there do seem to be a considerable number of people in the world who like to be lied to; it is astonishing, but apparently true.

REPORT OF THE BOARD OF MEDICAL EXAMINERS.*

By DUDLEY TAIT, San Francisco.

The policy pursued by the Board of Examiners during the past two years has not deviated from that outlined in Riverside. The strictest adherence to the law has characterized every decision, every move, every act. "Better no law at all than one which is not enforced," has been our motto. You may scan our records, peruse our archives, and you will find none of the nambypamby methods so prevalent in many official bodies. Two subjects in particular have occupied the attention of the Board and called for special study: First, the preliminary educational requirements of matriculants to the medical schools of this State; second, the framing of a new medical law.

A year ago the Association of American Medical Colleges, at the urgent request of the Credential Committee of the California Board, placed the control of the matriculation requirements exclusively in the hands of the State Boards, thus killing a prevailing mercenary traffic in entrance certificates, so profitably and so complaisantly arranged by deputy State superintendents and two medical schools. To-day we wish to report to you the results of the enforcement of the new regulation in the matter of matriculation requirements. The 1905-6 session of one of the colleges just referred to opened with forty-two Freshman students, the majority of whom presented certificates from a Deputy State Superintendent of Public Instruction. The following year, when the Board appointed an examiner to pass upon the credentials of matriculants, the requirements being the same as the year previous, this same school has seven students in the Freshman class, and four of these are not legally entitled to remain there, inasmuch as they have not met the proper entrance requirements. Therefore, we note a reduction of 1400% in the matriculation record of this college. In the second school the 1905-6 session opened with ten Freshmen; the following year we fail to find a single Freshman. The enforcement of the Association standard has closed the doors of this college.

There is no more radical method of exterminating the purely mercenary medical college than by exacting of all matriculants a high standard of preliminary education. The California Board extends its investigation of preliminary requirements to every applicant for a certificate to practice medicine. We have already notified several large Eastern colleges of this fact.

A few words now in regard to the new medical law. Those who framed that excellent law which regulated the practice of medicine in this State from 1876 to 1901 knew well the great value of their creation, but unfortunately those upon whom fell the duty of enforcing this law neglected, at an early date, to study the law, and then apparently ignored or failed to enforce its most potent sections. Consequently in 1901 a new law was found necessary, and a fabulous price paid for its enactment. The price was the Osteopathic Act, a cheap, almost open door to the practice of medicine. How has this medical law operated during the past six years? We note an annual reduction of 25% of the regular licentiates, who now average 180 yearly, a reduction of 400% of the homeopathic licentiates, who average ten yearly, and finally a reduction of 1700 of the Eclectic licentiates, who now average about two yearly. The trend of thought among educated homeopaths is toward rational or scientific methods. Here in California they are advocating high educational standards, and we find them invariably among the strongest supporters of our medical law. Eclecticism is ready for the necropsy table. But let us now contemplate the reverse side of the medal and estimate what we have foisted upon the unsuspecting people of this State. About 800 licenses have been granted by the California Osteopathic Board of Examiners since 1901. At the recent February meeting of said Board a block of 170 licenses was issued—i. e., almost as many as the Medical Board issues during an entire year. And let us not forget that all these osteopathic licenses, with one exception, were granted without examination. Among the successful applicants before the Osteopathic Board we find a considerable and increasing proportion of applicants who failed ignominiously before the Medical Board. The sole licentiate by examination at the hands of the Osteopathic Board presented a worthless German certificate purporting to be a medical diploma from the University of Heidelberg. Perhaps the osteopaths' ignorance of the Teutonic tongue may seem pardonable, when shortly afterwards we find the same spurious certificate admitting its holder to advanced standing in a regular medical school of medicine in San Francisco.

Pardon, I pray you, this digression, and let us return to our muttons, the osteopaths. During the recent meeting of the Legislature the osteopathic delegation stated, without compulsion, that their licentiates practiced medicine, surgery and the various specialties, resorting to drugs and to the knife whenever necessary. "Their ambition," said they, "was to be known as practitioners of medicine, in the broad sense of the term." It is therefore obvious that the present medical law has made the requirements much more rigid for our own followers, while it has created a wide door through which the illiterate entered the practice of medicine. The evil was flagrant. Our medical law was suicidal, although constitutionally sound. A new law became imperative. Hence the law which takes effect May 1st, a law in the framing of which liberality has been the dominant note. The new law may not be ideal, but the perusal of the decisions of the Supreme Courts of other States justifies us in asserting that it will successfully run the gamut of judiciary bodies, of California. To those who view with a feeling of suspicion, any association with the osteopathic fold, I say have patience; let us await the result of the experiment, which according to recent experience is one of assimilation. Lest history repeat itself, we must not forget the absurdities and follies of our ancient quarrel over pathies.

Whence will the new law conduct us? No law is self-operative. Isolated, sporadic enthusiasm must succumb to general apathy. I sincerely believe it is within our power to advance the cause of medical education, to ameliorate the status and lighten the burden of the practitioner of medicine in this State; but a happy sloution of the serious problems confronting us will require active intelligent co-operation. The influence for good, the power of this society, is just proportionate to the degree of initiative and willingness of its average member.

