for all work are to be made and those now existing are to terminate at the earliest possible date.

"C. *Fee Schedule:* The fee schedule which has been prepared as heretofore indicated and is herewith presented to you, is recommended for the approval of the Medical Society of the State of California and of its various county units, as a schedule of the minimum fees to be charged for the services indicated in the schedule in the treatment of persons who may be injured as specified in the law. Additional compensation will be allowed in unusual cases for unusual services on proper representation.

"D. *Choice of Physician:* The employer (or the company, if the employer is insured) is to have the right to a free choice of physician and such selections are to be made from lists of names furnished by the insurance companies, these lists of names to be the lists of members of the several county medical societies which collectively compose the Medical Society of the State of California, but no member may be compelled to do the work if he does not wish to. Provided, that in counties where there is no county medical society, or in special cases where the employer may desire to secure the services of some physician who is not a member of his county medical society, he reserves the right to do so; also provided, that in the larger centers the societies are to prepare lists of names of members who are willing to do the work and to arrange so that the services of some of them may be secured at any time, by means of a telephone exchange or some other plan by which their whereabouts may at any time be ascertained; and also provided that the companies are to be permitted to advise their policy holders that certain physicians have, in the past, done work for them satisfactorily. It is understood that an insurance company may have a regularly appointed medical referee in any given locality.

"E. *Adjustment of Fees:* In case a bill rendered by a member is regarded as excessive by the employer (or company) it shall be submitted to the county medical society for scrutiny and adjustment, and if there be still failure to agree, it may be submitted to the Council of the State Society or to the Industrial Commission.

"F. *County Units and Professional Conduct:* In order to carry out the provisions of this plan, it will be necessary for each county unit to approve the schedule—in so far as it applies to the work indicated and to persons whose income does not exceed the maximum indicated in the law. Charges in excess of the proper ones, or bills unduly padded by fictitious or unnecessary visits, shall be deemed unprofessional conduct and subject to discipline by suspension or expulsion."

(Adopted.)

Respectfully submitted,
G. A. HARE, Fresno;
RENE BINE, San Francisco;
GEORGE H. KRESS, Chairman, Los Angeles.

(Adopted as a whole.)

UNFINISHED BUSINESS.—The amendment to the By-Laws introduced the previous night, amending Article X, Section 5, of the By-Laws by striking out the words "prior to the first day of August," came up for final action and on motion duly made, seconded and carried, the amendment was adopted.

NEW BUSINESS.—The resolution introduced previously during the present session by Graves was called up under new business and on motion duly made, seconded and carried, was referred to the Council for consideration.

STENOGRAPHERS.—Moved by Pottenger, seconded and carried, that stenographers be employed to transcribe the discussions at future meetings of the Society.

MINUTES.—There being no further business, and it being reported to the House that the President-elect was ill and could not come to the meeting room to be presented to the House, the minutes were read and approved as read and as herein printed.

The House of Delegates then adjourned sine die.

PHILIP MILLS JONES, Secretary.

REPORT OF THE COMMITTEE ON PUBLIC HEALTH.

The Committee on Public Health, while it has nothing essentially new to report or suggest, desires to call attention to certain work which has been inaugurated and recommend continued efforts for greater efficiency in public health work.

We recommend the endorsement of the following recommendation from Dr. Donald H. Currie, Secretary of the State Board of Health:

At the present writing, it appears to me that one of the greatest needs this state has to complete the machinery, whereby its public health is preserved, is to have either the county or district health officer appointed by this board on competitive examination (which examination should be given by the board and not the Civil Service Commission) to devote their whole time to public health work within their county or district under the sole authority and direction of this board, and to receive for such services from the county or district in which they are serving, an adequate compensation. That the officer be obliged to attend a yearly health officers' conference and that the county, city or district pay the traveling expenses of such attendance.

Since the last meeting of the Society a Bureau of Tuberculosis has been established, the executive officer being an assistant to the Secretary of the State Board of Health, whose duties are to supervise and co-ordinate the efforts being made to control tuberculosis in this state. Dr. Burt F. Howard has been appointed to this position. He is expected to make report of the progress of his work during this meeting.

In this connection we are pleased to report that the United States Public Health Service has de-

tailed Surgeon P. M. Carrington to make investigation of the tuberculosis problem in California.

The investigation has for its object the following:

1. To ascertain the extent and direction of the migration of tuberculous persons from other states into California south of San Francisco.

2. The effects of travel on tuberculous persons themselves.

3. The bearing of such migration on the health of other travelers and on employees of common carriers.

4. The conditions under which tuberculous persons live in localities resorted to for changes of climate, and the effects of these conditions on the progress of their disease.

