

confines of our country without undue restriction as to academic examinations. It is not at all improbable that this thought imbued our late President in founding the National Board of Medical Examiners. This body, which promises so much benefit both to the medical profession and to the American public, stands as a monument to the industry and clarity of vision of our lamented colleague, Dr. William L. Rodman. I would commend to the Council on Medical Education the study of the problem of devising some uniform means of certifying and training prospective health officers.

The great effort of the future must be in the direction of the improvement of the internal health of the nation. We are possessed of an adequate coast defense against disease from abroad, and what we must now do is to control those diseases which are already with us. In this we require the qualified health officer and the educated public. A part of this education may be secured by the printed and the spoken word, but the great agent in public education is demonstration. This Association is in a position, touching as it does every stratum of society in this broad land of ours, to carry this work forward to ultimate fruition. This is an obligation on our profession, a sacred duty laid on the followers of the healing art. Though we minister to the sick and bind up the wounded, though we bring sight to those who see not and alleviate the suffering on the bed of pain, yet our duty is not done until we have put forth our best endeavor to the end that sickness and pain and blindness be not. Poverty and ignorance, squalor and intemperance, cruelty and greed, these are the enemies which we as individuals and as a profession must combat. As citizens who would maintain our nation in a condition of preparedness against its greatest enemy, disease, it is our duty to perform not only our legal obligations as physicians, but to bend our every energy to the prevention of disease. No selfish or half-hearted service will suffice. Nothing short of whole-souled devotion to this duty will satisfy the ideals which have been passed down to us by generations of self-sacrificing, public-spirited physicians who love their fellow men. The American Medical Association represents the crystallization of these ideals. If it permits no self-seeking interest to dominate its actions, if it maintains its plane of high altruism, if it devotes itself with strength of purpose to the betterment of the public weal, it will prosper in the future as in the past, serene and sure in the satisfaction of work well done. Let our deliberations be so imbued with that broad spirit of charity and brotherhood that the name of the physician shall be revered.

Beriberi.—Eykman, in 1897, called attention to the fact that the disease beriberi was prevalent among those rice-eating nations which partook of rice prepared in a certain way. The Bengali eats unpolished rice, that is, rice of which the red husk or pericarp has not been removed, and he does not suffer from beriberi. When the native of the Philippines pounds his rice in a large mortar with his own hands, the milled product is never so thoroughly freed of its husk as happens to that milled by machinery, and hence these natives are partly protected from the disease. A diet which is based almost exclusively on white rice causes beriberi with certainty. Eykman also found that when chickens or pigeons were fed on white rice they developed a disease similar to beriberi. General weakness, with paralysis of the legs and wings, due to a polyneuritis, developed, which could be cured by a change in diet.—Graham Lusk, *The Fundamental Basis of Nutrition*.

DISPENSARY ABUSE AND CERTAIN PROBLEMS OF MEDICAL PRACTICE *

J. WHITRIDGE WILLIAMS

BALTIMORE

It is with great pleasure that I preside over the one hundred and eighteenth annual meeting of the Medical and Chirurgical Faculty of Maryland, and I take this opportunity to thank my friends for the honor which they have conferred upon me. The Faculty means more to me than to many, for I was brought up in its atmosphere, and among my earliest recollections are some of the conferences held in my father's home, incident to its reconstitution after the close of the Civil War. Consequently, I esteem it a peculiar privilege to occupy the chair which my father once held, and I can assure you that in doing so I recall affectionately many of our departed members, whom some of us can visualize vividly, but who represent mere names to the majority of those present. While many of them knew less medicine than we, they strove for ideals which, if anything, were higher than ours, and it is with a sense of reverent affection that I acknowledge my obligations to many of them.

I propose to address you briefly on "Dispensary Abuse and Certain Aspects of Medical Practice," a topic which I have selected for two reasons: first, because several members of the Faculty have asked me to use my influence to check the so-called abuse; and, secondly, because my interest in medical education has caused me to consider seriously how the medical care of the poor can be best effected in the interest of the community and of the medical profession. Furthermore, an apprenticeship of several years as director of the Johns Hopkins Dispensary, and years of service as a member of the Board of Charities of Baltimore City have given me an insight into many of the problems concerned. I shall speak frankly on the subject, for, between my grandfather, father and myself, I have behind me the traditions of ninety-six years of continuous practice of medicine in this city, which should enable me to face the problem more sympathetically than a mere layman, or even than a physician who bases his conclusions solely on his own experience.

During this century Baltimore has grown from a village to a great metropolis, and the practice of medicine has undergone equally great changes.

