material the expense must be considered. Cardboard costs less than wood, and may be used in the third, fourth and fifth and even in the sixth grades. Clay, sandpaper, charcoal, cardboard and wood are the cheapest and best materials.

As a rule boys and girls should follow the same programme, but when the purpose of the course is to prepare for life work a distinction should be made in the higher grades. In New York schools the girls of the sixth, seven, eighth and ninth grades are taught sewing and cooking, while the boys take sloyd, joinery and apparatus making.

The first requisite of the manual training teacher is professional training; he should believe in the work as an educational factor; he should possess general ability and culture, as well as special technical skill in the line of work he teaches.

Professor Washington Wilson of Berkeley, chairman of the committee on reading for pupils, read an interesting report on the proper course of reading for school children of all ages and the best method of training pupils in the selection of proper literature, summing up his address in the following suggestions:

That there can be gleaned a careful statement of the actual reading in the homes and schools of this State.

That there be obtained accurate knowledge of the general conditions of our school libraries.

That a comprehensive place for purchase and distribution of books be formulated and recommended.

That a careful study of the problem of children's readings be made so as to secure the best information attainable upon: Purpose and scope of reading in home and school; the principles of selection of material; proper form of its presentation; efficient methods of information regarding new books. That this council provide for making careful lists of books and periodicals for use in homes and schools based upon expert opinion as to form and contents.

The afternoon session of the council was devoted to the reading of four papers by members of the committee on course of study and discussion thereon. Superintendent J. W. Linscott of Santa Cruz, as chairman of the committee, in introducing the reports of the sub-committees, said that while the committee had been in existence for three years and was not yet ready to offer a complete course of study, much had been accomplished toward that end. He spoke of the difficulties attendant upon the preparation of a satisfactory course of study, and promised that his committee would continue its work during the coming year with renewed energy, and with the hope of presenting a complete report at the next session of the council.

Professor E. E. Brown of Berkeley then read the general report. He stated that a sufficient number of copies of the second annual report of the committee had been sent to each of the counties to supply every teacher in the State. Several sub-committees, he said, had prepared reports, which were appended to the general report. He recommended that the report be distributed throughout the State and that the State association appropriate $250 for that purpose, as was done last year.

Professor Irving Stringham of Berkeley, chairman of the sub-committee on mathematics, presented his report, which said in part:

In constructing a programme of mathematical studies the committee has been guided by two important considerations: The two-fold character of the purpose of mathematical study in the public schools; the quite universally acknowledged meagerness of results now obtained from the study of arithmetic in most of our grammar schools.

Mathematical study serves a two-fold purpose. On the one hand as a weapon necessary in the daily warfare for existence; on the other as a mental discipline. Without the knowledge that it dispenses, and without the ability to use the instruments that it furnishes, the individual member of society is incapable of maintaining an independent existence. He becomes an easy victim for slaughter in the midst of the selfish scramble for preferment. It is one of the inexorable laws of civilization that one must study arithmetic or perish. Only a little less important is mathematical study as a mental discipline. As such it helps to produce strength of mental fiber, cultivates the power to strike with precision and through the consciousness of power stimulates self-reliance.

The professor submitted a table giving the proposed programme of mathematical studies in the primary, grammar and high schools. In the first and second grades he suggests that twelve minutes daily be devoted to each twenty-five pupils, while in the next two grades the time be extended to twenty minutes. In the fifth and sixth grades the time is increased to twenty-five minutes, and in the seventh and eighth thirty minutes daily are devoted to arithmetic and mathematics. A course of study is prescribed for each grade, care being taken not to overburden the pupils, but to accomplish the best results with the least work.

In the two lower grades of the High School he recommends a course of algebra three times a week and geometry twice a week for all pupils. In the eleventh grade, pupils preparing for college should be required to study algebra twice a week and geometry three times, while during the last year algebra should be heard three times, and trigonometry twice a week, this course to be entirely optional with the pupil.

Professor O. P. Jenkins of Stanford University in presenting his report on "Nature Studies," said in part:

In planning a course of nature study it must be understood at the outset that such a plan is presented only as tentative; that it is to be subject to modifications in any way or at any time according as experience and development shall dictate.

The following general considerations should guide in the choice of subjects: No attempt should be made to formulate a fixed course—that is, one consisting of a definite sequence of selected objects, such as is usually considered to be the meaning of a course of study. The work should have as its principal aim the giving employment to the child in seeing clearly, thinking accurately in the presence of real facts and in enjoying intelligently the world about him, of which he is a part.

The number of objects in nature that are available for this end are thirty. The school period can use but a fraction of them. Consequently there is no lack of objects to make use of, and on the other hand there are no good reasons for confining the list to a single series. Furthermore it would be impossible from the natural condition of things to follow in two different schools such a fixed list.