5. The bearing of the presence of these persons on the health, social and economic status of the communities to which they have migrated.

Doctor Carrington's report will be awaited with interest.

Efforts for improvement of sanitary and physical conditions of children in our schools continue, but much is to be done and the influence of the members of this Society should be given to this important work. School houses are constantly being built which are poorly ventilated.

Everyone recognizes that physical defects such as enlarged and diseased tonsils and adenoids, defective vision, decayed teeth and malnutrition are frightful drains on the vital forces of children, and that the victims are in poor condition to resist disease and compete for a livelihood. That these troubles are numerous, extended examinations all over the world prove. A conservative estimate is 60 per cent.

Careful health inspection of schools with proper follow-up work in the family will do much to remedy these defects. These are proven facts, and what is more logical than for the state to insist that careful examinations be made and parents informed of bad conditions and influenced when possible to have the necessary work done. The next generation will be stronger and have less defects if this is done, and we are sure it is the best battleground against tuberculosis and other diseases of low vitality. We would like to see a state law requiring an examination of all school children each year.

The following from Long Beach, Oakland and Los Angeles indicates what is being done in this regard in these cities:

The Long Beach Board of Education has established a Department of Child Study and School Sanitation, and has placed it in charge of Dr. Ernest B. Hoag. The object of this new department is to aid the school child in his mental and physical development so that he may make the best possible use of the educational opportunities which our schools afford.

This department tests pupils whose mentalities differ from the normal with the object in view of taking them from the regular classrooms and giving them such training as will enable them to make the most out of the time which is spent in the public schools.

Doctor Hoag gives half of his time at a salary of $200.00 per month.

REPORT OF OAKLAND SCHOOLS,

Dr. N. K. Foster, Director Department of Health and Development.

Percentage of Defective Children.

	Percentage of defectives in all examined.	Number examined in each Grade.	Number defective in each grade.	Average defects in all.	Average defects among defectives.
All Examined...	69.5	17945			
First Grade....	70	3644	2564	1.5	2.1
Second Grade..	75	2319	1751	1.5	2.
Third Grade....	76	2532	1928	1.5	2.
Fourth Grade...	72	2603	1897	1.3	1.9
Fifth Grade....	70	2356	1654	1.2	1.8
Sixth Grade....	64	2051	1322	1.1	1.7
Seventh Grade..	64	1227	741	.9	1.5
Eighth Grade...	50	1213	606	.7	1.5

Percentage of Different Defects.

Number with severe malnutrition..... 828— 4.6%
Number with defective hearing.....1156— 6.4%
Number with adenoids.....1523— 8.4%
Number with enlarged glands.....1577— 8.7%
Number with defective nasal breathing..2485—13.8%
Number with defective vision.....3391—18. %
Number with defective tonsils.....5044—28. %
Number with defective teeth.....7582—42.2%

Department of Health Los Angeles Public Schools.

Total number of pupils enrolled, 68,400.

Extracts from Mr. C. H. Leslie's quarterly reports, December 9th, 1912, and March 7th, 1913, the latest available reports:

Total number of examinations.....9,861
(About 29,583 for 9 months.)
Total number with defective eyesight.....1,236
Total number with defective hearing..... 319
Total number with defective teeth sets.....2,586
Total number with defective jaws..... 245
Total number with defective adenoids..... 837
Total number with defective tonsils..... 924
Total number with defective heart, function.... 221
Total number with defective heart, organic.... 172
Total number with anaemia..... 476
Total number with poor lung action..... 364
Total number with tuberculosis, incipient..... 21
Total number with spinal curvature..... 72
Total number with nerve defects..... 264
Total number with epilepsy..... 4
Total number with defective chorea..... 3
Total number with defective speech..... 62
Total number with mal-nutrition..... 94
Total number with accidents..... 12
Total number with pediculosis..... 64
Home visits by nurse.....1,527

Clinics for treating the above cases, when requested—Dental, Eye, Ear, Tonsils and Osteopathic —were maintained.

It seems impossible from these figures to judge the percentages of those examined that have defects for the reason that in many instances defective teeth may be associated with defective eyesight, hearing, adenoids, tonsils, etc.

It would not be just, even though accurate information could be obtained, regarding the percentage of defects among all those examined to conclude that the same percentage would exist throughout the entire school department for the reason that usually only those with pronounced defects or those children with irregularities of any kind which might lead to the detection of defects, are those referred usually to the department for examination.

The health department maintains a staff as follows:

Eight physicians, five of whom are on full time

at $2,000.00 a year; the others all half-time, three hours a day, at $1,200.00 a year. Eight nurses full time. One clerk. Some voluntary assistance has been given by outside physicians.

The total expense last year in maintaining this department was $27,343.69; of which $25,325.04 went toward salaries and supervision. $2,018.65 went toward equipment and supplies.