As a boy, I remember that the only specialists in the city were a few men who devoted themselves to the treatment of diseases of the eye, and that every one else, even the surgeons, practiced general medicine, including obstetrics. At that time there were few hospitals, and they so crude that no one thought of using them, except the stranger within our gates, the friendless man and the abject pauper. Hospital fever still raged, so that the few major operations, which the surgeon thought to be indicated, were performed in the patients' homes. The few dispensaries were rudimentary and dirty, and, as their name implied, were places for the dispensing of drugs rather than for the investigation and cure of disease. I think that I am safe in stating that fifty years ago no dispensary was equipped for a thorough physical examination of its patients. Trained nurses were unknown, but "Sairey Gamps" were familiar figures, and a serious illness

* Presidential address delivered before the Medical and Chirurgical Faculty of Maryland, April 25, 1916.

was usually followed by the collapse of several female relatives of the patient who had volunteered their willing, but inefficient, nursing services. Organized charity had not been dreamed of, and the beginnings of social service were still a generation distant.

The town was small, and the physician had a patriarchal sense of obligation to his neighbors and the feeling that he was really a public servant. I know that my father and grandfather held that it was their duty to respond to any call, and to refuse to visit a poor patient from whom a fee could not be expected represented the sin which could hardly be forgiven. Up to the time of his death, my father never refused his services to such patients, and I well remember hearing it said in my boyhood that a certain man, who later attained great eminence in the profession, had a "fine line of darky practice."

With the growth of the city, the expansion of medicine, the development of specialists, and particularly with the extended organization of hospitals and dispensaries, together with the development of trained nursing and the various social agencies, all this has changed, and the old fashioned, kindly and self-sacrificing family physician has disappeared, never to return. Now, except for distinctly personal reasons, no city physician has any hesitancy in refusing to attend undesirable or unremunerative patients, but refers them to the nearest hospital or dispensary, and feels that he will give his charity the next day in the shape of a few hours of hospital or dispensary service rendered under the least onerous conditions. Doubtless the patients are better off and receive more efficient treatment than ever before, but I sometimes wonder whether our moral status is as fine as that of the old worthies who were members of the faculty before many of us were born, and whether it is well for those of us who have attained prominence in our profession to see poor patients only in the wards of the hospital.

These changes in the conditions surrounding the practice of medicine constitute one of the causes of the so-called dispensary abuse. What is the abuse? As I understand it, general practitioners living in the less prosperous sections of the city complain that a certain proportion of persons in moderate circumstances take advantage of institutional facilities, which were primarily intended for the very poor, and thus escape the payment of fees which they might otherwise earn. Again, young men who are perfecting themselves in some specialty claim that large numbers of persons are operated on without charge in hospitals or dispensaries when they could afford to pay a moderate fee.

Undoubtedly both of these conditions obtain to some extent, but in my experience they are less general than is commonly believed, and when they occur they are due less to the desire to escape the payment of fees than to the hope of obtaining better treatment. This opinion is based on the following considerations: In the first place, the prosperity of industrial workers is in general overestimated, as the great majority of married workers scarcely earn enough to support a family with the greatest economy. Scott Nearing has estimated that one half of all industrial workers in this country earn less than \$600, and three quarters less than \$750 per year, while less than one tenth earn as much as \$1,000. In my experience, married workers who earn less than \$750 a year cannot afford to make any considerable expenditure for medical ser-

vices. Consequently, it becomes apparent from the figures just quoted that not more than one fourth of all industrial workers can be involved in dispensary abuse, and I believe that physicians practicing among that class of our population will testify that considerably more than that proportion make an honest attempt to pay for medical services. In the second place, I do not believe that there is much abuse among the small clerk class, as investigation will usually show when its members apply for dispensary aid that prolonged illness or financial reverses have so impaired their ability to pay that they are, temporarily at least, worse off than those who all agree are entitled to assistance. In many other instances they have exhausted their available resources in paying physicians for inferior services, and, as a last resort, go to the dispensary in search of better treatment. On the other hand, I am prepared to admit that a considerable number of patients who could afford to pay a small fee to some young specialist resort to hospitals and dispensaries for free operations.