A final word in reference to the prosecution of illegal practitioners, which, under the new law, may become one of the Board's functions. In many States the enforcement of the criminal statute is delegated by the Legislature to the State Society. The California law makes us your agents in this matter; hence the urgent reason for the co-operation of the State and County Societies with the Board of Ex-

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aminers, in view of inaugurating and maintaining a vigorous campaign against violators of the law. The experience of a member of the Board shows the almost insurmountable obstacles encountered and the consequent need of the influence of the profession in prosecuting illegal practitioners, especially when, in the case of the licensed M. D., the most culpable of all offenders, the friends of the defendant, the faculty of his alma mater, flock to the judge's chambers or to the witness-stand to give the defendant a good character. The illegal practitioner expects to find, and does find, protection and immunity in the medical profession itself, which so often gazes silent, indifferent and apathetic upon some enthusiasts who, single--handed, are doing the dirty work in the lower courts of justice.

For the sake of principle the conviction of one educated violator of the law would do more good than the imprisonment of ten ignorant fakirs. Fellow members, I again urge that the directors of this Society devise some plan of co-operation between the County Societies and the Board of Examiners.

I thank you for your attention and your support, to which we must attribute whatever good we may have accomplished. The endorsement of our work bv official and educational circles of other States is but the echo of your generous support.

SPECIFIC THERAPY IN TUBERCULOSIS.

By GEORGE H EVANS, M. D., San Francisco.

Nearly 17 years have elapsed since Koch made the remarkable announcement of the discovery of a remedy prepared from a concentrated culture of the tubercle bacillus for the treatment of tuberculosis. The events of the year or two following this announcement are vividly impressed in the memory of all of us who were interested in this great subject at that time, and Koch's laboratory became the Mecca of hundreds of students in tuberculosis from every land, who hurried thither, filled with the hope that the great savant, whose name was so intimately linked with the scientific progress of discovery and achievement in this malady, had really solved the problem of specific medication. We know, likewise, only too keenly, the bitter disappointment of those who, on returning to their homes, applied tuberculin, a remedy prematurely announced by its discoverer, insufficiently understood, unintelligently applied in improperly selected cases, with results which, under such conditions of administration, were inevitable. The hope of the discoverer and his followers was not realized, and tuberculin, as far as the general profession was concerned, sank for the time being into disrepute and oblivion. In the years which have intervened, however, the fundamental facts on which tuberculin therapy depends have been undergoing elaboration, and, with our ever increasing knowledge of the laws of immunity, our conception of the role which tuberculin plays has undergone great modification, and, as far back as 1897, when Koch produced his new tuberculin T R, which consists of the entire substance of the tubercle bacilli, the old conception that tuberculin had direct curative action had been abandoned. It is with the abandonment of this old conception, and the development of tuberculin as a vaccine, and by a vaccine I mean a "substance which, when introduced into the body, causes there an elaboration of protective substances," that the present day conception of tuberculin therapy has arisen.

The way has been long and intricate that has been traversed by the investigators of the laws of immunity, and the clash of the arms of the opposing schools has resounded time and again throughout the scientific world. The theories of Ehrlich and Metchnikoff are, however, in accord, in essential results; and if one accepts Metchnikoff's definition of immunity against infective diseases as "the group of phenomena in virtue of which an organism is able to resist the attack of micro-organisms that produce these diseases," the question whether the leucocyte must be regarded as the source of the bactericidal substance of the body fluids need not particularly concern us in this discussion; for both schools have a common point in the admission of a cellular immunizing property.

The fact of the artificial induction of immunity is accepted to-day as a fundamental principle in medicine as the result of the labors of Jenner, Pasteur, Behring, Wright, and others; but the brilliant achievements of the latter investigator have opened up new fields in therapy hitherto impossible of attainment. While Ehrlich, Buchner, Pfeiffer, and others, had shown the protective properties of immune sera, it remained for Wright to demonstrate practically the presence of bacteriotropic substances (opsonins) in the blood serum, and, by a most ingenious technic, to determine the quantity of this substance, and to show conclusively the effect of the inoculation of vaccines on its content. The nature of these opsonic bodies is of great interest. They unquestionably must be classified along with other bacteriotropic bodies, which are known to exist: e. g., antitoxins, agglutinins, precipitins, and lysins. This theory can be very well reconciled with the fundamental principles of the schools of Metchnikoff and Ehrlich, and they would appear to have a similar function to fixatives or amboceptors, in that they either have a chemical affinity for both bacteria and cytases, or they sensitize the elements to the fermentative action of the cytases.

The practical application of this discovery to tuberculin therapy is not far to seek, and the events which follow the inoculation of tuberculin can be best given in Wright's own words, which I quote from a communication to the Royal Medical and Chirurgical Society:

"Upon the inoculation of the vaccine there supervenes a period of intoxication which is characterized by a decline in the anti-bacterial power of the blood. This 'negative phase' is more or less accentuated and prolonged according as a larger or smaller dose of the vaccine is inoculated. In the former case the 'negative phase' may disclose itself to clinical observation by a temperature reaction and constitutional disturbance. In the latter case the 'negative phase' may be quite unaccompanied by clinical symptoms. Upon the 'negative phase' there follows a 'positive phase.' This phase, whose characteristic

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