Department of Physical Education.

The Department of Physical Education, which is under the supervision of Dr. Everett C. Beach, maintains 68 playgrounds in connection with the school buildings, thoroughly equipped, open three hours a day and under the supervision of trained play leaders. The average daily attendance on each of these playgrounds is 80 (5440 daily average). Daily instruction is given to the children in every room in the city, except when the negligence of the teacher interferes, in personal hygiene, gymnastics, exercises for general corrective purposes; plays and games, and exercises in motor-rythm.

The Department maintains a director and six assistant directors. The hygienic conditions of rooms and grounds are also cared for. The cost of maintaining this department, during the past year was $43,352.65, of which $20,049.05 was devoted to supervision and instruction, salaries, etc. $23,303.60 was devoted toward supplies and equipment.

In addition to these two departments the Parent Teachers' Association maintained a clinic at a total cost of $4,031.83 of which $3,756.90 was devoted to salaries and $272.93 for supplies. This money was appropriated from the school fund.

CHAS. C. BROWNING,
R. G. BRODERICK,
W. F. SNOW,
N. K. FOSTER,
JNO. C. KING,
Committee.

CONCERNING UNUNITED FRACTURES.*

By JAMES T. WATKINS, M. D., San Francisco Polyclinic.

(Continued from page 201, May issue.)

In spite of the quotation from Dr. Murphy, I am sure I saw ununited fractures 25 years ago; I think they probably occurred as frequently then as now. The human race has not in this little quarter of a century changed an appreciable amount, but the methods of taking care of fractures have changed and efforts are made to get union in cases which would have been abandoned and forgotten 25 years ago. These efforts have called into the hospitals for treatment people who formerly would have made no effort for relief. For instance, I operated a couple of years ago at the University Hospital on a man who had had an ununited fracture of the tibia and fibula for nine years. During that time he had been in that same hospital for another condition, but could not then wait long enough to have an operation done. When the opportunity occurred he returned, and an operation with the use of a Lane plate got union. Twenty-five years ago this man would have continued content with his crutches and his non-union, and so would not have been known about or counted.

Dr. L. Eloesser: This subject of delayed union interests me very much. I can not look back upon 25 years of surgery, but it seems to me that even of late non-union has increased a good deal. I know that I used to see it rarely in Germany, but now with certain fractures I am in constant fear of non-union, although I have used no different methods on the whole to those I used abroad. I have been treating most fractures of the lower extremity with methods of traction, but have recently seen so many cases of non-union that I begin to doubt the efficiency of a method of which I was a most enthusiastic advocate. Whether it is the method alone that is at fault I do not know. It seems to me that slow union is also common in the other services at the City and County Hospital, where other means of treatment are used. Opinions as to treatment disagree so utterly that it is difficult to know what to do. We have Lucas Champonierre, who advises complete disregard of immobilization on the one hand, and on the other Codivilla, who advocates absolute fixation. The traction method allows some degree of motion, and the fragments are always moved considerably during inspections of the fracture and changes of dressing, yet in the last year or so it seems to me that I have seen cases kept perfectly immobile in plaster casts that consolidated more rapidly than those where some motion was allowed. I am at sea, and experiences of the last few years at the City and County Hospital have made me begin to lose confidence in my own powers of clinical observation.

I should like to take exception to some of Dr. Watkins's statements. He says that growth of bone takes place in the direction of least resistance. Is this compatible with Wolff's law, which has taught us that bone is laid down at the site of greatest functional demand? Furthermore, he has asserted that bone is not regenerated except from periosteum. Leaving Macewen's theories quite aside, this I think, is an axiom to which few will agree. We see evidences of endosteal ossification, of bone regeneration from the osteoblasts of the marrow in every fracture.

Dr. Sherman has said that the frequency of non-union in fractures of the lower third of the tibia and the humerus is due to atrophy of the lower fragment, the bone being cut off from nutrition because it is cut off from the blood-supply of the nutrient artery, which enters above the site of fracture. It does not seem to me that this explanation is sufficient; I think that I can show X-ray plates bearing on this point. (Demonstration.) Although I concede in answer to Dr. Sherman's objections that the bone in the lower fragment is somewhat more rarefied than in the upper one, still I do not think that non-union can be due to this alone. We see in these plates all around the upper ends of the lower fragments a shadow that evidences a plentiful periosteal production of bone—and yet this bone-production is limited to an area immediately adjoining the shaft. It does not seem to be able to bridge the gap between the fragments. If the periosteum can throw out bone around the ends of the fragments of the shaft, why can it not throw out bone between them?

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* Read before the San Francisco County Medical Society, September 16, 1913.