Consequently, while it may be admitted that glaring instances of abuse are occasionally encountered, it is my experience that the greater part of the so-called abuse is due less to a desire to escape the payment of fees than to the realization that the sick frequently receive inadequate services from their physicians. This is partly the result of poor work by imperfectly educated practitioners, and is partly attributable to the increasing complexity of medical practice, in which the knowledge of one man, no matter how extensive, no longer suffices to establish a diagnosis or to lead to the rational treatment of many conditions. Who can blame a well paid worker or a clerk in modest circumstances for seeking dispensary aid after he has compared notes with less favored friends, who have utilized the services of a well organized dispensary? The former knows that he has been long treated by his physician without relief, and that all he had received for his money was to have his pulse felt, his tongue inspected and to receive a prescription; while the latter will relate that in his case a thorough physical examination had been made, the blood and urine examined, and possibly a Roentgen-ray picture taken or the stomach contents analyzed. The first man must inevitably feel that he has been neglected, while the second realizes that all of the resources of science have been utilized in the investigation of his malady. Whether his symptoms have been relieved is another matter, but until human psychology has radically changed, the result of the comparison is inevitable.

Or, to choose an example from my own work, let us take the wife of a workman whose wages are \$15 a week. She is to be confined and expects to pay a fee commensurate with her circumstances. She engages her doctor, who neglects her during pregnancy, attends her at the time of labor, makes a few postpartum calls and sends his bill at the proper time. Later she compares notes with a friend whose husband's wages are \$10 a week and who was attended by a well conducted outpatient obstetrical service. She is told that at the first visit to the dispensary a thorough physical and pelvic examination was made, and that a few days later a tactful nurse called at her friend's home and inquired into her conditions of life, advised her concerning the hygiene of pregnancy, and instructed her to return to the dispensary at the end of each month for inspection, advice and a urinary examination. Furthermore, she hears that three days

after failing to follow these instructions, her friend received a post card reminding her of her omission, but having postponed the visit the nurse again called, and so impressed the patient with the importance of prenatal care that each month thereafter she gladly went to the dispensary to consult the doctor. Then our woman is told that four or five weeks before the expected date of confinement her friend received another visit from the nurse, who called to ascertain whether suitable preparations had been made for the birth of the baby. She is also told that the labor was conducted by a bright young doctor, a student and a nurse, and that for the next ten days a daily visit was made by the student and the nurse. And finally, that a few days after these visits had ceased, the social service nurse called again to inquire as to the treatment she had received, and to arrange for the supervision of the baby during the following year.

When our woman has heard this recital, and has compared the treatment which her friend received for nothing with that for which she paid her physician, can she be blamed for feeling that she did not have a fair deal, and for wanting to become a dispensary patient should she become pregnant again? And are the best interests of the community served if she is prevented from so doing?

Naturally, the physician concerned will reply that the value of his services was far in excess of the fee he had received, that it is not fair for a philanthropic institution to offer services with which he cannot compete, and that it is immoral to educate patients to expect services far in excess of what their means can command. Were we concerned solely with the interests of the physician, only one reply would be possible; but, on the other hand, when the subject is approached from the point of view of the community, a different answer must be given, for no one not blinded by self interest would contend that it is not highly advantageous for all classes of the community to obtain the best possible medical and nursing care.

Accordingly, for the sake of argument, if you please, we shall admit that as dispensaries continue to improve, a larger and larger contingent of the working classes will avail themselves of their benefits, and that the question of dispensary abuse will come to be limited to those who earn more than \$2.50 a day. Furthermore, the only means of limiting the more extended utilization of dispensaries will consist in hampering their development by lack of means and by the absence of idealism in the conduct of their work.

It would lead too far afield to consider critically at this time the proper organization and scope of dispensaries.¹ I cannot, however, leave the subject without briefly directing your attention to several points which I believe are fundamental to the organization and conduct of a well regulated dispensary. In the first place, it should be an integral part of a well organized general hospital, or, when that is not feasible, it should be closely affiliated with such an institution, so that all the facilities of the latter may be promptly available for the treatment of seriously sick patients. The dispensary should be provided with adequate facilities, should have a suitable nursing staff, and above all a well organized social service department; as, in my experience, the work done by the latter adds to the comfort and education of the patients quite as

much as the strictly medical service. In the second place, poorly run and inadequately equipped dispensaries should not be tolerated and should not receive public support. Complaints of dispensary abuse are rarely made concerning such institutions, as they are patronized only by the most ignorant stratum of the community, do little good to their patients and lead to rapid deterioration and loss of clear thinking on the part of their medical staff. Furthermore, I feel very strongly that in order to insure a high type of medical work, even in good dispensaries, it will be necessary to pay suitable salaries to all physicians who are expected to give several hours each day to the routine care of patients. Otherwise, the work must be done by constantly changing groups of young men, who tend to become slack in interest and attendance as soon as they realize that they have mastered the details of their work.

In other words, I am pleading for the maintenance of dispensaries of the highest type, with the knowledge that the better they become, the greater will be the cry of dispensary abuse, which to my mind will not disappear until the conditions of medical practice in our large cities have undergone radical reorganization.