In the lower grades at least the subjects of the lesson should be simply as phenomena treated indifferently to their larger relations. It is better in these grades to select the lessons promiscuously from the various realms of nature, as we usually classify natural phenomena, the choice depending on conditions of season, locality and opportunity. It is a mistake to dwell long on one subject or continuously on the same group of subjects. Phenomena of the inorganic world should receive equal attention with those of animals and plants. In the study of animals and plants the most valuable phenomena to make use of as educational means are: The activities of the organisms, their ways of doing things, and the adaptation of each to his particular kind of life. As many as possible of the lessons should be those which will allow the letting of problems to be solved by the seeing and thinking of the child. Certain of the lessons, however, should be those which will give information and explanation of things which children cannot solve. These are to open up fields unexplored, but explorable.

While in the earlier grades the whole realm of nature is not to be regarded as divided into kingdoms and sub-divisions, yet where nature study has been carried out from the first grade there will have resulted a sufficiently wide experience, with a knowledge of natural phenomena, to warrant the beginning of the more formal study of some of the sciences. How the sciences should be treated in such grades under the conditions is a problem still to be solved.

Mrs. R. V. Winterburn of Stockton, chairman of the sub-committee on history, stated that the members had been unable to prepare a report yet, but would submit one to the committee on course of study during the session. She said the report would embody the recommendation that a state association of teachers be organized for the promotion of the study of history.

The council then went into executive session and soon afterwards adjourned.

Some of the Participants in the Council of Education.

NOW A CHURCH INDEPENDENT

The Bethlehem Congregational Church Leaves the Parent Body,

Rev. W. H. Tubbs Was Asked to Resign by His Brother Ministers, Hence the Disruption.

There will be a break in the Congregational church of this city after the first of the year.

The people of the Bethlehem Congregational Church on Vermont and Twenty-fourth streets do not like the idea of the other ministers of that denomination demanding the resignation of their pastor, and since they have refused to help the church unless this measure is taken, they, the congregation, have decided to help their faithful pastor themselves.

Rev. William H. Tubbs is not going to be downed because a few Congregational ministers happen to dislike him and refuse to help the church unless he sent in his resignation. Mr. Tubbs had no intention of doing this, and he told them so in so many words, and they decided to let it remain in abeyance.

The gentleman in the meantime was making arrangements to run the church independent of the ministerial organization, as there was nothing else to do since his brother ministers refused the church aid, virtually disowning it. He gathered his congregation around him and asked them whether they wished him to leave or not. They all replied in the negative, and then he started to work to see the cause of the trouble. In the first case he saw that the Christian Endeavor Society virtually ruled the church and that there was a certain member of the church that came pretty near ruling them, and here lay the cause of all the evil.

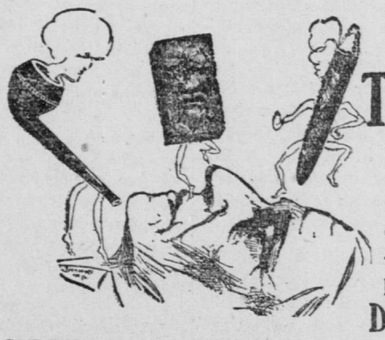
He called on the people to help him, and they decided to form a society which would help the church, and that only those belonging to both the society and the church would have anything to say in regard to conducting the latter. The society decided that the new system would go into effect on the first of the year, and the pastor announced the coming change to his congregation last Sunday night, when he said, "Next Sunday will be the first Sunday of the year, and at that time this church will be conducted under a new system. I will remain with the people of this church as long as they wish me, and when they do not I will go."

Mr. Tubbs has been a hard-working pastor, and the people realize it. He has been chaplain for the City and County Hospital, and the patients feel toward him the greatest love. He has worked with the small congregation and brought the church to its present standing, and the people do not think it is right to demand his resignation. He feels that since his brother ministers refused to help him, he must appeal to the people, and from them he has received a cordial response.

Fell Dead in a Store.

John S. Mellon, a painter residing at 3180 O'Farrell street, fell dead yesterday shortly before noon in the real estate offices of Easton, Eldridge & Co. Dr. W. P. Simpson had been attending him for more than a year for heart disease, and an inquest will be probably waived.

NEW TO-DAY.



Tobacco Tormentors

The pleasure of living is in living *well* not living *ill*. Throat, mouth and eyes are ruined by tobacco—the system is generally poisoned by it.

Don't Stop Tobacco

SUDDENLY and rack the nerves. Use the tobacco you require and take BACO-CURO, (it gently weans). If you do this, strong, healthy nerves and a clear brain will result.

It will notify you when to stop by removing the desire. Write for PROOFS of Cures.

Baco Curo

It is the original Guarantee Remedy, (Money refunded if it fails to cure.)

50c or $1 boxes, 3 boxes (guaranteed cure) $2.50. If your druggist cannot get it, we will send it.

Eureka Chemical and Manufacturing Co., La Crosse, Wis.