I can be much briefer concerning the second variety of dispensary abuse; namely, free operations on persons who can afford to pay a small fee. In my experience this class of patients frequently consult the young specialist in his office and pay a fee for his advice, but when they learn that an operation is necessary they go to a dispensary or hospital. As far as I am able to ascertain, one of two motives leads to this action: a feeling that the operation will be better and more safely done at the hospital, or a desire to escape the payment of an operative fee. In neither event should the patient be treated free, but a mechanism should be devised for the investigation of his circumstances and the charging of an equitable fee by the institution. In many cases such a fee will cover only the outlay for anesthesia, supplies, and a few days' stay in the hospital, but in other instances a balance will be left for the payment of professional services. Naturally, this balance will be so small that the operator could not accept it as a fee without a distinct loss of self-respect, so that the question arises as to its disposition. If the matter were properly handled, I feel that the aggregate of such fees would be considerable, and that such money, along with other available funds, could be utilized for the payment of moderate salaries to the members of the staff who do the work, with the understanding that the salary was in lieu of all fees from patients, except those occupying private rooms at full rates.

While such an arrangement would not put the fees into the pocket of the young specialist, who is complaining of dispensary abuse, it would do away with an unjustifiable abuse of charity and would compel the patient to pay what he could afford for operative treatment.

With the increasing complexity of medical knowledge, the development of specialists, the necessity for their cooperation in the diagnosis and treatment of many conditions, and the relatively high fees which they are compelled to charge, another serious question arises, and that is, how is the individual of moderate means, who is self-supporting and self-respecting, but who cannot afford to expend \$50 to \$100 in payment of specialists, to obtain the necessary diagnosis?

1. I would refer those interested in this aspect of the subject to the report on *The Function of the Dispensary*, which was made at the 1916 meeting of the Association of American Medical Colleges.

I believe that this will eventually be effected by the establishment of pay dispensaries, somewhat similar to the one inaugurated at the Massachusetts General Hospital in Boston on Jan. 1, 1916. In such institutions a group of thoroughly competent young men representing the various specialties will come together on certain evenings each week and will be prepared to examine such patients as may apply. The patient should be accompanied by his physician, or at least bring a letter from him asking for a report, and should not be treated except on his direct request. A fee of from \$10 to \$25 should be charged for the complete examination, and the dispensary staff should be compensated either by fixed salaries or by a pro rata division of the fees after a proper deduction has been made for maintenance charges.

While the suggestions which I have made may appear radical to some of you, I feel that they barely scratch the surface of the question, and even if adopted, would prove to be but temporary expedients, as I consider that our entire system of treating illness is defective and cries out for radical revision.

That something is seriously wrong becomes apparent when a man like Cabot of Boston feels it necessary to contribute to a lay magazine an article entitled "Better Doctoring for Less Money." I earnestly recommend you to read it, as I am sure, whether you agree with what is said or not, that you will admit that the author has put his finger on a sore spot and has raised questions which demand solution.

As medicine is now organized, only three classes of our population receive the best institutional care, namely, the rich, the pauper, and those who are willing to abuse medical charity; but no adequate provision is made for the care of the great middle class, which forms the self-respecting backbone of our nation. The consequence is that additional terrors have been lent to illness, more particularly when operative treatment becomes necessary for its relief. Ask any man with an income of from \$1,500 to \$4,000 what it cost him to be relieved of his appendix, or to have his wife treated for a complicated nervous breakdown, and you will have the question clearly set before you. Only recently a prominent banker told me that I would be surprised, did I not already know, what an appalling condition exists and what a large proportion of our self-respecting citizens are compelled to ask long-term loans in order to tide them over such emergencies. The result is that the old feeling of personal friendship for the doctor is fast disappearing, and each year an increasing number of persons come to regard him as one who is likely to take advantage of their necessities. I shall not dwell further on this aspect of the question at this time, but I shall return to it before closing.

On reverting to the question as it affects the working classes, I feel that the present system of free dispensary and hospital treatment is based on fundamentally incorrect principles. As it now is, except for a nominal charge of 10 cents for each prescription filled, the maintenance of such patients is borne by the interest on endowment funds, contributions by charitable persons, and subventions from the city and state, so that for practical purposes the recipients of such aid are as much paupers as the inmates of the poorhouse, the only difference being that the former are temporary and the latter permanent paupers. Consider, for example, the case of a workman earning \$3 a day. Ordinarily he should be able to pay the necessary

expenses of himself and his family. But let him have a prolonged illness; his pay stops, his small savings are soon exhausted, and he applies to the hospital for relief. He is admitted without question as a city patient, if the institution has a contract with the board of charities, and the cost of his maintenance is then borne partly by the city and partly by the institution, which in turn may be the recipient of state aid. The individual may not realize it, but he has become a pauper patient, and is the recipient of charity, just as much as the beggar on the streets.

For the year 1916 the city of Baltimore and state of Maryland are contributing \$1,200,000 for the relief of suffering inhabitants of Baltimore, including the insane and those suffering from tuberculosis, while private philanthropy and charity is giving still more. Much good of course is effected by the expenditure of this money, but still larger amounts are necessary if the work is to be well done; yet a large part of it goes to pauperize patients who should in great part be able to help themselves, and this will continue to be the case until some mechanism is developed which will make it possible for the wage-earner and the small-salaried man to accumulate a reserve, during the period of productive activity, which will serve, at least in part, to defray his expenses during illness. In other words, I believe that our problem will never approach a definite solution until some form of sickness or health insurance is made compulsory on all who earn less than \$1,000 or \$1,200 a year.

As is well known, such insurance is in vogue in all European states, and is conducted either by the state, or at least is under its supervision. In France, Germany and Scandinavia it is voluntary and is conducted by private local societies under the strictest governmental control. In Germany the system has been in operation for over thirty years, and while nominally voluntary, is practically compulsory, and covers all persons whose income falls below \$625 a year. The individual societies are designated as *Krankenkassen*, which are held in bad repute among medical men in this country on account of the difficulties which they have had with the physicians. These disputes were in great part inevitable, as the societies were originally managed entirely by laymen from the less intelligent classes, who attempted to ignore the medical profession and to pay as little as possible for its services. Latterly, however, a more liberal spirit has become manifest, so that representatives of the physicians practicing in the various communities now take part in the deliberations of the boards of control.

From what I have learned by personal inquiry in Germany, as well as from Gibbons' "Medical Benefit in Germany and Denmark," the general effect of this system is excellent, in that the medical needs of the working classes are in great part paid for by their own contributions. Moreover, another aspect of the system impressed me greatly, and that is, as the *Krankenkassen* pay, either entirely or partly, the expenses of their members while undergoing hospital treatment, the German working man regards the hospital very differently from the American, and, instead of feeling that he is there on sufferance as a pauper, considers that he is a pay patient and is entitled to great consideration. I know that it will surprise many to learn that in autocratic Germany it is not unusual for patients to complain of their treatment, and the influence of the *Krankenkasse* is such as to insure a respectful hearing, and furthermore that such patients

cannot be utilized for purposes of instruction, unless they give their consent.

In Russia and England, on the other hand, sickness insurance is compulsory, and the National Health Insurance Act, which Lloyd George forced on the latter country in 1911, is in many respects a model for such legislation, and should be read by all intelligent persons.

Under the act, which Lloyd George prefers to call health insurance, as its object is to promote the health quite as much as to provide care for the sick, all persons, with certain exceptions, in receipt of a yearly income of \$800 or less must insure. During the period of insurance weekly payments of 9 pence are demanded, of which the state contributes 2 pence, while the remaining 7 pence are paid by the workman and his employer in proportions varying according to the amount of wages. When these are very small the entire contribution is paid by the employer, but when large, entirely by the workman.

The funds are handled in two ways: in great part by acceptable friendly societies, which are under strict governmental supervision; while in the case of persons who are not members of such societies, the matter is entirely in the hands of the government. It would take more time than is at my disposal to go into the details of the scheme, and I shall merely state that it provides for medical, sickness, disablement, and maternity benefits.

Naturally, we are most interested in the medical benefit, and under this the insured are guaranteed medical treatment at the physician's office, in their own homes, or in sanatoriums or hospitals, according to the exigencies of the case, together with such nursing as may be essential, and the necessary medical and surgical supplies. In each community all reputable physicians are entitled to go into the scheme, and such as agree to do so are placed on a panel and are paid according to a fixed schedule for such services as they may render. The insured may select any physician on the local panel and must retain him for a specified period of time, except for good and sufficient reasons; while the physician may refuse to accept any patient he pleases, but once having accepted him must respond to his calls until the time agreed upon has expired.

This system has been in operation too short a time to justify an authoritative verdict as to its merits, but so far as I can ascertain it has proved acceptable to the physicians, as statistics show that over nine tenths of the general practitioners are enrolled on the panels, and, as a result of doing away with gratuitous services, their average income has shown a very considerable increase.²

I feel that some such system must ultimately be adopted in this country, and that the question of dispensary and hospital abuse will not disappear until after it has been put into operation. Owing to our political organization, the necessary legislation must be inaugurated by the individual states, instead of being nationwide, as in Great Britain.

Of course it may be urged that legislation of this kind is socialistic, and is contrary to the individualistic tendencies characterizing American life, and could never be carried out in this country. The first objec-

tion must be granted, but it is my conviction that it is only along such lines that far reaching plans for the improvement of mankind can be carried out. The second objection, however, does not hold, as a little reflection will convince you that many socialistic or semisocialistic activities have already become engrafted on our civilization without arousing the outcry that they are un-American. Witness, for example, the beneficent effects of state care for the insane in Maryland, and the substitution of well-equipped and humanely conducted state hospitals for the county almshouses. What intelligent person would advocate a return to the old conditions? Yet the former is socialistic and the latter individualistic. Recall, moreover, the various ways in which the state and city have invaded our individual freedom for the good of the community. Think of what the state and city boards of health are doing. Would any one advocate the abolition of full-time health officers, or of attempts to control infectious diseases, or to do away with the infectious disease and tuberculosis nurses of the city health department? Medical socialism has also invaded our schools, but does any one complain that the activities of the school physicians and nurses are un-American? To my mind all of these tendencies are to be encouraged, as fostering the health and happiness of the community, and as a manifestation of the tardy recognition by the state and city of the obligations they owe to the people.

One of the most striking examples of the spread of social legislation consists in the enactment of workmen's compensation laws, which are based on the conception that loss of life and injury to the body in industrial occupations are to be reckoned just as much a part of the cost of production as the wear and tear and replacement of machinery or as the damage to wagons and mules. Up to December, 1915, thirty-one out of our forty-eight states, as well as Alaska and Hawaii, had passed such laws, which have done away with the barbarous doctrine of contributory negligence, and have provided some form of compulsory insurance in the case of injury or death, instead of the employee or his dependents being compelled to resort to the uncertain remedies of the law.

Do you know that the legislature of 1914 passed such a law for Maryland? According to this law, all employers of persons engaged in hazardous industrial work—and the definition of hazard is very broad—are compelled to insure them against accident and death. These policies, which are written either by private corporations or by the state, make provision for medical and surgical treatment; in case of permanent or partial disability, provide for the payment of half wages for specified periods of time; and in case of death, provide for funeral expenses and for the payment of either a fixed sum or an annuity to the dependents. Of course such legislation is socialistic, but what right thinking person would advocate a return to the old method of compensation only after tedious and tortuous legal procedure?

Furthermore, the legislature which has just adjourned has passed a mother's pension law, according to which all dependent widows in the state with minor children are entitled to receive from \$12 to \$40 each month, according to the size of their families. This legislation has not yet come into force, so that its effect cannot be anticipated, but it affords an accurate indication of the attitude of our lawmakers toward such questions.

2. Full information concerning the workings of health insurance in Great Britain may be obtained from the fourth edition (1914) of Carr, Garnett and Taylor's monumental work on National Insurance; while a short but accurate sketch is contained in the Report of the Judicial Council of the American Medical Association, published in the Bulletin for May 15, 1915.

One of the most interesting developments along these lines was the decision in 1909 of the Metropolitan Life Insurance Company to provide its industrial policy holders with free visiting nursing services during illness. Baltimore was one of the first cities in which the experiment was tried, and a contract was made with the Instructive Visiting Nursing Association to care for sick policy holders at so much per visit. This service has rapidly grown, and the company states that during the year 1914, 1,060,288 nursing visits were paid in this country and Canada at an expense of \$527,861. While it is not permissible to scrutinize too closely the motives which induced the company to embark in the enterprise, it has doubtless saved much money by shortening the duration of sickness, and at the same time it has indicated an excellent method of improving the condition of the community; as the nursing service, in addition to adding to the comfort of sick policy holders, must exert a widespread educative influence.

I think, therefore, that it can be fairly claimed that the instances just adduced give a fair indication of the trend of social legislation in this country; and that I am not alone in my advocacy of some form of health insurance is shown by the fact that Dr. Alexander Lambert, in the report of the Judicial Council of the American Medical Association last year, stated that the question was not merely of academic interest, but predicted that it might at any time become a burning professional problem.

This prediction has in part come true, for in November, 1915, the social insurance committee of the American Association for Labor Legislation prepared a tentative draft of a health insurance bill to be submitted to the New York legislature, and which was also intended as a tentative model for other states contemplating such legislation. The committee consisted of ten members, and included such men as Drs. Alexander Lambert and S. S. Goldwater, and Messrs. Ed. T. Devine and I. M. Rubinow, the latter being a statistical expert and the author of numerous works on the history of social insurance. It would lead too far to attempt to discuss the provisions of this bill in detail, and I can only summarize its most important features.

The draft provided that all persons earning less than \$1,200 must be insured, and recommended that one fifth of the yearly premium be borne by the state and the remainder equally divided between the employer and the employee. The committee estimated that the premium necessary to provide for the family would amount to 3 or 4 per cent. of the income, and calculated that \$24 paid in behalf of a workman earning \$600 a year would suffice to provide the following benefits: (1) medical, surgical and nursing benefit, (2) medical and surgical supplies, (3) hospital treatment, (4) cash benefit (two thirds of wages), (5) cash benefit to dependents, (6) maternity benefit, and (7) funeral benefits. After carefully weighing the pros and cons, the committee decided that in so large a state as New York it would probably be better to have the details administered by local approved societies, under strict state supervision, rather than by a central state organization, although it was clearly realized that the latter would present many advantages, particularly in the direction of uniform administration.

If some such system were put into effect in Maryland, I imagine that it would operate somewhat as follows in Baltimore City. In the first place, a panel

of physicians would be formed, just as in England, and a schedule arranged for their compensation. The entire city would then be divided into a number of insurance districts, each comprising so many thousand insured persons. In each district there would be a thoroughly organized dispensary with a competent paid medical staff representing the various branches, adequate nursing facilities, and a social service organization. If possible it should be connected with a hospital, but if not, the necessary affiliations could be made. The dispensary should also house representatives of the various philanthropic and social agencies, and provide quarters for the local administrators of the health insurance fund, as well as for a substation of the health department. In other words, it would represent a community health center, and from it should radiate all the medical and socialized activities of the district.

The care of the patients might be organized somewhat as follows: Each insured family would be allowed to choose as its medical attendant any physician on the panel living within a certain radius. In cases of minor illness the patient would visit the physician in his office or go to the dispensary, while in more serious cases he would go to the dispensary for diagnosis or treatment. If the patient were ill in bed, he would be cared for at home by his medical attendant and a visiting nurse, or sent to the hospital if the physician deemed it advisable.

Under such a system there would be no possibility for dispensary or hospital abuse, as the expenses would be borne by the insurance fund and indirectly by those insured, no matter whether the patients were treated at home or at the dispensary or hospital. Nor would the doctor suffer. As probably two thirds of the residents of each district would be in the insured class, large numbers of physicians would be necessary for the conduct of the dispensary and hospital, and as they would be paid for such services, as well as for visiting the patients in their own homes, and would have no bad bills, they would probably consider it a matter of indifference where the patients were seen. It is my conviction that a plan conducted somewhat along these lines would result in greatly improved medical service for the insured class, and at the same time would tend to elevate the professional standard of the physicians, as they would be stimulated by constant contact with the accurate work of the dispensary and hospital, instead of feeling, as is now so often the case, that their interests are antagonistic.

This would mean that the great majority of physicians would become state officials and would devote their entire time, or at least a considerable proportion of it, to their official duties, and that the present type of medical service would be available only for the rich and for those in comfortable circumstances.

To many here present, I am sure that such a proposition appears as a Utopian socialistic dream, but I am convinced that if I live to a moderately old age I shall see some such scheme in operation. When health insurance comes to be seriously talked of in Maryland, I hope that it will be faced as a state-wide proposition, and that this faculty will do its part toward drafting satisfactory legislation; and if the law provides that the plan shall be put into effect and administered by a commission, that we shall see that it is stipulated that at least one third of its membership shall be physicians elected by this body, very much as the members of the State Board of Medical Examiners are chosen. If some

such arrangement is not made, and the administration of the law is entrusted entirely to laymen, I can foresee years of just such trouble as Germany is now recovering from. There is one other point which I regard as fundamental, and that is that in this country no plan will be acceptable which does not guarantee to the insured a reasonably free hand in the choice of the attending physician.

Such dreams may seem far removed from the solution of the problems of dispensary and hospital abuse, but until they are fulfilled, I see no prospect of checking it, but on the other hand, every probability that it will expand as the dispensaries and hospitals become more efficient and the practice of medicine more complicated.

One word more and I have done. The remedies here suggested will care for the industrial worker, the school teacher and the small clerk, while the well-to-do can take care of themselves. But what about the person in moderate circumstances, who wants to pay for what he gets, but at present finds it difficult to do so? For his ordinary illnesses he can continue to employ the present type of practitioner, for his troubles do not commence until diagnostic difficulties occur, or a surgical operation or prolonged stay in a hospital becomes necessary.

I believe that the final solution of this aspect of the problem will ultimately be found in the development of a new type of hospital, in which the substitution of cubicles for the expensive private room will make a moderate charge possible. In such institutions a mechanism should be developed by which the fees for professional services will be automatically regulated in accordance with the patient's financial standing. If this were combined with a cooperative diagnostic institute with moderate inclusive fees, sickness would lose the additional terror of financial pressure which of late years has been imposed upon it.

THE DUODENAL TUBE AS A FACTOR IN THE DIAGNOSIS AND TREAT- MENT OF GALLBLADDER DISEASE*

MAX EINHORN, M.D.

Professor of Medicine at the New York Post-Graduate Medical School
NEW YORK

As a rule, we can say that the nearer we get to an organ and the fluids within it, the better we can deal with it diagnostically and therapeutically. The duodenal tube has brought us to Vater's papilla. It enables us to obtain the secretions from this important source in a direct manner. It also allows us to instill fluids in its immediate vicinity and thus exert a beneficial influence on the tissues in its neighborhood.

About two years ago¹ I discussed the subject of the direct examination of the bile as an aid in diagnosis. In the present paper I intend to give my further experiences regarding this point in gallbladder diseases, and then speak on the treatment of these affections by means of the duodenal tube.

Since May, 1914, I have diagnosed probable cholecystitis by the direct examination of the bile in con-

junction with the usual symptoms in forty cases. Thirteen patients with cholecystitis and allied diseases, whose bile was directly examined, were operated on. Outlined reports of the latter cases are given in the accompanying table.

Of the thirteen patients operated on, eight had stones in the biliary apparatus; one of the latter showed clear bile, while the other seven presented a turbid state of the duodenal fluid. Five of the patients operated on, with turbid bile, had no stones: two of these had malignant tumors, one of the liver, the other of the stomach and pancreas. One had tuberculous peritonitis and adhesions over the gallbladder, one chronic appendicitis, and one hour-glass contraction of the duodenum below Vater's papilla.

In the majority of cases in which turbid bile is found in the duodenum in the fasting condition, cholecystitis with gallstones is encountered. Turbid bile may, however, exist without gallbladder disease, when the liver itself is seriously diseased (neoplasms or echinococcus of the liver or high grade cirrhosis) or in stricture of the duodenum below the papilla of Vater.

On the other hand, clear bile may exceptionally be found in association with biliary calculi. There are two possibilities: Either the gallbladder is not inflamed, notwithstanding the presence of the stones, or the gallbladder is entirely filled with the calculi. In this case no bile enters the organ, and it therefore appears in the duodenum in the same state as excreted by the liver, without any admixture of the gallbladder secretions. Such occurrences, however, are rare.

In any event, the macroscopic appearance of the bile is of great import in the diagnosis of gallbladder disease or grave diseases of the liver. A clear golden yellow bile speaks well for the functions of these two organs, while a turbid, greenish or dark brown looking bile, perhaps mixed with mucus, speaks for a diseased state of either the gallbladder or liver or both. Again, in gallbladder affections the bile is liable to change in character, for its turbidity, when present, is then due to an admixture given it during its sojourn in the vesicula fellea. In permanent affections of the liver we can expect a stationary appearance of the bile, as its character is given it at the place of production.

The diagnosis of cholecystitis or cholelithiasis cannot be made from the appearance of the bile alone. The latter, however, in conjunction with the other clinical signs, will be of great assistance in establishing a correct diagnosis.

As the duodenal contents change very quickly in appearance, it is essential to examine them immediately after withdrawal. In order to preserve a specimen for demonstration or later consideration, an artificial reproduction of the sample by means of anilin dyes can be made. I use for this purpose these stock solutions: (1) yellow (MXX); (2) red (eosin); (3) naphthol green anilin; (4) nigrosin black; (5) methyl blue, and (6) French chalk and water.

A small vial is filled two thirds with clear water, and as much of the yellow to correspond with the sample to be represented is added. Thereupon is added whatever mixture is needed: red to represent a brownish tint, green to effect greenish discoloration, and French chalk to imitate turbidity. After a little practice the imitated samples will resemble more closely the real contents. These artificial samples can be kept indefinitely without change, and will bring back to memory

* Read before the American Gastro-Enterological Association, Washington, D. C., May 8, 1916.

1. Einhorn, Max: Direct Examination of the Duodenal Contents as an Aid in the Diagnosis of Gall-Bladder and Pancreatic Affections, Am. Jour. Med. Sc., October, 1914, p. 490.